NPR College of Engineering & Technology

NPR Nagar, Natham, Dindigul - 624401, Tamil Nadu, India.
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai.
An ISO 9001:2015 Certified Institution.
Phone No: 04544- 246 500, 246501, 246502.
Website : www.nprcolleges.org, www.nprcet.org, Email:nprcetprincipal@nprcolleges.org

CRITERION: 1 CURRICULAR ASPECTS

KEY INDICATOR 1.2 ACADEMIC FLEXIBILITY

Metric No 1.2.2.1 Number of value added courses (beyond the curriculum) during the year 2020-2021

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		COURSE ON BASIC G-CODE PROGRAMMING FOR CNC LATHE	535-562
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NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON COST ENGINEERING

INDEX

COURSE CODE: **20CEAO01**

COURSE NAME: **COST ENGINEERING**

ACADEMIC YEAR: 2020-2021 SEMESTER: EVEN DURATION: 30 HOURS

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PROGRAM COORDINATOR

HoD-CIVIL

IQAC Coordinator - IQAC
NPR College of Engineering & Technology
Natham, Dindigul (Dt)-624 401

PRINCIPAL
Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401

Head of the Department
Department of Civil Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON COST ENGINEERING

PERMISSION LETTER

DATE:16.11.2020

From

Mr.P.Manikandan,
Assistant Professor,
Department of Civil Engineering,
NPR College of Engineering & Technology,
Natham.

To

The Principal,
NPR College of Engineering & Technology,
Natham.

Respected Sir,

Sub: Requesting permission to conduct Add on course for Civil Engineering students – Reg

We have planned to conduct a Add on course on "**Cost Engineering**" to our Civil Engineering students from 30.11.2020 to 05.12.2020 (30Hrs) in our college premises. We have suggested Mr.K.Shanthakumar,AP-Civil & Mr.K.Selvam,AP-Civil for this Add on course through online mode. Kindly permit us to conduct the same.

Registration Form Link **https://forms.gle/rB3ZUGi2ttYYN9xeA**

Google meet Link **https://meet.google.com/utm-ercd-gqj**

Thanking you.

Forwarded to Principal Sir.

V.Muthukumar

(V.MUTHUKUMAR)

Yours faithfully,

P.Manikandan

(P.MANIKANDAN)

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technol...
Natham, Dindigul (Dt) - 624 401.

COLLEGE OF ENGG. & TECHNOLOGY * NPR * NATHAM

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CIRCULAR

NPRCET/OFF/CIVIL/VAC/2020-2021 DATE: 19.11.2020

This is to inform that Department of Civil Engineering has planned to conduct a Add on Course on **"COST ENGINEERING"** for the students during the odd semester from 30.11.2020 to 05.12.2020 (30 Hours).Interested students can enroll their name to the program coordinator on or before 26.11.2020 through the following Registration link.

Registration Form Link **https://forms.gle/rB3ZUGi2ttYYN9xeA**

The details of the training program are given below.

COURSE NAME	**COST ENGINEERING**
RESOURCE PERSON	Mr.K.Shanthakumar,AP-Civil Mr.K.Selvam,AP-Civil
MODE	Online mode & Google meet
DATE & DURATION	30.11.2020 to 04.12.2020 (30Hrs)
PROGRAM COORDINATOR	Mr.P.Manikandan AP/Civil,NPRCET

Google meet Link **https://meet.google.com/utm-ercd-gqj**

Registered students join this link 30.11.2020 @ 9.00 am.

PRINCIPAL
Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

Copy to:
1. All the HoDs
2. All the Class Rooms
3. Notice Board
4. File

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The Management, Principal, Staff and Students

Cordially invite you for the inauguration of

Add on Course on

"COST ENGINEERING"

on 30.11.2020 @ 9.00 AM

through Online mode (Google meet)

Google meet Link-https://meet.google.com/utm-ercd-gqj

INTERNAL RESOURCE PERSON

Mr.K.Shanthakumar,

AP-Civil,NPRCET

PRINCIPAL

Dr.J.Sundararajan,

NPR College of Engineering & Technology

Felicitates the function

Organized by

Department of Civil Engineering,

NPR College of Engineering & Technology,

NPR Nagar, Natham.

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON COST ENGINEERING

20CEAO01- COST ENGINEERING-COURSE CONTENT

DAY	CHAPTER	TOPICS
1	1	Construction Project-Project Life Cycle- types of Contracts -Lump-sum contract -Admeasurement Contract -Cost-reimbursable contract (cost-plus contract)-Target cost contract-Estimating -An Estimator -Purpose of Estimating -Construction Project Costs -Types of Cost Estimating-Conceptual estimate-Semi-detailed estimate-Detailed estimate -Quantity Takeoff -Production Rates
2	2	**QUANTITY TAKE-OFF**-Importance of Quantity Takeoff and Required Documents -Contract documents-Quantity take-off: Why? -Quantity Development -Bill of Quantities-Measurement Practice -Earth works Concrete works -Brick works -Plastering
3	3	**CONCEPTUAL COST ESTIMATING** -Conceptual Cost Estimating BasicsConceptual cost estimating definition -Conceptual cost estimating characteristics -Importance of conceptual cost estimates-Preparation of conceptual cost estimates-Conceptual Cost Estimating Output -Broad Scope of Conceptual Estimates -Conceptual Estimate Adjustment-Adjustment for time -Adjustment for location-Adjustment for size-Combined adjustment -Combined adjustment -Conceptual Estimating Techniques -Interpolation -Unit method-Superficial method -Approximate quantities -Parametric Cost Estimate Models
4	4	**COST OF CONSTRUCTION LABOR AND EQUIPMENT** Preparing the Detailed Estimate -Sources of Cost Information-Construction Labor -Labor s production rates (Productivity) 4.3.2 Productivity sources -Estimating work duration -Basic principle for estimating labor costs-Construction Equipment -Labor s production rates (Productivity) -Factors influencing equipment selection -Renting versus purchasing equipment -Time-value of money

5	5	**ESTIMATING WORK ITEMS COSTS, IDIRECT COSTS, MARKUP AND CONTRACT PRICING** - Estimating Work Items Cost -Swell and compaction factors-Calculating truck requirements Waste factors -Estimating Indirect Cost -Site overheads -General overheads-Construction contingencies -Contractor/Subcontractor profit Finalizing a Tender Price -Balanced bid (straight forward method)-Unbalanced bid (Loading of Rates

Criteria to get Certificate:

- Students should register their names for this course
- Students must have 80% attendance.
- Student should secure 50% marks in the Exam.

Prepared by- Mr.P.Manikandan, AP-Civil - P. Manikandan

Approved by,

HoD-CIVIL

Head of the Department
Department of Civil Engineering
NPR College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

IQAC

Coordinator - IQAC
NPR College of Engineering & Technology
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PRINCIPAL

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON COST ENGINEERING

REGISTERED STUDENTS NAME LIST

S.NO	REGISTER NUMBER	STUDENT NAME
1	920819103001	ARUN KUMAR N
2	920819103002	JEEVITHA C
3	920819103003	NAVEENRAJ S
4	920819103004	SANJAY K
5	920819103005	SARANYA DEVI S
6	920819103007	SUBASH S
7	920819103008	SUDHARSAN K
8	920819103009	VENKATESAN R
9	920819103301	NITHISHKUMAR A R
10	920819103302	PURUSOTHAMAN K
11	920819103303	SACHIN R
12	920819103304	KISHORE S P
13	920818103001	AJAYKANNAN N
14	920818103002	HARINI S
15	920818103003	KALYANI K
16	920818103005	LAKSHMIDEVI K
17	920818103006	MANO BHARATHI T
18	920818103007	NAVEEN J
19	920818103008	RAMALAKSHMI M
20	920818103009	REVATHY A
21	920818103011	YUVASHREE S
22	920818103302	VETRIVEL A
23	920818103701	DEEPAN PANDIAN T
24	920817103003	ABINAYA N S
25	920817103004	ABINAYA S
26	920817103005	ABITHA D
27	920817103008	AJITHA R
28	920817103010	ARUNPANDIAN N
29	920817103011	BALAKRISHNAN P
30	920817103017	GOKUL S
31	920817103019	GUHAN S
32	920817103021	HARIHARAN S
33	920817103022	KARTIKEYAN D
34	920817103024	KAVIMALAN R
35	920817103026	LOGESH T
36	920817103027	MANIKANDAN K
37	920817103029	MOHANRAJ G
38	920817103030	MUTHUKUMAR R
39	920817103031	NANDHAKUMAR R

40	920817103032	NAVEENCHANDRU V
41	920817103033	NIRANJAN R
42	920817103034	POTHIYALAGAN C
43	920817103036	PREMKUMAR K
44	920817103038	RAMANASWETHA U B
45	920817103041	RUBINI PRIYA M
46	920817103043	SARATH M
47	920817103048	SURYANARAYANAN V M
48	920817103049	SURYA PRABHA S
49	920817103050	SURYA R
50	920817103054	VISITHRA K
51	920817103055	YOGESH SURYA K
52	920817103301	MOUNESH B
53	920817103502	SIVARAM R

PROGRAM COORDINATOR

HoD-CIVIL

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON COST ENGINEERING

COURSE SCHEDULE

Mode-Online (Google meet) -https://meet.google.com/utm-ercd-gqi

Date: 30.11.2020

Day 1 **30.11.2020**	9.30 A.M – 10.00 A.M	Inauguration-Dr.J.Sundararajan,Principal,NPRCET	
	10. 00 A.M - 11.30 A.M	Session 1	Construction Project, Project Life Cycle types of Contracts **Mrs.C.Selvi,**Assistant Professor
	11.30 A.M to 11.45 A.M	*Tea Break*	
	11.45 A.M to 1.15 P.M	Session 2	Quantity Takeoff, Production Rates **Mr.K.Shanthakumar,Assistant Professor**
	1.15 P.M to 2.00 P.M	*Lunch Break*	
	2.00 P.M to 3.30 P.M	Session 3	Estimating ,An Estimator ,Purpose of Estimating Construction Project Costs **Mr.K.Selvam,AP-Civil**
	3.30 P.M to 3.45 P.M	*Tea Break*	
	3.45 P.M to 4.45 P.M	Session 4	Types of Cost Estimating **Mr.K.Shanthakumar,Assistant Professor**

Day 2 **01.12.2020**	9.00 A.M –11.30 A.M	Session 1	QUANTITY TAKE-OFF,Importance of Quantity Takeoff and Required Documents,Contract documents,Quantity take-off: Why? **Mr.K.Shanthakumar,Assistant Professor**
	11.30 A.M to 11.45 A.M		*Tea Break*
	11.45 A.M to 1.15 P.M	Session 2	Quantity Development ,Bill of Quantities **Mr.K.Selvam,AP-Civil**
	1.15 P.M to 2.00 P.M	*Lunch Break*	
	2.00 P.M to 3.30 P.M	Session 3	Measurement Practice ,Earth works,Concrete works **Mr.K.Shanthakumar,Assistant Professor**
	3.30 P.M to 3.45 P.M	*Tea Break*	
	3.45 P.M to 4.15 P.M	Session 4	Brick works ,Plastering **Mr.K.Selvam,AP-Civil**

Day 3 **02.12.2020**	9.00 A.M –11.30 A.M	Session 1	Conceptual cost estimating **Mr.K.Selvam,AP-Civil**
	11.30 A.M to 11.45 A.M		*Tea Break*
	11.45 A.M to 1.15 P.M	Session 2	Conceptual Cost Estimating Output ,Broad Scope of Conceptual Estimates ,Conceptual Estimate Adjustment ,Adjustment for time ,Adjustment for location,Adjustment for size,Combined adjustment **Mr.K.Shanthakumar,Assistant Professor**
	1.15 P.M to 2.00 P.M		*Lunch Break*
	2.00 P.M to 3.30 P.M	Session 3	Combined adjustment ,Conceptual Estimating Techniques ,Interpolation,Unit method,Superficial method,Approximate quantities **Mr.K.Selvam,AP-Civil**
	3.30 P.M to 3.45 P.M		*Tea Break*
	3.45 P.M to 4.15 P.M	Session 4	Parametric Cost Estimate Models **Mr.K.Shanthakumar,Assistant Professor**

Day 4 **03.12.2020**	9.00 A.M –11.30 A.M	Session 1	Cost of construction labor and equipment, Preparing the Detailed Estimate,Sources of Cost Information,Construction Labor **Mr.K.Selvam,AP-Civil**
	11.30 A.M to 11.45 A.M		*Tea Break*
	11.45 A.M to 1.15 P.M	Session 2	Labor s production rates (Productivity),Productivity sources,Estimating work duration,Basic principle for estimating labor costs **Mr.K.Shanthakumar,Assistant Professor**
	1.15 P.M to 2.00 P.M		*Lunch Break*
	2.00 P.M to 3.30 P.M	Session 3	Labor s production rates (Productivity) 4.4.2 Factors influencing equipment selection **Mr.K.Selvam,AP-Civil**
	3.30 P.M to 3.45 P.M		*Tea Break*
	3.45 P.M to 4.15 P.M	Session 4	Construction Equipment,Renting versus purchasing equipment,Time-value of money **Mr.K.Shanthakumar,Assistant Professor**

Day 5 04.12.2020	9.00 A.M –11.30 A.M	Session 1	Estimating work items costs, indirect costs, markup and contract pricing, Estimating Work Items Cost **Mr.K.Selvam,AP-Civil**
	11.30 A.M to 11.45 A.M		*Tea Break*
	11.45 A.M to 1.15 P.M	Session 2	Swell and compaction factors ,Calculating truck requirements, Waste factor **Mr.K.Shanthakumar,Assistant Professor**
	1.15 P.M to 2.00 P.M		*Lunch Break*
	2.00 P.M to 3.30 P.M	Session 3	Estimating Indirect Cost **Mr.K.Selvam,AP-Civil**
	3.30 P.M to 3.45 P.M		*Tea Break*
	3.45 P.M to 4.15 P.M	Session 4	Site overheads ,General overheads, **Mr.K.Shanthakumar,Assistant Professor**
	4.00 P.M to 4.15 P.M		Valedictory

PROGRAM COORDINATOR | **HoD-CIVIL** | **IQAC** | **PRINCIPAL**

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON COST ENGINEERING

STUDENT ATTENDANCE

S.NO	REGISTER NUMBER	STUDENT NAME	30/4	1/12	2/12	3/12	4/12
1	920819103001	ARUN KUMAR N	✓	✓	✓	✓	✓
2	920819103002	JEEVITHA C	✓	✓	✓	✓	✓
3	920819103003	NAVEENRAJ S	✓	✓	✓	A	✓
4	920819103004	SANJAY K	✓	✓	✓	✓	✓
5	920819103005	SARANYA DEVI S	✓	✓	✓	✓	✓
6	920819103007	SUBASH S	A	✓	✓	✓	✓
7	920819103008	SUDHARSAN K	✓	✓	✓	✓	A
8	920819103009	VENKATESAN R	✓	✓	✓	✓	✓
9	920819103301	NITHISHKUMAR A R	✓	✓	✓	✓	✓
10	920819103302	PURUSOTHAMAN K	✓	✓	✓	✓	✓
11	920819103303	SACHIN R	✓	✓	✓	✓	✓
12	920819103304	KISHORE S P	✓	✓	✓	✓	✓
13	920818103001	AJAYKANNAN N	✓	✓	✓	✓	✓
14	920818103002	HARINI S	✓	✓	✓	✓	✓
15	920818103003	KALYANI K	✓	A	✓	✓	✓
16	920818103005	LAKSHMIDEVI K	✓	✓	✓	✓	✓
17	920818103006	MANO BHARATHI T	✓	✓	✓	✓	✓
18	920818103007	NAVEEN J	✓	✓	✓	✓	✓
19	920818103008	RAMALAKSHMI M	A	✓	✓	✓	✓
20	920818103009	REVATHY A	✓	✓	✓	✓	✓
21	920818103011	YUVASHREE S	✓	✓	✓	✓	✓
22	920818103302	VETRIVEL A	✓	✓	✓	✓	✓
23	920818103701	DEEPAN PANDIAN T	✓	✓	✓	✓	✓
24	920817103003	ABINAYA N S	✓	✓	✓	A	✓
25	920817103004	ABINAYA S	✓	✓	✓	✓	✓
26	920817103005	ABITHA D	✓	✓	✓	✓	✓
27	920817103008	AJITHA R	✓	✓	✓	✓	✓
28	920817103010	ARUNPANDIAN N	✓	✓	✓	✓	✓
29	920817103011	BALAKRISHNAN P	A	✓	✓	✓	✓
30	920817103017	GOKUL S	✓	✓	✓	✓	✓
31	920817103019	GUHAN S	✓	✓	✓	✓	✓
32	920817103021	HARIHARAN S	✓	✓	✓	✓	✓
33	920817103022	KARTIKEYAN D	✓	✓	A	✓	✓
34	920817103024	KAVIMALAN R	✓	✓	✓	✓	✓
35	920817103026	LOGESH T	✓	✓	✓	✓	✓
36	920817103027	MANIKANDAN K	✓	✓	✓	✓	✓
37	920817103029	MOHANRAJ G	✓	✓	✓	✓	✓
38	920817103030	MUTHUKUMAR R	✓	✓	✓	✓	✓
39	920817103031	NANDHAKUMAR R	✓	✓	✓	✓	✓

40	920817103032	NAVEENCHANDRU V	/	/	/	/	/
41	920817103033	NIRANJAN R	a	/	/	/	/
42	920817103034	POTHIYALAGAN C	/	/	/	/	/
43	920817103036	PREMKUMAR K	/	/	a	/	a
44	920817103038	RAMANASWETHA U B	/	/	/	/	/
45	920817103041	RUBINI PRIYA M	/	/	/	/	/
46	920817103043	SARATH M	/	/	/	/	/
47	920817103048	SURYANARAYANAN V M	/	a	/	a	/
48	920817103049	SURYA PRABHA S	/	/	/	/	/
49	920817103050	SURYA R	/	/	/	/	/
50	920817103054	VISITHRA K	/	/	/	/	/
51	920817103055	YOGESH SURYA K	/	/	/	/	/
52	920817103301	MOUNESH B	/	/	/	/	/
53	920817103502	SIVARAM R	/	/	a	/	/

HOD-CIVIL

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NPR COLLEGE OF ENGG. NATHAM

PRINCIPAL

Dr. J.SUNDARARAJAN, M.E., M.Tech., Ph.D.,
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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON COST ENGINEERING

SAMPLE QUESTION PAPER & ANSWER

Q1) What is an OBS and how different is it form WBS?

OBS is an organizational breakdown structure which shows the existing, departments, units or teams which actually existed in the organization. It is arranged according to the work packages listed under each department. It is totally different from WBS because, WBS is the work break down structure which decomposes the total work into smaller manageable work packages.

Q2) Which are the most important techniques you use while defining the activities of the work?

The two most important techniques include

- Decomposition: This is the technique used to decompose the work packages defined in the WBS into activities.
- Rolling Wave Technique: This is iterative technique where the work to be done in the near future is planned in detail whereas the work to be done afterwards is prepared in higher level.

Q3) What is a constraint and how does it affect the project? What are the different types of constraints that are there in the project?

Constraint is nothing but the restriction applied to the project. These restrictions will affect the functioning of the project. Following are the constraints that would be applied on the project

- Scope constraint
- Schedule constraint
- cost constraint
- resource constraint
- quality constraint

Q4) What is CPM? How do you calculate Forward pass?

CPM is also called critical path method which is used to calculate the scheduled time for the activities specified in the WBS. The Critical path method uses the forward pass method to calculate the time.

Q5) What is float? What is the difference between free float and total float?

Float is the amount of time the activity or project phase can slip without affecting the project schedule. Two types of float which include free float and total float

Free float: the amount of time that a schedule activity can be delayed without delaying the early start date of any successor or violating a schedule constraint.

Total float: the amount of time that a schedule activity can be delayed or extended from its early start date without delaying the project finish date or violating a schedule constraint.

Q6) What are the different types of relationships that are found between the two activities? Explain?

Different types of relationships that exists between the activities are

- Lead: the amount of time whereby the successor activity can be advanced with respect to the predecessor activity.
- Lag: The amount of time whereby a successor activity will be delayed with respect to a predecessor activity.
- Finish to start: relationship in which the successor activity cannot start until predecessor activity finished..
- Finish to finished :relationship in which the successor activity cannot be finished until predecessor activity finished
- start to start :relationship in which the successor activity cannot start until predecessor activity starts

Q7) What is a baseline? How is it used in the project?

Baseline is the approved version of the cost and schedule plan. It would be used to measure the project status whether the project is under cost or under schedule. Its just like benchmarking the project.

Q8) What is resource leveling? How is it used?

Resource leveling is a schedule optimization technique used to level the resources if there is any over usage of resources in certain activities, and under use of resources in certain activities you use resource leveling to neutralize the situation and bring the project back on track.

Q9) What is EVM? And mention different types of EVM?

It s a methodology that combines scope, schedule, cost and resource measurements to asses project performance and progress. Different techniques involves

- analogous estimation
- parametric estimation
- bottom – up estimation

Q10) What are the different types of organizational structural types available?

The different types of organizational structure available are

- organic or simple,functional,multi dimensional
- matrix – strong,matrix – weak,matrix – balanced
- project oriented,virtual

P. Manikandan
PROGRAM COORDINATOR
P. MANIKANDAN

HoD-CIVIL

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QUIZ LINK : https://forms.gle/S7Feig2VG5EVBEck8

SAMPLE ANSWER SHEET:

NPR College of Engg & Tech,Natham

DEPARTMENT OF CIVIL-ADD ON COURSE ON COST ENGINEERING - QUIZ

STUDENT NAME: *

Short answer text

REGISTER NUMBER: *

Short answer text

mail id: *

Short answer text

Q1) What is an OBS and how different is it form WBS? *

Long answer text

Q1) What is an OBS and how different is it form WBS? *

Long answer text

Q2) Which are the most important techniques you use while defining the activities of the work? *

Long answer text

Q3) What is a constraint and how does it affect the project? What are the different types of constraints that are there in the project? *

Long answer text

Q4) What is CPM? How do you calculate Forward pass? *

Long answer text

Q5) What is float? What is the difference between free float and total float? *

Long answer text

Q6) What are the different types of relationships that are found between the two activities? Explain? *

Long answer text

Q7) What is a baseline? How is it used in the project? *

Long answer text

Q8) What is resource leveling? How is it used? *

Long answer text

Q7) What is a baseline? How is it used in the project? *

Long answer text

Q8) What is resource leveling? How is it used? *

Long answer text

Q9) What is EVM? And mention different types of EVM? *

Long answer text

Q10) What are the different types of organizational structural types available? *

Long answer text

P. Manikandan

PROGRAM COORDINATOR

COLLEGE OF ENGG & TECHNOLOGY NATHAM NPR

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON COST ENGINEERING

STUDENT FEED BACK

FEEDBACK FORM LINK : https://forms.gle/DKUHY135gSfjbP5E7

NPR COLLEGE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF CIVIL ENGINEERING-ADD ON COURSE ON COST ENGINEERING-FEED BACK FORM

1.Course Content

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

2.Way of exposed new knowledge and practices *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

3.Examples Provided during this course *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

4.Course delivered by Resource Person *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

5.Time Management *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

6.Overall rating of this course *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

6.Overall rating of this course *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

7.Any Other Comments / Suggestions *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

P. Manikandan
PROGRAM COORDINATOR

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DEPARTMENT OF CIVIL ENGINEERING

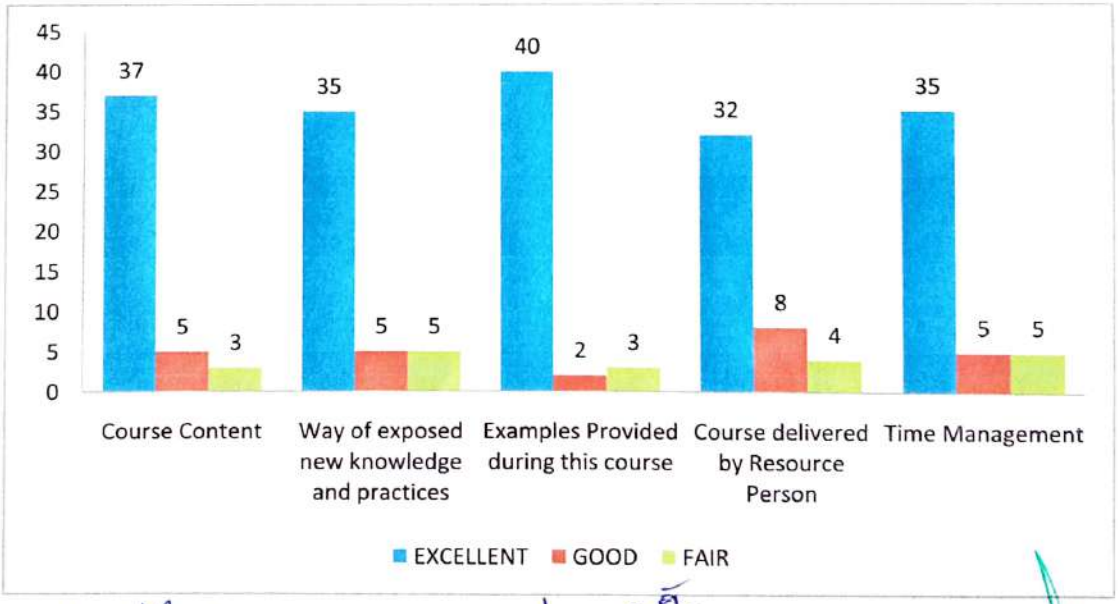
ADD ON COURSE-COST ENGINEERING

STUDENT FEEDBACK SUMMARY REPORT

TOTAL STRENGTH: 53 **DATE: 07.12.2020**

NUMBER OF STUDENTS SUCCESSFULLY COMPLETED: 50

CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
Course Content	37	5	3	5
Way of exposed new knowledge and practices	35	5	5	5
Examples Provided during this course	40	2	3	5
Course delivered by Resource Person	32	8	4	6
Time Management	35	5	5	5
Overall rating of this course	35.8	5	4	5.2



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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON COST ENGINEERING

SUMMARY REPORT

The Department of Civil Engineering organized the Add on course on "COST ENGINEERING" from 30.11.2020 to 04.11.2020 (30 hours) through online mode(Google meet)

During the inauguration function of the course, Mr.N.AjayKannan,III-Civil has delivers welcome address. Dr.J.Sundararajan, Principal inaugurated the program and delivered the inaugural address. Internal Resource persons Mr.K.Shanthakumar,AP-Civil & Mr.K.Selvam,AP-Civil have shared their knowledge with our students. This 30 hours course gave a over view about Cost Engineering.

They shared their knowledge of understanding Construction Project,Project Life Cycle,types of Contracts,Importance of Quantity Takeoff and Required Documents ,Contract documents,Quantity take-off, Conceptual Cost,Estimating Basics Conceptual cost estimating definition ,Conceptual cost estimating characteristics ,Importance of conceptual cost estimates.So the students have enabled their skills by this course, it would help them to estimate own construction by using Cost Engineering.

Among the 53 students registered, 50 students successfully completed the program and was awarded certificates.

Ms.N.S.Abinaya, IV-Civil delivered the vote of thanks.

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON COST ENGINEERING

COURSE MATERIAL

Material Link:

1. https://www.cmu.edu/cee/projects/PMbook/05_Cost_Estimation.html
2. https://theconstructor.org/construction/const-management/project-estimating/5688/
3. https://www.ripublication.com/ijaer19/ijaerv14n19_03.pdf
4. https://www.costengineering.eu/images/papers/CEE_2015_Magazine.pdf
5. https://www.designingbuildings.co.uk/wiki/Cost_engineering

NPR COLLEGE OF ENGG & TECHNOLOGY NATHAM

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE on "COST ENGINEERING"

COURSE COMPLETION CERTIFICATE

This is to certify that of **HARIHARAN.S-920817103021-IV-CIVIL** has Successfully completed the Add on Course "**COST ENGINEERING**" held on 30.11.2020 to 04.12.2020-30 Hours.

HOD

Dr. J.SUNDAR

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE on "COST ENGINEERING"

COURSE COMPLETION CERTIFICATE

This is to certify that of **HARINI S-920818103002-III-CIVIL**has Successfully completed the Add on Course "**COST ENGINEERING**" held on 30.11.2020 to 04.12.2020-30 Hours.

HOD

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE on "COST ENGINEERING"

COURSE COMPLETION CERTIFICATE

This is to certify that of **SACHIN.R-920819103303-II-CIVIL** has Successfully completed the Add on Course "**COST ENGINEERING**" held on 30.11.2020 to 04.12.2020-30 Hours.

HOD

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE on "COST ENGINEERING"

COURSE COMPLETION CERTIFICATE

This is to certify that of **GOKUL.S-920817103017-IV-CIVIL** has Successfully completed the Add on Course **"COST ENGINEERING"** held on 30.11.2020 to 04.12.2020-30 Hours.

HOD

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COURSE COMPLETION CERTIFICATE

This is to certify that of **SANJAY K-920819103004-II-CIVIL** has Successfully completed the Add on Course "**COST ENGINEERING**" held on 30.11.2020 to 04.12.2020-30 Hours.

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE COURSE ON MAPPING & ANALYTICS BY USING ARC GIS

INDEX

COURSE CODE: **20CEAO02**

COURSE NAME: **MAPPING & ANALYTICS BY USING ARC GIS**

ACADEMIC YEAR: 2020-2021 SEMESTER: ODD DURATION: 30 Hrs

S.NO.	PARTICULARS	PAGE NO.
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PROGRAM COORDINATOR

HoD-CIVIL

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE COURSE ON MAPPING & ANALYTICS BY USING ARC GIS

PERMISSION LETTER

DATE:30.11.2020

From

Mr.K.Karuppasamy,
Assistant Professor,
Department of Civil Engineering,
NPR College of Engineering & Technology,
Natham.

To

The Principal,
NPR College of Engineering & Technology,
Natham.

Respected Sir,

Sub: Requesting permission to conduct Certificate course for Civil Engineering students – Reg

We have planned to conduct a Certificate course on "MAPPING & ANALYTICS BY USING ARC GIS" to our Civil Engineering students from 06.12.2020 to 11.12.2020 (36 Hrs) in our department through online mode-Google meet (Due to Covid-19 ,Pandemic Situation). We have suggested Mr.K.Sasi Kumar,Assistant Professor,University College of Engineering & Technology,Dindigul as a External Resource Person for this Certificate course. Kindly permit us to conduct the same.

Registration Form Link - https://forms.gle/vmqv2DAm8enV7i3m6

Google meet Link - https://meet.google.com/uhj-poyu-rbp

Forwarded to Principal Sir,
(Dr A. Hemalatha)

Thanking you,

Yours faithfully,
K.K
(K.KARUPPASAMY)

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE COURSE ON MAPPING & ANALYTICS BY USING ARC GIS

CIRCULAR

NPRCET/OFF/CIVIL/VAC/2020-2021 DATE: 01.12.2020

This is to inform that Department of Civil Engineering has planned to conduct a Certificate Course on **"MAPPING & ANALYTICS BY USING ARC GIS"** for the students during the odd semester from 06.12.2020 to 11.12.2020 (36 Hours).Interested students can enroll their name to the program coordinator on or before 04.12.2020 through the following Registration link.

Registration Form Link -https://forms.gle/vmqv2DAm8enV7i3m6

The details of the training program are given below.

COURSE NAME	**MAPPING & ANALYTICS BY USING ARC GIS**
RESOURCE PERSON	Mr.K.Sasi Kumar,Assistant Professor, University College of Engineering & Technology, Dindigul
MODE	Online mode & Google meet
DATE & DURATION	06.12.2020 to 11.12.2020 (36 Hours)
PROGRAM COORDINATOR	Mr.K.Karuppasamy,Assistant Professor,NPRCET

Google meet Link -https://meet.google.com/uhj-poyu-rbp

Registered students join this link 06.12.2020 @ 8.45 am.

PRINCIPAL
Dr. J.SUNDARARAJAN,
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Copy to:
1. All the HoDs
2. All the Class Rooms
3. Notice Board
4. File

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The Management, Principal, Staff and Students

Cordially invite you for the inauguration of

CERTIFICATE COURSE on

"MAPPING & ANALYTICS BY USING ARC GIS"

on 06.12.2020 @ 9.00 AM

Google meet Link- https://meet.google.com/uhj-poyu-rbp

EXTERNAL RESOURCE PERSON

Mr.K.Sasi Kumar,

Assistant Professor,UCE,Dindigul

Online mode (Google meet)

PRINCIPAL

Dr.J.Sundararajan,

NPR College of Engineering & Technology

Felicitates the function

Organized by

Department of Civil Engineering,

NPR College of Engineering & Technology,

NPR Nagar, Natham.

COLLEGE OF ENGG. & TECHNOLOGY NPRCET NATHAM

DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE COURSE ON MAPPING & ANALYTICS BY USING ARC GIS

COURSE CONTENT

CHAPTER-1

The Arc GIS platform

Lesson introduction, The Arc GIS platform, Using GIS, Getting to know the Arc GIS platform, Components used in this course.

CHAPTER-2

The basics of GIS

Lesson introduction, What is GIS?-The geographic approach-What can you do with GIS?-Think of ways to apply GIS.

CHAPTER-3

Understanding GIS data

Lesson introduction, Turning geographic information into GIS data-GIS data models-Explore GIS data models in Arc Map.

CHAPTER-4

The importance of coordinate systems

Lesson introduction-What is location?-How spatial data stores location-Geographic coordinate systems-Working with data in different geographic coordinate systems Projected coordinate systems-Spatial properties and distortion-Understanding distortion.

CHAPTER-5

Acquiring and selecting GIS data

Lesson introduction Methods for obtaining GIS data -Accessing GIS data-Considerations for creating GIS data -Creating data Considerations for choosing GIS data Evaluating GIS data.

CHAPTER-6

Interacting with a map

Lesson introduction Symbology and visualization Finding, identifying, and selecting features Asking questions and getting answer s Getting information from a GIS map.

CHAPTER-7

Per forming spatial analysis

Lesson introduction The geographic approach revisited Questions you can answer with GIS What is spatial analysis? Geoprocessing in analyses Common analysis tasks Perform spatial analysis with common analysis tools.

CHAPTER-8

Sharing results

Lesson introduction The importance of sharing results Sharing content through Arc Map Sharing content through Arc GIS Online.

Criteria to get Certificate:

- Students must have 75% attendance
- Student should secure 50% marks in the exam.

Prepared by – Mr.K.Karuppasamy,AP-Civil –

Approved by,

HOD-CIVIL

Head of the Department
Department of Civil Engineering
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Coordinator - IQAC
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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE COURSE ON MAPPING & ANALYTICS BY USING ARC GIS

REGISTERED STUDENTS NAME LIST

SL. NO.	ROLL NO.	STUDENTS NAME
1	920819103001	ARUN KUMAR N
2	920819103002	JEEVITHA C
3	920819103003	NAVEENRAJ S
4	920819103004	SANJAY K
5	920819103005	SARANYA DEVI S
6	920819103007	SUBASH S
7	920819103008	SUDHARSAN K
8	920819103009	VENKATESAN R
9	920819103301	NITHEESH KUMAR A R
10	920819103302	PURUSOTHAMAN K
11	920819103303	SACHIN R
12	920819103304	KISHORE
13	920818103001	AJAYKANNAN N
14	920818103002	HARINI S
15	920818103003	KALYANI K
16	920818103005	LAKSHMIDEVI K
17	920818103006	MANO BHARATHI T
18	920818103007	NAVEEN J
19	920818103008	RAMALAKSHMI M
20	920818103009	REVATHY A
21	920818103011	YUVASHREE S
22	920818103302	VETRIVEL A
23	920818103701	DEEPAN PANDIAN T
24	920817103003	ABINAYA N.S
25	920817103004	ABINAYA S
26	920817103005	ABITHA D

27	920817103008	AJITHA R
28	920817103010	ARUN PANDIAN N
29	920817103011	BALA KRISHNAN P
30	920817103017	GOKUL S
31	920817103019	GUHAN S
32	920817103021	HARIHARAN S
33	920817103022	KARTHIKEYAN D
34	920817103024	KAVIMALAN R
35	920817103026	LOGESH T
36	920817103027	MANIKANDAN K
37	920817103029	MOHAN RAJ G
38	920817103030	MUTHUKUMAR R
39	920817103031	NANTHAKUMAR R
40	920817103032	NAVEENCHANDRAN V
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51	920817103055	YOGESH SURYA K
52	920817103301	MOUNESH B
53	920817103502	SIVARAM R

PROGRAM CO-ORDINATOR

NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

HOD-CIVIL

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE COURSE ON MAPPING & ANALYTICS BY USING ARC GIS

COURSE SCHEDULE

Mode-Online (Google meet) - https://meet.google.com/uhj-poyu-rbp

Date: 30.11.2020

DAY 1 06.12.2020	9.00 a.m. – 09.15 a.m.	Inauguration-Dr.Vra.Saathappan,Principal,NPRCET	
	09.15 a.m. - 11.15 a.m.	Session 1	**The Arc GIS platform,Lesson introduction** Mr.K.Sasi Kumar,Assistant Professor, University College of Engineering& Technology,DGL
	11.15 a.m. to 11.30 a.m	*Tea Break*	
	11.30 a.m to 01.00 p.m.	Session 2	**Using GIS,Getting to know the Arc GIS platform** Mr. K. Karuppasamy,Assistant Professor
	1.00 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.00 p.m.	Session 3	**Components used in this course** Mr.K.Sasi Kumar,Assistant Professor, University College of Engineering& Technology,DGL
	3.00 p.m. to 3.15 p.m.	*Tea Break*	
	3.15 p.m. to 4.45 p.m.	Session 4	**Lesson review** Mr. K. Karuppasamy,Assistant Professor

Day 2 07.12.2020	09.15 a.m. - 11.15 a.m.	Session 1	**The basics of GIS** **Lesson introduction,What is GIS?** Mr. K. Karuppasamy,Assistant Professor
	11.15 a.m. to 11.30 a.m	*Tea Break*	
	11.30 a.m to 01.00 p.m.	Session 2	**The geographic approach** Mr.K.Sasi Kumar,Assistant Professor, University College of Engineering& Technology,DGL
	1.00 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.00 p.m.	Session 3	**What can you do with GIS?** Mr. K. Karuppasamy,Assistant Professor
	3.00 p.m. to 3.15 p.m.	*Tea Break*	
	3.15 p.m. to 4.45 p.m.	Session 4	**Think of ways to apply GIS** Mr.V.Muthukumar,Assistant Professor

Day 3 08.12.2020	9.15 a.m. to 11.15 a.m.	Session 1	**Understanding GIS data Lesson introduction** Mr.K.Sasi Kumar,Assistant Professor, University College of Engineering& Technology,Dindigul
	11.15 a.m. to 11.30 a.m.		*Tea Break*
	11.30 a.m. to 01.00 p.m.	Session 2	**Turning geographic information into GIS data** Mr. K. Karuppasamy,Assistant Professor
	01.00 p.m. to 02.00 p.m.		*Lunch Break*
	02.00 p.m. to 3.00 p.m.	Session 3	**GIS data models** Mr.K.Sasi Kumar,Assistant Professor, University College of Engineering& Technology,Dindigul
	3.00 p.m. to 3.15 p.m.		*Tea Break*
	3.15 p.m. to 4.45 p.m.	Session 4	**Explore GIS data models in ArcMap** Mr. K. Karuppasamy,Assistant Professor

Day 4 09.12.2020	9.00 a.m. to 11.30 a.m.	Session 1	**The importance of coordinate systems-Lesson introduction What is location?** Mr. K. Karuppasamy,Assistant Professor
	11.30 a.m.to 11.45 a.m.		*Tea Break*
	11.45 a.m. to 1.15 p.m.	Session 2	**How spatial data stores location Geographic coordinate systems** Mr.K.Sasi Kumar,Assistant Professor, University College of Engineering& Technology,Dindigul
	1.15 p.m. to 2.00 p.m.		*Lunch Break*
	2.00 p.m. to 3.30 p.m.	Session 3	**Working with data in different geographic coordinate systems Projected coordinate systems** Mr. K. Karuppasamy,Assistant Professor
	3.30 p.m. to 3.45 p.m.		*Tea Break*
	3.45 p.m. to 5.45 p.m.	Session 4	**Spatial properties and distortion Understanding distortion** Mr.K.Sasi Kumar,Assistant Professor, University College of Engineering& Technology,Dindigul

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Day 5 10.12.2020	9.00 a.m. to 11.30 a.m.	Session 1	**Acquiring and selecting GIS data Lesson introduction Methods for obtaining GIS data** Mr. K. Karuppasamy,Assistant Professor
	11.30 a.m.to 11.45 a.m.		*Tea Break*
	11.45 a.m. to 1.15 p.m.	Session 2	**Accessing GIS data Considerations for creating GIS data** Mr.K.Sasi Kumar,Assistant Professor, University College of Engineering& Technology,Dindigul
	1.15 p.m. to 2.00 p.m.		*Lunch Break*
	2.00 p.m. to 3.30 p.m.	Session 3	**Creating data Considerations for choosing GIS data** Mr. K. Karuppasamy,Assistant Professor
	3.30 p.m. to 3.45 p.m.		*Tea Break*
	3.45 p.m. to 5.45 p.m.	Session 4	**Evaluating GIS data** Mr.K.Sasi Kumar,Assistant Professor, University College of Engineering& Technology,Dindigul

Day 6 11.12.2020	9.00 a.m. to 11.30 a.m.	Session 1	**Interacting with a map Lesson introduction Symbology and visualization Finding, identifying, and selecting features** Mr.K.Sasi Kumar,Assistant Professor, University College of Engineering& Technology,Dindigul
	11.30 a.m.to 11.45 a.m.		*Tea Break*
	11.45 a.m. to 1.15 p.m.	Session 2	**Asking questions and getting answers Getting information from a GIS map** Mr. K. Karuppasamy,Assistant Professor
	1.15 p.m. to 2.00 p.m.		*Lunch Break*
	2.00 p.m. to 3.30 p.m.	Session 3	**Performing spatial analysis** Mr.K.Sasi Kumar,Assistant Professor, University College of Engineering& Technology,Dindigul
	3.30 p.m. to 3.45 p.m.		*Tea Break*
	3.45 p.m. to 4.45 p.m.	Session 4	**Geoprocessing in analyses Common analysis tasks Perform spatial analysis** Mr. K. Karuppasamy,Assistant Professor
	4.45 p.m. to 5.45 p.m.		Valedictory-Dr.A.Hemalatha,HOD-Civil

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STUDENTS ATTENDANCE

SL. NO.	ROLL NO.	NAME	06/12	07/12	08/12	09/12	10/12	11/12
1	920819103001	ARUN KUMAR N	✓	✓	✓	✓	✓	✓
2	920819103002	JEEVITHA C	✓	✓	✓	✓	✓	✓
3	920819103003	NAVEENRAJ S	✓	✓	✓	✓	✓	✓
4	920819103004	SANJAY K	✓	✓	✓	✓	✓	✓
5	920819103005	SARANYA DEVI S	✓	✓	✓	✓	✓	✓
6	920819103007	SUBASH S	✓	✓	✓	✓	✓	✓
7	920819103008	SUDHARSAN K	✓	✓	✓	✓	✓	✓
8	920819103009	VENKATESAN R	✓	✓	✓	✓	✓	✓
9	920819103301	NITHEESH KUMAR A R	✓	✓	✓	✓	✓	✓
10	920819103302	PURUSOTHAMAN K	✓	✓	✓	✓	✓	✓
11	920819103303	SACHIN R	✓	✓	✓	✓	✓	✓
12	920819103304	KISHORE	a	✓	✓	✓	✓	✓
13	920818103001	AJAYKANNAN N	✓	✓	✓	✓	✓	✓
14	920818103002	HARINI S	✓	✓	✓	✓	✓	✓
15	920818103003	KALYANI K	✓	✓	✓	✓	✓	✓
16	920818103005	LAKSHMIDEVI K	✓	✓	✓	✓	✓	✓
17	920818103006	MANO BHARATHI T	✓	✓	✓	✓	✓	✓
18	920818103007	NAVEEN J	✓	a	✓	a	✓	✓
19	920818103008	RAMALAKSHMI M	✓	✓	✓	✓	✓	✓
20	920818103009	REVATHY A	✓	✓	✓	✓	✓	✓
21	920818103011	YUVASHREE S	✓	✓	✓	✓	✓	✓
22	920818103302	VETRIVEL A	✓	✓	✓	✓	✓	✓
23	920818103701	DEEPAN PANDIAN T	✓	✓	a	✓	✓	✓
24	920817103003	ABINAYA N.S	✓	✓	✓	✓	✓	✓
25	920817103004	ABINAYA S	✓	✓	✓	✓	✓	✓
26	920817103005	ABITHA D	✓	✓	✓	✓	✓	✓

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27	920817103008	AJITHA R	/	/	/	/	/	/
28	920817103010	ARUN PANDIAN N	/	/	/	/	/	/
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33	920817103022	KARTHIKEYAN D	/	/	/	/	/	/
34	920817103024	KAVIMALAN R	/	a	/	/	/	a
35	920817103026	LOGESH T	/	/	/	/	/	/
36	920817103027	MANIKANDAN K	/	/	/	/	/	/
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38	920817103030	MUTHUKUMAR R	/	/	/	/	/	/
39	920817103031	NANTHAKUMAR R	AB	a	a	AB	a	a
40	920817103032	NAVEENCHANDRAN V	/	/	/	/	/	/
41	920817103033	NIRANJAN R	/	/	/	/	/	/
42	920817103034	POTHIYALAGAN C	/	/	/	/	/	/
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46	920817103043	SARATH M	/	/	/	/	/	/
47	920817103048	SURYA NARAYANAN V.M	/	/	2	/	/	/
48	920817103049	SURYA PRABHA S	/	/	/	/	/	/
49	920817103050	SURYA R	/	/	/	/	/	/
50	920817103054	VISITHRA K	/	/	/	/	/	/
51	920817103055	YOGESH SURYA K	/	/	/	/	/	/
52	920817103301	MOUNESH B	/	/	/	/	/	/
53	920817103502	SIVARAM R	a	/	/	/	/	/
		PROGRAM CO-ORDINATOR						

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PRINCIPAL

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DEPARTMENT OF CIVIL ENGINEERING

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QUIZ SAMPLE QUESTION PAPER WITH ANSWER

1. GIS stands for

   1. Geographic Information System
   2. Generic Information System
   3. Geological Information System
   4. Geographic Information Sharing

2. GIS deals with which kind of data

   1. Numeric data
   2. Binary data
   3. Spatial data
   4. Complex data

3. Which of the following statements is true about the capabilities of GIS

   1. Data capture and preparation
   2. Data management, including storage and maintenance
   3. Data manipulation and analysis
   4. Data presentation
   5. All of the above

4. By 'spatial data' we mean data that has

   1. Complex values
   2. Positional values
   3. Graphic values
   4. Decimal values

5. What is 'Metadata' ?

   1. It is ' data about data'
   2. It is 'meteorological data'
   3. It is 'oceanic data'
   4. It is 'contour data'

6. Key components of 'spatial data' quality include

   1. Positional accuracy
   2. Temporal accuracy
   3. Lineage and completeness

4. Logical consistency
5. **All of the above**

7. 'Spatial databases' are also known as

1. **Geodatabases**
2. Monodatabases
3. Concurrent databases
4. None of the above

8. Successful spatial analysis needs

1. Appropriate software
2. Appropriate hardware
3. Competent user
4. **All of the above**

9. Which of the following is related to GIS

1. **Euclidean space**
2. Ramanujan space
3. Pythagorian space
4. None of the above

10. A (geographic) field is a geographic phenomena for which, for every point in the study area

1. **A value can be determined**
2. A value cannot be determined
3. A value is not relevant
4. A value is missing

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QUIZ LINK : https://forms.gle/9vC7qd8KpWDFU3iu5

SAMPLE ANSWER SHEET:

NPR COLLEGE OF ENGINEERING & TECHNOLOGY

CERTIFICATE COURSE ON MAPPING & ANALYTICS BY USING ARC GIS- QUIZ TEST

STUDENT NAME *

Short answer text

REGISTER NUMBER *

Short answer text

Mail Id *

Short answer text

1. GIS stands for *

1. Geographic Information System
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Questions Responses Settings

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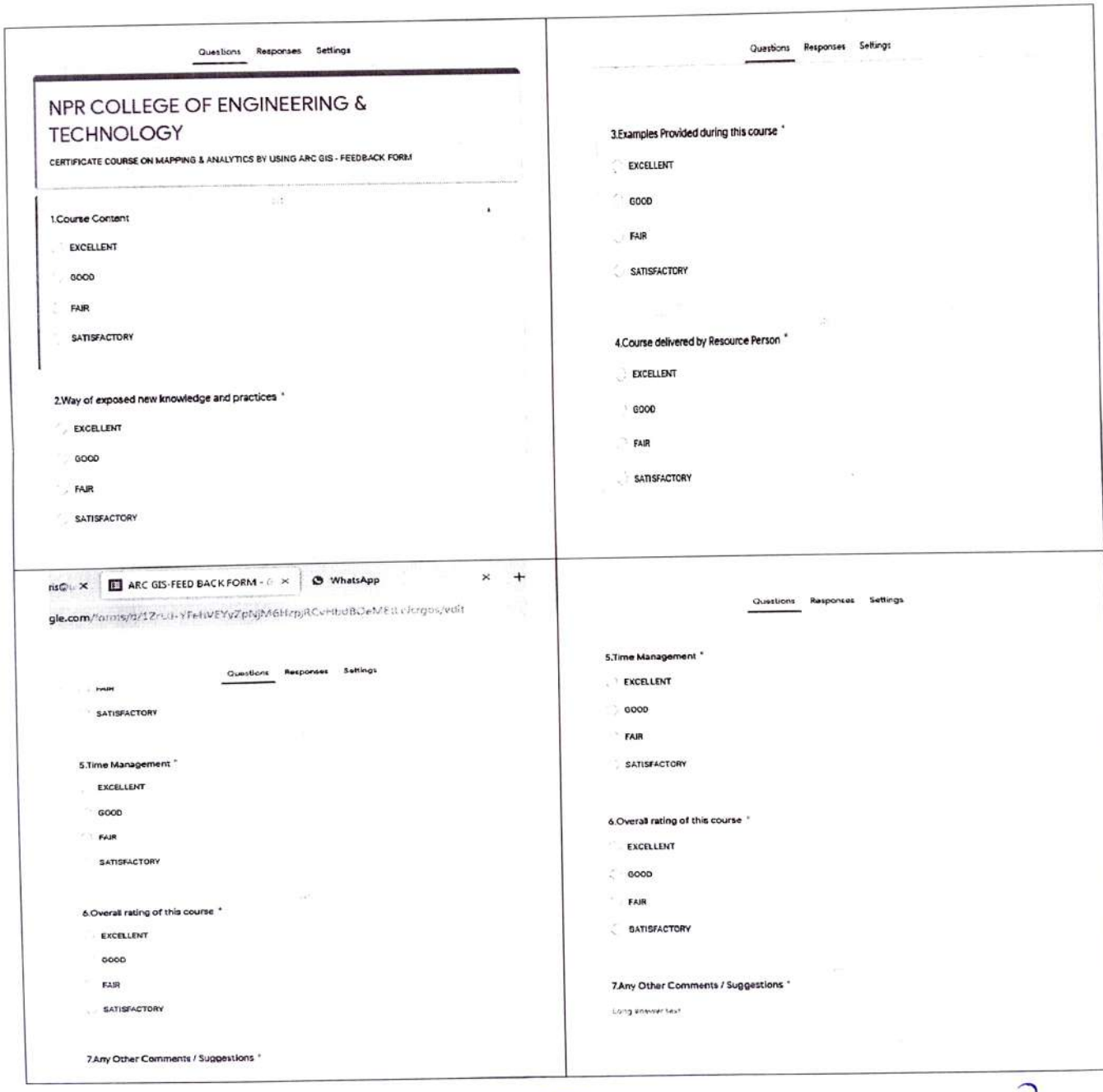
STUDENT FEED BACK

FEEDBACK FORM LINK : https://forms.gle/FfFJuo8EAzCBVt43A



Questions Responses Settings

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CERTIFICATE COURSE ON MAPPING & ANALYTICS BY USING ARC GIS - FEEDBACK FORM

1.Course Content
- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

2.Way of exposed new knowledge and practices *
- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

Questions Responses Settings

3.Examples Provided during this course *
- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

4.Course delivered by Resource Person *
- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

ARC GIS-FEED BACK FORM - G | WhatsApp

gle.com/forms/d/1Zru...

Questions Responses Settings

- SATISFACTORY

5.Time Management *
- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

6.Overall rating of this course *
- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

7.Any Other Comments / Suggestions *

Questions Responses Settings

5.Time Management *
- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

6.Overall rating of this course *
- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

7.Any Other Comments / Suggestions *

Long answer text

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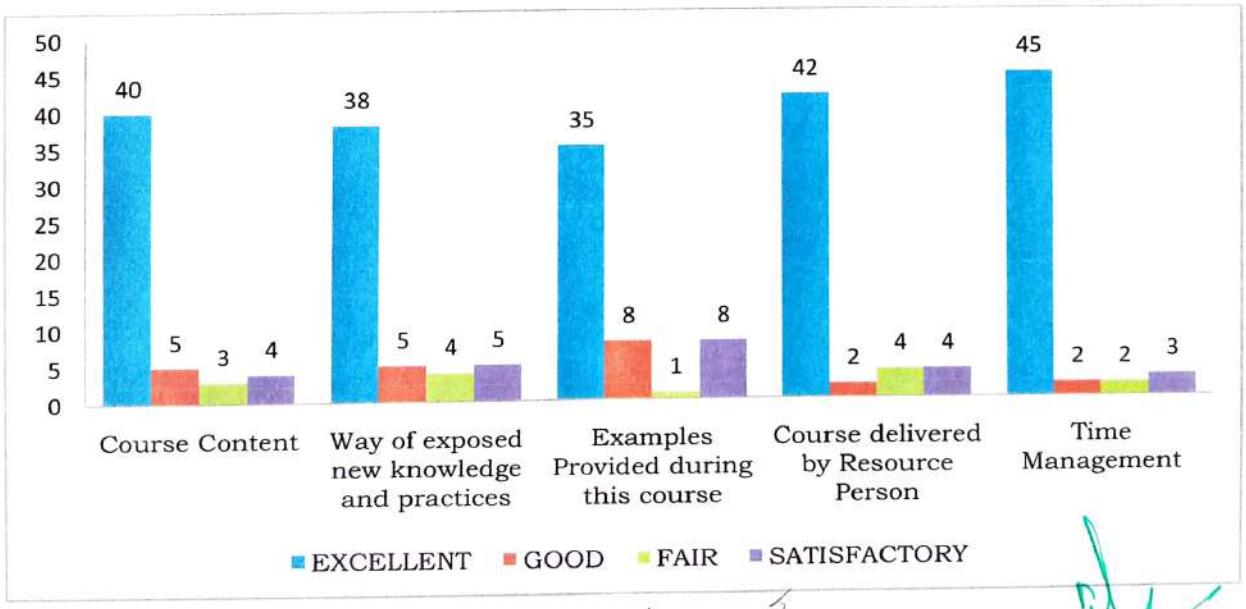
STUDENT FEEDBACK SUMMARY REPORT

TOTAL STRENGTH: 53 DATE: 21.12.2020

CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
Course Content	40	5	3	4
Way of exposed new knowledge and practices	38	5	4	5
Examples Provided during this course	35	8	1	8
Course delivered by Resource Person	42	2	4	4
Time Management	45	2	2	3
Overall rating of this course	40	4.4	2.8	4.8

NUMBER OF STUDENTS SUCCESSFULLY COMPLETED: 52



PROGRAM COORDINATOR **HoD-CIVIL** **PRINCIPAL**

Head of the Department
Department of Civil Engineering
NPR College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
NPR College of Engineering & Technology
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NPR College of Engineering & Technology
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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE COURSE-MAPPING & ANALYTICS BY USING ARC GIS

SUMMARY REPORT

The Department of Civil Engineering organized a Certificate course on "Mapping & Analytics by Using ARC GIS" from 06.12.2020 to 11.12.2020 (36 Hours) through Online mode-Google meet (Due to Covid-19-Pandemic Situation).

During the inauguration function of the course, Ms.A.Revathy.,III-Civil delivered the welcome address. Dr.J.Sundararajan, Principal inaugurated the program delivered the inaugural address. Resource persons Mr.K.Sasi Kumar, Assistant Professor, University College of Engineering& Technology, Dindigul shared their knowledge with our students. This 36 hours course gave a overview about "Mapping & Analytics by Using ARC GIS" and they shared their knowledge about Arc GIS platform creating the date.

Among 53 students registered, 52 students successfully completed the program and were awarded certificates.

Ms.U.B.Ramana Swetha, IV Civil delivered the vote of thanks.

COLLEGE OF ENGG. & TECHNOLOGY NATHAM

PROGRAM COORDINATOR **HoD-CIVIL** **PRINCIPAL**

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE COURSE ON MAPPING & ANALYTICS BY USING ARC GIS

COURSE MATERIAL/MANUAL

1. https://www.esri.com/en-us/arcgis/products/arcgis-desktop/overview
2. https://www.arcgis.com/apps/MapSeries/index.html?appid=18b9ef60f6f84600b11bdafdd3b3cb24
3. https://uhcl.libguides.com/gis/download
4. https://doc.arcgis.com/en/arcgis-online/share-maps/link-to-items.htm
5. https://mangomap.com/gis-software
6. https://desktop.arcgis.com/en/arcmap/10.3/main/get-started/arcgis-tutorials.htm

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE OF PARTICIPATION

This is to certify that

ARUN KOMAR.N - 920819103001 - II - CIVIL ENGINEERING

has successfully completed the Certificate Course on "MAPPING & ANALYTICS BY USING ARC GIS" held From 06.12.2020 to 11.12.2020 (36 Hours).

HOD-CIVIL
(Dr.A.Hemalatha)

COLLEGE OF ENGG. & TECHNOLOGY * NPR * NATHAM

PRINCIPAL
(Dr.J.Sundararajan)

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE OF PARTICIPATION

This is to certify that

NITHEESH KUMAR.A.R - 920819103301 - II - CIVIL ENGINEERING

has successfully completed the Certificate Course on "MAPPING & ANALYTICS BY USING ARC GIS" held From 06.12.2020 to 11.12.2020 (36 Hours).

HOD-CIVIL
(Dr.A.Hemalatha)

NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

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Principal
NPR College of Engineering & T...
Natham, Dindigul (Dt) - 6...

PRINCIPAL
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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE OF PARTICIPATION

This is to certify that

LAKSHMIDEVI.S – 920818103005 – III – CIVIL ENGINEERING

has successfully completed the Certificate Course on "MAPPING & ANALYTICS BY USING ARC GIS" held From 06.12.2020 to 11.12.2020 (36 Hours).

HOD-CIVIL
(Dr.A.Hemalatha)

PRINCIPAL
(Dr.J.Sundararajan)

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE OF PARTICIPATION

This is to certify that

GOHUL.S - 920817103017 - IV - CIVIL ENGINEERING

has successfully completed the Certificate Course on "MAPPING & ANALYTICS BY USING ARC GIS" held From 06.12.2020 to 11.12.2020 (36 Hours).

HOD-CIVIL
(Dr.A.Hemalatha)

NPR COLLEGE OF ENGG. & TECHNOLOGY * NATHAM

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE OF PARTICIPATION

This is to certify that

RAMANA SWETHA.U.B - 920817103038 - N - CIVIL ENGINEERING.

has successfully completed the Certificate Course on "MAPPING & ANALYTICS BY USING ARC GIS" held From 06.12.2020 to 11.12.2020 (36 Hours).

HOD-CIVIL
(Dr.A.Hemalatha)

COLLEGE OF ENGG. & TEC. NATHAM

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DEPARTMENT OF CIVIL ENGINEERING
CERTIFICATE COURSE ON 2D AND 3D CAD MODELLING
INDEX

COURSE CODE: **20CECC03**

COURSE NAME: **2D AND 3D CAD MODELLING**

ACADEMIC YEAR: 2020-2021 SEMESTER: EVEN DURATION: 40 HOURS

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PROGRAM COORDINATOR
(V.MUTHUKUMAR)

HoD-CIVIL
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IQAC
Coordinator - IQAC
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DEPARTMENT OF CIVIL ENGINEERING
CERTIFICATE COURSE ON 2D AND 3D CAD MODELLING
PERMISSION LETTER

From

Mr.V.Muthukumar,

Assistant Professor,

Department of Civil Engineering,

NPR College of Engineering and Technology,

Natham.

To

The Principal,

NPR College of Engineering and Technology,

Natham.

Respected Sir,

Sub: Seeking permission to organize Certificate Course for Civil Engineering Students – Reg

This is inform you that we are planned to organize a Certificate Course on "**2D AND 3D CAD MODELLING**" to our Civil Engineering students from 22.02.2021 to 16.03.2021 (Evening only)-40 Hours in our department. We suggested Mr.K.Selvam, Assistant Professor & Mr.K.Karuppasamy, Assistant Professor,Department of Civil Engineering as a Internal resource person for this Certificate Course. So I request you to permit us to conduct this Certificate Course on those days.

Thanking you.

Yours truly,
(V.MUTHUKUMAR)

Date:07.02.2021

Place:Natham

forwarded to Principal

(Dr.A.Hemalatha)
HoD-Civil

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE COURSE ON 2D AND 3D CAD MODELLING

CIRCULAR

NPRCET/OFF/CIVIL/VAC/2020-2021 DATE: 09.02.2021

This is to inform that Department of Civil Engineering have planned to conduct a Certificate Course on "**2D AND 3D CAD MODELLING**" for the students during this even semester 2020-2021.Interested students can enroll their name to the program coordinator on or before 12.02.2021.

The details of the training program are given below.

Course Name	**2D AND 3D CAD MODELLING**
Internal Resource Persons	Mr.K.Selvam, Assistant Professor & Mr.K.Karuppasamy, Assistant Professor
Venue	Computer Aided Design & Drafting Laboratory, NPR College of Engineering &Technology
Date & Duration	22.02.2021 to 16.03.2021-40 Hrs
Program Coordinator	Mr.V.Muthukumar, Assistant Professor, Civil, NPRCET

PRINCIPAL

Dr. J.SUNDARARAJAN,
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Principal
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Copy to:
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2. All the Class Rooms
3. Notice Board
4. File

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The Management, Principal, Staff and Students

Cordially invite you for the inauguration of

CERTIFICATE COURSE ON

"2D AND 3D CAD MODELLING"

On 22.02.2021

Venue: Computer Aided Design & Drafting Laboratory at 9.00 A.M.

INTERNAL RESOURCE PERSON

Mr.K.Selvam,

Assistant Professor-Civil

NPR College of Engineering & Technology

Dr.J.Sundararajan,

Principal,

NPR College of Engineering & Technology

Felicitates the function

Organized By

Department of Civil Engineering,

NPR College of Engineering and Technology,

NPR Nagar, Natham.

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DEPARTMENT OF CIVIL ENGINEERING

20CECC03-CERTICATE COURSE ON 2D AND 3D CAD MODELLING

SYLLABUS

CHAPTER-1

Introduction to 3D Modeling -Introduction to 3D-Creating solid primitives-Mesh primitives-Working in 3D-Introduction to free form design-Chapter exercise.

CHAPTER-2

Modeling Workflow -Creating models from 2D profiles-Using Booleans on solid models -Creating composite models -Extracting geometry from solid models-Getting information from 3D objects - Chapter exercise.

CHAPTER-3

Editing Models -Adding detail to your solid models -Editing solid models-Manipulating the model - Duplicating the model -Converting 2D objects -Basic mesh modeling- Chapter exercise.

CHAPTER-4

Sectioning a Model and Creating Drawings -Section a solid model and generate 2D geometry-Creating drawings from 3D models -Chapter exercise.

CHAPTER-5

Visualization, Using visual styles-Using lights ,Using materials ,Using the sun Rendering - Navigating the model-Leveraging cameras and views -Chapter exercise.

CHAPTER-6

Downstream Uses for Your Digital Prototype-3D printing-Chapter exercise

Criteria to get Certificate:

- Students should register their names for this course.
- Students must have 80% attendance.
- Student should secure 50% marks in the Exam.

Prepared by- Mr.V.Muthukumar,Assistant Professor, Civil-

Approved by,

HoD-CIVIL

Head of the Department
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IQAC

Coordinator - IQAC
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DEPARTMENT OF CIVIL ENGINEERING

CERTICATE COURSE ON 2D AND 3D CAD MODELLING

REGISTERED STUDENTS NAME LIST

S.No	Year	Register Number	Name of the Student
1.	IV-CIVIL	920817103003	ABINAYA .N.S
2.		920817103004	ABINAYA.S
3.		920817103005	ABITHA.D
4.		920817103008	AJITHA.R
5.		920817103010	ARUNPANDIAN.N
6.		920817103011	BALAKRISHNAN.P
7.		920817103017	GOKUL.S
8.		920817103019	GUHAN.S
9.		920817103021	HARIHARAN.S
10.		920817103022	KARTIKEYAN.D
11.		920817103024	KAVIMALAN.R
12.		920817103026	LOGESH.T
13.		920817103027	MANIKANDAN.K
14.		920817103029	MOHANRAJ.G
15.		920817103030	MUTHUKUMAR .R
16.		920817103031	NANDHAKUMAR.R
17.		920817103032	NAVEENCHANDRAN.V
18.		920817103033	NIRANJAN.R
19.		920817103034	POTHIYALAGAN.C
20.		920817103036	PREMKUMAR.K
21.		920817103038	RAMANASWETHA.U.B
22.		920817103041	RUBINI PRIYA M
23.		920817103043	SARATH.M
24.		920817103048	SURYANARAYANAN.V.M
25.		920817103049	SURYA PRABHA.S
26.		920817103050	SURYA.R
27.		920817103054	VISITHRA.K
28.		920817103055	YOGESH SURYA.K
29.		920817103301	MOUNESH B
30.		920817103502	SIVARAM R
31.	III-CIVIL	920818103001	AJAYKANNAN N
32.		920818103002	HARINI S
33.		920818103003	KALYANI K
34.		920818103005	LAKSHMIDEVI K
35.		920818103006	MANO BHARATHI T
36.		920818103007	NAVEEN J
37.		920818103008	RAMALAKSHMI M
38.		920818103009	REVATHY A
39.		920818103010	SURYAPRAKASH.R
40.		920818103011	YUVASHREE S
41.		920818103501	VETRIVEL A

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42.		920818103701	DEEPAN PANDI T
43.	II-Civil	920819103001	ARUN KUMAR N
44.		920819103002	JEEVITHA C
45.		920819103003	NAVEENRAJ S
46.		920819103004	SANJAY K
47.		920819103005	SARANYA DEVI S
48.		920819103007	SUBASH S
49.		920819103008	SUDHARSAN K
50.		920819103009	VENKATESAN R
51.		920819103301	NITHISHKUMAR A R
52.		920819103302	PURUSOTHAMAN K
53.		920819103303	SACHIN R
54.		920819103304	KISHORE S P

PROGRAM COORDINATOR

HoD-CIVIL

Head of the Department
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DEPARTMENT OF CIVIL ENGINEERING

20CECC03-CERTIFICATE COURSE ON 2D AND 3D CAD MODELLING

COURSE SCHEDULE

Date:07.02.2021

Date	Time	Topics to Discuss& Internal Resource Person
22.02.2021	4.00 pm to 4.30 pm	Inauguration-Dr.J.Sundararajan ,Principal,NPRCET
	4.30 pm to 6.00 pm	Introduction to 3D Modeling Mr.K.Selvam,AP-Civil,NPRCET
23.02.2021	4.00 pm to 6.00 pm	Creating solid primitives Mr.K.Karuppasamy.AP-Civil,NPRCET
24.02.2021	4.00 pm to 6.00 pm	Mesh primitives Mr.K.Selvam,AP-Civil,NPRCET
25.02.2021	4.00 pm to 6.00 pm	Working in 3D-Introduction to free form design Mr.K.Karuppasamy.AP-Civil,NPRCET
26.02.2021	4.00 pm to 6.00 pm	Chapter exercise. Mr.K.Selvam,AP-Civil,NPRCET
27.02.2021	4.00 pm to 6.00 pm	Modeling Workflow Mr.K.Karuppasamy.AP-Civil,NPRCET
01.03.2021	4.00 pm to 6.00 pm	Creating models from 2D profiles-Using Booleans on solid models Mr.K.Selvam,AP-Civil,NPRCET
02.03.2021	4.00 pm to 6.00 pm	Creating composite models -Extracting geometry from solid models Mr.K.Karuppasamy.AP-Civil,NPRCET
03.03.2021	4.00 pm to 6.00 pm	Getting information from 3D objects -Chapter exercise Mr.K.Selvam,AP-Civil,NPRCET
04.03.2021	4.00 pm to 6.00 pm	Editing Models Mr.K.Karuppasamy.AP-Civil,NPRCET
05.03.2021	4.00 pm to 6.00 pm	Adding detail to your solid models -Editing solid models Mr.K.Selvam,AP-Civil,NPRCET
06.03.2021	4.00 pm to 6.00 pm	Manipulating the model -Duplicating the model -Converting 2D objects Mr.K.Karuppasamy.AP-Civil,NPRCET
08.03.2021	4.00 pm to 6.00 pm	Basic mesh modeling- Chapter exercise. Mr.K.Selvam,AP-Civil,NPRCET
09.03.2021	4.00 pm to 6.00 pm	Sectioning a Model and Creating Drawings Mr.K.Karuppasamy.AP-Civil,NPRCET
10.03.2021	4.00 pm to 6.00 pm	Section a solid model and generate 2D geometry Mr.K.Selvam,AP-Civil,NPRCET
11.03.2021	4.00 pm to 6.00 pm	Creating drawings from 3D models -Chapter exercise. Mr.K.Karuppasamy.AP-Civil,NPRCET
12.03.2021	4.00 pm to 6.00 pm	Visualization, Using visual styles Mr.K.Selvam,AP-Civil,NPRCET

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13.03.2021	4.00 pm to 6.00 pm	Using lights ,Using materials ,Using the sun Rendering Mr.K.Karuppasamy.AP-Civil,NPRCET
15.03.2021	4.00 pm to 6.00 pm	Navigating the model-Leveraging cameras and views -Chapter exercise Mr.K.Selvam,AP-Civil,NPRCET
16.03.2021	4.00 pm to 5.30 pm	Downstream Uses for Your Digital Prototype-3D printing-Chapter exercise Mr.K.Karuppasamy.AP-Civil,NPRCET
	5.30 pm to 6.00 pm	Valedictory-Dr.A.Hemalatha,HOD-Civil,NPRCET

PROGRAM COORDINATOR **HoD-CIVIL** **IQAC** **PRINCIPAL**

Head of the Department
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Natham, Dindigul (Dt) - 624 401.

NPR College of Engineering & Technology

NPR Nagar, Natham, Dindigul - 624401, Tamil Nadu, India.
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DEPARTMENT OF CIVIL ENGINEERING
CERTIFICATE COURSE ON 2D AND 3D CAD MODELLING
STUDENT ATTENDANCE

S.No	Register Number	Name of the Student	20/2	23/2	24/2	25/2	26/2	27/2	1/3	2/3	3/3	4/3
1.	920817103003	ABINAYA .N.S	/	/	/	/	/	/	/	/	/	/
2.	920817103004	ABINAYA.S	/	/	/	/	/	/	/	/	/	/
3.	920817103005	ABITHA.D	/	/	/	/	/	/	/	/	/	/
4.	920817103008	AJITHA.R	/	/	/	/	/	/	/	/	/	/
5.	920817103010	ARUNPANDIAN.N	/	/	/	/	/	/	/	/	/	/
6.	920817103011	BALAKRISHNAN.P	/	a	/	/	/	/	/	/	/	/
7.	920817103017	GOKUL.S	/	/	/	/	/	/	/	/	/	/
8.	920817103019	GUHAN.S	/	/	/	/	/	/	a	/	/	/
9.	920817103021	HARIHARAN.S	/	/	/	/	/	/	/	/	/	/
10.	920817103022	KARTIKEYAN.D	/	/	/	/	/	/	/	/	/	/
11.	920817103024	KAVIMALAN.R	/	/	/	/	/	/	/	/	/	/
12.	920817103026	LOGESH.T	/	/	/	/	/	/	/	/	/	/
13.	920817103027	MANIKANDAN.K	/	/	/	/	/	/	/	/	/	/
14.	920817103029	MOHANRAJ.G	a	/	/	/	/	/	/	/	/	/
15.	920817103030	MUTHUKUMAR .R	/	/	/	/	/	/	/	/	/	/
16.	920817103031	NANDHAKUMAR.R	/	/	/	/	/	/	/	/	/	/
17.	920817103032	NAVEENCHANDRAN.V	/	/	/	/	a	/	/	/	/	/
18.	920817103033	NIRANJAN.R	/	/	/	/	/	/	/	/	/	/
19.	920817103034	POTHIYALAGAN.C	/	/	/	/	/	/	/	/	/	/
20.	920817103036	PREMKUMAR.K	/	/	/	/	/	/	/	/	/	/
21.	920817103038	RAMANASWETHA.U.B	/	/	/	/	/	/	/	/	/	/
22.	920817103041	RUBINI PRIYA M	/	/	/	/	/	/	/	/	/	/
23.	920817103043	SARATH.M	/	/	/	/	/	/	/	/	/	/
24.	920817103048	SURYANARAYANAN.V.M	/	/	/	/	/	/	/	/	/	/
25.	920817103049	SURYA PRABHA.S	/	/	/	/	/	/	/	/	/	/
26.	920817103050	SURYA.R	/	a	/	/	/	/	/	/	/	/
27.	920817103054	VISITHRA.K	/	/	/	/	/	/	/	/	/	/
28.	920817103055	YOGESH SURYA.K	/	/	/	/	/	/	/	/	/	/
29.	920817103301	MOUNESH B	a	/	/	/	/	/	/	/	/	/
30.	920817103502	SIVARAM R	/	a	/	/	/	a	/	/	/	/
31.	920818103001	AJAYKANNAN N	/	/	/	/	/	/	/	/	/	/
32.	920818103002	HARINI S	/	/	/	/	/	/	/	/	/	/
33.	920818103003	KALYANI K	/	/	/	/	/	/	/	/	/	/
34.	920818103005	LAKSHMIDEVI K	/	/	/	/	/	/	/	/	/	/
35.	920818103006	MANO BHARATHI T	/	/	/	/	/	/	/	/	/	/
36.	920818103007	NAVEEN J	/	/	/	/	/	/	/	/	/	/
37.	920818103008	RAMALAKSHMI M	/	/	/	/	/	/	/	/	/	/
38.	920818103009	REVATHY A	/	/	/	/	/	/	/	/	/	/
39.	920818103010	SURYAPRAKASH.R	a	a	a	AB	AB	a	a	a	a	a
40.	920818103011	YUVASHREE S	/	/	/	/	a	/	/	/	/	/
41.	920818103501	VETRIVEL A	/	/	/	/	/	/	/	/	/	/
42.	920818103701	DEEPAN PANDI T	/	/	/	/	/	/	/	/	/	/

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43.	920819103001	ARUN KUMAR N	/	/	/	A	/	/	/	/	/	/
44.	920819103002	JEEVITHA C	/	/	/	/	/	/	/	/	/	/
45.	920819103003	NAVEENRAJ S	/	/	/	/	/	/	/	/	/	/
46.	920819103004	SANJAY K	/	/	/	/	/	/	/	/	/	/
47.	920819103005	SARANYA DEVI S	/	/	/	/	/	/	/	/	/	/
48.	920819103007	SUBASH S	/	/	/	/	/	/	/	A	/	/
49.	920819103008	SUDHARSAN K	/	/	/	/	/	/	/	/	/	/
50.	920819103009	VENKATESAN R	/	/	/	/	/	/	/	/	/	/
51.	920819103301	NITHISHKUMAR A R	/	/	/	/	/	/	/	/	/	/
52.	920819103302	PURUSOTHAMAN K	/	/	/	/	/	/	/	/	/	/
53.	920819103303	SACHIN R	/	/	/	/	/	/	/	/	/	/
54.	920819103304	KISHORE S P	A	/	/	/	/	/	/	/	/	/
NO. OF STUDENTS PRESENT			50	50	53	52	51	52	51	52	53	53
NO. OF STUDENTS ABSENT			04	04	01	02	03	02	03	02	01	01
SIGNATURE OF THE PROGRAM CO-ORDINATOR												

HoD-CIVIL

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COLLEGE OF ENGG. & TECHNOLOGY * NPR * NATHAM

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STUDENT ATTENDANCE

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1.	920817103003	ABINAYA .N.S	/	/	/	/	/	/	/	/	/	/
2.	920817103004	ABINAYA.S	/	/	/	/	/	/	/	/	/	/
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9.	920817103021	HARIHARAN.S	/	/	/	/	/	/	/	/	/	/
10.	920817103022	KARTIKEYAN.D	/	/	/	/	/	/	/	/	/	/
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29.	920817103301	MOUNESH B	/	a	/	/	/	/	/	/	/	a
30.	920817103502	SIVARAM R	a	/	/	a	/	a	/	a	/	/
31.	920818103001	AJAYKANNAN N	/	/	/	/	/	/	/	/	/	/
32.	920818103002	HARINI S	/	/	/	/	/	/	/	/	/	/
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42.	920818103701	DEEPAN PANDI T	/	/	/	a	/	/	/	/	a	/

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47.	920819103005	SARANYA DEVI S	/	/	/	/	/	/	/	/	/	/
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53.	920819103303	SACHIN R	/	/	/	/	/	/	/	/	/	/
54.	920819103304	KISHORE S P	/	/	/	/	/	/	/	A	/	/
		NO. OF STUDENTS PRESENT	50	51	53	51	51	51	53	51	51	52
		NO. OF STUDENTS ABSENT	04	03	01	03	03	03	01	03	03	02
		SIGNATURE OF THE PROGRAM CO-ORDINATOR										

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE COURSE ON 2D AND 3D CAD MODELLING

QUIZ SAMPLE QUESTION PAPER WITH ANSWER

1. The model which is created by using basic entities of two dimensioning is called _____
a) Surface model
b) Wire frame model
c) Solid model
d) Isometric model

2. Types of models which is commonly used are _____
a) Simple model
b) Composite model
c) Isometric model
d) Solid model

3. In which of the types of wire frame model is used for drawing flat objects?
a) 2D wire frame model
b) 2.5 wire frame model
c) 3D wire frame model
d) Solid model

4. The _____ form the basis for surface models.
a) surface model
b) solid model
c) wire frame model
d) isometric model

5. The wire frame entities are _____
a) Plane surface
b) Ruled surface
c) Tabulated surface
d) Polygons

6. The representation of complex objects which is not be drawn by wire frame model is called as _____
a) Surface model
b) Wire frame model
c) Solid model
d) Isometric model

7. The surface model is created by using _____
a) Analytic entities
b) Synthetic entities
c) Analytic and Synthetic entities
d) Basic entities

8. What is the basic part of the surface model on which the surface is to be drawn?
a) Ruled
b) Ruler
c) Size
d) Mesh

9. The surface form used to model an aircraft body may not be sufficient to model the human heart.
a) True
b) False

.

10. The basic surface modeling entities are _____
a) Polygons
b) Circle
c) Surface of revolution
d) Chamfers

11. The surface which is not to be drawn by the surface model drawn by _____
a) Surface model
b) Wire frame model
c) Solid model
d) Isometric model

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE COURSE ON 2D AND 3D CAD MODELLING

STUDENT FEEDBACK

Name of the Student : M. Sarath	Year / Semester: IV / VIII
Name of the Program: 2D AND 3D CAD MODELLING	

S.NO	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	✓			
2	Way of exposed new knowledge and practices		✓		
3	Examples Provided during this course	✓			
4	Course delivered by Resource Person		✓		
5	Time Management	✓			
6	Overall rating of this course	✓			
7	Any Other Comments / Suggestions	gained knowledge in cad modelling			

PROGRAM COORDINATOR

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE COURSE ON 2D AND 3D CAD MODELLING

STUDENT FEEDBACK

Name of the Student : K. Kalyani	Year / Semester: III / VI
Name of the Program: 2D AND 3D CAD MODELLING	

S.NO	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	✓			
2	Way of exposed new knowledge and practices		✓		
3	Examples Provided during this course	✓			
4	Course delivered by Resource Person	✓			
5	Time Management	✓			
6	Overall rating of this course	✓			
7	Any Other Comments / Suggestions	Good.			

PROGRAM COORDINATOR

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CERTIFICATE COURSE ON 2D AND 3D CAD MODELLING

STUDENT FEEDBACK

Name of the Student : Subash.S	**Year / Semester:** II/04.
Name of the Program: 2D AND 3D CAD MODELLING	

S.NO	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	✓			
2	Way of exposed new knowledge and practices		✓		
3	Examples Provided during this course	✓			
4	Course delivered by Resource Person	✓			
5	Time Management	✓			
6	Overall rating of this course	✓			
7	Any Other Comments / Suggestions	–			

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CERTIFICATE COURSE ON 2D AND 3D CAD MODELLING

STUDENT FEEDBACK SUMMARY REPORT

TOTAL STRENGTH: 54

DATE: 17.03.2021

CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
Course Content	40	4	3	5
Way of exposed new knowledge and practices	41	5	3	3
Examples Provided during this course	41	4	4	3
Course delivered by Resource Person	42	5	3	2
Time Management	42	4	3	3
Overall rating of this course	41	3	4	4
Average	41.17	4.17	3.33	3.33

NUMBER OF STUDENTS SUCCESSFULLY COMPLETED: 52



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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE COURSE ON 2D AND 3D CAD MODELLING

SUMMARY REPORT

The Department of Civil Engineering organized Certificate program "CAD 2D & 3D MODELLING" from 22.02.2021 to 16.03.2021- 40 hours at Computer Design & Drafting Laboratory. Mr.Balamurugan,IV-Civil has delivered the welcome address.

Dr.J.Sundararajan, Principal inaugurated the program delivered the inaugural address. Internal Resource person Mr.K.Selvam ,AP-Civil,NPRCET & Mr.K.Karuppasamy,AP-Civil,NPRCET has shared their knowledge with our students. This 40 hours course gives over view about "2D AND 3D CAD MODELLING" and provides overview of Building Design and Drafting.

Totally 52 Students were attended from Civil Engineering Students those participated and successfully completed the program has awarded with certificates.

Harini.S, III Civil was delivered vote of thanks.

NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

PROGRAM COORDINATOR **HoD-CIVIL** **PRINCIPAL**

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE COURSE -CAD 3D MODELLING

COURSE MATERIAL/MANUAL

1. https://www.autodesk.in/solutions/3d-cad-software
2. https://www.dummies.com/programming/autocad/how-to-set-up-autocad-for-3d-drawings/
3. https://www.pannam.com/blog/best-3d-cad-modeling-software/
4. https://www.scribd.com/document/208843729/Autocad-2D-and-3D-Modelling-Syllabus
5. https://www.researchgate.net/figure/Concurrent-engineering-design-process-with-3D-modelling-at-the-centre-5-Slika-2-Proces_fig2_45313992
6. https://www.classcentral.com/course/3d-cad-fundamental-9997

PROGRAM COORDINATOR

HoD-CIVIL

Head of the Department
Department of Civil Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

PRINCIPAL

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
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Natham, Dindigul (Dt) - 624 401.

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DEPARTMENT OF CIVIL ENGINEERING

Certificate Course on

"2D AND 3D CAD MODELLING

This is to certify that

N.S. ABINAYA - 920817103003 - IV - CIVIL ENGINEERING

has successfully completed the Certificate Course on "2D & CAD 3D CAD MODELLING" held From 22.02.2021 to 16.03.2021 (36 Hours).

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HOD-CIVIL

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DEPARTMENT OF CIVIL ENGINEERING

Certificate Course on

"2D AND 3D CAD MODELLING

This is to certify that

R.NIRANJAN - 920817103033 - IV - CIVIL ENGINEERING

has successfully completed the Certificate Course on "2D & CAD 3D CAD MODELLING" held From 22.02.2021 to 16.03.2021 (36 Hours).

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DEPARTMENT OF CIVIL ENGINEERING

Certificate Course on

"2D AND 3D CAD MODELLING

This is to certify that

VISITHRA.K - 920817103054 - IV - CIVIL ENGINEERING

has successfully completed the Certificate Course on "2D & CAD 3D CAD MODELLING" held From 22.02.2021 to 16.03.2021 (36 Hours).

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DEPARTMENT OF CIVIL ENGINEERING

Certificate Course on

"2D AND 3D CAD MODELLING

This is to certify that

MANO BHARATHI.T - 920818103006 - III - CIVIL ENGINEERING

has successfully completed the Certificate Course on "2D & CAD 3D CAD MODELLING" held From 22.02.2021 to 16.03.2021 (36 Hours).

HOD-CIVIL

PRINCIPAL

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DEPARTMENT OF CIVIL ENGINEERING

Certificate Course on

"2D AND 3D CAD MODELLING

This is to certify that

JEEVITHA.C - 920819103002 - II - CIVIL ENGINEERING.

has successfully completed the Certificate Course on "2D & CAD 3D CAD MODELLING" held From 22.02.2021 to 16.03.2021 (36 Hours).

COLLEGE OF ENGG. & TECHNOLOGY NATHAM NPR

HOD-CIVIL

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Natham, Dindigul (Dt.), ...

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON 3D MODELLING BY BUILDING INFORMATION MODELLING

INDEX

COURSE NAME: 3D MODELLING BY BUILDING INFORMATION MODELLING

COURSE CODE: 20CEAO04

ACADEMIC YEAR: 2020 -2021 SEMESTER: EVEN DURATION: 40 HOURS

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PROGRAM COORDINATOR

HoD-CIVIL

IQAC

PRINCIPAL

Coordinator - IQAC
NPR College of Engineering & Technology
Natham, Dindigul (Dt)-624 401

Head of the Department
Department of Civil Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON 3D MODELLING BY BUILDING INFORMATION MODELLING

PERMISSION LETTER

DATE: 26.03.2021

From

Mrs.S.Premasundari,
Assistant Professor,
Department of Civil Engineering,
NPR College of Engineering and Technology,
Natham.

To

The Principal,
NPR College of Engineering and Technology,
Natham.

Respected Sir,

Sub: Seeking permission to conduct add on course for Civil Engineering students – Reg

We are going to conduct a add on course on "**3D MODELLING BY BUILDING INFORMATION MODELLING**" to our Civil Engineering students in our college premises. We proposed Er.Samuel Sivakumar, Vlands Best hub,Coimbatore as a External resource person for this Add on Course program from 02.04.2021 to 30.04.2021 (Friday only) (32 hrs) through Online mode. Kindly permit us to conduct the program.

Registration Form Link **https://forms.gle/rB3ZUGi2ttYYN9xeA**

Google meet Link **https://meet.google.com/ufe-sycu-zfo**

Join meeting by 02.04.2021 @ 9.00 am.

Thanking you.

Yours truly,

(Premasundari.S)

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON 3D MODELLING BY BUILDING INFORMATION MODELLING

CIRCULAR

NPRCET/OFF/CIVIL/VAC/2020-2021 DATE: 29.03.2021

This is to inform that Department of Civil Engineering have planned to conduct a Add on Course on **"3D MODELLING BY BUILDING INFORMATION MODELLING"** for the students during this even semester 2020-2021.Interested students can enroll their name to the program coordinator on or before 31.03.2021.

Registration Form Link - https://forms.gle/rB3ZUGi2ttYYN9xeA

The details of the training program are given below.

Course Name	**3D MODELLING BY BUILDING INFORMATION MODELLING**
External Resource Persons	Er.Samuel Sivakumar, Technical Manager, V-Lands Best hub private Limited.Coimbatore
Mode	Online mode
Google meet Link	**https://meet.google.com/ufe-sycu-zfo** Join meeting by 02.04.2021 @ 9.00 am.
Date & Duration	02.04.2021 to 30.04.2021(Every Friday)-32 Hours
Program Coordinator	Mrs.S.Premasundari,AP-Civil,NPRCET

PRINCIPAL

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

Copy to:
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2. All the Class Rooms
3. Notice Board
4. File

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The Management, Principal, Staff and Students

Cordially invite you for the inauguration of

"ADD ON COURSE ON 3D MODELLING BY BUILDING INFORMATION MODELLING"

on 02.04.2021

Google meet Link - *https://meet.google.com/ufe-sycu-zfo*

EXTERNAL RESOURCE PERSON

Er.SAMUEL SIVAKUMAR,

Technical Manager,

V-Lands Best hub private Limited,Coimbatore.

Mode: Google meet

ONLINE MODE

Dr.J.SUNDARARAJAN,

Principal,

NPR College of Engineering & Technology

Felicitates the function

Organized by,

Department of Civil Engineering,

NPR College of Engineering and Technology,

NPR Nagar, Natham.

NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON 3D MODELLING BY BUILDING INFORMATION MODELLING

COURSE CONTENT

CHAPTER:1

Introduction-About BIM-Introduction to Autodesk Revit Architecture

Revit File Types-Exploring User Interface-Building Elements-Starting a New Project-Drawing Plan as per Dimension-Drawing Aids, Project Units-Levels, Adding Levels-Modifying Levels, Creating Level Head-Constrain Levels, Grids-Walls, Create New Wall type-Location Line, Wall joins, Compound Wall.

CHAPTER: 2

More in Depth –Wall, Modify walls-Wall layer wrapping, Stacked wall-Vertically compound Wall, Wall shapes and Openings-Wall sweeps and Reveals, Construction Modeling Tools-Parts, Assemblies-Modify Tools, Move ,Copy, Create Similar-Rotate, Mirror, Array, Scale, Split Element-Trim, Align, Offset-Pin, Unpin, Doors-Windows, Keyboard Shortcuts.

CHAPTER: 3

3D Modeling-Floor,Adding Floor-Sloped Floor,Floor Slab Edge-Ceiling,Create Ceiling-Components, Working with Modern Medium Library-Roof,Creating Roof Modifying Roof, Shape editing for Roofs and Floors-Roof Soffit, Roof Fascia-Roof Gutter, Openings-Opening on face and Vertical Opening-Wall opening, Shaft opening, Dormer Opening.

Documentation-Dimensions-Temporary Dimensions-Permanent Dimensions-Modifying Dimensions-Constraints.

Managing Views-Creating views, Plan views-View range, Plan region Elevation,Section,3D Views, Lock 3D view-Background, CroppingView, Visibility or Graphics-View Templates, DuplicateViews. Visual Styles, Filter, Graphic Display Options.

CHAPTER: 4

Curtain Wall-Adding Curtain Grids-Mullions-Reshaping Curtain Wall Panels

Adding Curtain Door to panel-Embedded Walls.

Stair-Stair by component-Creating stair by sketching-Customizing stair documentation-Stair calculator-Modify stair railings-Ramp-Railings-Add railings-Add railings by sketching-Modify railing-Modifying continuous rail.

CHAPTER: 5

Conceptual Modeling-Massing,In place Mass-Forms,Modify Forms-Rationalizing Surface, Splitting Faces-Paint Tool,Placing Mass Instances from Mass Family-Face based

NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

Modeling,Conceptual Energy Analysis-Choosing location,Energy settings-Enable energy model,Run energy simulation-Results and compare,Hands on-Customizing form rationalization-Display styles for analysis add in application-Controlling visibility of mass instances

Documentation-Text, Adding text notes-Modify text notes, Model text-Tag,Tag tools, Applying tag by category-Tag all not tagged, Material Tag-Keynote, Types of Keynote-Placing Keynotes ,Keynoting Settings-Custom Keynotes, Adding Keynote in 3D view.

Criteria to get Certificate:

- Students must have 75 % attendance.
- Student should secure 50% marks in the Exam.

Prepared by-Mrs.S.Premasundari, Assistant Professor-Civil

Approved by,

HoD-CIVIL

Head of the Department
Department of Civil Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

IQAC

Coordinator IQAC
NPR College of Engineering & Technology
Natham, Dindigul (Dt)-624 401

PRINCIPAL

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON 3D MODELLING BY BUILDING INFORMATION MODELLING

REGISTERED STUDENTS NAME LIST

S.No	Year	Register Number	Name of the Student
1.	IV-CIVIL	920817103003	ABINAYA .N.S
2.		920817103004	ABINAYA.S
3.		920817103005	ABITHA.D
4.		920817103008	AJITHA.R
5.		920817103010	ARUNPANDIAN.N
6.		920817103011	BALAKRISHNAN.P
7.		920817103017	GOKUL.S
8.		920817103019	GUHAN.S
9.		920817103021	HARIHARAN.S
10.		920817103022	KARTIKEYAN.D
11.		920817103024	KAVIMALAN.R
12.		920817103026	LOGESH.T
13.		920817103027	MANIKANDAN.K
14.		920817103029	MOHANRAJ.G
15.		920817103030	MUTHUKUMAR .R
16.		920817103031	NANDHAKUMAR.R
17.		920817103032	NAVEENCHANDRAN.V
18.		920817103033	NIRANJAN.R
19.		920817103034	POTHIYALAGAN.C
20.		920817103036	PREMKUMAR.K
21.		920817103038	RAMANASWETHA.U.B
22.		920817103041	RUBINI PRIYA M
23.		920817103043	SARATH.M
24.		920817103048	SURYANARAYANAN.V.M
25.		920817103049	SURYA PRABHA.S
26.		920817103050	SURYA.R
27.		920817103054	VISITHRA.K
28.		920817103055	YOGESH SURYA.K
29.		920817103301	MOUNESH B
30.		920817103502	SIVARAM R
31.	III-CIVIL	920818103001	AJAYKANNAN N
32.		920818103002	HARINI S
33.		920818103003	KALYANI K
34.		920818103005	LAKSHMIDEVI K
35.		920818103006	MANO BHARATHI T
36.		920818103007	NAVEEN J
37.		920818103008	RAMALAKSHMI M
38.		920818103009	REVATHY A
39.		920818103010	SURYAPRAKASH.R
40.		920818103011	YUVASHREE S
41.		920818103501	VETRIVEL A

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42.		920818103701	DEEPAN PANDI T
43.	II-Civil	920819103001	ARUN KUMAR N
44.		920819103002	JEEVITHA C
45.		920819103003	NAVEENRAJ S
46.		920819103004	SANJAY K
47.		920819103005	SARANYA DEVI S
48.		920819103007	SUBASH S
49.		920819103008	SUDHARSAN K
50.		920819103009	VENKATESAN R
51.		920819103301	NITHISHKUMAR A R
52.		920819103302	PURUSOTHAMAN K
53.		920819103303	SACHIN R
54.		920819103304	KISHORE S P

PROGRAM COORDINATOR

(Prema Sundari. S)

NPR COLLEGE OF ENGG. & TECHNOLOGY ★ NATHAM

HoD-CIVIL

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON 3D MODELLING BY BUILDING INFORMATION MODELLING

Course Schedule

Date: 29.03.2021

Mode : Online Mode

Google meet Link : ***https://meet.google.com/ufe-sycu-zfo***

Day 1 02.04.2021	9.00 a.m. – 9.30 a.m.	Inauguration- Dr.J.Sundararajan,Principal,NPRCET	
	10. 00 a.m - 11.30 a.m.	Session 1	Introduction-About BIM-Introduction to Autodesk Revit Architecture-Revit File Types Mr.Samuel sivakumar,Vlands best hub.
	11.30 a.m. to 11.45 a.m.	*Tea Break*	
	11.45 a.m. to 1.15 p.m.	Session 2	Exploring User Interface-Building Elements-Starting a New Project Mrs.S.Premasundari,Assistant Professor
	1.15 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.30 p.m.	Session 3	Drawing Plan as per Dimension-Drawing Aids, Project Units-Levels,Adding Levels Mr.P.Manikandan,AssistantProfessor
	3.30 p.m. to 3.45 p.m.	*Tea Break*	
	3.45 p.m. to 4.45 p.m.	Session 4	Modifying Levels,Creating Level Head-Constrain Levels,Grids-Walls,Create New Wall type-Location Line,Walljoins,Compound Wall Mrs.S.Premasundari,Assistant Professor

Day 2 09.04.2021	9.00 a.m. – 11.30 a.m.	Session 1	More in Depth –Wall,Modify walls-Wall layer wrapping,Stacked wall. Mr.Samuel sivakumar,Vlands best hub.
	11.30 a.m. to 11.45 a.m.		*Tea Break*
	11.45 a.m. to 1.15 p.m.	Session 2	Vertically compound Wall, Wall shapes and Openings-Wall sweeps and Reveals, Construction Modeling Tools, Parts, Assemblies. Mrs.S.Premasundari,Assistant Professor
	1.15 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.30 p.m.	Session 3	Modify Tools, Move, Copy, Create Similar-Rotate, Mirror, Array,Scale,Split Element Mr.Samuel sivakumar,Vlands best hub.
	3.30 p.m. to 3.45 p.m.	*Tea Break*	
	3.45 p.m. to 4.45 p.m.	Session 4	Trim, Align, Offset-Pin, Unpin, Doors-Windows, Keyboard Shortcuts Mr.P.Manikandan,AssistantProfessor

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Day 3 16.4.2021	9.00 a.m. – 11.30 a.m.	Session 1	3D Modeling-Floor,Adding Floor-Sloped Floor,Floor Slab Edge-Ceiling,Create Ceiling Components, Working with Modern Medium Library Mr.Samuel sivakumar,Vlands best hub.
	11.30 a.m. to 11.45 a.m.	*Tea Break*	
	11.45 a.m. to 1.15 p.m.	Session 2	3D Modeling-Roof,Creating Roof-Modifying Roof,Shape editing for Roofs and Floors-Roof Soffit,Roof Fascia-Roof Gutter,Openings-Opening on face and Vertical Opening-Wall opening,Shaftopening,Dormer Opening Mr.P.Manikandan,AssistantProfessor
	1.15 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.30 p.m.	Session 3	Documentation-Dimensions-Temporary DimensionsPermanent Dimensions-Modifying Dimensions Mr.Samuel sivakumar,Vlands best hub.
	3.30 p.m. to 3.45 p.m.	*Tea Break*	
	3.45 p.m. to 4.45 p.m.	Session 4	Managing Views-Creating views,Plan views-View range,Plan region-Elevation,Section,3D Views,Lock 3D view-Background,CroppingView,Visibility or Graphics-View Templates,DuplicateViews.Visual Styles-Filter,Graphic Display Options Mr.P.Manikandan,AssistantProfessor

Day 4 23.04.2021	9.00 a.m. – 11.30 a.m.	Session 1	Curtain Wall-Adding Curtain Grids-Mullions-Reshaping Curtain Wall Panels Mr. K. Karuppasamy,AssistantProfessor,NPRCET
	11.30 a.m. to 11.45 a.m.	*Tea Break*	
	11.45 a.m. to 1.15 p.m.	Session 2	Curtain Wall-Adding Curtain Door to panel-Embedded Walls Mr.P.Manikandan,AssistantProfessor
	1.15 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.30 p.m.	Session 3	Stair-Stair by component-Creating stair by sketching-Customizing stair documentation-Stair calculator-Modify stair railings Mr. K. Karuppasamy,AssistantProfessor,NPRCET
	3.30 p.m. to 3.45 p.m.	*Tea Break*	
	3.45 p.m. to 4.45 p.m.	Session 4	Stair-Ramp-Railings-Add railings-Add railings by sketching-Modify railing-Modifying continuous rail Mr.P.Manikandan,AssistantProfessor

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Day 5 30.4.2021	9.00 a.m. – 11.30 a.m.	Session 1	Conceptual Modeling-Massing, In place Mass-Forms, Modify Forms-Rationalizing Surface,Splitting Faces -Paint Tool,Placing Mass Instances from Mass Family-Face based Modeling,Conceptual Energy Analysis Mr.Samuel sivakumar,Vlands best hub.
	11.30 a.m. to 11.45 a.m.	*Tea Break*	
	11.45 a.m. to 1.15 p.m.	Session 2	Conceptual Modeling-Choosing location, Energy settings-Enable energy model, Run energy simulation-Results and compare, Hands on-Customizing form rationalization-Display styles for analysis add in application-Controlling visibility of mass instances Mr.P.Manikandan,AssistantProfessor
	1.15 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.30 p.m.	Session 3	Documentation-Text,Adding text notes-Modify text notes,Model text-Tag,Tagtools,Applying tag by category-Tag all not tagged,Material Tag, Keynote,Types of Keynote-Placing Keynotes,Keynoting Settings-Custom Keynotes,Adding Keynote in 3D view Mr. K. Karuppasamy,AssistantProfessor,NPRCET
	3.30 p.m. to 3.45 p.m.	*Tea Break*	
	3.45 p.m. to 4.15 p.m.	Session 4	Valedictory-Dr.A.Hemalatha,HoD,Civil,NPRCET

COLLEGE OF ENGG & TECHNOLOGY NPR NATHAM

PROGRAM COORDINATOR

HoD-CIVIL

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IQAC

Coordinator - IQAC
NPR College of Engineering & Technology
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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON 3D MODELLING BY BUILDING INFORMATION MODELLING

STUDENTS ATTENDANCE

S.No	Register Number	Name of the Student	2/4	9/4	16/4	23/4	30/4
1.	920817103003	ABINAYA .N.S	/	/	/	/	/
2.	920817103004	ABINAYA.S	/	/	/	/	/
3.	920817103005	ABITHA.D	/	/	/	/	/
4.	920817103008	AJITHA.R	/	/	/	/	/
5.	920817103010	ARUNPANDIAN.N	/	/	/	/	/
6.	920817103011	BALAKRISHNAN.P	/	/	/	/	/
7.	920817103017	GOKUL.S	/	/	/	a	/
8.	920817103019	GUHAN.S	/	/	/	/	/
9.	920817103021	HARIHARAN.S	/	/	/	/	/
10.	920817103022	KARTIKEYAN.D	/	/	/	/	/
11.	920817103024	KAVIMALAN.R	/	a	/	/	/
12.	920817103026	LOGESH.T	/	/	/	/	/
13.	920817103027	MANIKANDAN.K	/		/	/	/
14.	920817103029	MOHANRAJ.G	/	/	/	/	/
15.	920817103030	MUTHUKUMAR .R	/	/	/	/	/
16.	920817103031	NANDHAKUMAR.R	/	/	/	/	/
17.	920817103032	NAVEENCHANDRAN.V	/	/	/	/	/
18.	920817103033	NIRANJAN.R	/	/	/	/	/
19.	920817103034	POTHIYALAGAN.C	/	/	/	/	/
20.	920817103036	PREMKUMAR.K	/	/	/	/	/
21.	920817103038	RAMANASWETHA.U.B	/	/		a	/
22.	920817103041	RUBINI PRIYA M	/	/	/	/	/
23.	920817103043	SARATH.M	/	/	/	/	/
24.	920817103048	SURYANARAYANAN.V.M	/	/	/	/	/
25.	920817103049	SURYA PRABHA.S	/	/	/	/	/
26.	920817103050	SURYA.R	/	/	/	/	/
27.	920817103054	VISITHRA.K	/	/	/	/	/
28.	920817103055	YOGESH SURYA.K	a	/	/	/	/
29.	920817103301	MOUNESH B	/	/	/	/	/
30.	920817103502	SIVARAM R	/	/	/	/	/
31.	920818103001	AJAYKANNAN N	/	/	/	/	/
32.	920818103002	HARINI S	/	/	/	/	/
33.	920818103003	KALYANI K	/	/	/	/	/
34.	920818103005	LAKSHMIDEVI K	/	/	/	/	/
35.	920818103006	MANO BHARATHI T	/	/	/	/	/
36.	920818103007	NAVEEN J	/	/	/	/	a
37.	920818103008	RAMALAKSHMI M	/	/	/	/	/
38.	920818103009	REVATHY A	/	/	/	/	/
39.	920818103010	SURYAPRAKASH.R	a	a	a	a	a
40.	920818103011	YUVASHREE S	/	/	/	/	/

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41.	920818103501	VETRIVEL A	/	/	/	/	/
42.	920818103701	DEEPAN PANDI T	/	/	/	/	A
43.	920819103001	ARUN KUMAR N	/	/	/	/	/
44.	920819103002	JEEVITHA C	/	/	/	/	/
45.	920819103003	NAVEENRAJ S	/	A	/	/	/
46.	920819103004	SANJAY K	/	/	/	/	/
47.	920819103005	SARANYA DEVI S	/	/	/	/	/
48.	920819103007	SUBASH S	/	/	/	/	/
49.	920819103008	SUDHARSAN K	/	/	/	/	/
50.	920819103009	VENKATESAN R	/	/	A	/	/
51.	920819103301	NITHISHKUMAR A R	/	/	/	/	/
52.	920819103302	PURUSOTHAMAN K	/	/	/	/	/
53.	920819103303	SACHIN R	/	/	/	/	/
54.	920819103304	KISHORE S P	A	/	/	/	/
		NO. OF STUDENTS PRESENT	51	51	52	51	51
		NO. OF STUDENTS ABSENT	03	03	02	03	03
		SIGNATURE OF THE PROGRAM CO-ORDINATOR					

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NPR COLLEGE OF ENGG. & TECHNOLOGY ★ NATHAM

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON 3D MODELLING BY BUILDING INFORMATION MODELLING

SAMPLE QUESTION PAPER & ANSWER

1. When using design options, the active option is the _____

A. Preferred design option in the design option set.
B. Part of the building that is not defined using design options.
C. Design options currently being edited.
D. Collection of all design options.

2. A _____ is a rule that you apply to a view to control the display of elements based on the phase status.

A. View Template
B. Display State
C. Phase Filter
D. Design Option

3. If you demolish an element in one view:

A. It is displayed as demolished in all views with the same phase.
B. It is displayed as demolished only in plan and elevation views with the same phase.
C. It is displayed as demolished in all views with the same phase except for section views.
D. It is displayed as demolished in that view only.

4. When a view is opened or created, by default the View Phase is set to:

A. Default
B. Demolished
C. Existing
D. New Construction

5. The two properties used to control the phase and display of a view are:

A. Phase Filter
B. Phase
C. Graphic Display Options
D. Visibility/Graphics Overrides Building Information Modeling and Revit Basics 1-43

6. The _____ is the entire building model, excluding any design options.

A. The Main Model
B. The Basic Model
C. The Primary Model
D. The Primary Option

7. The _____ is the preferred option in a Design Option set.

A. Main Model
B. Primary Option
C. Secondary Option
D. Active Option

8. The _____ is the design option which is active and currently being edited.

A. Main Model
B. Primary Option
C. Active Option
D. Default Option

9. A _____ is a view that is dedicated to a specific design option. When the view is active, Revit displays the design option along with the rest of the building model.

A. Dedicated view
B. Phased view
C. Design Option view
D. Primary Option view
E. Active view

10.



A.Annotate Ribbon
B.Modify Ribbon
C.Analyze Ribbon
D.Application menu

Answers: 1) C; 2) C; 3) A; 4) D; 5) A & B; 6) A; 7) B; 8) C; 9) A;10)A

PROGRAM COORDINATOR
(Prema Sundari.S)

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON 3D MODELLING BY BUILDING INFORMATION MODELLING

STUDENT FEEDBACK

FEEDBACK FORM LINK - https://forms.gle/6vDXfmykwyrFtUdV7

SAMPLE FEEDBACK FORM

NPR College of Engg & Tech,Natham

ADD ON COURSE ON 3D MODELLING BY BUILDING INFORMATION MODELLING-STUDENT FEEDBACK FORM

premasundaris@gmail.com (not shared) Switch account — Draft saved

* Required

1.Course Content * — 1 point

- (•) EXCELLENT
- ( ) GOOD
- ( ) FAIR
- ( ) SATISFACTORY

2.Way of exposed new knowledge and practices * — 1 point

- (•) EXCELLENT
- ( ) GOOD
- ( ) FAIR
- ( ) SATISFACTORY

3.Examples Provided during this course * — 1 point

- (•) EXCELLENT
- ( ) GOOD
- ( ) FAIR
- ( ) SATISFACTORY

4.Course delivered by Resource Person * — 1 point

- (•) EXCELLENT
- ( ) GOOD
- ( ) FAIR
- ( ) SATISFACTORY

5.Time Management * — 1 point

- ( ) EXCELLENT
- (•) GOOD
- ( ) FAIR
- ( ) SATISFACTORY

6.Overall rating of this course * — 1 point

- (•) EXCELLENT
- ( ) GOOD
- ( ) FAIR
- ( ) SATISFACTORY

7.Any Other Comments / Suggestions * — 1 point

GOOD & INFORMATIVE SESSION

PROGRAM COORDINATOR

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SAMPLE FILLED FORM- QUIZ LINK - https://forms.gle/2a2EJKEb6c8KAiyG8

NPR College of Engg & Technology,Natham

ADD ON COURSE ON 3D MODELLING BY BUILDING INFORMATION MODELLING-QUIZ FOR STUDENTS

premasundaris@gmail.com (not shared) Switch account — Draft saved

* Required

1. When using design options, the active option is the _____ * 1 point

- (●) A. Preferred design option in the design option set.
- ( ) B. Part of the building that is not defined using design options.
- ( ) C. Design options currently being edited.
- ( ) D. Collection of all design options.

2.A _____ is a rule that you apply to a view to control the display of elements based on the phase status. * 1 point

- (●) A. View Template
- ( ) B. Display State
- ( ) C. Phase Filter
- ( ) D. Design Option

3. If you demolish an element in one view: * 1 point

- ( ) A. It is displayed as demolished in all views with the same phase.
- ( ) B. It is displayed as demolished only in plan and elevation views with the same phase.
- (●) C. It is displayed as demolished in all views with the same phase except for section views.
- ( ) D. It is displayed as demolished in that view only.

4. When a view is opened or created, by default the View Phase is set to: * 1 point

- ( ) A. Default
- (●) B. Demolished
- ( ) C. Existing
- ( ) D. New Construction

5. The two properties used to control the phase and display of a view are: * 1 point

- ( ) A. Phase Filter
- ( ) B. Phase
- (●) C. Graphic Display Options
- ( ) D. Visibility/Graphics Overrides Building Information Modeling and Revit Basics 1-43

6. The _____ is the entire building model, excluding any design options. * 1 point

- ( ) A. The Main Model
- (●) B. The Basic Model
- ( ) C. The Primary Model
- ( ) D. The Primary Option

7. The _____ is the preferred option in a Design Option set. * 1 point

- ( ) A. Main Model
- ( ) B. Primary Option
- ( ) C. Secondary Option
- (●) D. Active Option

8. The _____ is the design option which is active and currently being edited. * 1 point

- (●) A. Main Model
- ( ) B. Primary Option
- ( ) C. Active Option
- ( ) D. Default Option

9. A _____ is a view that is dedicated to a specific design option. When the view is active, Revit displays the design option along with the rest of the building model. * 1 point

- (●) A. Dedicated view
- ( ) B. Phased view
- ( ) C. Design Option view
- ( ) D. Primary Option view

9. A _____ is a view that is dedicated to a specific design option. When the view is active, Revit displays the design option along with the rest of the building model. * 1 point

- (●) A. Dedicated view
- ( ) B. Phased view
- ( ) C. Design Option view
- ( ) D. Primary Option view
- ( ) E. Active view

10. 'R' is denote for * 1 point

- (●) A.Annotate Ribbon
- ( ) B.Modify Ribbon
- ( ) C.Analyze Ribbon
- ( ) D.Application menu

PROGRAM COORDINATOR

COLLEGE OF ENGG & TECHNOLOGY NATHAM

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DEPARTMENT OF CIVIL ENGINEERING

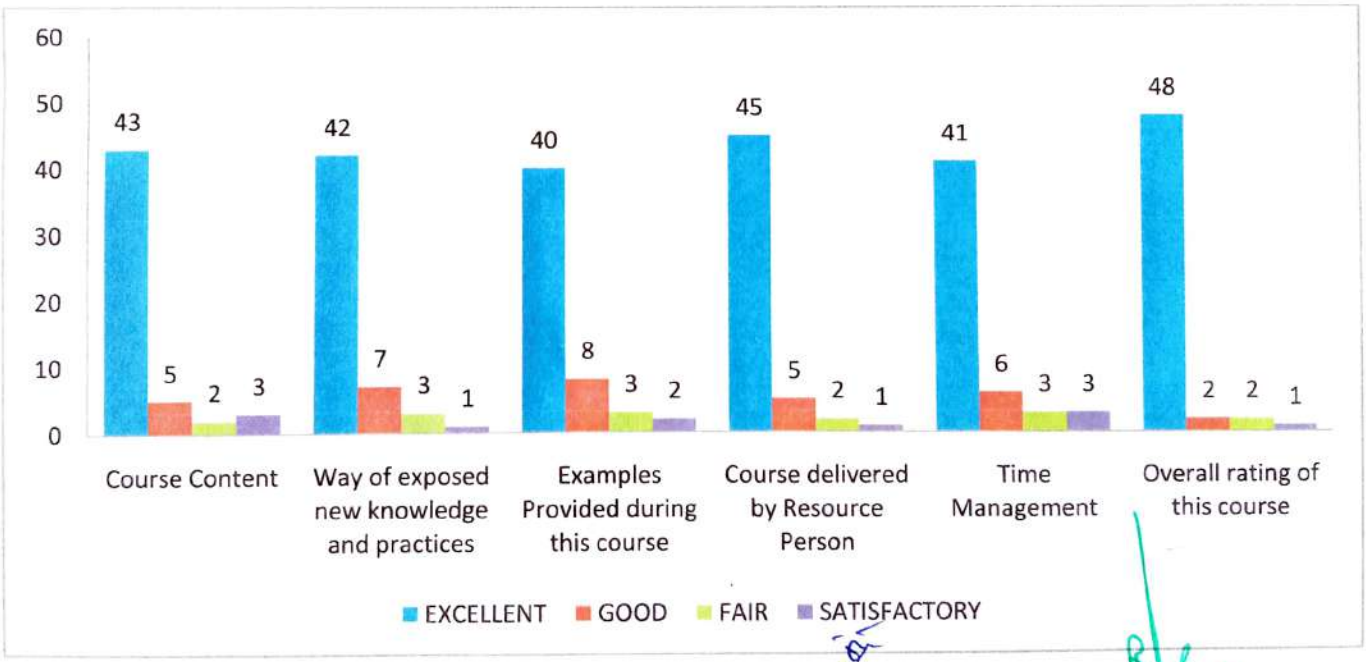
ADD ON COURSE ON 3D MODELLING BY BUILDING INFORMATION MODELLING

STUDENT FEEDBACK SUMMARY REPORT

TOTAL STRENGTH: 54 **DATE: 31.04.2021**

CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
Course Content	43	5	2	3
Way of exposed new knowledge and practices	42	7	3	1
Examples Provided during this course	40	8	3	2
Course delivered by Resource Person	45	5	2	1
Time Management	41	6	3	3
Overall rating of this course	48	2	2	1
Average	43.17	5.5	2.5	1.83

NUMBER OF STUDENTS SUCCESSFULLY COMPLETED: 53



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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON 3D MODELLING BY BUILDING INFORMATION MODELLING

SUMMARY REPORT

Department of Civil Engineering organized Add on course on "3D Modelling by Building Information Modelling" from 02.04.2021 to 30.04.2021 (Every Friday)- 32 hours through Google meet. This 32 hours course gave a overview about "Information Modelling".

During the inauguration function of the course, Mr.Arunkumar.,II-Civil has delivered the welcome address. Dr.J.Sundararajan, Principal inaugurated the program delivered the inaugural address. External Resource person Er.Samuel Sivakumar, Vlands Best hub,Coimbatore has shared his knowledge with our students.

Among the 54 students registered, 53 students successfully completed the program and were awarded certificates.

Ms.Yuvashree, III Civil was delivered vote of thanks.

PROGRAM COORDINATOR (Poorna Sundari S)

HoD-CIVIL

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DEPARTMENT OF CIVIL ENGINEERING

ADD ON COURSE ON 3D MODELLING BY BUILDING INFORMATION MODELLING

COURSE MATERIAL/MANUAL

1. https://core.ac.uk/download/pdf/132347527.pdf
2. https://popcdn.azureedge.net/pdfs/POP_CAD_BMI_Stndrds.pdf
3. https://www.pinp.org/wp-content/uploads/2016/03/Cramer-Hunt-presentation.pdf
4. https://www.autodesk.in/campaigns/get-to-bim-discovery/overview
5. https://www.intrasystems.co.uk/wp-content/themes/intrasystems-wordpress-theme/pdf/BIMvCAD-v2.pdf

PROGRAM COORDINATOR (Prema Sundari S)

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE OF PARTICIPATION

This is to certify that

NITHEESH KUMAR. A.R - 920819103301 - II - CIVIL ENGINEERING

has successfully completed the Add on Course Course on "3D MODELLING BY BUILDING INFORMATION MODELLING" held From 02.04.2021 to 30.04.2021 (32 Hours).

NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

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DEPARTMENT OF CIVIL ENGINEERING

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This is to certify that

LOGESH.T - 920817103026 - IV - CIVIL ENGINEERING

has successfully completed the Add on Course Course on "3D MODELLING BY BUILDING INFORMATION MODELLING" held From 02.04.2021 to 30.04.2021 (32 Hours).

COLLEGE OF ENGG. & TECHNOLOGY NATHAM

HOD-CIVIL
(Dr.A.Hemalatha)

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REVATHY. A - 920818103009 - IV - CIVIL ENGINEERING

has successfully completed the Add on Course Course on "3D MODELLING BY BUILDING INFORMATION MODELLING" held From 02.04.2021 to 30.04.2021 (32 Hours).

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE OF PARTICIPATION

This is to certify that

YUVASHREE.S - 920818103011 - III - CIVIL ENGINEERING

has successfully completed the Add on Course Course on "3D MODELLING BY BUILDING INFORMATION MODELLING" held From 02.04.2021 to 30.04.2021 (32 Hours).

NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

HOD-CIVIL
(Dr.A.Hemalatha)

Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D., Principal
N.P.R. College of Engineering & Tech.
Natham, Dindigul (Dt.)-624 401.

PRINCIPAL
(Dr.J.Sundararajan)

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE OF PARTICIPATION

This is to certify that

AJITHA.R – 920817103008 – IV – CIVIL ENGINEERING

has successfully completed the Add on Course Course on "3D MODELLING BY BUILDING INFORMATION MODELLING" held From 02.04.2021 to 30.04.2021 (32 Hours).

HOD-CIVIL
(Dr.A.Hemalatha)

Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D., Principal, N.P.R. College of Engineering & Technology, Natham, Dindigul (Dt) - 624 401.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD – ON COURSE ON "AI POWERED CHATBOT"

INDEX

COURSE CODE & NAME: **20CSAO01&AI POWERED CHATBOT**

ACADEMIC YEAR: 2020 -2021 SEMESTER: ODD DURATION: 35 HOURS

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PROGRAM COORDINATOR
J. PRISCA IDORY
AP-CSE

HoD/CSE
Head of the Department
Department of Computer Science & Engineering
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IQAC
Coordinator - IQAC
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PERMISSION LETTER

10.08.2020

From

J.Viswanath,
Head of the Department,
Computer Science and Engineering,
NPR College of Engineering & Technology,
Natham.

To

The Principal,
NPR College of Engineering & Technology,
Natham.

Respected Sir,

Sub: Requisition to conduct Add-on course for CSE students – Regarding

We have planned to conduct an add-on course on **"AI POWERED CHATBOT"** to our students from 17.08.2020 to 21.08.2020 (5 Days) through Online mode - Google Meet (Due to Covid -19, Pandemic situation).We suggest **Mr.P.B.Ranjith Kumar, Project Leader & Associate Solution Architect, KPIT Technology, Chennai** as the resource person for this Add-on course. Kindly permit us to conduct the same.

REGISTRATION FORM LINK: https://forms.gle/rAB9Bqn3RopdyPBV7

GOOGLE MEET LINK: https://meet.google.com/zzj-nveu-pcg

Join Meeting on 17.08.2020 at 9 a.m.

Thanking You,

Yours Truly,

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD – ON COURSE ON "AI POWERED CHATBOT"

RESOURCE PERSON'S PROFILE

Name : Mr.P.B.Ranjith Kumar

Designation : Project Leader& Associate Solution Architect

Company Name : KPIT Technology, Chennai.

About Resource Person : High-caliber and comprehensive professional experience as an ETL Developer / Analyst with a strong foot on creative intelligence, business analysis and project development in deadline-driven environments.

Overall 7 years of experience in ETL development & Data Warehousing concepts.

Proficient as an IT Analyst in development using ETL tools like Informatics and DB tools like Oracle SQL Developer

PROGRAM COORDINATOR

J. PRISCA MARY
AP- CSE

HoD/CSE

Head of the Department
Department of Computer Science & Engineering
NPR College of Engineering & Technology
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NPRCET/OFF/CSE/VAC/2020– 2021 13.08.2020

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD – ON COURSE ON "AI POWERED CHATBOT"

CIRCULAR

This is to inform that Department of Computer Science and Engineering has planned to conduct an add-on course on **"AI POWERED CHATBOT"** for the students from 17.08.2020 to 21.08.2020 (5 Days) through Online mode - Google Meet (Due to Covid -19, Pandemic situation). Interested students can enroll their name to the program coordinator on or before 15.08.2020 through WhatsApp.

REGISTRATION FORM LINK: https://forms.gle/rAB9Bqn3RopdyPBV7

The details of the Add-on course program are given below.

RESOURCE PERSON	:	Mr.P.B.Ranjith Kumar, Project Leader & Associate Solution Architect, KPIT Technology, Chennai
MODE	:	Virtual Mode (Google Meet)
GOOGLE MEET LINK		https://meet.google.com/zzj-nveu-pcg Join Meeting on 17.08.2020 at 9 a.m.
DATE & DURATION	:	17.08.2020 to 21.08.2020 (5 Days) & 35 Hours
PROGRAM COORDINATOR	:	Mrs. J. Prisca Mary, AP/CSE, NPRCET.

PRINCIPAL
Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

Copy to:

1. All the HoDs
2. Notice Board
3. File
4. Program Coordinator
5. IQAC

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The Management, Principal, Staff and Students
Cordially invite you for the inauguration of

ADD-ON COURSE on
"AI POWERED CHATBOT"

On 17th August, 2020 @ 9 a.m.

Google Meet Link: https://meet.google.com/zzj-nyeu-ucg

Chief Guest

Mr.P.B.Ranjith Kumar,
Project Leader & Associate Solution Architect,
KPIT Technology, Chennai.

Dr.J.Sundararajan
Principal,
NPR College of Engineering & Technology
Felicitates the function

Organized By

Department of Computer Science and Engineering,
NPR College of Engineering & Technology,
NPR Nagar, Natham.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD – ON COURSE ON "AI POWERED CHATBOT"

COURSE CONTENT

Day 1 - Chapter 1: Introduction to Chatbots

- What are chatbots?
- The emergence of Messengers and AI
- Who are chatbots for?

Day 2 - Chapter 2: Introduction to Watson Assistant (formerly Conversation)

- The chatbot we're going to build
- Watson Assistant components
- Intents
- Entities

Day 3 - Chapter 3: Building Our Chatbot: Intents and Entities

- Dialog
- Dos and Dont's of dialog design
- Creating a workspace
- Defining Chit Chat intents

Day 4 - Chapter 4: Building Our Chatbot Dialog

- Defining Domain-Specific intents
- Defining entities
- The default Welcome and Anything else nodes
- Creating Chit Chat dialog

Day 5 - Chapter 5: Deploying Our Chatbot on WordPress

- Simple conditions and responses
- Handling complex dialog flow
- Trying out and exporting our chatbot
- Deploying our chatbot on WordPress

Criteria to get Certificate:

- Students should register their names for this course.
- Students must have 85% attendance.
- Student should secure 75% marks in the Exam.

Prepared By: Mrs. J. Prisca Mary,
AP/CSE

Approved By,

HoD/CSE
Head of the Department
Department of Computer Science & Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

IQAC
Coordinator - IQAC
NPR College of Engineering & Technology
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD – ON COURSE ON "AI POWERED CHATBOT"

REGISTERED STUDENTS NAME LIST

S.No.	Register Number	Student Name	Year
1.	920819104006	BAVITHRA C	II Year
2.	920819104007	BRAMMA S(HOSTEL)	II Year
3.	920819104008	DEVA DHARSHINI N	II Year
4.	920819104011	GUHAN P	II Year
5.	920819104012	GUNA SEKAR J	II Year
6.	920819104013	HARI DEEVAGAN M	II Year
7.	920819104014	HIFAYA THAQFEEN M	II Year
8.	920819104015	INDHUMATHI V	II Year
9.	920819104016	JANANI R	II Year
10.	920819104017	KABALESHWARI A	II Year
11.	920819104020	MOHAMED RIBAK B	II Year
12.	920819104021	MONICA R	II Year
13.	920819104022	MUTHU KUMAR P	II Year
14.	920819104023	NANDHA KUMAR B	II Year
15.	920819104024	NANDHINI S	II Year
16.	920819104025	NAVEEN KUMAR S	II Year
17.	920818104002	ARAVIND B	III Year
18.	920818104003	BHAVITHRA R	III Year
19.	920818104004	CHANDRU R	III Year
20.	920818104012	KARTHIGA JOTHI S	III Year
21.	920818104017	MUNEESHWARAN N	III Year
22.	920818104019	NAVEEN RAJA B	III Year
23.	920818104022	PALPANDI R	III Year
24.	920818104023	PRADAP S	III Year
25.	920818104024	PRAKASH P	III Year
26.	920818104026	RAMYA R	III Year
27.	920818104027	ROOBIKA N	III Year
28.	920818104028	RUTHRA A	III Year
29.	920818104029	SAFRINE BANU S	III Year
30.	920818104037	SRIDHAR K	III Year
31.	920818104039	VINEETH PANDIAN S	III Year
32.	920818104040	YOGESHWARAN V	III Year
33.	920817104029	MANOJ S	IV Year
34.	920817104030	MANUSHA M	IV Year
35.	920817104032	NAGAJOTHI C	IV Year
36.	920817104034	NATHIPRIYA K	IV Year
37.	920817104035	NATHISHKUMAR R	IV Year
38.	920817104036	NAVIN MANIKANDAN S	IV Year
39.	920817104037	NELSON J	IV Year

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40.	920817104038	NITHIS KANNA G	IV Year
41.	920817104039	PARAMESHWARI P	IV Year
42.	920817104040	POOVARASAN M	IV Year
43.	920817104041	POOVENDRAN K	IV Year
44.	920817104042	PRAKASH KUMAR S	IV Year
45.	920817104043	PREETHI A	IV Year
46.	920817104044	RAJADURAI R	IV Year
47.	920817104045	ROFINA BEGAM N	IV Year
48.	920817104046	SANGEERANI P	IV Year
49.	920817104047	SASTIANANDHAN M	IV Year
50.	920817104048	SHARMA A	IV Year
51.	920817104049	SUBASRI S	IV Year
52.	920817104051	VARSHA M	IV Year
53.	920817104052	VIJAYALAKSHMI S	IV Year
54.	920817104053	VIJAYA SHANTHI M	IV Year
55.	920817104055	YOGESH KANNA S	IV Year

PROGRAM COORDINATOR

J. PRISCA MARY
AP-CSE

HoD/CSE

Head of the Department
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD – ON COURSE ON "AI POWERED CHATBOT"

COURSE SCHEDULE

Venue: Virtual Mode **Date: 13.08.2020**

Google Meet - https://meet.google.com/zzj-nveu-pcg

External Resource Person:
Mr.P.B.Ranjith Kumar

Internal Resource Person:
Mrs. C.Kalpana

Day 1 17.08.2020	9.30 a.m. to 10.00 a.m.	Inauguration	
	10. 00 a.m. to 11.10 a.m.	Session 1	Introduction to Chatbots **Mr.P.B.Ranjith Kumar**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	What are chatbots? **Mr.P.B.Ranjith Kumar**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	The emergence of Messengers and AI **Mrs. C.Kalpana**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Who are chatbots for? **Mr.P.B.Ranjith Kumar**
Day 2 18.08.2020	9.30 a.m. to 11.10 a.m.	Session 1	The chatbot we're going to build **Mr.P.B.Ranjith Kumar**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Watson Assistant components. **Mr.P.B.Ranjith Kumar**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Intents **Mrs. C.Kalpana**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Entities **Mr.P.B.Ranjith Kumar**
Day 3 19.08.2020	9.30 a.m. to 11.10 a.m.	Session 1	Dialog **Mrs. C.Kalpana**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Dos and Dont's of dialog design **Mr.P.B.Ranjith Kumar**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Creating a workspace **Mr.P.B.Ranjith Kumar**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	

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	3.50 p.m. to 4.30 p.m.	Session 4	Defining Chit Chat intents **Mrs. C.Kalpana**
Day 4 **20.08.2020**	9.30 a.m. to 11.10 a.m.	Session 1	Defining Domain-Specific intents **Mr.P.B.Ranjith Kumar**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Defining entities **Mr.P.B.Ranjith Kumar**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	The default Welcome and Anything else nodes **Mrs. C.Kalpana**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Creating Chit Chat dialog **Mrs. C.Kalpana**
Day 5 **21.08.2020**	9.30 a.m. to 11.10 a.m.	Session 1	Simple conditions and responses **Mr.P.B.Ranjith Kumar**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Handling complex dialog flow **Mrs. C.Kalpana**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Trying out and exporting our chatbot **Mr.P.B.Ranjith Kumar**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Deploying our chatbot on WordPress **Mrs. C.Kalpana**

PROGRAM COORDINATOR

A. PRISCA MARY
AP-CSE

HoD/CSE

Head of the Department
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD – ON COURSE ON "AI POWERED CHATBOT"

STUDENTS ATTENDANCE

S. No.	Register Number	Student Name	Year	17.08.20		18.08.20		19.08.20		20.08.20		21.08.20	
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1.	920819104004	AKASH T	II	/	/	/	/	/	/	/	/	/	/
2.	920819104006	BAVITHRA C	II	/	/	/	/	/	/	/	/	/	/
3.	920819104007	BRAMMA S(HOSTEL)	II	/	/	/	/	/	/	/	/	/	/
4.	920819104008	DEVA DHARSHINI N	II	/	/	/	/	/	/	/	/	/	/
5.	920819104011	GUHAN P	II	/	a	/	/	/	/	/	/	/	/
6.	920819104012	GUNA SEKAR J	II	/	/	/	/	/	a	/	/	/	/
7.	920819104013	HARI DEEVAGAN M	II	/	/	/	/	/	/	/	/	/	/
8.	920819104014	HIFAYA THAQFEEN M	II	/	/	/	/	/	/	/	/	/	/
9.	920819104015	INDHUMATHI V	II	/	/	/	/	/	/	/	/	/	/
10.	920819104016	JANANI R	II	/	/	/	/	/	/	/	/	/	/
11.	920819104020	MOHAMED RIBAK B	II	/	/	/	/	/	/	/	/	/	/
12.	920819104021	MONICA R	II	/	/	/	/	/	/	/	/	/	/
13.	920819104022	MUTHU KUMAR P	II	/	/	/	/	/	/	/	a	/	/
14.	920819104023	NANDHA KUMAR B	II	/	/	/	/	/	a	/	/	/	/
15.	920819104024	NANDHINI S	II	/	/	/	/	/	/	/	/	/	/
16.	920819104025	NAVEEN KUMAR S	II	/	/	/	/	/	/	/	/	/	/
17.	920818104002	ARAVIND B	III	/	/	/	/	/	/	/	/	/	/
18.	920818104003	BHAVITHRA R	III	/	/	/	/	/	/	/	/	/	/
19.	920818104004	CHANDRU R	III	/	/	/	/	/	/	/	/	/	/
20.	920818104012	KARTHIGA JOTHI S	III	/	/	/	/	/	/	/	/	/	/
21.	920818104017	MUNEESHWARAN N	III	/	/	/	/	/	/	/	/	/	/
22.	920818104019	NAVEEN RAJA B	III	/	/	/	/	/	/	/	/	/	/
23.	920818104022	PALPANDI R	III	/	/	/	/	/	/	/	/	/	/
24.	920818104023	PRADAP S	III	a	a	a	a	a	a	a	a	a	a
25.	920818104024	PRAKASH P	III	/	/	/	a	/	/	/	/	a	/
26.	920818104026	RAMYA R	III	/	/	/	/	/	/	/	/	/	/
27.	920818104027	ROOBIKA N	III	/	/	/	/	/	/	/	/	/	/
28.	920818104028	RUTHRA A	III	/	/	/	/	/	/	/	/	/	/
29.	920818104029	SAFRINE BANU S	III	/	/	/	/	/	/	/	/	/	/
30.	920818104037	SRIDHAR K	III	/	/	/	/	/	/	/	/	/	/

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31	920818104039	VINEETH PANDIAN S	III	a	a	a	a	a	a	a	a	a	a
32	920818104040	YOGESHWARAN V	III	/	/	/	/	/	/	/	/	/	/
33	920817104029	MANOJ S	IV	/	/	/	/	/	/	/	/	/	/
34	920817104030	MANUSHA M	IV	/	/	/	/	/	/	/	/	/	/
35	920817104032	NAGAJOTHI C	IV	/	/	/	a	/	/	/	/	/	/
36	920817104034	NATHIPRIYA K	IV	/	/	/	/	/	/	/	/	/	/
37	920817104035	NATHISHKUMAR R	IV	/	/	/	/	/	/	/	/	/	/
38	920817104036	NAVIN MANIKANDAN S	IV	/	/	/	/	/	/	/	/	/	/
39	920817104037	NELSON J	IV	/	/	/	/	/	/	/	a	/	/
40	920817104038	NITHIS KANNA G	IV	a	a	a	a	a	a	a	a	a	a
41	920817104039	PARAMESHWARI P	IV	/	/	/	/	/	/	/	/	/	/
42	920817104040	POOVARASAN M	IV	/	/	/	/	/	/	/	/	/	/
43	920817104041	POOVENDRAN K	IV	/	/	/	/	/	/	/	/	/	/
44	920817104042	PRAKASH KUMAR S	IV	/	/	/	/	/	/	/	/	/	/
45	920817104043	PREETHI A	IV	/	/	/	/	/	/	/	/	/	/
46	920817104044	RAJADURAI R	IV	a	a	a	a	a	a	a	a	a	a
47	920817104045	ROFINA BEGAM N	IV	/	/	/	/	/	/	/	/	/	/
48	920817104046	SANGEERANI P	IV	/	/	/	a	/	/	/	/	/	/
49	920817104047	SASTIANANDHAN M	IV	/	/	/	/	/	/	/	/	/	/
50	920817104048	SHARMA A	IV	/	/	/	/	/	/	/	/	/	/
51	920817104049	SUBASRI S	IV	/	/	/	/	/	a	/	/	/	/
52	920817104051	VARSHA M	IV	/	/	/	/	/	/	/	/	/	/
53	920817104052	VIJAYALAKSHMI S	IV	/	/	/	/	/	/	/	/	/	/
54	920817104053	VIJAYA SHANTHI M	IV	/	/	/	/	/	/	/	/	/	/
55	920817104055	YOGESH KANNA S	IV	/	a	/	/	/	/	/	a	/	/
	PRESENT			51	49	51	48	51	48	51	48	50	51
	ABSENT			4	6	4	7	4	7	4	7	5	4
	PROGRAM COORDINATOR												

PROGRAM COORDINATOR

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NPR COLLEGE OF ENGG & TECHNOLOGY NATHAM

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

20CSAO01 & AI POWERED CHATBOT

QUIZ QUESTION PAPER WITH ANSWER KEY

Quiz Link: https://forms.gle/je2T8qQDTdkDzyXz5

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ADD - ON COURSE ON "AI POWERED CHATBOT" - QUIZ

nprcetcse@nprcolleges.org Switch account

* Required

Email *

Your email

1. What is Artificial Intelligence? *

- (a) Putting your intelligence into Computer
- (b) Programming with your own intelligence
- (c) Making a Machine intelligent
- (d) Playing a Game

2. Which is not the commonly used programming language for AI? *

- (a) PROLOG
- (b) Java
- (c) LISP
- (d) Perl
- (e) Java script

3. A heuristic is a way of trying *

- (a) To discover something or an idea embedded in a program
- (b) To search and measure how far a node in a search tree seems to be from a goal
- (c) To compare two nodes in a search tree to see if one is better than the other
- (d) Only (a) and (c)
- (e) Only (a), (b) and (c)

4. AI research field is sub class find in subfields as *

- (a) Technical consideration
- (b) Using standard tools
- (c) Deep philosophical differences
- (d) Only (a) and (b)
- (e) All the above

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5. Which of the following are other tools used in AI? *

- (a) openNN
- (b) Theano
- (c) Caffe
- (d) Only (a) and (c)
- (e) All the above

6. A chat bot typically has 3 things in it *

- (a) Intent
- (b) Entities
- (c) Action
- (d) Response
- (e) All the above

7. Devices which perceives their environment and take actions to maximize the chance to achieve the goal is called *

- (a) Intelligent agent
- (b) Intelligent components
- (c) Intelligent client
- (d) Intelligent Services
- (e) All the above

8. A process that allows machines to understand and read a human language is called *

- (a) Language processor
- (b) Artificial language processor
- (c) Decoder
- (d) Natural language processor
- (e) Deep Learning

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9. A technique that teaches machines to process inputs via layers in order to infer, classify and predict an outcome is called *

- (a) Deep learning
- (b) Machine Learning NLP
- (c) Computer vision
- (d) Cognitive computing
- (e) All of the above

10. AS! systems perform which of the following task? *

- (a) Taking rational decision
- (b) Creating arts
- (c) Building emotional relationships
- (d) Both (a) and (c)
- (e) All the above

Submit

Clear form

ANSWERS

1-c 2-d 3-e 4-e 5-e 6-e 7-a 8-d 9-a 10-e

PROGRAM CO-ORDINATOR

J. PRISCA MARY
AP-CSE

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD - ONCOURSE ON "AI POWERED CHATBOT"

STUDENT FEEDBACK

Feedback Form Link: https://forms.gle/bTVB8NNoTAFMMsoW9

NPR COLLEGE OF ENGINEERING AND TECHNOLOGY

AI POWERED CHATBOT - Feedback Form

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* Required

Email *

Your email

1. COURSE CONTENT *

- ○ EXCELLENT
- ○ GOOD
- ○ FAIR
- ○ SATISFACTORY

2. TECHNICAL SKILLS *

- ○ EXCELLENT
- ○ GOOD
- ○ FAIR
- ○ SATISFACTORY

3. INTERACTION *

- ○ EXCELLENT
- ○ GOOD
- ○ FAIR
- ○ SATISFACTORY

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4. PRACTICAL SESSION *

- ◯ EXCELLENT
- ◯ GOOD
- ◯ FAIR
- ◯ SATISFACTORY

5. TIME MANAGEMENT *

- ◯ EXCELLENT
- ◯ GOOD
- ◯ FAIR
- ◯ SATISFACTORY

6. OVERALL RATING OF COURSE *

- ◯ EXCELLENT
- ◯ GOOD
- ◯ FAIR
- ◯ SATISFACTORY

Submit

Clear form

PROGRAM COORDINATOR

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

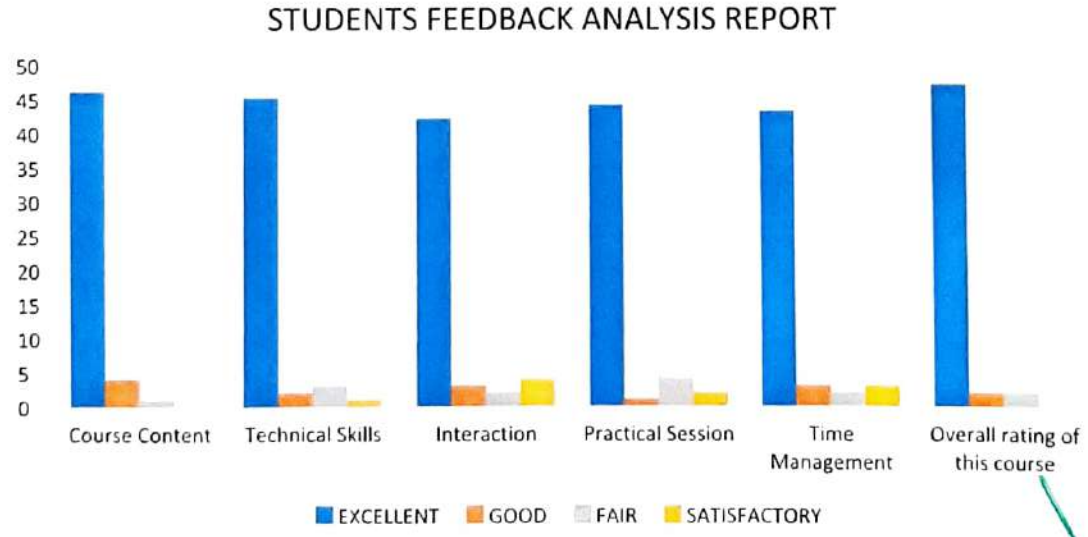
ADD – ON COURSE ON "AI POWERED CHATBOT"

STUDENT FEEDBACK ANALYSIS REPORT

ATTENDED STUDENTS: 51 **DATE: 27.08.2020**

S. No	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1.	Course Content	46	4	1	0
2.	Technical Skills	45	2	3	1
3.	Interaction	42	3	2	4
4.	Practical Session	44	1	4	2
5.	Time Management	43	3	2	3
6.	Overall rating of this course	47	2	2	0
	Average	44.5	2.5	2.3	1.7

Total number of students who gave feedback: 51



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD - ONCOURSE ON "AI POWERED CHATBOT"

SUMMARY REPORT

DATE: 27.08.2020

The Department of Computer Science and Engineering organized an Add-on course on **"AI POWERED CHATBOT"** from 17.08.2020 to 21.08.2020 (5 Days) through Online mode - Google Meet (Due to Covid -19, Pandemic situation).

On 17.08.2020, Ms.Bavithra C of III year CSE has delivered the welcome address.

Dr.J.Sundararajan, Principal of our college inaugurated the program and delivered the felicitation address. Resource person Mr.P.B.Ranjith Kumar, Project Leader & Associate Solution Architect, KPIT Technology, Chennai has shared his knowledge with our students on Building a Chatbot using Artificial Intelligence.

A chatbot is referred to as one of the most promising expressions of interaction between machines and humans. Chatbot applications help streamline interactions between people and services. It offers new opportunities for companies to improve operational efficiency and customer engagement process. This helps to bring down the cost of customer services.

This six days course gives overview about building Chatbots powered by Artificial Intelligence and its advanced topics. Hands - on session was also provided to our students to understand the technologies practically.

51 Students attended this add-on course from our CSE Department. Students who were actively participated and successfully completed the quiz program had been awarded with certificates through mail.

Ms. Varsha M of IV year CSE delivered vote of thanks during the valedictory session.

PROGRAM COORDINATOR
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD-ON COURSE ON "AI POWERED CHATBOT"

COURSE MATERIAL

Material Link:

Chapter 1: https://www.mygreatlearning.com/blog/basics-of-building-an-artificial-intelligence-chatbot/#chatbotconversation

Chapter 2: https://www.mygreatlearning.com/blog/basics-of-building-an-artificial-intelligence-chatbot/#textchatbot

Chapter 3: https://www.mygreatlearning.com/blog/basics-of-building-an-artificial-intelligence-chatbot/#opportunityforchatbot

Chapter 4: https://www.coursera.org/learn/building-ai-powered-chatbots

Chapter 5: https://thepathforward.io/building-your-first-ai-chatbot/

Further Study:

1. "Chatbots: An Introduction And Easy Guide To Making Your Own", Oisin Muldowney
2. "Chatbots for eCommerce: Learn how to build a virtual shopping assistant", Amit Kothari (Author), Rania Zyane (Author), Joshua Hoover (Author)
3. "Zero to Bot: Create a simple curator chatbot using API" .AI — A Guide for Non-Programmers
4. "An Introduction to the Microsoft Bot Framework: Create Facebook and Skype Chatbots using Microsoft Visual Studio and C# ",Michael Washington (Author)

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Certificate of Completion

This certificate is presented to

Ms.MONICA R (II Year)

for completing Add-on Course on ***"AI POWERED CHATBOT"*** *from 17.08.2020 to 21.08.2020.*

HoD/CSE
J.Viswanath

PRINCIPAL
Dr.J.Sundararajan

NPR COLLEGE OF ENGINEERING & TECHNOLOGY

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Certificate of Completion

This certificate is presented to

Mr.CHANDRU R (III Year)

for completing Add-on Course on ***"AI POWERED CHATBOT"*** *from 17.08.2020 to 21.08.2020.*

HoD/CSE
J.Viswanath

PRINCIPAL
Dr.J.Sundararajan

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT"

INDEX

COURSE CODE & NAME: **20CSCC01 & INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT**

ACADEMIC YEAR: 2020 - 2021 SEMESTER: ODD DURATION: 42 HOURS

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PERMISSION LETTER

20.10.2020

From

J.Viswanath
Head of the Department,
Computer Science and Engineering,
NPR College of Engineering and Technology,
Natham.

To

The Principal,
NPR College of Engineering and Technology,
Natham.

Respected Sir,

Sub: Requisition to conduct certificate course for CSE students – Regarding

We have planned to conduct a certificate course on **"Introduction to Industry 4.0 and Industrial IOT"** to our students from 29.10.2020 to 04.11.2020 (6 Days) through Google Meet (Online). We suggest **Mr. N. Roshan Zameer, Project Manager, Go2Group Technologies Private Ltd, Chennai** as a resource person for this Certificate course. Kindly permit us to conduct the same.

REGISTRATION FORM LINK: https://forms.gle/m7QDeLYTbAmyYuH66

GOOGLE MEET LINK: https://meet.google.com/mnt-psng-ign

Join Meeting on 29.10.2020 at 9 a.m.

Thanking you.

Yours Truly,

NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT"

RESOURCE PERSON'S PROFILE

Name : Mr. N. Roshan Zameer

Designation : Project Manager

Company Name : Go2Group Technologies Pvt Ltd, Chennai.

About Resource Person : He has more than 10 years of total experience in IT industry and has an experience in manual and automation testing, Team leading & training, client facing and certified Agile Scrum Master. He has proven ability in Selenium Web Driver Automated testing & Frameworks, Page Objects & Hybrid Frameworks, BDD, Web Testing and Functional Testing. He is a start-up entrepreneur doing Industrial IOT projects and providing guest lectures to Manipal University students.

PROGRAM COORDINATOR
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NPRCET/OFF/CSE/VAC/2020– 2021 **21.10.2020**

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT"

CIRCULAR

This is to inform that Department of Computer Science and Engineering has planned to conduct a Certificate course on **"INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT"** for the students during the end of odd semester 2020 – 2021. Interested students can enroll their name to the program coordinator on or before 28.10.2020 through WhatsApp. The details of the certificate course are given below.

RESOURCE PERSON	:	Mr. N. Roshan Zameer, Project Manager, Go2Group Technologies Pvt Ltd, Chennai.
VENUE	:	Virtual Mode (Google Meet)
DATE & DURATION	:	29.10.2020 to 04.11.2020 & 35 Hours
PROGRAM COORDINATOR	:	Mrs.V.Sujitha, AP/CSE, NPRCET.

PRINCIPAL
Dr. J.SUNDARARAJAN,
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Copy to:

1. All the HoDs
2. Notice Board
3. File
4. Program Coordinator
5. IQAC

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The Management, Principal, Staff and Students
Cordially invite you for the inauguration of

Certificate Course on
"INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT"

Date & Time: 29th October, 2020 & 9.30 a.m.	**Venue: Virtual Mode (Google Meet)** **Google meet link: :** **https://meet.google.com/mnt-psng-ign**

Chief Guest

Mr. N. ROSHAN ZAMEER
Project Manager,
Go2group Technologies Private Limited, Chennai.

Dr. J. SUNDARARAJAN
Principal,
NPR College of Engineering & Technology

Felicitates the function

Organized By

Department of Computer Science and Engineering,
NPR College of Engineering & Technology,
NPR Nagar, Natham.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT"

20CSCC01 - INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT - COURSE CONTENT

Day 1 – Industry 4.0: Introduction

Introduction: Sensing & actuation, Communication-Part I, Part II, Networking-Part I, Part II. Industry 4.0: Globalization and Emerging Issues, The Fourth Revolution, LEAN Production Systems, Smart and Connected Business Perspective, Smart Factories

Day 2 – Industry 4.0

Cyber Physical Systems and Next Generation Sensors, Collaborative Platform and Product Lifecycle Management, Augmented Reality and Virtual Reality, Artificial Intelligence, Big Data and Advanced Analysis, Cybersecurity in Industry 4.0.

Day 3 – Basics of Industrial IoT

Industrial Processes-Part I, Part II, Industrial Sensing & Actuation, Industrial Internet Systems. Industrial IoT: Business Models-Part I, Part II, IIoT Reference Architecture-Part I, Part II.

Day 4 – Industrial IoT- Layers

IIoT Sensing-Part I, Part II, IIoT Processing-Part I, Part II, IIoT Communication-Part I, Part II, Part III, IIoT Networking-Part I, Part II, Part III.

Day 5 – Industrial IoT: Big Data Analytics and Software Defined Networks

IIoT Analytics - Introduction, Machine Learning and Data Science - Part I, Part II, R and Julia Programming, Data Management with Hadoop. SDN in IIoT-Part I, Part II, Data Center Networks, Security and Fog Computing: Cloud Computing in IIoT-Part I, Part II.

Day 6 – Industrial IoT: Security, Fog Computing and Application Domains

Fog Computing in IIoT, Security in IIoT-Part I, Part II, Industrial IoT- Application Domains: Factories and Assembly Line, Food Industry. Healthcare, Power Plants, Inventory Management & Quality Control, Plant Safety and Security (Including AR and VR safety applications), Facility Management. Oil, chemical and pharmaceutical industry, Applications of UAVs in Industries.

Criteria to get Certificate:

- Students should register their names for this course.
- Students must have 85% attendance.
- Student should secure 75% marks in the Exam.

Prepared By: Mr. G. Sundararajan, AP/Mech

Mrs. C. Kalpana, AP/CSE

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT"

REGISTERED STUDENTS NAME LIST

S. NO	REGISTER UMBER	STUDENT NAME	YEAR
1.	920819104002	AFHRAN NISHA A	II YEAR
2.	920819104005	ANANDAKUMAR A	II YEAR
3.	920819104006	BAVITHRA C	II YEAR
4.	920819104008	DEVADHARSHINI N	II YEAR
5.	920819104014	HIFAYA THAQFEEN M	II YEAR
6.	920819104015	INDHUMATHI V	II YEAR
7.	920819104016	JANANI R	II YEAR
8.	920819104017	KABALESHWARI	II YEAR
9.	920819104018	MANGALA DHARSHINI R	II YEAR
10.	920819104023	NANDHA KUMAR B	II YEAR
11.	920819104027	POORNIMA DEVI P	II YEAR
12.	920819104030	SAI PRASANTHY N S	II YEAR
13.	920819104031	SANTHOSH PRAKASH M	II YEAR
14.	920819104032	SARANYA R	II YEAR
15.	920819104033	SATHYA M	II YEAR
16.	920819104034	SELVAMBIKAI N	II YEAR
17.	920819104035	SELVANJALI P	II YEAR
18.	920819104036	SHAJITHA BEGUM M	II YEAR
19.	920819104037	SHARUMATHI P	II YEAR
20.	920819104040	SOUNDHARYA V	II YEAR
21.	920819104042	SRIVATHS KARTHIC G	II YEAR
22.	920819104047	THIRISHA P	II YEAR
23.	920819104050	VAISHALI S	II YEAR
24.	920818104003	BHAVITHRA R	III YEAR
25.	920818104004	CHANDRU R	III YEAR
26.	920818104005	CHITHRA B	III YEAR
27.	920818104007	GUNA DEVI I	III YEAR
28.	920818104010	KAMALI B	III YEAR
29.	920818104012	KARTHIGA JOTHI S	III YEAR
30.	920818104019	NAVEEN RAJA B	III YEAR
31.	920818104020	NIVEDHA R	III YEAR
32.	920818104021	NIVETHA A	III YEAR
33.	920818104027	ROOBIKA N	III YEAR
34.	920818104028	RUTHRA A	III YEAR
35.	920818104029	SAFRINE BANU S	III YEAR
36.	920818104030	SANTHOSHINI V	III YEAR
37.	920818104034	SATHANA S	III YEAR
38.	920818104035	SHAHITHA RIZWANA S	III YEAR
39.	920818104036	SHRINITHI M	III YEAR
40.	920817104001	AARTHI R	IV YEAR
41.	920817104003	AISHWARYA A	IV YEAR



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42.	920817104007	AJITH KUMAR P J K	IV YEAR
43.	920817104008	ALAGU RAJA R	IV YEAR
44.	920817104009	AMRUTHAA SHREE R	IV YEAR
45.	920817104010	ARUN KUMAR S	IV YEAR
46.	920817104011	BONSIYA R	IV YEAR
47.	920817104017	GURUPRABU R	IV YEAR
48.	920817104021	KAVIYA B I	IV YEAR
49.	920817104022	KAVIYARASAN A	IV YEAR
50.	920817104027	MADHUBALA S	IV YEAR
51.	920817104044	RAJADURAI R	IV YEAR

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT"

COURSE SCHEDULE

Venue: Virtual Mode (Google Meet)

Date: 29.10.2020

External Resource Person

Mr. N. Roshan Zameer,
Project Manager

Internal Resource Persons

Mr. G. Sundararajan, AP/Mech
Mrs. C. Kalpana, AP/CSE

Day 1 29.10.2020	9.30 a.m. to 10.00 a.m.	*Inauguration*	
	10. 00 a.m. to 11.10 a.m.	Session 1	Introduction: Sensing & actuation **Mr. N. Roshan Zameer**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Communication-Part I, Part II, Networking-Part I, Part II **Mrs. C. Kalpana**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Industry 4.0: Globalization and Emerging Issues, The Fourth Revolution, LEAN Production Systems **Mr. N. Roshan Zameer**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Smart and Connected Business Perspective, Smart Factories **Mr. G. Sundararajan**
Day 2 30.10.2020	9.30 a.m. to 11.10 a.m.	Session 1	Cyber Physical Systems and Next Generation Sensors **Mr. N. Roshan Zameer**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Collaborative Platform and Product Lifecycle Management **Mr. G. Sundararajan**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Augmented Reality and Virtual Reality, Artifical Intelligence **Mr. N. Roshan Zameer**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Big Data and Advanced Analysis, Cybersecurity in Industry 4.0. **Mrs. C. Kalpana**
Day 3 31.10.2020	9.30 a.m. to 11.10 a.m.	Session 1	Industrial Processes-Part I, Part II **Mr. N. Roshan Zameer**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Industrial Sensing & Actuation, Industrial Internet Systems **Mr. G. Sundararajan**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	IIoT: Business Models-Part I, Part II **Mr. N. Roshan Zameer**

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	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	IIoT Reference Architecture-Part I, Part II. **Mr. N. Roshan Zameer**
Day 4 02.11.2020	9.30 a.m. to 11.10 a.m.	Session 1	IIoT Sensing-Part I, Part II **Mr. N. Roshan Zameer**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m.to 1.10 p.m.	Session 2	IIoT Processing-Part I, Part II **Mr. N. Roshan Zameer**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	IIoT Communication-Part I, Part II, Part III **Mr. G. Sundararajan**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	IIoT Networking-Part I, Part II, Part III. **Mrs. C. Kalpana**
Day 5 03.11.2020	9.30 a.m. to 11.10 a.m.	Session 1	IIoT Analytics - Introduction, Machine Learning and Data Science - Part I, Part II **Mr. N. Roshan Zameer**
	11.10 a.m.to 11.30 a.m.	*Tea Break*	
	11.30 a.m.to 1.10 p.m.	Session 2	R and Julia Programming, Data Management with Hadoop **Mr. N. Roshan Zameer**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	SDN in IIoT-Part I, Part II, Data Center Networks **Mr. G. Sundararajan**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Security and Fog Computing: Cloud Computing in IIoT-Part I, Part II. **Mrs. C. Kalpana**
Day 6 04.11.2020	9.30 a.m. to 11.10 a.m.	Session 1	Fog Computing in IIoT, Security in IIoT-Part I,II **Mr. N. Roshan Zameer**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Application Domains: Factories and Assembly Line, Food Industry. Healthcare, Power Plants **Mr. N. Roshan Zameer**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Inventory Management & Quality Control, Plant Safety and Security **Mr. G. Sundararajan**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Facility Management. Oil, chemical and pharmaceutical industry, Applications of UAVs in Industries. **Mr. N. Roshan Zameer**
	4.30 p.m. to 5 p.m	*Valedictory*	

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CERTIFICATE COURSE ON "INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT"

STUDENTS ATTENDANCE

S. No.	Register Number	Student Name	Year	29.10.20		30.10.20		31.10.20		02.11.20		03.11.20		04.11.20	
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1.	920819104002	Afhran Nisha A	II	/	/	/	/	/	/	/	/	/	/	/	/
2.	920819104005	Anandakumar A	II	/	/	/	/	/	/	/	/	/	/	/	/
3.	920819104006	Bavithra C	II	/	/	/	/	/	/	/	/	/	/	/	/
4.	920819104008	Devadharshini N	II	/	/	/	/	/	/	/	/	/	/	/	/
5.	920819104014	Hifaya Thaqfeen M	II	/	/	/	/	/	/	/	/	/	/	/	/
6.	920819104015	Indhumathi V	II	a	/	/	/	/	/	/	/	/	/	/	/
7.	920819104016	Janani R	II	/	/	/	/	/	/	/	/	/	/	/	/
8.	920819104018	Mangala dharshini R	II	/	/	/	/	/	/	/	/	/	/	/	/
9.	920819104024	Nandhini S	II	/	/	/	/	/	/	/	/	/	/	/	/
10.	920819104023	Nandha Kumar B	II	/	/	/	/	/	/	/	/	/	/	/	/
11.	920819104027	Poornima Devi P	II	/	/	/	/	/	/	/	/	/	/	/	/
12.	920819104030	Sai Prasanthy N S	II	/	/	/	/	/	/	/	/	/	/	/	/
13.	920819104031	Santhosh Prakash M	II	/	/	/	/	/	/	/	/	/	/	/	/
14.	920819104032	Saranya R	II	/	/	/	/	/	/	/	/	/	/	/	/
15.	920819104033	Sathya M	II	/	/	/	/	/	/	/	/	/	/	/	/
16.	920819104034	Selvambikai N	II	/	/	/	/	/	/	/	/	/	/	/	/
17.	920819104035	Selvanjali P	II	/	/	/	/	/	/	/	/	/	/	/	/
18.	920819104036	Shajitha Begum M	II	/	/	/	/	/	/	/	/	/	/	/	/
19.	920819104037	Sharumathi P	II	/	/	/	/	/	/	/	/	/	/	/	/
20.	920819104040	Soundharya V	II	/	/	/	/	/	/	/	/	/	/	/	/
21.	920819104042	Srivaths Karthic G	II	/	/	/	/	/	/	/	/	/	/	/	/
22.	920819104047	Thirisha P	II	a	/	/	/	/	/	a	/	/	/	/	/
23.	920819104050	Vaishali S	II	/	/	/	/	/	/	/	/	/	/	/	/
24.	920818104003	Bhavithra R	III	/	/	/	/	/	/	/	/	/	/	/	/
25.	920818104004	Chandru R	III	/	/	/	/	/	/	/	/	/	/	/	/
26.	920818104005	Chithra B	III	/	/	/	/	/	/	/	/	/	/	/	/
27.	920818104007	Guna Devi I	III	/	/	/	/	/	/	/	/	/	/	/	/

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28.	920818104010	Kamali B	III	/	/	/	/	/	/	/	/	/	/	/	/
29.	920818104012	Karthiga Jothi S	III	/	/	/	/	/	/	/	/	/	/	/	/
30.	920818104019	Naveen Raja B	III	/	/	/	/	/	/	/	/	/	/	a	/
31.	920818104020	Nivedha R	III	/	/	/	/	/	/	/	/	/	/	/	/
32.	920818104021	Nivetha A	III	/	/	/	/	/	/	/	/	/	/	/	/
33.	920818104027	Roobika N	III	/	/	/	/	/	/	/	/	/	/	/	/
34.	920818104028	Ruthra A	III	/	/	/	/	/	/	/	/	/	/	/	/
35.	920818104029	Safrine Banu S	III	/	/	/	/	/	/	/	/	/	/	/	/
36.	920818104030	Santhoshini V	III	/	/	/	/	/	/	/	/	/	/	/	/
37.	920818104034	Sathana S	III	/	/	/	/	/	/	/	/	/	/	/	/
38.	920818104035	Shahitha Rizwana S	III	a	/	/	/	/	/	/	/	/	/	/	/
39.	920818104036	Shrinithi M	III	/	/	/	/	/	/	/	/	/	/	/	/
40.	920817104001	Aarthi R	IV	/	/	/	/	/	/	/	/	/	/	/	/
41.	920817104003	Aishwarya A	IV	/	/	/	/	/	/	/	/	/	/	/	/
42.	920817104007	Ajith Kumar P J K	IV	/	/	/	/	/	/	/	/	/	/	/	/
43.	920817104008	Alagu Raja R	IV	/	/	/	/	/	/	/	/	/	/	/	/
44.	920817104009	Amruthaa Shree R	IV	/	/	/	/	/	/	/	/	/	/	/	/
45.	920817104010	Arun Kumar S	IV	/	/	/	/	/	/	a	/	/	/	/	/
46.	920817104011	Bonsiya R	IV	/	/	/	/	/	/	/	/	/	/	/	/
47.	920817104017	Guruprabu R	IV	/	/	/	/	/	/	/	/	/	/	/	/
48.	920817104021	Kaviya B I	IV	/	/	/	/	/	/	/	/	/	/	/	/
49.	920817104022	Kaviyarasan A	IV	/	/	/	/	/	/	/	/	/	/	/	/
50.	920817104027	Madhubala S	IV	/	/	/	/	/	/	/	/	/	/	/	/
51.	920817104044	Rajadurai R	IV	/	/	/	/	a	/	/	/	/	/	/	/
Present				48	51	51	51	50	51	49	51	51	51	50	51
Absentees				3	—	—	—	1	—	2	-	-	-	1	—
Coordinator Signature															

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

20CSCC01 - INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT

QUIZ QUESTION PAPER WITH ANSWER KEY

Quiz Link : https://forms.gle/95bvBf852MNGp4Bq8

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INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT - QUIZ

nprcetcse@nprcolleges.org Switch account

* Required

Email *

Your email

1. Which of the following environment is a part of IIoT? *

- A. Smart Factory
- B. Smart Watch
- C. Smart Home
- D. All of the above

2. Which is/are part of automation pyramid of smart factory? *

- A. Control
- B. ERP
- C. Manufacturing execution systems
- D. All of the above

3. Among the following, which is an actuator? *

- A. Microphone
- B. Speaker
- C. Both (a) and (b)
- D. None of the above

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4. What is the maximum number of devices supported by a Bluetooth device? *

- A. 232
- B. 7
- C. Both (a) and (b)
- D. None of the above

5. Which of the following is true for IoT? *

- A. IoT adds intelligence to devices
- B. IoT creates networks of connected devices
- C. IoT devices should have unique identity
- D. All of the above

6. "$" sign is used in Julia programming for _____ *

- A. String Interpolation
- B. Assigning String
- C. String Concatenation
- D. None

7. In a data center, MapReduce is used for _____ *

- A. Metadata generation
- B. Web indexing
- C. Controlling Data Storage
- D. None of these

8. IoT based contact lenses are used for *

- A. Monitoring ECG
- B. Monitoring Heart rate
- C. Monitoring Glucose level
- D. None of the above

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9. IIoT makes the power plant fully automated using * 1 point

- A. Smart grid
- B. Transformer
- C. None of the above
- D. All of the above

10. How does IIoT help in supply chain? * 1 point

- A. Distribution of products
- B. Stock In and Out
- C. Supply of products
- D. Sale of products

11. Which of the following isolates the user to a different world? * 1 point

- A. Virtual Reality
- B. Augmented Reality
- C. Both (a) and (b)
- D. None of the above

12. How do UAVs inspect the construction sites industry? * 1 point

- A. Save energy and time
- B. Take continuous complex readings of several construction structures
- C. Both (a) and (b)
- D. Option (b) only

13. IoT can help pharmaceutical companies to improve logistics in the pharmaceutical industry by * 1 point

- A. Inspecting the maintenance of medicine and vaccines
- B. Maintenance of machines and equipment
- C. Option (a) only
- D. Both (a) and (b)

14. Resource(s) of automation is/are * 1 point

- A. Control
- B. Monitor
- C. Software Algorithms
- D. All of the above

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15. What is the full form of PMU? *

- A. Pulse measuring unit
- B. Phasor measuring unit
- C. Peak measuring unit
- D. None of the above

16. Smart sensors are defined as the combination of a sensor with _____ *

- A. Signal conditioning
- B. Embedded Algorithms
- C. Digital Interface
- D. All of these

17. Protection from cyber attacks involves protection of * 1 point

- A. Hardware
- B. Software
- C. Data
- D. All of the above

18. Service oriented business models offer utilization, aggregation and analysis of * 1 point

- A. Data
- B. Products
- C. Services
- D. Software

19. Why do we need IIoT? * 1 point

- A. Detecting machine failure
- B. Improving safety
- C. Preventing machine failure
- D. All of the above

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20. Fog computing is *

- A. Complement to Cloud Computing
- B. Replacement of Cloud Computing
- C. Substitution of cloud Computing
- D. None of the above

Submit

Clear form

ANSWERS:

1.A	2.D	3.C	4.B	5.D	6.A	7.B	8.C	9. A	10.B
11.A	12.D	13.D	14.D	15.B	16.D	17.D	18.A	19. D	20.A

PROGRAM CO-ORDINATOR

V. SUJITHA
AP/CSE

COLLEGE OF ENGG. & TECHNOLOGY NATHAM

HoD-CSE

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT"

STUDENT FEEDBACK

Feedback Form Link: https://forms.gle/6ZSZUtY5PUy9G58ZA

NPR College of Engineering & Technology

Certificate course on "INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT" - FEEDBACK FORM

nprcetcse@nprcolleges.org Switch account

* Required

Email *

Your email

Name *

Your answer

Year & Branch *

Your answer

1. Course Content *

- ◯ EXCELLENT
- ◯ GOOD
- ◯ FAIR
- ◯ SATISFACTORY

2. Emphasis on fundamentals *

- ◯ EXCELLENT
- ◯ GOOD
- ◯ FAIR
- ◯ SATIFACTORY

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3. Way of exposed new knowledge and practices *

- ◯ EXCELLENT
- ◯ GOOD
- ◯ FAIR
- ◯ SATISFACTORY

4. Course delivered by Resource Person *

- ◯ EXCELLENT
- ◯ GOOD
- ◯ FAIR
- ◯ SATISFACTORY

5. Overall rating of this course *

- ◯ EXCELLENT
- ◯ GOOD
- ◯ FAIR
- ◯ SATISFACTORY

Any other comments/ suggestions

Your answer

Submit

Clear form

V. Suitha

PROGRAM COORDINATOR

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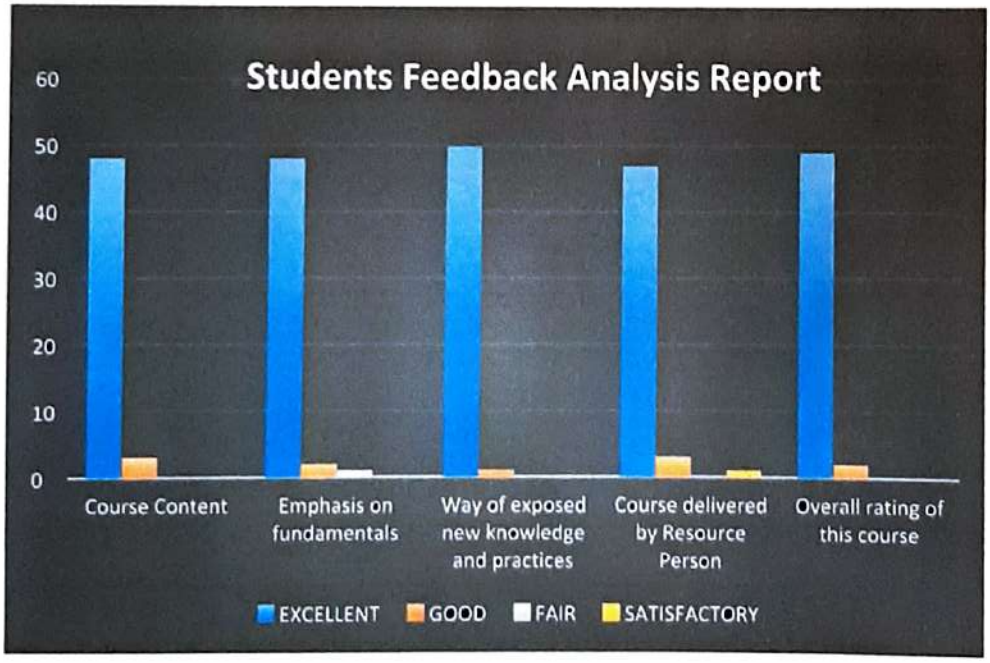
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT"

STUDENTS FEEDBACK ANALYSIS REPORT

REGISTERED STUDENTS: 51 **DATE: 06.11.2020**

S. No	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1.	Course Content	48	3	0	0
2.	Emphasis on fundamentals	48	2	1	0
3.	Way of exposed new knowledge and practices	50	1	0	0
4.	Course delivered by Resource Person	47	3	0	1
5.	Overall rating of this course	49	2	0	0
	Average	48.4	2.2	0.2	0.2



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT"

SUMMARY REPORT

DATE: 06.11.2020

The Department of Computer Science and Engineering organized a Certificate course on **"INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT"** from **29.10.2020 to 04.11.2020 (6 Days)** through **Google Meet.**

On 29.10.2020, Ms. A. Afhran Nisha of II CSE delivered the` welcome address. **Dr. J. Sundararajan, Principal** of our college inaugurated the program and delivered the inaugural address through Google Meet. The Resource person **Mr. N. Roshan Zameer, Project Manager, Go2Group Technologies Pvt Ltd, Chennai** has shared his knowledge and experience in **"Introduction to Industry 4.0 And Industrial IoT"** with our students during the session.

During this course, students gained the knowledge on transformation of industrial processes through the integration of modern technologies such as sensors, communication, and computational processing. He gave an overview about the technologies such as Cyber Physical Systems (CPS), Internet of Things (IoT), Cloud Computing, Machine Learning, and Data Analytics are considered to be the different drivers necessary for the transformation. He also shared about the upcoming job opportunities available in **Industrial IoT** field among the students.

51 Students attended from CSE II, III and IV year classes. Students those have participated and successfully completed the quiz program on **"INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT"** were awarded with certificates through mail.

Ms. Shahitha Rizwana S, III CSE delivered the vote of thanks during the valedictory session.

V. Sujitha

PROGRAM COORDINATOR

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IOT"

COURSE MATERIALS

Material Link:

- https://nptel.ac.in/courses/106/105/106105195/
- https://drive.google.com/file/d/17CPu--DdQHwUGzcbjDdNZbEcvHQ56-Cf/view

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Reach the Star

Department of Computer Science and Engineering

CERTIFICATE OF COMPLETION

We present this certificate to

Ms. JANANI R (II YEAR)

for successful completion of Certificate Course on
"INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IoT"
conducted from 29.10.2020 to 04.11.2020.

HoD/CSE
J.Viswanath

PRINCIPAL
Dr.J.Sundararajan

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Reach the Star

Department of Computer Science and Engineering

CERTIFICATE OF COMPLETION

We present this certificate to

Mr. GURUPRABHU R (IV YEAR)

for successful completion of Certificate Course on
"INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL IoT"
conducted from 29.10.2020 to 04.11.2020.

HoD/CSE
J.Viswanath

PRINCIPAL
Dr.J.Sundararajan

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD-ON COURSE ON "APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION"

INDEX

COURSE CODE & NAME: **21CSAO02&APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION**

ACADEMIC YEAR: 2020 -2021 SEMESTER: EVEN DURATION: 35 HOURS

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PROGRAM COORDINATOR
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Coordinator - IQAC
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PERMISSION LETTER

12.02.2021

From

J.Viswanath,
Head of the Department,
Computer Science and Engineering,
NPR College of Engineering & Technology,
Natham.

To

The Principal,
NPR College of Engineering & Technology,
Natham.

Respected Sir,

Sub: Requisition to conduct add-on course for CSE students – Regarding

We have planned to conduct an add-on course on **"Applied Data Science with Python Specialization"** to our students from 22.02.2021 to 26.02.2021 (5 Days) in our college premises. We suggest **Dr.B.Ezhilavan, Managing Director, VEI Technologies, Chennai** as a resource person for this Add-on course program. Kindly permit us to conduct the same.

Thanking you.

Yours Truly,

NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD-ON COURSE ON "APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION"

RESOURCE PERSON'S PROFILE

NAME	:	Dr.B.Ezhilavan,
DESIGNATION	:	Managing Director
COMPANY NAME	:	VEI Technologies, Chennai
ABOUT RESOURCE PERSON	:	Mr.B.Ezhilavan (VEI Technologies) was awarded with a doctorate by GLOBAL PEACE UNIVERSITY (GAF, USA) on 2nd Oct 2018 for doing enormous social activities by VEI Technologies during the period of 2012 -2018. He has conducted many international conferences, internships, webinars, value-added courses and workshops.

PROGRAM COORDINATOR
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NPRCET/OFF/CSE/VAC/2020– 2021 Date: 16.02.2021

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD-ON COURSE ON "APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION"

CIRCULAR

This is to inform that Department of Computer Science and Engineering hasplanned to conduct Add-on course on **"APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION"** for the students during theend of even semester 2020 – 2021.Interested students can enroll their name to the program coordinator on or before 18.02.2021. The details of the Add-on course program are given below.

RESOURCE PERSON	:	Dr.B.Ezhilavan, Managing Director, VEI Technologies, Chennai
VENUE	:	CSE MainLab
DATE & DURATION	:	22.02.2021 to 27.02.2021 (6 Days)
PROGRAM COORDINATOR	:	Mrs.V.Sujitha AP/CSE

PRINCIPAL
Dr. J.SUNDARARAJAN,
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Copy to:

1. All the HoD*s*
2. Notice Board
3. File
4. Program Coordinator
5. IQAC

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The Management, Principal, Staff and Students
Cordially invite you for the inauguration of

ADD-ON COURSE on

"APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION"

On 22nd February,2021

Venue: MBA Seminar hall (Second Floor) at 9.30 a.m.

Chief Guest

Dr.B.Ezhilavan,
Managing Director,
VEI Technologies, Chennai

Dr.J.Sundararajan
Principal,
NPR College of Engineering & Technology

Felicitates the function

Organized By

Department of Computer Science and Engineering,
NPR College of Engineering and Technology,
NPR Nagar, Natham.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

21CSAO02&APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION

COURSE CONTENT

Day 1 - Chapter 1: Python

1. Environment set-up
2. Jupyter overview
3. Python Numpy
4. Python Pandas
5. Python Matplotlib

Day 2 - Chapter 2: About R Programming

1. An introduction to R
2. Data structures in R
3. Data visualization with R
4. Data analysis with R

Day 3 - Chapter 3: Statistics

1. Important statistical concepts used in data science
2. Difference between population and sample
3. Types of variables
4. Measures of central tendency
5. Measures of variability
6. Coefficient of variance
7. Skewness and Kurtosis

Day 4 - Chapter 5: Regression and Anova

1. Regression
2. ANOVA
3. R square
4. Correlation and causation



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Day 5 - Chapter 6: Exploratory data analysis

1. Data visualization
2. Missing value analysis
3. The correction matrix
4. Outlier detection analysis

Criteriato getCertificate:

1. Students should register their names for this course.
2. Students must have 85% attendance.
3. Student should secure 75% marks in the Exam.

Prepared By: Mrs.J.Prisca Mary
AP/CSE

Approved By,

HoD/CSE
Head of the Department
Department of Computer Science & Engineering
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IQAC

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD-ON COURSE ON "APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION"

REGISTERED STUDENTS NAME LIST

S. No	Register Number	Student Name	Year
1.	920819104002	AfhranNisha A	II Year
2.	920819104004	Akash T	II Year
3.	920819104005	Anandakumar A	II Year
4.	920819104006	Bavithra C	II Year
5.	920819104008	Deva Dharshini N	II Year
6.	920819104009	Divya S	II Year
7.	920819104012	GunaSekar J	II Year
8.	920819104014	HifayaThaqfeen M	II Year
9.	920819104015	Indhumathi V	II Year
10.	920819104016	Janani R	II Year
11.	920819104018	MangalaDharsini R	II Year
12.	920819104021	Monica R	II Year
13.	920819104022	Muthu Kumar P	II Year
14.	920819104024	Nandhini S	II Year
15.	920819104025	Naveen Kumar S	II Year
16.	920819104027	Poornima Devi P	II Year
17.	920819104031	SanthoshPrakash M	II Year
18.	920819104032	Saranya R	II Year
19.	920819104033	Sathya M	II Year
20.	920819104034	Selvambikai N	II Year
21.	920819104035	Selvanjali P	II Year
22.	920819104036	Shajitha Begum M	II Year
23.	920819104037	Sharumathi P	II Year
24.	920818104002	Aravind B	III Year
25.	920818104003	Bhavithra R	III Year
26.	920818104005	Chithra B	III Year
27.	920818104007	Guna Devi I	III Year
28.	920818104009	Hemapriya M	III Year
29.	920818104010	Kamali B	III Year
30.	920818104019	Naveen Raja B	III Year
31.	920818104020	Nivedha R	III Year
32.	920818104021	Nivetha A	III Year
33.	920818104026	Ramya R	III Year
34.	920818104027	Roobika N	III Year
35.	920818104028	Ruthra A	III Year
36.	920818104030	Santhoshini V	III Year
37.	920818104033	Saraniya M	III Year
38.	920818104034	Sathana S	III Year

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39.	920818104038	VijayaBharathi P	III Year
40.	920817104001	Aarthi R	IV Year
41.	920817104002	Abirami M	IV Year
42.	920817104003	Aishwarya A	IV Year
43.	920817104005	Aishwarya R (12-12-1999)	IV Year
44.	920817104006	Aishwerya Sri R	IV Year
45.	920817104007	Ajith Kumar P J K	IV Year
46.	920817104009	Amruthaa Shree R	IV Year
47.	920817104017	Guruprabu R	IV Year
48.	920817104018	Gururaj B	IV Year
49.	920817104021	Kaviya B I	IV Year
50.	920817104026	Logeshwari S	IV Year
51.	920817104028	Manoj K	IV Year

PROGRAM COORDINATOR

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HoD

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD-ON COURSE ON "APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION"

COURSE SCHEDULE

Venue:CSE MainLab **Date:16.02.2021**

External Resource Person:
Dr.B.Ezhilavan

Internal Resource Person:
Mrs.J.Prisca Mary

Day 1 22.02.2021	9.30 a.m. to 10.00 a.m.	Inauguration	
	10. 00 a.m. to 11.10 a.m.	Session 1	Environment set-up **Dr.B.Ezhilavan**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Jupyter overview **Dr.B.Ezhilavan**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Python Numpy **Mrs.J.Prisca Mary**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Python Pandas,Python Matplotlib **Dr.B.Ezhilavan**
Day 2 23.02.2021	9.30 a.m. to 11.10 a.m.	Session 1	An introduction to R **Dr.B.Ezhilavan**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m.to 1.10 p.m.	Session 2	Data structures in R **Mrs.J.Prisca Mary**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Data visualization with R **Dr.B.Ezhilavan**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Data analysis with R **Dr.B.Ezhilavan**
Day 3 24.02.2021	9.30 a.m. to 11.10 a.m.	Session 1	Important statistical concepts used in data science **Dr.B.Ezhilavan**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Difference between population and sample **Dr.B.Ezhilavan**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Types of variables,Measures of variability **Mrs.J.Prisca Mary**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	

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	3.50 p.m. to 4.30 p.m.	Session 4	Measures of central tendency,Coefficient of variance **Dr.B.Ezhilavan**
Day 4 **25.02.2021**	9.30 a.m. to 11.10 a.m.	Session 1	Regression **Dr.B.Ezhilavan**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	ANOVA **Dr.B.Ezhilavan**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	R square **Mrs.J.Prisca Mary**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Correlation and causation **Dr.B.Ezhilavan**
Day 5 **26.02.2021**	9.30 a.m. to 11.10 a.m.	Session 1	Data visualization **Dr.B.Ezhilavan**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Missing value analysis **Dr.B.Ezhilavan**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	The correction matrix **Dr.B.Ezhilavan**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Outlier detection analysis **Dr.B.Ezhilavan**

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD-ON COURSE ON"APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION"

STUDENTS ATTENDANCE

S. NO.	REGISTER NUMBER	STUDENT NAME	YEAR	22.02.2021		23.02.2021		24.02.2021		25.02.2021		26.02.2021	
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1.	920819104002	Afhrannisha A	II	/	/	/	/	/	/	/	/	/	/
2.	920819104004	Akash T	II	/	/	/	/	/	/	/	/	/	/
3.	920819104005	Anandakumar A	II	/	/	/	/	/	/	/	/	/	/
4.	920819104006	Bavithra C	II	a	/	/	/	/	/	/	/	/	/
5.	920819104008	Deva Dharshini N	II	/	/	/	/	/	/	/	/	/	/
6.	920819104009	Divya S	II	/	/	/	/	/	/	/	/	/	/
7.	920819104012	Gunasekar J	II	/	/	/	/	/	/	/	/	/	/
8.	920819104014	Hifayathaqfeen M	II	/	/	/	/	/	/	/	/	/	/
9.	920819104015	Indhumathi V	II	/	/	/	/	/	/	/	/	/	/
10.	920819104016	Janani R	II	/	/	/	/	/	/	/	/	/	/
11.	920819104018	Mangaladharsini R	II	/	/	/	/	/	/	/	/	/	/
12.	920819104021	Monica R	II	/	/	/	/	/	/	/	/	/	/
13.	920819104022	Muthu Kumar P	II	/	/	/	/	/	/	/	/	/	/
14.	920819104024	Nandhini S	II	/	/	/	/	/	a	/	/	/	/
15.	920819104025	Naveen Kumar S	II	/	/	/	/	/	/	/	/	/	/
16.	920819104027	Poornima Devi P	II	/	/	/	/	/	/	/	/	/	/
17.	920819104031	Santhoshprakash M	II	/	/	a	/	/	/	/	/	/	/
18.	920819104032	Saranya R	II	/	/	/	/	/	/	/	/	/	/
19.	920819104033	Sathya M	II	/	/	/	/	/	/	/	/	/	/
20.	920819104034	Selvambikai N	II	/	/	/	/	/	/	/	/	/	/
21.	920819104035	Selvanjali P	II	/	/	/	/	/	/	/	/	/	/
22.	920819104036	Shajitha Begum M	II	/	/	/	/	/	/	/	/	a	/
23.	920819104037	Sharumathi P	II	/	/	/	/	/	/	/	/	/	/
24.	920818104002	Aravind B	III	/	/	/	/	/	/	/	/	/	/
25.	920818104003	Bhavithra R	III	/	/	/	/	/	/	/	/	/	/
26.	920818104005	Chithra B	III	/	/	/	/	/	/	/	/	/	/

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27.	920818104007	Guna Devi I	III	/	/	/	/	/	/	/	/	/	/
28.	920818104009	Hemapriya M	III	/	/	/	/	/	/	/	/	/	/
29.	920818104010	Kamali B	III	/	/	/	/	/	/	/	/	/	/
30.	920818104019	Naveen Raja B	III	a	/	/	/	/	/	/	/	/	/
31.	920818104020	Nivedha R	III	/	/	/	/	/	/	/	/	/	/
32.	920818104021	Nivetha A	III	/	/	/	/	/	/	/	/	/	/
33.	920818104026	Ramya R	III	/	/	a	/	/	/	a	/	/	/
34.	920818104027	Roobika N	III	/	/	/	/	/	/	/	/	/	/
35.	920818104028	Ruthra A	III	/	/	/	/	/	/	/	/	/	/
36.	920818104030	Santhoshini V	III	/	/	a	/	/	/	/	/	/	/
37.	920818104033	Saraniya M	III	/	/	/	/	/	/	/	/	/	/
38.	920818104034	Sathana S	III	/	/	/	/	/	/	/	/	a	/
39.	920818104038	Vijayabharathi P	III	/	/	/	/	/	/	/	/	/	/
40.	920817104001	Aarthi R	IV	/	/	/	/	/	/	/	/	/	/
41.	920817104002	Abirami M	IV	/	/	/	/	/	/	/	/	/	/
42.	920817104003	Aishwarya A	IV	/	/	/	/	/	/	/	/	/	/
43.	920817104005	Aishwarya R (12-12-1999)	IV	/	/	/	/	/	/	/	/	/	/
44.	920817104006	Aishwerya Sri R	IV	/	/	/	/	/	/	/	/	/	/
45.	920817104007	Ajith Kumar P J K	IV	a	/	/	/	/	/	/	/	/	/
46.	920817104009	Amruthaa Shree R	IV	/	/	/	/	/	/	/	/	/	/
47.	920817104017	Guruprabu R	IV	/	/	/	/	/	/	/	/	/	/
48.	920817104018	Gururaj B	IV	/	/	/	/	/	/	a	/	/	/
49.	920817104021	Kaviya B I	IV	/	/	/	/	/	/	/	/	/	/
50.	920817104026	Logeshwari S	IV	/	/	/	/	/	/	/	/	/	/
51.	920817104028	Manoj K	IV	/	/	/	/	/	/	/	/	/	/
PRESENT				48	51	47	51	51	50	49	51	49	51
ABSENTEES				3	-	4	-	-	1	2	-	2	-
COORDINATOR SIGNATURE													

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD-ON COURSE ON "APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION"

QUIZ QUESTION PAPER WITH ANSWER KEY

1.Size attribute in Numpy array in python is used for

A. finding the direction
B.finding the number of items
C.finding the shape
D.All of the above

2. Which type of Programming does Python support?

A. object-oriented programming
B.structured programming
C.functional programming
D.all of the mentioned

3. A correct way to preprocess the data When performing regression or classification is

A. None of the above
B. Normalize the data → PCA → training
C. Normalize the data → PCA → normalize PCA output → training
D. PCA → normalize PCA output → training

4. Data science is the process of diverse set of data through ?

1. Organizing data
2. Processing data
3. Analysing data
4. **All of the above**

5. Which is one of the significant data science skills?

1. Statistics
2. Data Visualization
3. Machine Learning
4. **All of the above**

6.Which of the following statement is true?

1. **The nature of our business problem determines how outliers are used**
2. Outliers is a data point that is significantly close to other data points
3. Outliers should be identified and removed always from a dataset
4. Outliers can never be present in the testing dataset

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7. A perfect negative correlation is signified by _____
   1. 1
   2. -1
   3. 2
   4. **0**

8. Which of the following is the common goal of statistical modeling?
   1. **Inference**
   2. Subsetting
   3. Summarizing
   4. None of the above

9. _____ is the basic data structure of pandas that can be thought of SQL table or a spreadsheet data representation.
   1. Series
   2. List
   3. **Dataframe**
   4. Ndarray

10. The plot method on Series and DataFrame is just a simple wrapper around _____
   A.gplt.plot()
   B.plt.plot()
   C. plt.plotgraph()
   D. none of the mentioned

11. Plots may also be adorned with error bars or tables.
   A. True
   B. False

12._____ plots are used to visually assess the uncertainty of a statistic.
   A. Lag
   B. RadViz
   C. Bootstrap
   D. None of the mentioned

13. Which of the following plots are often used for checking randomness in time series?
   A. Autocausation
   B. Autorank
   C. **Autocorrelation**
   D. None of the mentioned

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14. When conducting an ANOVA, FDATA will always fall within what range?
    A. between negative infinity and infinity
    B. between 0 and 1
    C. between 0 and infinity
    D. between 1 and infinity

15. To determine whether the test statistic of ANOVA is statistically significant, it can be compared to a critical value. What two pieces of information are needed to determine the critical value?
    A. sample size, number of groups
    B. mean, sample standard deviation
    C. expected frequency, obtained frequency
    D. MSTR, MSE

Solutions:

1.B	2.D	3.B	4.D	5.D	6.A	7.D	8.A	9. C	10.B
11.A	12.C	13.C'	14.C	15.C					

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD-ON COURSE ON "APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION"

STUDENT FEEDBACK

Name of the Student : Manoj. K	Year / Semester: IV / 08
Name of the Program: APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION	

S. No	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1.	Course Content		✓		
2.	Way of exposed new knowledge and practices		✓		
3.	Examples Provided during this course		✓		
4.	Course delivered by Resource Person		✓		
5.	Time Management		✓		
6.	Overall rating of this course	✓			
7.	Any Other Comments / Suggestions	An informative useful session for us.			

V. Sujitha

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ADD-ON COURSE ON "APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION"

STUDENT FEEDBACK

Name of the Student : Akash. T	Year / Semester: II / 04
Name of the Program: APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION	

S. No	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1.	Course Content	✓			
2.	Way of exposed new knowledge and practices		✓		
3.	Examples Provided during this course		✓		
4.	Course delivered by Resource Person	✓			
5.	Time Management		✓		
6.	Overall rating of this course	✓			
7.	Any Other Comments / Suggestions	We had an interactive session and will be very useful during interviews			

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ADD-ON COURSE ON "APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION"

STUDENT FEEDBACK

Name of the Student : Aarthi.R	Year / Semester: IV / 08
Name of the Program: APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION	

S. No	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1.	Course Content	✓			
2.	Way of exposed new knowledge and practices		✓		
3.	Examples Provided during this course		✓		
4.	Course delivered by Resource Person	✓			
5.	Time Management		✓		
6.	Overall rating of this course	✓			
7.	Any Other Comments / Suggestions	Good and useful course for all of us.			

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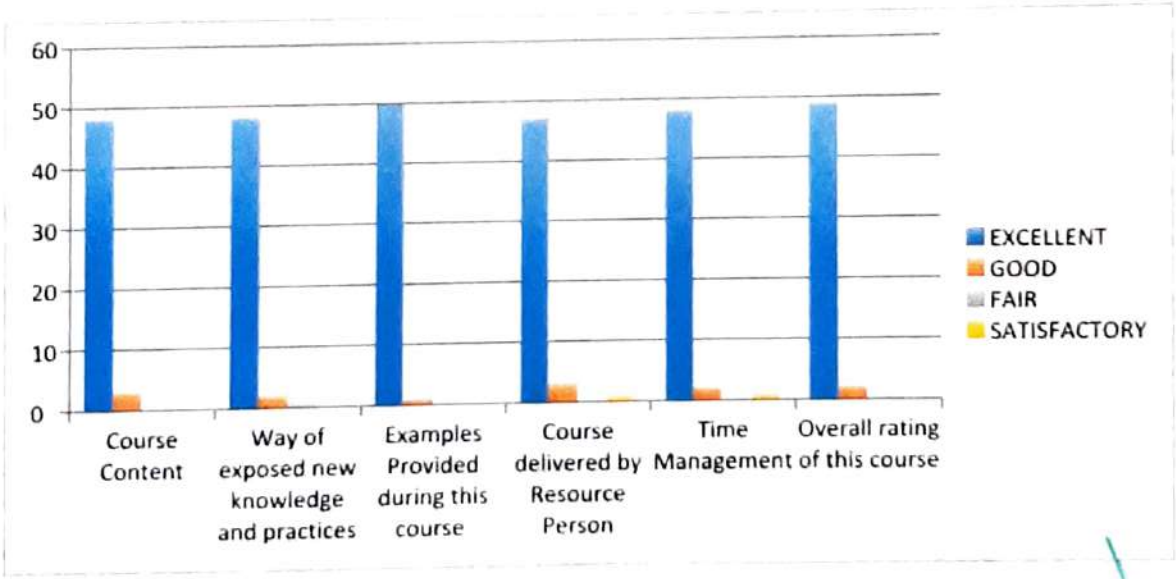
ADD-ON COURSE ON "APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION"

STUDENT FEEDBACK ANALYSISREPORT

Total students who have given feedback: 51

DATE:04.03.2021

S. No	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	48	3	0	0
2.	Way of exposed new knowledge and practices	48	2	1	0
3.	Examples Provided during this course	50	1	0	0
4.	Course delivered by Resource Person	47	3	0	1
5.	Time Management	48	2	0	1
6.	Overall rating of this course	49	2	0	0
	Average	48.33	2.17	0.17	0.33



V. Suj

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD-ON COURSE ON "APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION"

SUMMARY REPORT

DATE: 04.03.2021

The Department of Computer Science and Engineering organized an add-on course on **"APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION"** from 22.02.2021 to 26.02.2021 **(5 Days)** in our college premises.

Mr.A.Anandakumar of IInd year CSE has delivered the welcome address. **Dr. J. Sundararajan, Principal** of our college inaugurated the program and delivered the inaugural address. The Resource person **Dr.B.Ezhilavan, Managing Director, VEI Technologies, Chennai** has shared her knowledge and experience in **"Applied Data Science With Python Specialization"** with our students.

This six days course gave new experience about Data Science and has an overview of the growing field of Data Science and Python. The resource person taught about data manipulation and cleaning techniques using the popular python pandas, data science library and introduction about the abstraction of the Series and Data Frame as the central data structures for data analysis, so that the students will be able to develop their skills in Programming as well as the Data Science field.

The resource person shared the upcoming placement opportunities available in Data Science and Programming field among the students.

51 Students attended from CSE II, III and IV year classes. Students those who have participated and successfully completed the quiz program on **"Applied Data Science With Python Specialization"** has been awarded with certificates.

Ms.Sathana.S from IIIrd year CSE delivered the vote of thanks.

V. Sujitha

PROGRAM COORDINATOR

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD-ON COURSE ON "APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION"

COURSE MATERIALS

Material Link:

Chapter 1: https://www.tutorialspoint.com/android/android_environment_setup.htm

Chapter 2:https://www.tutorialspoint.com/android/android_services.htm

Chapter 3: https://www.tutorialspoint.com/android/android_alert_dialoges.htm

Chapter 4: https://www.javatpoint.com/android-ui-widgets-tutorial

Chapter 5:https://www.udemy.com/courses/personal-development

Course Link:

1. https://www.udemy.com/course/applied-data-science-with-python-specialization-mhm/
2. https://nptel.ac.in/courses/106/106/106106212/
3. https://www.coursera.org/specializations/data-science-python

Further Study:

1. "PYTHON IN DATA SCIENCE All-in-one for Dummies"
2. Practical Statistics for Data Scientists – By Peter Bruce and Andrew Bruce
3. Introduction to Probability – By Joseph K. Blitzstein and Jessica Hwang.
4. Introduction to Machine Learning with Python: A Guide for Data Scientists – By Andreas C. Müller and Sarah Guido.

PROGRAM COORDINATOR
V. SUJITHA
AP/CSE

HoD/CSE
Head of the Department
Department of Computer Science & Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

PRINCIPAL
Dr. J.SUNDARARAJAN, M.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
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NPR COLLEGE OF ENGINEERING & TECHNOLOGY

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Website: www.nprcolleges.org, www.nprcet.org E-mail: nprgi@nprcolleges.org

Department of Computer Science and Engineering

Certificate of Completion

This certificate is presented to

Ms. NANDHINI. S. (II YEAR)

for completing Add-on Course on ***"APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION"*** *from 22.02.2021 to 26.02.2021.*

HoD/CSE
J.Viswanath

PRINCIPAL
Dr.J.Sundararajan

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Department of Computer Science and Engineering

Certificate of Completion

This certificate is presented to

Ms. ARAVIND. B. (III YEAR)

for completing Add-on Course on ***"APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION"*** *from 22.02.2021 to 26.02.2021.*

HoD/CSE
J.Viswanath

PRINCIPAL
Dr.J.Sundararajan

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO MODERN APPLICATION DEVELOPMENT"

INDEX

COURSE CODE & NAME: **20CSCC02 & INTRODUCTION TO MODERN APPLICATION DEVELOPMENT**

ACADEMIC YEAR: 2020 - 2021 SEMESTER: EVEN DURATION: 35 HOURS

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PROGRAM COORDINATOR

C. KALPANA
CAP/CSE

HoD/CSE

Head of the Department
Department of Computer Science & Engineering
College of Engineering & Technology
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IQAC

Coordinator - IQAC
College of Engineering & Technology
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PERMISSION LETTER

2.07.2021

From

J.Viswanath,
Head of the Department,
Computer Science and Engineering,
NPR College of Engineering & Technology,
Natham.

To

The Principal,
NPR College of Engineering & Technology,
Natham.

Respected Sir,

Sub: Requisition to conduct certificate course for CSE students – Regarding

We have planned to conduct a certificate course on **"Introduction to Modern Application Development"** to our students from 12.07.2021 to 16.07.2021 (5 Days) through Google Meet (Online). We suggest **Mr. P. Bharath, Project Manager, Cognizant Technology Solutions Private Ltd, Chennai** as a resource person for this certificate course. Kindly permit us to conduct the same.

Thanking you.

Yours Truly,

NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO MODERN APPLICATION DEVELOPMENT"

RESOURCE PERSON'S PROFILE

Name : Mr. P. Bharath

Designation : Project Manager

Company Name : Cognizant Technology Solutions Pvt Ltd, Chennai.

About Resource Person : He is a resourceful, creative and team-oriented individual with more than 10 years of experience in project management and system development using Internet and Client/Server based technologies. He has an experience in developing and implementing server side programming using Servlets, JSP, JDBC-ODBC and Oracle 9i/11g and client side programming using HTML, DHTML, JavaScript. He has a good experience in Application Servers like IBM Web sphere 4.0/3.5, BEA Web logic 5.1/4.5 and worked in the areas of Deployment. He has a strong application development experience on Windows and Linux. He has a good knowledge in Coding standards and Software Development Life Cycle (SDLC). He has hands on experience with various tools like TOAD (oracle), VSS, Crystal Reports, Jasper IReport and SVN. He used to manage and maintain the production environment, including software release strategies.

PROGRAM COORDINATOR
C.KALPANA
AP/CSE

HOD/CSE
Head of the Department
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NPRCET/OFF/CSE/VAC/2020– 2021

5.07.2021

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO MODERN APPLICATION DEVELOPMENT"

CIRCULAR

This is to inform that Department of Computer Science and Engineering has planned to conduct a Certificate course on **"INTRODUCTION TO MODERN APPLICATION DEVELOPMENT"** for the students during the end of even semester 2020 – 2021. Interested students can enroll their name to the program coordinator on or before 09.07.2021 through WhatsApp. The details of the certificate course are given below.

RESOURCE PERSON	:	Mr. P. Bharath, Project Manager, Cognizant Technology Solutions Pvt Ltd, Chennai.
VENUE	:	Virtual Mode (Google Meet)
DATE & DURATION	:	12.07.2021 to 16.07.2021 & 35 Hours
PROGRAM COORDINATOR	:	Mrs. C. Kalpana, AP/CSE, NPRCET.

REGISTRATION FORM LINK: https://forms.gle/8iP1PdhNdhGYuA8K6

GOOGLE MEET LINK: https://meet.google.com/gyq-uajj-wye

Join Meeting on **12.07.**2020 at 9 a.m.

PRINCIPAL
Dr. J.SUNDARARAJAN,
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Copy to:

1. All the HoDs
2. Notice Board
3. File
4. Program Coordinator
5. IQAC

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The Management, Principal, Staff and Students
Cordially invite you for the inauguration of

Certificate Course

on

"INTRODUCTION TO MODERN APPLICATION DEVELOPMENT"

Date : 12th July, 2021 Time : 9.30 a.m.
Venue : Virtual Mode (Google Meet)
G-Meet Link : https://meet.google.com/gyq-uajj-wve

Chief Guest

Mr. P. BHARATH
Project Manager,
Cognizant Technology Solutions private limited,
Chennai

Dr. J. SUNDARARAJAN
Principal,
NPR College of Engineering & Technology

felicitates the function

Organized By

Department of Computer Science and Engineering,
NPR College of Engineering & Technology,
NPR Nagar, Natham.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO MODERN APPLICATION DEVELOPMENT"

20CSCC02 - INTRODUCTION TO MODERN APPLICATION DEVELOPMENT - COURSE CONTENT

Day 1 – Introduction to the Internet

Introduction to a web-app, Building a web-app, HTML, CSS, client-side Javascript. Illustrative programs on client-side Javascript, Running your own web-server. Networks, Protocols, SSH.

Day 2 – Building your web-app

Introduction about nodejs, Illustrative program on Building a web app with nodejs and using git. Introduction to reverse proxies. Introduction to server-side Javascript. Practical problems on server-side Javascript.

Day 3 – Databases

Introduction to databases, Data modeling and constraints, Interacting with a DBMS, Deeper exploration of a DBMS, Introduction to SQL, Understanding database performance, Transactions and ACID properties, Database security, backup & recovery.

Day 4 – Databases and Security for Web Apps

Analytics & views, Scaling a database, SQL and NoSQL systems. Introduction to security for web apps, Authentication with HTTP, Understanding security and some best practices for webapps, Introduction to authentication, hashing, curl and sessions. Illustrative problems: Connecting your webapp to your database and SQL Injection.

Day 5 – Mobile Application Development

Introduction to mobile apps, Introduction to Mobile Application Development, Introduction to Android, Getting started with Android Application Development, Building custom UI using XML and Logs, Illustrative problems: Building a Blog App, Deploying an app to the Google Playstore, Introduction to iOS, version control using Git.

Criteria to get Certificate:

- Students should register their names for this course.
- Students must have 85% attendance.
- Student should secure 75% marks in the Exam.

Prepared By: Mrs.V. Sujitha, AP/CSE

Approved By,

HoD/CSE
Head of the Department
Department of Computer Science & Engineering
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Coordinator - IQAC
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO MODERN APPLICATION DEVELOPMENT"

REGISTERED STUDENTS NAME LIST

S.No.	Register Number	STUDENT NAME	Year
1.	920819104002	AFHRAN NISHA A	II Year
2.	920819104005	ANANDAKUMAR A	II Year
3.	920819104006	BAVITHRA C	II Year
4.	920819104008	DEVADHARSHINI N	II Year
5.	920819104009	DIVYA S	II Year
6.	920819104014	HIFAYA THAQFEEN M	II Year
7.	920819104015	INDHUMATHI V	II Year
8.	920819104016	JANANI R	II Year
9.	920819104018	MANGALA DHARSHINI R	II Year
10.	920819104021	MONICA R	II Year
11.	920819104024	NANDHINI S	II Year
12.	920819104025	NAVEEN KUMAR S	II Year
13.	920819104027	POORNIMA DEVI P	II Year
14.	920819104030	SAI PRASANTHY N S	II Year
15.	920819104032	SARANYA R	II Year
16.	920819104033	SATHYA M	II Year
17.	920819104034	SELVAMBIKAI N	II Year
18.	920819104035	SELVANJALI P	II Year
19.	920819104036	SHAJITHA BEGUM M	II Year
20.	920819104037	SHARUMATHI P	II Year
21.	920819104037	SIVAPRIYA R	II Year
22.	920819104040	SOUNDHARYA V	II Year
23.	920819104042	SRIVATHS KARTHIC G	II Year
24.	920819104043	SUBHASHINI K	II Year
25.	920819104045	SURYA K	II Year
26.	920819104046	THILAGAVATHY V	II Year
27.	920819104047	THIRISHA P	II Year
28.	920819104050	VAISHALI S	II Year
29.	920818104002	ARAVIND B	III Year
30.	920818104007	GUNA DEVI I	III Year
31.	920818104009	HEMA PRIYA M	III Year
32.	920818104010	KAMALI B	III Year
33.	920818104012	KARTHIGA JOTHI S	III Year
34.	920818104020	NIVEDHA R	III Year
35.	920818104021	NIVETHA A	III Year
36.	920818104026	RAMYA R	III Year
37.	920818104029	SAFRINE BANU S	III Year

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38.	920818104030	SANTHOSHINI V	III Year
39.	920818104033	SARANIYA M	III Year
40.	920818104034	SATHANA S	III Year
41.	920818104035	SHAHITHA RIZWANA S	III Year
42.	920818104036	SHRINITHI M	III Year
43.	920818104038	VIJAYA BHARATHI P	III Year

PROGRAM COORDINATOR
C.KALPANA
AP/CSE

HoD/CSE
Head of the Department
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO MODERN APPLICATION DEVELOPMENT"

COURSE SCHEDULE

Venue: Virtual Mode (Google Meet) - https://meet.google.com/gyq-uajj-wye **Date: 09.07.2021**

External Resource Person
Mr. P. Bharath, Project Manager

Internal Resource Person
Mrs. V. Sujitha, AP/CSE

Day 1 12.07.2021	9.30 a.m. to 10.00 a.m.	*Inauguration*	
	10. 00 a.m. to 11.10 a.m.	Session 1	Introduction to a web-app, Building a web-app **Mr. P. Bharath**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	HTML, CSS, client-side Javascript **Mr. P. Bharath**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Illustrative programs on client-side Javascript, Running your own web-server **Mr. P. Bharath**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Networks, Protocols, SSH **Mrs. V. Sujitha**
Day 2 13.07.2021	9.30 a.m. to 11.10 a.m.	Session 1	Introduction about nodejs, Introduction to reverse proxies. **Mr. P. Bharath**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Introduction to server-side Javascript **Mr. P. Bharath**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Practical problems on server-side Javascript **Mr. P. Bharath**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Illustrative program on Building a web app with nodejs and using git **Mr. P. Bharath**
Day 3 14.07.2021	9.30 a.m. to 11.10 a.m.	Session 1	Introduction to databases, Data modeling and constraints **Mrs. V. Sujitha**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Interacting with a DBMS, Deeper exploration of a DBMS **Mr. P. Bharath**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Introduction to SQL, Understanding database performance **Mr. P. Bharath**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	

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	3.50 p.m. to 4.30 p.m.	Session 4	Transactions and ACID properties, Database security, backup & recovery **Mrs. V. Sujitha**
Day 4 15.07.2021	9.30 a.m. to 11.10 a.m.	Session 1	Analytics & views, Scaling a database, SQL and NoSQL systems **Mr. P. Bharath**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Introduction to security for web apps, Authentication with HTTP, Understanding security and some best practices for webapps **Mrs. V. Sujitha**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Introduction to authentication, hashing, curl and sessions **Mr. P. Bharath**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Illustrative problems: Connecting your webapp to your database and SQL Injection **Mr. P. Bharath**
Day 5 16.07.2021	9.30 a.m. to 11.10 a.m.	Session 1	Introduction to mobile apps, Introduction to Mobile Application Development, Introduction to Android **Mrs. V. Sujitha**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Getting started with Android Application Development, Building custom UI using XML and Logs **Mr. P. Bharath**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Illustrative problems: Building a Blog App, Deploying an app to the Google Playstore **Mr. P. Bharath**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Introduction to iOS, version control using Git **Mr. P. Bharath**
	4.30 p.m. to 5.00 p.m.	*Valedictory*	

PROGRAM COORDINATOR
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO MODERN APPLICATION DEVELOPMENT"

STUDENTS ATTENDANCE

S. No	Register Number	Student Name	Year	12.07.21		13.07.21		14.07.21		15.07.21		16.07.21	
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1.	920819104002	Afhran Nisha A	II	P	P	P	P	P	P	P	P	P	P
2.	920819104005	Anandakumar A	II	P	P	P	P	P	P	P	P	P	P
3.	920819104006	Bavithra C	II	P	P	P	P	P	P	P	P	P	P
4.	920819104008	Devadharshini N	II	P	P	P	P	P	P	P	P	P	P
5.	920819104009	Divya S	II	P	P	P	P	P	P	P	P	P	P
6.	920819104014	Hifaya Thaqfeen M	II	P	P	P	A	P	P	P	P	P	P
7.	920819104015	Indhumathi V	II	P	P	P	P	P	P	P	P	P	P
8.	920819104016	Janani R	II	P	P	P	P	P	P	P	P	P	P
9.	920819104018	Mangala dharshini R	II	P	P	P	P	P	A	P	P	P	P
10.	920819104021	Monica R	II	P	P	P	P	P	P	P	P	P	P
11.	920819104024	Nandhini S	II	P	P	P	P	P	P	P	P	P	P
12.	920819104025	Naveen Kumar S	II	P	P	P	P	P	P	P	A	P	P
13.	920819104027	Poornima Devi P	II	P	P	P	P	P	P	P	P	P	P
14.	920819104030	Sai Prasanthy N S	II	P	P	P	P	P	P	P	P	P	P
15.	920819104032	Saranya R	II	P	P	P	P	P	P	P	P	P	P
16.	920819104033	Sathya M	II	P	P	P	P	P	P	P	P	P	P
17.	920819104034	Selvambikai N	II	P	P	P	P	P	P	P	P	P	P
18.	920819104035	Selvanjali P	II	P	P	P	P	P	P	P	P	P	P
19.	920819104036	Shajitha Begum M	II	P	P	P	P	P	P	P	P	P	P
20	920819104037	Sharumathi P	II	P	P	P	P	P	P	P	P	P	P
21	920819104037	Sivapriya R	II	P	P	P	P	P	P	P	P	P	P
22.	920819104040	Soundharya V	II	P	P	P	P	P	P	P	P	P	P
23.	920819104042	Srivaths Karthic G	II	P	P	P	P	P	P	P	P	P	P
24	920819104043	Subhashini K	II	P	P	P	P	P	P	P	P	P	P
25.	920819104045	Surya K	II	P	P	P	P	P	P	P	P	P	P
26.	920819104046	Thilagavathy V	II	P	P	P	P	P	P	P	P	P	P
27.	920819104047	Thirisha P	II	P	P	P	P	P	P	P	P	P	P

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28	920819104050	Vaishali S	II	/	/	/	/	/	/	/	/	/	/
29	920818104002	Aravind B	III	/	/	/	/	/	/	/	a	/	/
30	920818104007	Guna Devi I	III	/	/	/	/	/	/	/	/	/	/
31	920818104009	Hema Priya M	III	/	/	/	/	/	/	/	/	/	/
32	920818104010	Kamali B	III	/	/	/	/	/	/	/	/	/	/
33	920818104012	Karthiga Jothi S	III	/	/	/	/	/	/	/	/	/	/
34	920818104020	Nivedha R	III	/	/	/	/	/	/	/	/	/	/
35	920818104021	Nivetha A	III	/	/	/	/	/	/	/	/	/	/
36	920818104026	Ramya R	III	/	/	/	a	/	/	/	/	/	/
37	920818104029	Safrine Banu S	III	/	/	/	/	/	/	/	/	/	/
38	920818104030	Santhoshini V	III	/	/	/	/	/	/	/	/	/	/
39	920818104033	Saraniya M	III	/	/	/	/	/	a	/	/	/	/
40	920817104049	Subasri S	IV	/	/	/	/	/	/	/	/	/	/
41	920817104051	Varsha M	IV	/	/	/	/	/	/	/	/	/	/
42	920817104053	Vijaya Shanthi M	IV	/	/	/	/	/	/	/	/	/	/
43	920817104051	Vijayalakshmi S	IV	/	/	/	/	/	/	/	/	/	/
Present				43	43	43	41	43	41	43	41	43	43
Absentees				-	-	-	2	-	2	-	2	-	-
Coordinator Signature													

PROGRAM COORDINATOR
C. KALPANA
AP/CSE

HoD/CSE
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NPR COLLEGE OF ENGG. & TECHNOLOGY • NATHAM

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

20CSCC02 – INTRODUCTION TO MODERN APPLICATION DEVELOPMENT

QUIZ QUESTION PAPER WITH ANSWER KEY

QUIZ LINK: https://forms.gle/3toUHB6RBRojAbTR6

NPR College of Engineering & Technology

INTRODUCTION TO MODERN APPLICATION DEVELOPMENT

nprcetcse@nprcolleges.org Switch account

* Required

Email *

Your email

1. Which of the following cannot act as a web server host? *

- A. Your Laptop
- B. A virtual computer on the cloud (like AWS)
- C. Your TV
- D. Your Smartphone

2. Shared hosting is better than dedicated hosting because *

- A. It has better performance
- B. It typically comes with a dedicated IP
- C. It offers users more control over their server
- D. Shared hosting is cheaper but not better

3. Which of the following statements are true? *

- A. A webapp is a software that lets you access web sites
- B. A webapp is defined as a software that can be downloaded from the web
- C. A webapp is a tool which helps us build websites
- D. A webapp is a software we can use in a web browser

4. Which of the following is/are valid HTTP request methods? *

- A. SEND
- B. POST
- C. RECEIVE
- D. Both A & C
- E. GET
- F. Both B & E



5. Which HTML tag is used to create hyperlink? *

- A. <a>
- B. <href>
- C.
- D. <link>

6. How many ports does a computer have? *

- A. As many as we need
- B. 65536
- C. 65535
- D. 8080

7. What is the main reason the internet is moving towards IPv6? *

- A. IPv4 addresses will run out
- B. IPv4 is slower than IPv6
- C. IPv6 is more secure
- D. IPv6 is cheaper

8. Which SQL statement is used to update a database table schema? *

- A. UPDATE TABLE
- B. ALTER TABLE
- C. CHANGE TABLE
- D. MODIFY TABLE

9. A database index *

- A. Doesn't increase database size
- B. Decreases database size
- C. Doesn't affect database size
- D. None of the above

10. Database normalization doesn't typically *

- A. Reduce number of tables
- B. Reduce chances of data anomalies
- C. Reduce data constraints
- D. Both A & C
- E. Reduce database size



11. Which of the following security attacks are caused due to not sanitizing user input carefully *

- A. XSS
- B. SQL Injection
- C. Man in the middle
- D. DDOS
- E. Both A & B
- F. Both C & D
- G. None of the above

12. How many threads are created by AsyncTask in Android? *

- A. Only one
- B. Two
- C. AsyncTask doesn't have threads
- D. None of the above

13. What is AndroidManifest.xml? *

- A. It has information about layout in an application
- B. It has information about activities in an application
- C. It has all the information about application
- D. None of the above

14. You can shut down an activity by calling its _____ method *

- A. onDestroy()
- B. finishActivity()
- C. finish()
- D. None of the above

15. What is the first method called in the Activity Lifecycle of Android? *

- A. onStart()
- B. onCreate()
- C. onResume()
- D. None of the above



16. What architecture do iOS frameworks use? *

- A. MVVM
- B. MVC
- C. MVP
- D. VIPER

17. Which of the following git commands is used to output the list of commits made on current branch? *

- A. git ls-tree
- B. git status
- C. git commit list
- D. git log

18. Which of these is/are a web server? *

- A. Apache
- B. Django
- C. Tomcat
- D. Redis
- E. Both A & C
- F. Both B & D

19. How many cookies can you save for your web app on a browser? *

- A. 100
- B. 50
- C. Depends on the browser
- D. None of the above

20. XSS exploits vulnerability in the *

- A. network
- B. App Source Code
- C. Browser
- D. Web server Host

Submit Clear form

ANSWERS:

1-C	2-D	3-D	4-F	5-B	6-B	7-A	8-B	9-D	10-D
11-E	12-A	13-C	14-C	15-B	16-B	17-D	18-E	19-C	20-B

PROGRAM COORDINATOR

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO MODERN APPLICATION DEVELOPMENT"

STUDENT FEEDBACK

FEEDBACK FORM LINK: https://forms.gle/FCpmZ6k7A9wiZFcW9

NPR College of Engineering & Technology

Certificate course on "INTRODUCTION TO MODERN APPLICATION DEVELOPMENT"

nprcetcse@nprcolleges.org Switch account

* Required

Email *

Your email

Name *

Your answer

Year & Branch *

Your answer

1. Course Content *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

2. Way of explained new knowledge and practices *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

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3. Examples Provided during this course *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

4. Course delivered by Resource Person *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

5. Time Management *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

6. Overall rating of this course *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

Any other comments/ suggestions

Your answer

Submit

Clear form

PROGRAM COORDINATOR
C. KALPANA
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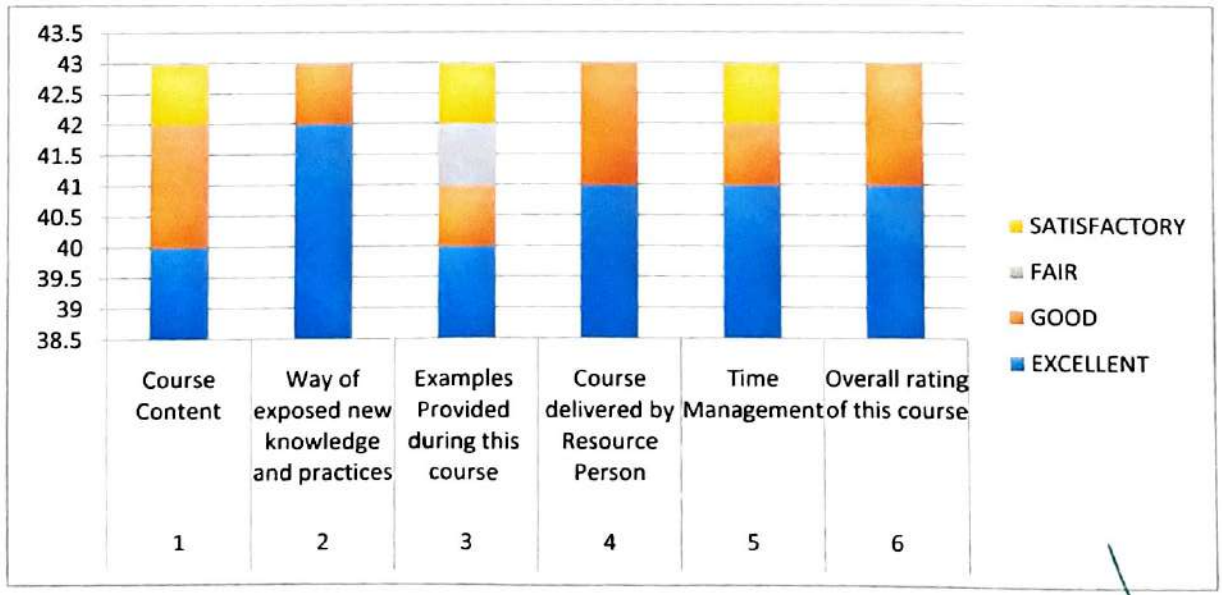
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO MODERN APPLICATION DEVELOPMENT"

STUDENT FEEDBACK ANALYSIS REPORT

REGISTERED STUDENTS: 43 **DATE: 20.07.2021**

S. No	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1.	Course Content	40	2	0	1
2.	Way of exposed new knowledge and practices	42	1	0	0
3.	Examples Provided during this course	40	1	1	1
4.	Course delivered by Resource Person	41	2	0	0
5.	Time Management	41	1	0	1
6.	Overall rating of this course	41	2	0	0
	Average	40.83	1.5	0.17	0.5



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO MODERN APPLICATION DEVELOPMENT"

SUMMARY REPORT

DATE: 20.07.2021

The Department of Computer Science and Engineering has organized a Certificate course on **"INTRODUCTION TO MODERN APPLICATION DEVELOPMENT"** from **12.07.2021 to 16.07.2021 (5 Days)** through **Google Meet**.

Ms. A. Afhran Nisha of II CSE has delivered the welcome address. **Dr. J. Sundararajan,** Principal of our college inaugurated the program and delivered the inaugural address through Google Meet. The Resource person **Mr. P. Bharath, Project Manager, Cognizant Technology Solutions Pvt Ltd, Chennai** has shared his knowledge and experience in **"Introduction to Modern Application Development"** with our students.

This course gave an overview about Application Development using modern technologies. The resource person taught about web technologies and how it will be useful in Application development. He also shared his knowledge about **Android** and **iOS** Mobile Application development and illustrated how to build blog app using Android so that the students able to develop their skills in Mobile Application Development.

The resource person shared the upcoming job opportunities available in Mobile Application Development field among the students.

43 Students attended from CSE II, III and IV year classes and those students who have participated and successfully completed their quiz program on **"INTRODUCTION TO MODERN APPLICATION DEVELOPMENT"** have been awarded with certificates which were sent through mail.

Ms.Sathya M, II CSE delivered the vote of thanks address during valedictory session.

PROGRAM COORDINATOR

C. KALPANA
AP/CSE

HoD/CSE

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE COURSE ON "INTRODUCTION TO MODERN APPLICATION DEVELOPMENT"

COURSE MATERIALS

Material Link:

- https://nptel.ac.in/courses/106/106/106106156/

Books:

- David Herron, "Node.js Web Development", Third Edition, Packt.
- Basarat Ali Syed, "Beginning Node.js", Apress.
- Simon Holmes, "Getting Mean with Mongo,Express, Angular and Node"
- Eric Bush, "Full-Stack Javascript Development: Develop, Test and Deploy with MongoDB, Express, Angular and Node on AWS"
- Greg Lim, "Beginning Node.js, Express and MongoDB Development"

PROGRAM COORDINATOR
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Reach the Star

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Mr. ANANDAKUAMR A (II YEAR)

for successful completion of Certificate Course on
"INTRODUCTION TO MODERN APPLICATION DEVELOPMENT"
conducted from 12.07.2021 to 16.07.2021

HOD-CSE
J.Viswanath

PRINCIPAL
Dr.J.Sundararajan

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Reach the Star

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Ms. DIVYA S (II YEAR)

for successful completion of Certificate Course on
"INTRODUCTION TO MODERN APPLICATION DEVELOPMENT"
conducted from 12.07.2021 to 16.07.2021

HOD-CSE
J.Viswanath

PRINCIPAL
Dr.J.Sundararajan

NPR College of Engineering & Technology

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ADD ON COURSE ON PCB DESIGN USING PSPICE

INDEX

COURSE & COURSE NAME: **20ECAO01-PCB DESIGN USING PSPICE**

ACADEMIC YEAR: **2020-2021** **SEMESTERS: ODD** **DURATION: 35 HOURS**

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PROGRAM COORDINATOR HoD/ECE IQAC PRINCIPAL

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ADD ON COURSE ON PCB DESIGN USING PSPICE

PERMISSION LETTER

From

Dr.S.M.Vijayarajan,

Assistant Professor,

Department of Electronics and Communication Engineering,

NPR College of Engineering & Technology,

Natham.

To

The Principal,

NPR College of Engineering & Technology,

NPR Nagar,

Natham.

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Techn.
Natham, Dindigul (Dt) - 624 401.

Respected Sir,

Sub: Request for permission to conduct Add on Course for ECE students – Reg

We have planned to conduct an Add on Course on"PCB DESIGN USING PSPICE" to our students from 17.08.2020 to21.08.2020 (5 Days) in our department through online mode-Google meet (Due to Covid-19 Pandemic Situation). We have suggested Mr.S.Mervin Prasanth, Electronics Engineer, CPV Technologies Pvt Ltd, Chennai as the External Resource Person for this Add on course. Kindly permit us to conduct the same.

Registration Form Link: https://forms.gle/KjzBHG3LuTyUcmTV8

Google Meet Link: https://meet.google.com/gyg-ykng-pbx

Thanking you.

Yours faithfully,

Dr.S.M.Vijayarajan

Date: 03.08.2020

Place: Natham

Head of the Department
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NPRCET/OFF/ECE/VAC/2020-2021 DATE: 10.08.2020

CIRCULAR

This is to inform that Department of Electronics and Communication Engineering has planned to conduct an Add on course **"PCB DESIGN USING PSPICE"** for the students during the end of this odd semester 2020-2021.Interested students can enroll their name on or before 14.08.2020 through the following registration link.

Registration form link: https://forms.gle/KjzBHG3LuTyUcmTV8

The details of the training program are given below.

COURSE NAME	:	PCB DESIGN USING PSPICE
RESOURCE PERSONS	:	Mr.S.Mervin Prasanth, Electronics Engineer, CPV Technologies Pvt Ltd, Chennai.
MODE	:	Online Mode (Google meet)
DATE & DURATION	:	17.08.2020 to2 1.08.2020 & 35 Hr
PROGRAM COORDINATOR	:	Dr.S.M.Vijayarajan, AP/ECE, NPRCET.

Google Meet Link: https://meet.google.com/gyg-ykng-pbx

Registered students join this link on 17.08.2020 @ 9:00 am.

PRINCIPAL
Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

Copy to:

1. All the HoDs
2. IQAC
3. All the Class Rooms
4. Notice Board
5. File
6. Program Coordinator

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The Management, Principal, Staff and Students

Cordially invite you for the inauguration of

"Add on Course on PCB DESIGN USING PSPICE"

On 17th Aug 2020

Google Meet Link: https://meet.google.com/gyg-ykng-pbx

Chief Guest

Mr.S.Mervin Prasanth

CPV Technologies Pvt Ltd, Chennai

Dr.J.Sundararajan

Principal,

NPR College of Engineering & Technology

Felicitates the function

Online-Mode

(Google meet)

Organized by

Department of Electronics and Communication Engineering,

NPR College of Engineering & Technology,

NPR Nagar, Natham.

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ADD ON COURSE ON PCB DESIGN USING PSPICE

COURSE CONTENT

CHAPTER 1: INTRODUCTION TO CIRCUIT DESIGNING

- Fundamental of circuit design & Creating New Components
- Introduction to Analog Circuit Design &Introduction to Digital Circuit Design
- Placing Symbols and Ports &Labeling components
- Circuit optimization

CHAPTER 2: INTRODUCTION TO PCB DESIGN

- Creating the Blank PCB
- Defining a sheet template
- Printed Circuit Technology
- PCB Printing & Etching process

CHAPTER 3: PROTEUS PCB SCHEMATIC

- Defining the Board Shape & Placement Boundary
- Creating a board outline & placement / routing boundary
- Basic concepts of PCB Designing
- Schematic capture and PSPICE

CHAPTER 4: PROTEUS PCB EDITOR

- Creating and editing parts &Preparing to create a net list
- Exporting and importing schematic data
- PCB Material. &Board Layers, Colors and Grids.
- Defining PWR/GND layers.

CHAPTER 5: DESIGN TRANSFER TO THE PCB AND DESIGN RULE CHECK

- Design synchronization with schematic tool.
- Design transfer using a Net list.
- Design rules concepts.
- Design Rule Checking

CRITERIA TO GET CERTIFICATE:

- Students should register their names for this course
- Students must have **85%** attendance.
- Student should secure **50%** marks in the Exam.

Prepared By: Mr.J.G.Sabarish, AP-ECE

Approved By,

HoD/ECE

Head of the Department
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IQAC

Coordinator - IQAC
NPR College of Engineering & Technology
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ADD ON COURSE ON PCB DESIGN USING PSPICE

REGISTERED STUDENTS

S.NO	REGISTER NUMBER	STUDENT NAME	YEAR
1	920817106006	ARUNPANDIAN.R	IV ECE
2	920817106007	ATCHAYA.R	IV ECE
3	920817106008	BALACHANDAR.S	IV ECE
4	920817106010	BHUVANESHWARI.V	IV ECE
5	920817106015	DEEPALAKSHMI.N	IV ECE
6	920817106016	DEEPIKA.D	IV ECE
7	920817106017	DEVADHARSHINI.R	IV ECE
8	920817106018	DHANALAKSHMI.A	IV ECE
9	920817106019	DHARINI.S	IV ECE
10	920817106021	GAYATHRI.A.K.	IV ECE
11	920817106022	GAYATHRI.I	IV ECE
12	920817106023	GOWRI.M	IV ECE
13	920817106026	ISWARYA.N	IV ECE
14	920817106027	JANAKI.S	IV ECE
15	920817106028	JEEVIDHA RAVEENA.S	IV ECE
16	920817106031	KANMANI.M	IV ECE
17	920817106032	KEERTHANA.B	IV ECE
18	920817106033	KEERTHIKA.K	IV ECE
19	920817106034	MADDHUMITHA.J.A.	IV ECE
20	920817106035	MADHUMITHA.V	IV ECE
21	920817106036	MAHESH BOOPATHI.K	IV ECE
22	920817106037	MANIKANDAN.T.S	IV ECE
23	920817106039	MEENA VISHALI.M.G	IV ECE
24	920817106040	MOHANAPRIYA.M	IV ECE
25	920817106041	MOHANAPRIYA.S	IV ECE
26	920817106042	MOHANKUMAR.M.K	IV ECE
27	920817106044	NIVETHA.K	IV ECE
28	920817106045	PALANIKUMAR.P	IV ECE
29	920817106047	POOJA.G.S.	IV ECE
30	920817106058	SELVAMANI.K.K	IV ECE
31	920817106059	SHANMUGAPRIYA.C	IV ECE
32	920817106060	SHEMA.S	IV ECE
33	920817106061	SHIFA PARVEEN.S	IV ECE
34	920817106063	SIVARANJANI.C	IV ECE
35	920817106064	SOUNDARIYA.V	IV ECE
36	920817106065	SOWLASH KUMAR.G	IV ECE
37	920817106066	SRIDHARSHINI.T	IV ECE
38	920817106068	SRIRAM.G	IV ECE
39	920817106069	SUJITHA.M	IV ECE
40	920817106070	SURYAKALA.V	IV ECE
41	920817106071	TAMILSELVI.S	IV ECE
42	920817106072	THANGAKALYANI.KS	IV ECE
43	920817106073	THARALAKSHMI.S	IV ECE

44	920818106004	BLESSING.X (H)	III ECE
45	920818106005	DHARSHINI.V	III ECE
46	920818106007	DURGADEVI.B	III ECE
47	920818106008	DURGADEVI.S (H)	III ECE
48	920818106009	HARIPRIYA.M	III ECE
49	920818106010	ILAKKIYA.B	III ECE
50	920818106011	JAYA PRATHAP.S	III ECE
51	920818106012	JEYARAJ.S	III ECE
52	920818106013	KIRUTHIKA.R	III ECE
`53	920818106014	MANOJ PRABHAKAR,.V	III ECE
54	920818106016	MUKESH KANNA.G	III ECE
55	920818106017	MUTHU VIGNESH.M	III ECE
56	920818106018	NISHA.M	III ECE
57	920818106019	NIVETHA.K.S	III ECE
58	920818106020	PONBHARATHI.V	III ECE
59	920818106022	PUGALARASU.S	III ECE
60	920818106031	SOWMIYA.P	III ECE
61	920818106032	SREE RAGA SUDHA.K	III ECE
62	920818106033	SURYA PRAKASH.V.M	III ECE
63	920818106035	SWETHA.M	III ECE
64	920818106036	VARSHIINI.B	III ECE
65	920818106037	VENNILA.A	III ECE
66	920818106038	VIGNESH.R	III ECE
67	920819106004	AMIZHTHAA B	II ECE
68	920819106006	ARAVINTH RAJ K	II ECE
69	920819106007	ASMA ROSHAN T	II ECE
70	920819106008	BALAJI M	II ECE
71	920819106009	BALAJI M	II ECE
72	920819106010	BLESSY JEBAMANI G	II ECE
73	920819106011	CHRISTIYA I	II ECE
74	920819106042	PAVITHRA N	II ECE
75	920819106043	PORKODI S	II ECE
76	920819106044	POWSIKA DEVI K	II ECE
77	920819106045	PRABHU C	II ECE
78	920819106046	PRASANNA D	II ECE
79	920819106048	RAMVIGNHESH R P	II ECE
80	920819106049	RENUGA DEVI N	II ECE
81	920819106050	RIFAYA S	II ECE
82	920819106051	RISHWANA BURVEEN S	II ECE
83	920819106052	SANO NISHA N	II ECE
84	920819106053	SARAN G V	II ECE
85	920819106054	SASMITHA PARVEEN K	II ECE
86	920819106055	SHAM HIRUTHIK R	II ECE
87	920819106056	SHARAN S	II ECE
88	920819106057	SHARMILA DEVI G	II ECE
89	920819106058	SHINY RESHMA J	II ECE
90	920819106059	SINGARABRINDHA N	II ECE
91	920819106060	SNEHA P	II ECE
92	920819106061	SOUNDHARYA S	II ECE
93	920819106062	SUMUGAPRIYA M	II ECE

94	920819106063	THAMBI DURAI P K	II ECE
95	920819106064	THARSHITHA	II ECE

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ADD ON COURSE ON PCB DESIGN USING PSPICE

COURSE SCHEDULE

Mode-Online (Google meet): https://meet.google.com/gyg-ykng-pbx **Date: 14.08.2020**

EXTERNAL RESOURCE PERSON:
1 Mr.S.Mervin Prasanth

INTERNAL RESOURCE PERSONS:
1.Mr.J.G.Sabarish,AP-ECE
2.Mrs.C.Kannika Parameshwari,AP-ECE

Day 1 17.08.2020	9.30 a.m.to 10.00 a.m.	**Inauguration**	
	10. 00 a.m. to 11.10 a.m.	Session 1	Fundamentals of circuit design & Creating New Components **Mr.S.Mervin Prasanth**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Introduction to Analog Circuit Design &Introduction to Digital Circuit Design **Mr.J.G.Sabarish**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Placing Symbols and Ports & Labeling components **Mrs.C.Kannika Parameshwari**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Circuit optimization **Mr.S.Mervin Prasanth**

Day 2 18.08.2020	9.30 a.m.to 11.10 a.m.	Session 1	Creating the Blank PCB **Mr.S.Mervin Prasanth**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Defining a sheet template **Mr.J.G.Sabarish**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Printed Circuit Technology **Mr.J.G.Sabarish**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	PCB Printing & Etching process **Mrs.C.Kannika Parameshwari**



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Day 3 19.08.2020	9.30 a.m.to 11.10 a.m.	Session 1	Defining the Board Shape & Placement Boundary **Mr.S.Mervin Prasanth**
	11.10 a.m. to 11.30 a.m.	Tea Break	
	11.30 a.m. to 1.10 p.m.	Session 2	Creating a board outline & placement / routing boundary **Mr.S.Mervin Prasanth**
	1.10 p.m. to 2.00 p.m.	Lunch Break	
	2.00 p.m. to 3.40 p.m.	Session 3	Basic concepts of PCB Designing **Mrs.C.Kannika Parameshwari**
	3.40 p.m. to 3.50 p.m.	Tea Break	
	3.50 p.m. to 4.30 p.m.	Session 4	Schematic capture and PSPICE **Mrs.C.Kannika Parameshwari**
Day 4 20.08.2020	9.30 a.m.to 11.10 a.m.	Session 1	Creating and editing parts &Preparing to create a net list **Mr.J.G.Sabarish**
	11.10 a.m. to 11.30 a.m.	Tea Break	
	11.30 a.m. to 1.10 p.m.	Session 2	Exporting and importing schematic data **Mr.S.Mervin Prasanth**
	1.10 p.m. to 2.00 p.m.	Lunch Break	
	2.00 p.m. to 3.40 p.m.	Session 3	PCB Material. & Board Layers, Colors and Grids **Mr.S.Mervin Prasanth**
	3.40 p.m. to 3.50 p.m.	Tea Break	
	3.50 p.m. to 4.30 p.m.	Session 4	Defining PWR/GND layers. **Mrs.C.Kannika Parameshwari**
Day 5 21.08.2020	9.30 a.m.to 11.10 a.m.	Session 1	Design synchronization with schematic tool. **Mr.S.Mervin Prasanth**
	11.10 a.m. to 11.30 a.m.	Tea Break	
	11.30 a.m. to 1.10 p.m.	Session 2	Design transfer using a Net list. **Mr.J.G.Sabarish**
	1.10 p.m. to 2.00 p.m.	Lunch Break	
	2.00 p.m. to 3.40 p.m.	Session 3	Design rules concepts. **Mrs.C.Kannika Parameshwari**
	3.40 p.m. to 3.50 p.m.	Tea Break	
	3.50 p.m. to 4.30 p.m.	Session 4	Design Rule Checking **Mr.S.Mervin Prasanth**
	4.30 p.m. to 5.00 p.m.	**Valedictory**	

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ADD ON COURSE ON PCB DESIGN USING PSPICE

STUDENT ATTENDANCE

S.NO	ROLL.NO.	STUDENT NAME	YEAR	17.08.20		18.08.20		19.08.20		20.08.20		21.08.20	
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1	20ECAO01001	ARUNPANDIAN.R	IV										
2	20ECAO01002	ATCHAYA.R	IV										
3	20ECAO01003	BALACHANDAR.S	IV	AB	AB								
4	20ECAO01004	BHUVANESHWARI.V	IV										
5	20ECAO01005	DEEPALAKSHMI.N	IV										
6	20ECAO01006	DEEPIKA.D	IV										
7	20ECAO01007	DEVADHARSHINI.R	IV										
8	20ECAO01008	DHANALAKSHMI.A	IV										
9	20ECAO01009	DHARINI.S	IV										
10	20ECAO01010	GAYATHRI.A.K.	IV										
11	20ECAO01011	GAYATHRI.I	IV										
12	20ECAO01012	GOWRI.M	IV										
13	20ECAO01013	ISWARYA.N	IV										
14	20ECAO01014	JANAKI.S	IV										
15	20ECAO01015	JEEVIDHA RAVEENA.S	IV										
16	20ECAO01016	KANMANI.M	IV										
17	20ECAO01017	KEERTHANA.B	IV										
18	20ECAO01018	KEERTHIKA.K	IV										
19	20ECAO01019	MADDHUMITHA.J.A.	IV										
20	20ECAO01020	MADHUMITHA.V	IV										
21	20ECAO01021	MAHESH BOOPATHI.K	IV										
22	20ECAO01022	MANIKANDAN.T.S	IV										
23	20ECAO01023	MEENA VISHALI.M.G	IV										

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24	20ECAO01024	MOHANAPRIYA.M	IV										
25	20ECAO01025	MOHANAPRIYA.S	IV										
26	20ECAO01026	MOHANKUMAR.M.K	IV										
27	20ECAO01027	NIVETHA.K	IV										
28	20ECAO01028	PALANIKUMAR.P	IV										
29	20ECAO01029	POOJA.G.S.	IV										
30	20ECAO01030	SELVAMANI.K.K	IV										
31	20ECAO01031	SHANMUGAPRIYA.C	IV										
32	20ECAO01032	SHEMA.S	IV										
33	20ECAO01033	SHIFA PARVEEN.S	IV										
34	20ECAO01034	SIVARANJANI.C	IV										
35	20ECAO01035	SOUNDARIYA.V	IV										
36	20ECAO01036	SOWLASH KUMAR.G	IV			AB	AB						
37	20ECAO01037	SRIDHARSHINI.T	IV										
38	20ECAO01038	SRIRAM.G	IV										
39	20ECAO01039	SUJITHA.M	IV										
40	20ECAO01040	SURYAKALA.V	IV										
41	20ECAO01041	TAMILSELVI.S	IV										
	20ECAO01042	THANGAKALYANI.KS	IV										
43	20ECAO01043	THARALAKSHMI.S	IV										
44	20ECAO01044	BLESSING.X	III										
45	20ECAO01045	DHARSHINI.V	III										
46	20ECAO01046	DURGADEVI.B	III										
47	20ECAO01047	DURGADEVI.S	III										
48	20ECAO01048	HARIPRIYA.M	III										
49	20ECAO01049	ILAKKIYA.B	III										
50	20ECAO01050	JAYA PRATHAP.S	III										
51	20ECAO01051	JEYARAJ.S	III			AB	AB						

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52	20ECAO01052	KIRUTHIKA.R	III										
53	20ECAO01053	MANOJ PRABHAKAR.V	III										
54	20ECAO01054	MUKESH KANNA.G	III					AB	AB				
55	20ECAO01055	MUTHU VIGNESH.M	III										
56	20ECAO01056	NISHA.M	III										
57	20ECAO01057	NIVETHA.K.S	III										
58	20ECAO01058	PONBHARATHI.V	III										
59	20ECAO01059	PUGALARASU.S	III										
60	20ECAO01060	SOWMIYA.P	III										
61	20ECAO01061	SREE RAGA SUDHA.K	III										
62	20ECAO01062	SURYA PRAKASH.V.M	III										
63	20ECAO01063	SWETHA.M	III										
64	20ECAO01064	VARSHIINI.B	III										
65	20ECAO01065	VENNILA.A	III										
66	20ECAO01066	VIGNESH.R	III										
67	20ECAO01067	AMIZHTHAA B	II										
68	20ECAO01068	ARAVINTH RAJ K	II										
69	20ECAO01069	ASMA ROSHAN T	II										
70	20ECAO01070	BALAJI M	II										
71	20ECAO01071	BALAJI M	II										
72	20ECAO01072	BLESSY JEBAMANI G	II										
73	20ECAO01073	CHRISTIYA I	II										
74	20ECAO01074	PAVITHRA N	II										
75	20ECAO01075	PORKODI S	II										
76	20ECAO01076	POWSIKA DEVI K	II										
77	20ECAO01077	PRABHU C	II										
78	20ECAO01078	PRASANNA D	II										
79	20ECAO01079	RAMVIGNHESH R P	II										

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80	20ECAO01080	RENUGA DEVI N	II	\	\	\	\	\	\	\	\	\	\
81	20ECAO01081	RIFAYA S	II	\	\	\	\	\	\	\	\	\	\
82	20ECAO01082	RISHWANA BURVEEN S	II	\	\	\	\	\	\	\	\	\	\
83	20ECAO01083	SANO NISHA N	II	\	\	\	\	\	\	\	\	\	\
84	20ECAO01084	SARAN G V	II	\	\	\	\	\	\	\	\	\	\
85	20ECAO01085	SASMITHA PARVEEN K	II	\	\	\	\	\	\	\	\	\	\
86	20ECAO01086	SHAM HIRUTHIK R	II	\	\	\	\	\	\	\	\	AB	AB
87	20ECAO01087	SHARAN S	II	\	\	\	\	\	\	\	\	\	\
88	20ECAO01088	SHARMILA DEVI G	II	\	\	\	\	\	\	\	\	\	\
89	20ECAO01089	SHINY RESHMA J	II	\	\	\	\	\	\	\	\	\	\
90	20ECAO01090	SINGARABRINDHA N	II	\	\	\	\	\	\	\	\	\	\
91	20ECAO01091	SNEHA P	II	\	\	\	\	\	\	\	\	\	\
92	20ECAO01092	SOUNDHARYA S	II	\	\	\	\	\	\	\	\	\	\
93	20ECAO01093	SUMUGAPRIYA M	II	\	\	\	\	\	\	\	\	\	\
94	20ECAO01094	THAMBI DURAI P K	II	\	\	\	\	\	\	\	\	\	\
95	20ECAO01095	THARSHITHA	II	\	\	\	\	\	\	\	\	\	\
			PRESENT		94	94	93	93	94	94	95	95	94	94
			ABSENT		01	01	02	02	01	01	—	—	01	01
			COORDINATOR SIGNATURE											

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ADD ON COURSE ON PCB DESIGN USING PSPICE

20ECAO01-PCB DESIGN USING PSPICE- QUIZ SAMPLE QUESTION PAPER & ANSWERS

1). Which among the below mentioned packages does not belong to the category of 'Small Outline Package'?

a. SO
b. SOP
c. SOT
d. SON

2) Which type of solder ability testing is carried out for the generation of solder sample due to immersion of wire or sheet metal specimen in a bath of molten solder?

a. Solder Bath Testing
b. Meniscus Rise Testing
c. Solder Iron Testing
d. None of the above

3) Which among the below stated soldering methods is also renowned as 'High Frequency Resistance Soldering'?

a. Iron Soldering
b. Furnace Soldering
c. Torch Soldering
d. Electrical Soldering

4) Which among the below mentioned approaches belongs to the category of In-circuit Testing?

a. Impedance Testing
b. Component Testing
c. Apply Signal and check output
d. All of the above

5) High current circuits are purposely located or placed near the edge of PCB in accordance to the supply lines for _____

a. Removal of heat
b. Isolation of stray current
c. Reduction of path length
d. All of the above

6) What is/are the necessity/ies to provide guarding to precision differential amplifiers?
a. To increase leakage resistance
b. To reduce capacitance between signal conductors & ground
c. Both a and b
d. None of the above

7) Which phenomenon is not reduced by the circuit paths of lowest impedances especially provided by power and return planes for shielding purposes?

a. Radiation
b. Convection
c. Noise
d. Crosstalk

8) Which among the below specified assertions is not a grounding consideration associated with ADC as well as DAC?

a. Analog side to analog ground
b. Digital side to digital ground
c. Use of separate power supply and connection of their ground leads to single point reference
d. Reduction of inductive loop area between power and return traces

9) Which among the below stated devices/equipments are preferred for elimination of ground and supply line noise especially in TTL/CMOS / ECL PCB designing?

a. Coupling capacitor
b. Decoupling capacitor
c. Snubber circuits
d. All of the above

10) Which among the below mentioned assertions is not a way of cross-talk reduction while designing digital PCBs?

a. Decrease in the distance between conductors
b. Shielding of clock lines with guard strips
c. Reduction in the loop area of circuits
d. Avoid running of parallel traces for longer distances especially for asynchronous signals

ANSWERS:

1) D 2) B 3) D 4) D 5) A 6) C 7) B 8) D 9) B 10) A

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NPR Nagar, Natham, Dindigul - 624401, Tamil Nadu, India.
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai.
An ISO 9001:2015 Certified Institution.
Phone No: 04544- 246 500, 246501, 246502.
Website : www.nprcolleges.org, www.nprcet.org, Email:nprcetprincipal@nprcolleges.org

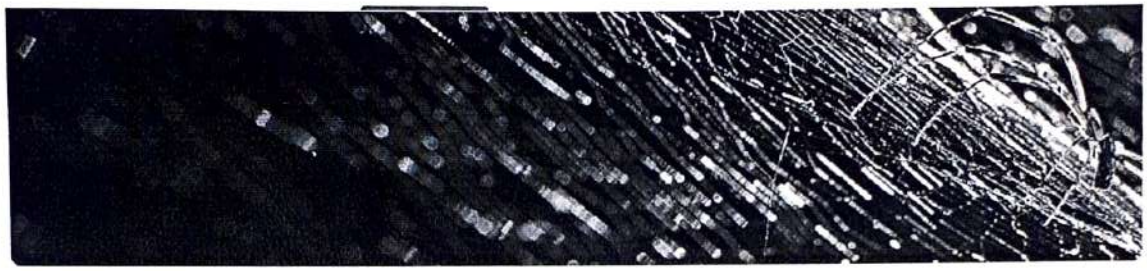
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ADD ON COURSE ON PCB DESIGN USING PSPICE

20ECAO01-PCB DESIGN USING PSPICE- QUIZ SAMPLE QUESTION

QUIZ LINK: https://forms.gle/KW3H9Mr7jzgZuQcB7

SAMPLE ANSWER SHEET:



Section 1 of 4

NPR COLLEGE OF ENGINEERING AND TECHNOLOGY, DINDIGUL.

ADD ON COURSE-PCB DESIGN USING PSPICE (17.08.2020 to 21.08.2020)

Email *

Valid email address

This form is collecting email addresses. Change settings

QUIZ QUESTIONS

Description (optional)

1.Which among the below mentioned packages doesn't belong to the category of Small Outline Package? *

- SO
- SOP
- SOT
- SON

PROGRAM COORDINATOR

HOD/ECE

Head of the Department
Department of Electronics & Communication Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ADD ON COURSE ON PCB DESIGN USING PSPICE

STUDENT FEEDBACK

FEEDBACK FORM LINK: https://forms.gle/L6bT4QmmUK2K4CQUA

NPR College of Engineering & Technology, Dindigul.

FEED BACK FORM-ADD ON COURSE-PCB DESIGN USING PSPICE

sabarish@nprcolleges.org Switch account

* Required

Email *

Your email

Register No. *

Your answer

COLLEGE OF ENGG. & TECHNOLOGY NATHAM NPR

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Course Content *

- ○ Excellent
- ○ Good
- ○ Fair
- ○ Satisfactory

Way of exposed new knowledge and practices *

- ○ Excellent
- ○ Good
- ○ Fair
- ○ Satisfactory

Examples Provided during this course *

- ○ Excellent
- ○ Good
- ○ Fair
- ○ Satisfactory

Course delivered by Resource Person *

- ○ Excellent
- ○ Good
- ○ Fair
- ○ Satisfactory

PROGRAM COORDINATOR

HoD/ECE

Head of the Department
Department of Electronics & Communication Engineering
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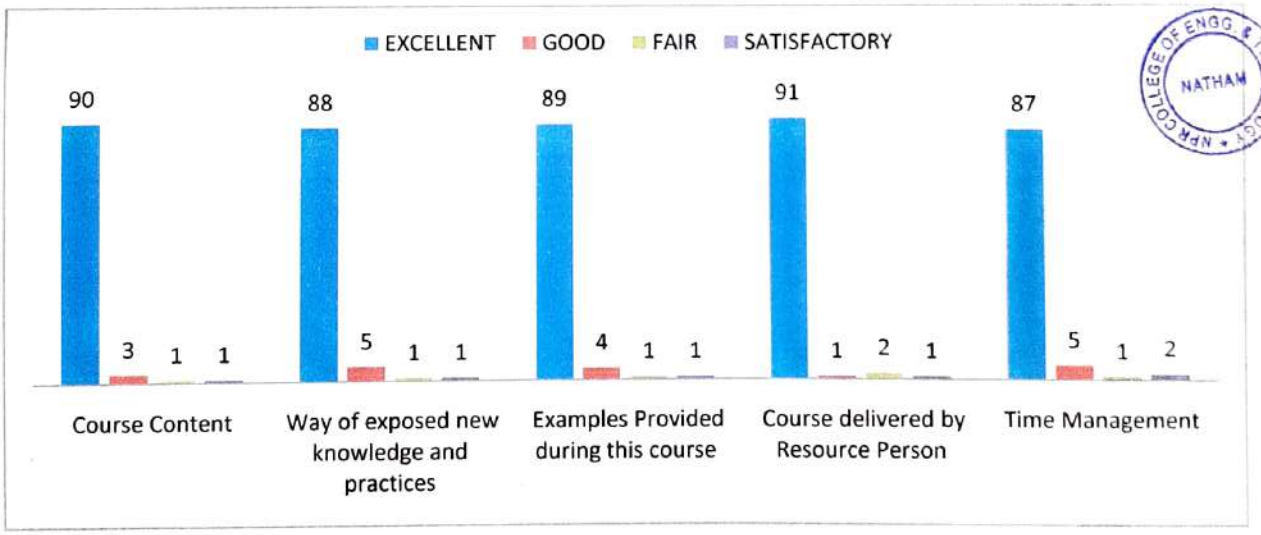
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ADD ON COURSE ON PCB DESIGN USING PSPICE

STUDENT FEEDBACK ANALYSIS REPORT

TOTAL STRENGTH: 95 **DATE: 23.08.2020**

S.NO.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1.	Course Content	90	3	1	1
2.	Way of exposed new knowledge and practices	88	5	1	1
3.	Examples Provided during this course	89	4	1	1
4.	Course delivered by Resource Person	91	1	2	1
5.	Time Management	87	5	1	2
6.	Average	89	3.6	1.2	1.2



PROGRAM COORDINATOR HoD/ECE PRINCIPAL

Head of the Department
Department of Electronics & Communication Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D.,
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ADD ON COURSE ON PCB DESIGN USING PSPICE

SUMMARY REPORT

The Department of Electronics and Communication Engineering organized an Add on Course program on "PCB DESIGN USING PSPICE" from 17.08.2020 to 21.08.2020 (5 Days) through the Google meet.

Ms.S.Janaki, IV ECE delivered the welcome address during the inauguration function.

Dr.J.Sundararajan, Principal of our college inaugurated the program and delivered the inaugural address.

Resource Person Mr.S.Mervin Prasanth shared his knowledge with our students. This program also taught the fundamentals and principles of components on PCB are the semiconductor devices that together allow you to perform specific design actions (filtering, amplification etc) Components are either through-hole technology (THT) components or surface mount devices (SMD). THT parts are generally larger in size and were ubiquitous in design until the late 1980's when SMD parts became more widely used. THT have longer pins that are basically inserted into drilled holes and soldered one-by-one onto the PCB. SMD parts are (generally) much smaller in size and allow you to solder much smaller leads to the surface of a PCB. By having the SMD parts soldered to the surface of a PCB, engineers can attach parts to either surface (top or bottom) of a PCB, rather than having to solder through-hole parts.

95 Students attended from ECE II, III and IV year classes. Students who participated and successfully completed the Quiz program were awarded with certificates.

Ms.A.Vennila, III ECE delivered the vote of thanks.

PROGRAM CO ORDINATOR

HoD/ECE

Head of the Department
Department of Electronics & Communication Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

PRINCIPAL

Dr. J.SUNDARARAJAN
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ADD ON COURSE ON PCB DESIGN USING PSPICE

COURSE MATERIAL

MATERIAL LINK:

CHAPTER-1: https://www.circuitstoday.com/pcb-manufacturing-process
CHAPTER-2: https://resources.pcb.cadence.com/blog/2019
CHAPTER-3: http://vlab.amrita.edu/?sub=3&brch=106&sim=241&cnt=1
CHAPTER-4: https://www.pcbcart.com/article/content/PCB-manufacturing-process.html
CHAPTER-5: https://www.tronicszone.com/blog/steps-pcb-design-manufacturing/

FURTHER STUDY:

1. *"Make Your Own PCBs with EAGLE: From Schematic Designs to Finished Boards (Electronics)" by Simon Monk*
2. *"PCB Design: Printed Circuit Board" by Michael Dsouza and Dsouza Michael*
3. *"OSCAD: An Open Source EDA Tool for Circuit Design, Simulation, Analysis and PCB Design" by Save Yogesh*
4. *"PCB Design Using AutoCAD (EDN Series for Design Engineers)" by Chris Schroeder*
5. *"Complete PCB Design Using OrCAD Capture and PCB Editor" by Kraig Mitzner*
6. *"PCB Design in EAGLE – Part 1: Learn about EAGLE's user interface, adding parts, schematics, and more!" by Andy Artes*
7. *"Designing Circuit Boards with EAGLE: Make High-Quality PCBs at Low Cost" by Matthew Scarpino*

PROGRAM COORDINATOR **HoD/ECE** **PRINCIPAL**

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Department of Electronics & Communication Engineering
NPR College of Engineering & Technology
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Ms. M. SWETHA, III ECE

For successful completion of Add on course on
"PCB DESIGN USING PSPICE"
Conducted from 17.08.20 to 21.08.20(5 days)

HOD-ECE
Dr.A.GOPISAMINATHAN

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

PRINCIPAL
Dr.J.SUNDARARAJAN

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Ms. G.S. Pooja, IV ECE

For successful completion of Add on course on
"PCB DESIGN USING PSPICE"
Conducted from 17.08.20 to 21.08.20(5 days)

HOD-ECE
Dr.A.GOPISAMINATHAN

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
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PRINCIPAL
Dr.J.SUNDARARAJAN

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Ms. D. Deepika, IV ECE

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Conducted from 17.08.20 to 21.08.20(5 days)

HOD-ECE
Dr.A.GOPISAMINATHAN

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PRINCIPAL
Dr.J.SUNDARARAJAN

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Mr. M. Balaji, II ECE

For successful completion of Add on course on
"PCB DESIGN USING PSPICE"
Conducted from 17.08.20 to 21.08.20(5 days)

HOD-ECE
Dr.A.GOPISAMINATHAN

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
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Natham, Dindigul (Dt.) - 624 401

PRINCIPAL
Dr.J.SUNDARARAJAN

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Mr. G.V. Saran, II ECE

For successful completion of Add on course on
"PCB DESIGN USING PSPICE"
Conducted from 17.08.20 to 21.08.20(5 days)

HOD-ECE
Dr.A.GOPISAMINATHAN

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
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Natham, Dindigul (Dt) - 624 401.

PRINCIPAL
Dr.J.SUNDARARAJAN

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON LAB VIEW

INDEX

COURSE CODE & NAME: **20ECCC02-LAB VIEW**

ACADEMIC YEAR: **2020-2021** SEMESTER: **ODD** DURATION: **36 HOURS**

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PROGRAM COORDINATOR HoD/ECE IQAC PRINCIPAL

Head of the Department
Department of Electronics & Communication Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

Coordinator - IQAC
NPR College of Engineering & Technology
Natham, Dindigul (Dt)-624 401.

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON LAB VIEW

PERMISSION LETTER

From

Mr.J.G.Sabarish,

Assistant Professor,

Department of Electronics and Communication Engineering,

NPR College of Engineering & Technology,

Natham-624 401

To

The Principal,

NPR College of Engineering and Technology,

Natham-624 401

Head of the Department
Department of Electronics & Communication Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

Respected Sir,

Sub: Request for permission to conduct certificate course for ECE students – Reg

We have planned to conduct certificate course on "LAB VIEW" to our students from 02.11.2020 to 06.11.2020 (5 Days) in our department through online mode-Google meet (Due to Covid-19 Pandemic Situation). We have suggested Mr.K.Rajesh Kannan, Design Engineer, Microchip Technology Inc, Chennai as the External Resource Person for this certificate course. Kindly permit us to conduct the same.

Registration form link: https://forms.gle/Mc75RhuP6c3HmVvv8

Google Meet Link: https://meet.google.com/zkb-bqkh-vqw

Thanking you

Yours faithfully,

Date: 19.10.2020

Place: Natham

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
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NPRCET/OFF/ECE/VAC/2020-2021 DATE: 26.10.2020

CIRCULAR

This is to inform that Department of Electronics and Communication Engineering has planned to conduct a certificate course on **"LAB VIEW"** for the students during the end of this odd semester 2020-2021.Interested students can enroll their name on or before 31.10.2020 through the registration link.

Registration form link: https://forms.gle/Mc75RhuP6c3HmVvv8

The details of the training program are given below.

COURSE NAME	:	LAB VIEW
RESOURCE PERSON	:	Mr.K.Rajesh Kannan, Design Engineer, Microchip Technology Inc, Chennai.
MODE	:	Online Mode (Google meet)
DATE & DURATION	:	02.11.2020 to 06.11.2020 & 36 Hours
PROGRAM COORDINATOR	:	Mr.J.G.Sabarish, AP-ECE.

PRINCIPAL
Dr. J.SUNDARARAJAN
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Principal
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Copy to:

1. All the HoDs
2. IQAC
3. All the Class Rooms
4. Notice Board
5. File
6. Program Coordinator

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The Management, Principal, Staff and Students

Cordially invite you for the Inauguration of

"Certificate Course on LAB VIEW"

On 2nd Nov, 2020

Google Meet Link: https://meet.google.com/zkb-bqkh-vqw

Chief Guest

Mr.K.Rajesh Kannan

Microchip Technology Inc, Chennai

Dr.J.Sundararajan

Principal,

NPR College of Engineering & Technology

Felicitates the function

Organized by

Department of Electronics and Communication Engineering,

NPR College of Engineering & Technology,

NPR Nagar, Natham.

Online-Mode

(Google meet)

COLLEGE OF ENGG. & TECHNOLOGY * NPR * NATHAM

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON LAB VIEW

COURSE CONTENT

CHAPTER 1: TRANSFERRING DATA

- Communicating Between Parallel Loops
- Exploring Channel Wires
- Channel Templates
- Using Channel Wires with Case Structures and SubVIs

CHAPTER 2: CREATING AN EVENT-DRIVEN USER INTERFACE

- Event-Driven Programming
- User Interface Event Handler Design Pattern
- Event-Driven State Machine Design Pattern
- Producer/Consumer (Events) Design Pattern

CHAPTER 3: CONTROLLING THE USER INTERFACE

- VI Server Architecture
- Property Nodes and Control References
- Invoke Nodes
- Channeled Message Handle

CHAPTER 4: DEVELOPING AN ERROR HANDLING STRATEGY

- Error Handling Overview
- Injecting Errors for Testing
- Handling Specific Errors Locally
- Creating Execution Log Files

CHAPTER 5: DISTRIBUTING APPLICATIONS

- Preparing Code for Distribution
- Build Specifications
- Creating and Debugging an Application
- Creating an Installer & Creating a Package for Distribution

CRITERIA TO GET CERTIFICATE:

- Students should register their names for this course
- Students must have **85%** attendance.
- Student should secure **50%** marks in the Exam.

Prepared By: Mr.K.Jeyaprakasam, AP-ECE

Approved By,

HoD/ECE

Head of the Department
Department of Electronics & Communication Engineering
NPR College of Engineering & Technology
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IQAC

Coordinator - IQAC
NPR College of Engineering & Technology
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON LAB VIEW

REGISTERED STUDENTS NAME LIST

S.NO.	REGISTER NUMBER	STUDENT NAME	YEAR
1	920817106008	BALACHANDAR.S	IV ECE
2	920817106010	BHUVANESHWARI.V	IV ECE
3	920817106015	DEEPALAKSHMI.N	IV ECE
4	920817106016	DEEPIKA.D	IV ECE
5	920817106017	DEVADHARSHINI.R	IV ECE
6	920817106018	DHANALAKSHMI.A	IV ECE
7	920817106019	DHARINI.S	IV ECE
8	920817106021	GAYATHRI.A.K.	IV ECE
9	920817106022	GAYATHRI.I	IV ECE
10	920817106023	GOWRI.M	IV ECE
11	920817106026	ISWARYA.N	IV ECE
12	920817106027	JANAKI.S	IV ECE
13	920817106028	JEEVIDHA RAVEENA.S	IV ECE
14	920817106031	KANMANI.M	IV ECE
15	920817106032	KEERTHANA.B	IV ECE
16	920817106033	KEERTHIKA.K	IV ECE
17	920817106034	MADDHUMITHA.J.A.	IV ECE
18	920817106035	MADHUMITHA.V	IV ECE
19	920817106036	MAHESH BOOPATHI.K	IV ECE
20	920817106037	MANIKANDAN.T.S	IV ECE
21	920817106039	MEENA VISHALI.M.G	IV ECE
22	920817106040	MOHANAPRIYA.M	IV ECE
23	920817106041	MOHANAPRIYA.S	IV ECE
24	920817106047	POOJA.G.S.	IV ECE
25	920817106048	PREETHI.G	IV ECE
26	920817106049	RAJALAXMI.S	IV ECE
27	920817106051	SAKTHIVEL.M	IV ECE
28	920817106053	SANDHURU.M	IV ECE
29	920817106054	SANGEETHA.A	IV ECE
30	920817106055	SARAVANAKUMAR.C	IV ECE
31	920817106056	SATHEESHKUMAR.T	IV ECE
32	920817106057	SATHISH.K	IV ECE
33	920817106058	SELVAMANI.K.K	IV ECE
34	920817106059	SHANMUGAPRIYA.C	IV ECE
35	920817106060	SHEMA.S	IV ECE
36	920817106061	SHIFA PARVEEN.S	IV ECE
37	920817106063	SIVARANJANI.C	IV ECE
38	920817106064	SOUNDARIYA.V	IV ECE
39	920817106065	SOWLASH KUMAR.G	IV ECE
40	920817106066	SRIDHARSHINI.T	IV ECE
41	920817106068	SRIRAM.G	IV ECE
42	920817106069	SUJITHA.M	IV ECE
43	920817106070	SURYAKALA.V	IV ECE
44	920817106071	TAMILSELVI.S	IV ECE
45	920818106001	ABILASHA.M	III ECE

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46	920818106002	ABINAYA .S	III ECE
47	920818106004	BLESSING.X	III ECE
48	920818106005	DHARSHINI.V	III ECE
49	920818106007	DURGADEVI.B	III ECE
50	920818106008	DURGADEVI.S	III ECE
51	920818106009	HARIPRIYA.M	III ECE
52	920818106010	ILAKKIYA.B	III ECE
`53	920818106011	JAYA PRATHAP.S	III ECE
54	920818106012	JEYARAJ.S	III ECE
55	920818106013	KIRUTHIKA.R	III ECE
56	920818106014	MANOJ PRABHAKAR.V	III ECE
57	920818106016	MUKESH KANNA.G	III ECE
58	920818106026	SARITHA RANI.K	III ECE
59	920818106027	SARUMATHI.R	III ECE
60	920818106028	SATHISH KUMAR.G	III ECE
61	920818106029	SEEMA FATHIMA.S	III ECE
62	920818106030	SNEHA.R (H)	III ECE
63	920818106031	SOWMIYA.P	III ECE
64	920818106032	SREE RAGA SUDHA.K	III ECE
65	920818106033	SURYA PRAKASH.V.M	III ECE
66	920818106035	SWETHA.M	III ECE
67	920818106036	VARSHIINI.B	III ECE
68	920818106037	VENNILA.A	III ECE
69	920818106038	VIGNESH.R	III ECE
70	920818106039	VISHALINI.B	III ECE
71	920818106040	VIVEKA.S	III ECE
72	920818106302	VIGNESH.S	III ECE
73	920819106004	AMIZHTHAA B	II ECE
74	920819106006	ARAVINTH RAJ K	II ECE
75	920819106007	ASMA ROSHAN T	II ECE
76	920819106008	BALAJI M	II ECE
77	920819106009	BALAJI M	II ECE
78	920819106010	BLESSY JEBAMANI G	II ECE
79	920819106011	CHRISTIYA I	II ECE
80	920819106012	DEVI SRI S	II ECE
81	920819106013	DHANALAKSHMI P	II ECE
82	920819106014	DHATH VETHA S	II ECE
83	920819106015	DHINESH M	II ECE
84	920819106016	DIVESH V	II ECE
85	920819106017	DIVYA DHARSHINI S	II ECE
86	920819106018	GAYATHRI M	II ECE
87	920819106019	HARISHWAR S	II ECE
88	920819106032	MOHAMEDIBRAHIM J	II ECE
89	920819106033	MOHAN BABU B	II ECE
90	920819106034	MOHAN S	II ECE
91	920819106035	MURUGANATHAN M	II ECE
92	920819106036	MUTHU MOORTHY M	II ECE
93	920819106037	MUTHU RANJANI V	II ECE
94	920819106038	MYTHILI M	II ECE
95	920819106039	NAGA VISHWA G	II ECE
96	920819106040	NALINASHREE N	II ECE

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97	920819106041	NANDHA KUMAR G	II ECE
98	920819106068	VIKRAM S	II ECE
99	920819106069	VISHALI K	II ECE
100	920819106070	YASHICA S	II ECE

PROGRAM COORDINATOR

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HoD/ECE

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON LAB VIEW

COURSE SCHEDULE

Mode-Online (Google meet): https://meet.google.com/zkb-bqkh-vqw **Date: 31.10.2020**

EXTERNAL RESOURCE PERSON:
1. Mr.K.Rajesh Kannan,
   Design Engineer,
   Microchip Technology Inc, Chennai.

INTERNAL RESOURCE PERSONS:
1.Dr.A.Gopisaminathan,HOD-ECE
2.Mr.K.Jeyaprakasam,AP-ECE

Day 1 02.11.2020	9.30 a.m. to 10.00 a.m.	**Inauguration**	
	10. 00 a.m. to 11.10 a.m.	Session 1	Communicating Between Parallel Loops **Mr.K.Rajesh Kannan**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Exploring Channel Wires **Mr.K.Rajesh Kannan**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Channel Templates **Dr.A.Gopisaminathan**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Using Channel Wires with Case Structures and SubVIs **Mr.K.Jeyaprakasam**

Day 2 03.11.2020	9.30 a.m. to 11.10 a.m.	Session 1	Event-Driven Programming **Mr.K.Jeyaprakasam**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	User Interface Event Handler Design Pattern **Mr.K.Rajesh Kannan**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Event-Driven State Machine Design Pattern **Mr.K.Rajesh Kannan**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Producer/Consumer (Events) Design Pattern **Dr.A.Gopisaminathan**

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Day 3 04.11.2020	9.30 a.m. to 11.10 a.m.	Session 1	VI Server Architecture **Dr.A.Gopisaminathan**
	11.10 a.m. to 11.30 a.m.	Tea Break	
	11.30 a.m. to 1.10 p.m.	Session 2	Property Nodes and Control References **Mr.K.Jeyaprakasam**
	1.10 p.m. to 2.00 p.m.	Lunch Break	
	2.00 p.m. to 3.40 p.m.	Session 3	Invoke Nodes **Mr.K.Rajesh Kannan**
	3.40 p.m. to 3.50 p.m.	Tea Break	
	3.50 p.m. to 4.30 p.m.	Session 4	Channeled Message Handle **Mr.K.Rajesh Kannan**
Day 4 05.11.2020	9.30 a.m. to 11.10 a.m.	Session 1	Error Handling Overview **Mr.K.Rajesh Kannan**
	11.10 a.m. to 11.30 a.m.	Tea Break	
	11.30 a.m. to 1.10 p.m.	Session 2	Injecting Errors for Testing **Dr.A.Gopisaminathan**
	1.10 p.m. to 2.00 p.m.	Lunch Break	
	2.00 p.m. to 3.40 p.m.	Session 3	Handling Specific Errors Locally **Mr.K.Jeyaprakasam**
	3.40 p.m. to 3.50 p.m.	Tea Break	
	3.50 p.m. to 4.30 p.m.	Session 4	Creating Execution Log Files **Mr.K.Rajesh Kannan**
Day 5 06.11.2020	9.30 a.m. to 11.10 a.m.	Session 1	Preparing Code for Distribution **Mr.K.Rajesh Kannan**
	11.10 a.m. to 11.30 a.m.	Tea Break	
	11.30 a.m. to 1.10 p.m.	Session 2	Build Specifications **Mr.K.Jeyaprakasam**
	1.10 p.m. to 2.00 p.m.	Lunch Break	
	2.00 p.m. to 3.40 p.m.	Session 3	Creating and Debugging an Application **Dr.A.Gopisaminathan**
	3.40 p.m. to 3.50 p.m.	Tea Break	
	3.50 p.m. to 4.30 p.m.	Session 4	Creating an Installer & Creating a Package for Distribution **Mr.K.Rajesh Kannan**
	4.30 p.m. to 5.00 p.m.	**Valedictory**	

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Coordinator - IQAC
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON LAB VIEW

STUDENT ATTENDANCE

SL. No	Roll No	Student Name	Year	02.11.20		03.11.20		04.11.20		05.11.20		06.11.20	
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1	20ECCC02001	BALACHANDAR.S	IV	/	/	/	/	/	/	/	/	/	/
2	20ECCC02002	BHUVANESHWARI.V	IV	/	/	/	/	/	/	/	/	/	/
3	20ECCC02003	DEEPALAKSHMI.N	IV	/	/	/	/	/	/	/	/	/	/
4	20ECCC02004	DEEPIKA.D	IV	/	/	/	/	/	/	/	/	/	/
5	20ECCC02005	DEVADHARSHINI.R	IV	/	/	/	/	/	/	/	/	/	/
6	20ECCC02006	DHANALAKSHMI.A	IV	/	/	/	/	/	/	/	/	/	/
7	20ECCC02007	DHARINI.S	IV	/	/	/	/	/	/	/	/	/	/
8	20ECCC02008	GAYATHRI.A.K.	IV	/	/	/	/	/	/	/	/	/	/
9	20ECCC02009	GAYATHRI.I	IV	/	/	/	/	/	/	/	/	/	/
10	20ECCC02010	GOWRI.M	IV	/	/	/	/	/	/	/	/	/	/
11	20ECCC02011	ISWARYA.N	IV	/	/	/	/	/	/	/	/	/	/
12	20ECCC02012	JANAKI.S	IV	/	/	/	/	/	/	/	/	/	/
13	20ECCC02013	JEEVIDHA RAVEENA.S	IV	/	/	/	/	/	/	/	/	/	/
14	20ECCC02014	KANMANI.M	IV	/	/	/	/	/	/	/	/	/	/
15	20ECCC02015	KEERTHANA.B	IV	/	/	/	/	/	/	/	/	/	/
16	20ECCC02016	KEERTHIKA.K	IV	/	/	/	/	/	/	/	/	/	/
17	20ECCC02017	MADDHUMITHA.J.A.	IV	/	/	/	/	/	/	/	/	/	/
18	20ECCC02018	MADHUMITHA.V	IV	/	/	/	/	/	/	/	/	/	/
19	20ECCC02019	MAHESH BOOPATHI.K	IV	AB	AB	/	/	/	/	/	/	/	/
20	20ECCC02020	MANIKANDAN.T.S	IV	/	/	/	/	/	/	/	/	/	/
21	20ECCC02021	MEENA VISHALI.M.G	IV	/	/	/	/	/	/	/	/	/	/
22	20ECCC02022	MOHANAPRIYA.M	IV	/	/	/	/	/	/	/	/	/	/
23	20ECCC02023	MOHANAPRIYA.S	IV	/	/	/	/	/	/	/	/	/	/
24	20ECCC02024	POOJA.G.S.	IV	/	/	/	/	/	/	/	/	/	/
25	20ECCC02025	PREETHI.G	IV	/	/	/	/	/	/	/	/	/	/
26	20ECCC02026	RAJALAXMI.S	IV	/	/	/	/	/	/	/	/	/	/
27	20ECCC02027	SAKTHIVEL.M	IV	/	/	/	/	/	/	/	/	/	/
28	20ECCC02028	SANDHURU.M	IV	/	/	/	/	/	/	/	/	/	/
29	20ECCC02029	SANGEETHA.A	IV	/	/	/	/	/	/	/	/	/	/
30	20ECCC02030	SARAVANAKUMAR.C	IV	/	/	/	/	/	/	/	/	/	/
31	20ECCC02031	SATHEESHKUMAR.T	IV	/	/	/	/	/	/	/	/	/	/
32	20ECCC02032	SATHISH.K	IV	/	/	AB	AB	/	/	/	/	/	/
33	20ECCC02033	SELVAMANI.K.K	IV	/	/	/	/	/	/	/	/	/	/
34	20ECCC02034	SHANMUGAPRIYA.C	IV	/	/	/	/	/	/	/	/	/	/
35	20ECCC02035	SHEMA.S	IV	/	/	/	/	/	/	/	/	/	/
36	20ECCC02036	SHIFA PARVEEN.S	IV	/	/	/	/	/	/	/	/	/	/
37	20ECCC02037	SIVARANJANI.C	IV	/	/	/	/	/	/	/	/	/	/
38	20ECCC02038	SOUNDARIYA.V	IV	/	/	/	/	/	/	/	/	/	/
39	20ECCC02039	SOWLASH KUMAR.G	IV	/	/	/	/	/	/	/	/	/	/

40	20ECCC02040	SRIDHARSHINI.T	IV										
41	20ECCC02041	SRIRAM.G	IV										
42	20ECCC02042	SUJITHA.M	IV										
43	20ECCC02043	SURYAKALA.V	IV										
44	20ECCC02044	TAMILSELVI.S	IV										
45	20ECCC02045	ABILASHA.M	III										
46	20ECCC02046	ABINAYA .S	III										
47	20ECCC02047	BLESSING.X	III										
48	20ECCC02048	DHARSHINI.V	III										
49	20ECCC02049	DURGADEVI.B	III										
50	20ECCC02050	DURGADEVI.S	III										
51	20ECCC02051	HARIPRIYA.M	III										
52	20ECCC02052	ILAKKIYA.B	III										
`53	20ECCC02053	JAYA PRATHAP.S	III										
54	20ECCC02054	JEYARAJ.S	III										
55	20ECCC02055	KIRUTHIKA.R	III										
56	20ECCC02056	MANOJ PRABHAKAR.V	III										
57	20ECCC02057	MUKESH KANNA.G	III										
58	20ECCC02058	SARITHA RANI.K	III										
59	20ECCC02059	SARUMATHI.R	III										
60	20ECCC02060	SATHISH KUMAR.G	III										
61	20ECCC02061	SEEMA FATHIMA.S	III										
62	20ECCC02062	SNEHA.R	III										
63	20ECCC02063	SOWMIYA.P	III										
64	20ECCC02064	SREE RAGA SUDHA.K	III										
65	20ECCC02065	SURYA PRAKASH.V.M	III										
66	20ECCC02066	SWETHA.M	III										
67	20ECCC02067	VARSHIINI.B	III										
68	20ECCC02068	VENNILA.A	III										
69	20ECCC02069	VIGNESH.R	III										
70	20ECCC02070	VISHALINI.B	III										
71	20ECCC02071	VIVEKA.S	III										
72	20ECCC02072	VIGNESH.S	III										
73	20ECCC02073	AMIZHTHAA B	II										
74	20ECCC02074	ARAVINTH RAJ K	II										
75	20ECCC02075	ASMA ROSHAN T	II										
76	20ECCC02076	BALAJI M	II										
77	20ECCC02077	BALAJI M	II										
78	20ECCC02078	BLESSY JEBAMANI G	II										
79	20ECCC02079	CHRISTIYA I	II										
80	20ECCC02080	DEVI SRI S	II										
81	20ECCC02081	DHANALAKSHMI P	II										
82	20ECCC02082	DHATH VETHA S	II										
83	20ECCC02083	DHINESH M	II										
84	20ECCC02084	DIVESH V	II					AB	AB				
85	20ECCC02085	DIVYA DHARSHINI S	II										
86	20ECCC02086	GAYATHRI M	II										

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87	20ECCC02087	HARISHWAR S	II	/	/	/	/	/	/	/	/	/	/
88	20ECCC02088	MOHAMEDIBRAHIM J	II	/	/	/	/	/	/	/	/	/	/
89	20ECCC02089	MOHAN BABU B	II	AB	AB	/	/	/	/	/	/	/	/
90	20ECCC02090	MOHAN S	II	/	/	/	/	/	/	/	/	/	/
91	20ECCC02091	MURUGANATHAN M	II	/	/	/	/	/	/	/	/	/	/
92	20ECCC02092	MUTHU MOORTHY M	II	/	/	/	/	/	/	/	/	/	/
93	20ECCC02093	MUTHU RANJANI V	II	/	/	/	/	/	/	/	/	/	/
94	20ECCC02094	MYTHILI M	II	/	/	/	/	/	/	/	/	AB	AB
95	20ECCC02095	NAGA VISHWA G	II	/	/	/	/	/	/	/	/	/	/
96	20ECCC02096	NALINASHREE N	II	/	/	/	/	/	/	/	/	/	/
97	20ECCC02097	NANDHA KUMAR G	II	/	/	/	/	/	/	/	/	/	/
98	20ECCC02098	VIKRAM S	II	/	/	/	/	/	/	/	/	/	/
99	20ECCC02099	VISHALI K	II	/	/	/	/	/	/	/	/	/	/
100	20ECCC02100	YASHICA S	II	/	/	/	/	/	/	/	/	/	/
			PRESENT	98	98	100	100	99	99	100	100	98	98
			ABSENT	02	02	–	–	01	01	–	–	02	02
			COORDINATOR SIGNATURE										

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON LABVIEW

20ECCC02-LAB VIEW -QUIZ QUESTION PAPER & ANSWERS

1. Which of the following allows the reuse of the lab view components?
a) Platform based design
b) memory design
c) peripheral design
d) input design
Answer: a

2. Which of the factors affect the performance of learner system does not include?
a) Representation scheme used
b) Training scenario
c) Type of feedback
d) Good data structures
Answer: d

3. Different learning methods does not include?
a) Memorization
b) Analogy
c) Deduction
d) Introduction
Answer: d

4. In language understanding, the levels of knowledge that does not include?
a) Phonological
b) Syntactic
c) Empirical
d) Logical
Answer: c

5. A model of language consists of the categories which does not include?
a) Language units
b) Role structure of units
c) System constraints
d) Structural units
Answer: d

6. The action 'STACK(A, B)' of a robot arm specify to _____
a) Place block B on Block A
b) Place blocks A, B on the table in that order
c) Place blocks B, A on the table in that order
d) Place block A on block B
Answer: d

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7.ML is a field of AI consisting of learning algorithms that?

a) Improve their performance
b) At executing some task
c) Over time with experience
d) All of the above
Ans : d

8. A model of language consists of the categories which does not include _____.

a) System Unit
b) structural units.
c) data units
d) empirical units
Ans : b

9. Different learning methods does not include?

a) Introduction
b) Analogy
c) Deduction
d) Memorization
Ans : a

10. Who invented OOP?
a) Andrea Ferro
b) Adele Goldberg
c) Alan Kay
d) Dennis Ritchie
Ans : c

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON LABVIEW

20ECCC02- LABVIEW- QUIZ SAMPLE QUESTION

QUIZ LINK: https://forms.gle/3dhxdkLdDtVbERyC6

SAMPLE ANSWER SHEET

NPR COLLEGE OF ENGINEERING & TECHNOLOGY,DINDIGUL.

CERTIFICATE COURSE-LAB VIEW-QUIZ QUESTIONS

sudhakar@nprcolleges.org Switch accounts

Draft restored

*Required

Email *

Your email address

STUDENT NAME *

Your answer



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QUIZ QUESTIONS

1.Which of the following allows the reuse of the lab view components? * 1 point

- ○ Platform based design
- ○ memory design
- ○ peripheral design
- ○ input design

2.Which of the factors affect the performance of learner system does not include? * 1 point

- ○ Representation scheme used
- ○ Training scenario
- ○ Type of feedback
- ○ Good data structures

NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

PROGRAM COORDINATOR

HOD/ECE

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NPR College of Engineering & Technology
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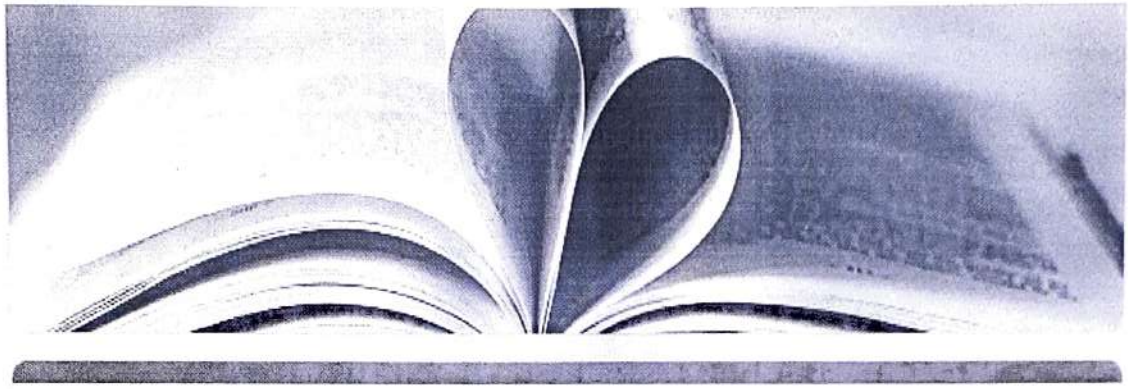
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON LAB VIEW

STUDENTS' FEEDBACK

Feedback Form Link: https://forms.gle/kmHeY4r89cxudGWN8



NPR COLLEGE OF ENGINEERING & TECHNOLOGY,DINDIGUL.

FEEDBACK FORM-CERTIFICATE COURSE-LAB VIEW(02.11.2020 to 06.11.2020)

sudhakar@nprcolleges.org Switch accounts

*Required

Email *

Your email address

Course Content *

- ○ Excellent
- ○ Good
- ○ Fair
- ○ Satisfactory

Way of exposed new knowledge and practices *

- ○ Excellent
- ○ Good
- ○ Fair
- ○ Satisfactory

Examples Provided during this course *

- ○ Excellent
- ○ Good
- ○ Fair
- ○ Satisfactory

Course delivered by Resource Person *

- ○ Excellent
- ○ Good
- ○ Fair
- ○ Satisfactory

PROGRAM COORDINATOR

HoD/ECE

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON LAB VIEW

STUDENT FEEDBACK ANALYSIS REPORT

TOTAL STRENGTH: 100 **DATE: 07.11.2020**

S.NO.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1.	Course Content	94	4	1	1
2.	Way of exposed new knowledge and practices	92	6	1	1
3.	Examples Provided during this course	90	7	1	2
4.	Course delivered by Resource Person	92	5	2	1
5.	Time Management	90	8	1	1
6.	Average	94	4	1	1



PROGRAM COORDINATOR

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PRINCIPAL

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON LAB VIEW

SUMMARY REPORT

The Department of Electronics and Communication Engineering organized a Certificate Course program on "LABVIEW" from 02.11.2020 to 06.11.2020 (5 Days) through the online mode (Google meet).

Ms.G.S.Pooja, IV ECE delivered the welcome address during the inauguration function on 02.11.2020.

Dr.J.Sundararajan, Principal of our college inaugurated the program and delivered the inaugural address.

Resource Person Mr.K.Rajesh Kannan shared his knowledge with our students. This program also taught the fundamentals and principles of embedded system which uses a hardware platform to perform the operation. Hardware of the embedded system is assembled with a microprocessor/microcontroller. It has the elements such as input/output interfaces, memory, user interface and the display unit. Generally, an embedded system comprises of the following Power Supply, Memory, Processor, Timers, Output/Output circuits, Serial communication ports and SASC (System application specific circuits). The students learnt various existing and emerging technologies of embedded.

100 Students ECE II, III and IV year ECE Classes attended the course. Students who participated and successfully completed the Quiz program were awarded certificates.

Ms.S.Viveka, III ECE delivered the vote of thanks, during the valedictory session on 06.11.2020

PROGRAM COORDINATOR

HoD/ECE

Head of the Department
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PRINCIPAL

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON LAB VIEW

COURSE MATERIAL

MATERIAL LINK:

CHAPTER1-1.https://www.digitroniklabs.com/blog/using lab view
CHAPTER-2:https://www.elprocus.com/real-time-applications-of-lab view systems/
CHAPTER-3:http://industrial.Lab View-computing.com/
CHAPTER-4:https://ipcsautomation.com/blog-post/Lab view-system-in-automation/
CHAPTER-5:http://www.uninova.pt/sies2007/SIES2007_RZ_plenary_Lisbon_v1.pdf

FURTHER STUDY:

1. *Lab View Design Introduction to SoC System Architecture (Kindle Edition)by Mohit Arora*
2. *Real-Time Software Design for Lab View (Kindle Edition) by Hassan Gomaa*
3. *Lab view study Dictionary (Kindle Edition) by Jack Ganssle*
4. *Lab View Development with C International Edition (Kindle Edition) by Kai, Qian Haring D.D. Et.Al*
5. *Lab View Linux Systems with the Yocto Project (Kindle Edition) by Rudolf Streif .*

PROGRAM COORDINATOR **HoD/ECE** **PRINCIPAL**

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Principal
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Ms. S. Janaki, IV - ECE

for the successful completion of certificate course on

"LAB VIEW"

Conducted from 02.11.2020 to 06.11.2020(5days)

HOD-ECE
Dr.A.GOPISAMINATHAN

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
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Natham, Dindigul (D.) - 624 401.

PRINCIPAL
Dr.J.SUNDARARAJAN

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CERTIFICATE OF COMPLETION

This certificate is presented to

Ms.G.S.Pooja, IV-ECE

for the successful completion of certificate course on

"LAB VIEW"

Conducted from 02.11.2020 to 06.11.2020(5days)

HOD-ECE
Dr.A.GOPISAMINATHAN

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PRINCIPAL
Dr.J.SUNDARARAJAN

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Ms. B. Varshini, III-ECE

for the successful completion of certificate course on

"LAB VIEW"

Conducted from 02.11.2020 to 06.11.2020(5days)

HOD-ECE
Dr.A.GOPISAMINATHAN

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PRINCIPAL
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Ms. M. Mythili, II-ECE

for the successful completion of certificate course on

"LAB VIEW"

Conducted from 02.11.2020 to 06.11.2020(5days)

HOD-ECE
Dr.A.GOPISAMINATHAN

Dr. J.SUNDARARAJAN,
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Mr. G. Nandhakumar, II-ECE.

for the successful completion of certificate course on

"LAB VIEW"

Conducted from 02.11.2020 to 06.11.2020(5days)

HOD-ECE
Dr.A.GOPISAMINATHAN

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON DATA SCIENCE & AI

INDEX

COURSE CODE & NAME: 20ECCC03- DATA SCIENCE &AI

ACADEMIC YEAR: 2020-2021 SEMESTER: EVEN DURATION: 35 HOURS

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PROGRAM COORDINATOR HoD/ECE IQAC PRINCIPAL

Head of the Department
Department of Electronics & Communication Engineering
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Coordinator - IQAC
NPR College of Engineering & Technology
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON DATA SCIENCE & AI

PERMISSION LETTER

From

Mr.S.Sudhakar,

Assistant Professor/ECE,

NPR College of Engineering and Technology,

Natham-624 401.

To

The Principal,

NPR College of Engineering and Technology,

Natham-624 401.

Respected Sir,

Sub: Request for permission to conduct certificate course for ECE students – Reg

We have planned to conduct a certificate course on **"DATA SCIENCE & AI"** to our students from **22.02.21 to 26.02.21(5 Days)** in our college premises. We have suggested **Dr. T. RUSO**, Associate Consultant, Wipro Limited, Chennai as a resource person for this certificate course program. Kindly permit us to conduct the same.

Thanking you.

Yours faithfully,

1/02/21

Date: 01.02.2021

Place: Natham

Head of the Department
Department of Electronics & Communication Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

Dr. J.SUNDARA...
B.E., M.Tech
Principal
N.P.R. College of Engineering & T...
Natham, Dindigul (Dt) - 624...

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON DATA SCIENCE &AI

RESOURCE PERSONS' PROFILE

Name	:	**Dr. T. RUSO**
Designation	:	Associate Consultant
Company Name	:	Wipro Limited, Chennai.
About Resource Person	:	He has completed his B.Sc. (Computer Science) in Aditanar College of Arts and Science (Tiruchendur), M.Sc. (Computer Science) in Annamalai University (Chithambaram), M.E (Computer Science and Engineering) in Crescent Engineering College (Chennai) and finally he was awarded Ph.D. (Computer Science and Engineering) from CEG - Anna University (Chennai). In total he has 11 years and 6 months of experience in Research, Teaching and Industry sectors. ➢ From January 2008 to February 2011 he has worked as PROJECT ASSOCIATE in IIT MADRAS. ➢ From May 2015 to June 2019 He has worked as ASSISTANT PROFESSOR (Senior Grade) in SAVEETHA UNIVERSITY (Chennai). ➢ Currently, he is working with WIPRO PVT. LTD. (Chennai) as Associate Consultant. His Contributions and Accolade: ➢ When he was working in IIT Madras, he has developed the Multiparty video conference tool using JAVA for "Smart and Secure Environment" Research Consortium, funded by the National Technical Research Organization (NTRO), Government of India, New Delhi. It is used to connect all the Professors, Research Scholars and Students among the eight institutions across Tamilnadu. i.e., IIT Madras, NIT Tiruchirappalli, CEG - Anna University, Pondicherry University, PSG College of Technology (Coimbatore), Thiyagaraja College of Engineering - Madurai, Madurai Kamaraj University and Alagappa University (Karaikudi) through MPLS-VPN network. ➢ He developed a prototype design for the National Knowledge Network (NKN) project, using AI and data science. It is used to connect all the knowledge institutions across India. ➢ During the year 2013 (August 24 & 25), he has visited Singapore for presenting a paper titled "POSET: Network Coding Multicast in Application Layer" in the second International Conference on Advancements in Information Technology (ICAIT 2013). ➢ He has published four International Journal papers and two International Conference papers. His area of research includes IOT, Cloud Computing, 5G Networks, Network Protocols, Networks and Distributed Systems and

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Name	:	**Er.K .Ramesh Kumar**
Designation	:	Senior Solution Architect
Company Name	:	Ericsson India Pvt. Ltd.
About Resource Person	:	➢ 14+ years of professional experience in the area of Telecom nodes integration, operation and maintenance. ➢ Experience in Solution Design HLD, LLD, Acceptance Testing, Implementation support, Operation & Maintenance of Packet core nodes and NFVI (HDS and CEE) ➢ Ericsson Packet Core Professional Certifications(EPG,SGSN-MME and SAPC) ➢ Ericsson 5G core Associate certified ➢ Hands on vEPC deployment in lab and production environment ➢ Experience in Ericsson Cloud Execution Environment (CEE) ➢ Knowledge in HDS Architecture , RTE installation and CSU/SSU upgrades ➢ Experience in LTE-EPC (MME, SGW & PGW) Rel 9.0 Networks. ➢ Experience with Ericsson EPG-M, GGSN-MPG, SGSN-MME MkVIII/MKVI+ ➢ Experience in integration/Feature testing for EPC core (2G , 3G & 4G). ➢ Good understanding of Protocols used CS/PS domain like: - GTPv1/v2, S1AP, UDP, SIGTRAN, MAP, BSSAP/BSSGP, RANAP, SIP, CAMEL and SS7. ➢ Experience in preparing MOP for implementation of Core network features. ➢ Hands on Experience with Juniper routers. ➢ ATP testing on packet core nodes SGSN , GGSN and DNS ➢ Hands on experience on protocol analyzers like Wire shark and testing tool like IXIA ➢ Basic Technical knowledge of Juniper routers and switches configurations.

PROGRAM COORDINATOR

HoD/ECE

Head of the Department
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NPRCET/OFF/ECE/VAC/2020-2021 DATE: 12.02.2021

CIRCULAR

This is to inform that Department of Electronics and Communication Engineering has planned to conduct a Certificate program on **"DATA SCIENCE & AI"** for the students during the end of this even semester 2020-2021.Interested students can enroll their name on or before 19.02.2021.

The details of the training program are given below.

COURSE NAME	:	**DATA SCIENCE & AI**
RESOURCE PERSONS	:	1. Dr. T. RUSO 2. Er.K.Ramesh Kumar
VENUE	:	ECE DSP LAB
DATE & DURATION	:	22.02.21 to 26.02.21& 35 Hours
PROGRAM COORDINATOR	:	Mr.S.Sudhakar, AP/ECE, NPRCET.

NPR COLLEGE OF ENGG. & TECHNOLOGY * NATHAM

PRINCIPAL
Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

Copy to:

1. All the HoDs
2. IQAC
4. All the Class Rooms
5. Notice Board
6. File
7. Program Coordinator

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The Management, Principal, Staff and Students

Cordially invite you for the inauguration of

"Certificate Course on Data Science & AI"

On 22nd Feb, 2021

Venue: NPRCET Auditorium at 9.30 a.m.

Chief Guest

Dr. T. RUSO

Wipro Limited, Chennai.

Dr.J.SUNDARARAJAN

Principal,

NPR College of Engineering & Technology

Felicitates the function

COLLEGE OF ENGG & TECHNOLOGY NPRCET NATHAM

Organized by

Department of Electronics and Communication Engineering,

NPR College of Engineering & Technology,

NPR Nagar, Natham.

NPR College of Engineering & Technology
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON DATA SCIENCE & AI

20ECCC03- DATA SCIENCE & AI - COURSE CONTENT

CHAPTER 1: OVERVIEW

- Historical perspective on AI and data science
- Reinforcement Learning: Basic overview and examples
- Tabular Solution Methods - Multigame bandits
- Finite Markov decision process

CHAPTER 2: APPROXIMATE SOLUTION METHODS

- On-policy Prediction with Approximation
- Value function approximation
- Non-linear function approximation
- Reinforcement Learning in robotics

CHAPTER 3: RECURSIVE STATE ESTIMATION

- Robot Environment Interaction
- Bayes filters & Gaussian filters
- The Kalman filter
- Velocity Motion Model

CHAPTER 4: MANAGING ML LIFE CYCLE

- Feature engineering and Deep learning
- Model selection
- Benchmarking ML systems
- Electronic Component

CHAPTER 5: MULTI-AGENT AI SYSTEMS

- Agent Architectures and Hierarchical control
- Multiagent framework, Representation of Games
- Computing strategies with perfect information
- Application of various Computational Devices

CRITERIA TO GET CERTIFICATE:

- Students should register their names for this course
- Students must have 85% attendance.
- Student should secure 50% marks in the Exam.

Prepared By: Mrs.C.Kalpana, AP-CSE

Approved By,

HoD/ECE

Head of the Department
Department of Electronics & Communication Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

IQAC

Coordinator - IQAC
NPR College of Engineering & Technology
Natham, Dindigul (Dt)-624 401

PRINCIPAL

Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D.,
Principal
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON DATA SCIENCE & AI

REGISTERED STUDENTS' NAME LIST

S.NO.	REGISTER NUMBER	STUDENT NAME	YEAR
1	920817106007	ATCHAYA.R	IV ECE
2	920817106008	BALACHANDAR.S	IV ECE
3	920817106010	BHUVANESHWARI.V	IV ECE
4	920817106015	DEEPALAKSHMI.N	IV ECE
5	920817106016	DEEPIKA.D	IV ECE
6	920817106017	DEVADHARSHINI.R	IV ECE
7	920817106018	DHANALAKSHMI.A	IV ECE
8	920817106019	DHARINI.S	IV ECE
9	920817106021	GAYATHRI.A.K.	IV ECE
10	920817106022	GAYATHRI.I	IV ECE
11	920817106023	GOWRI.M	IV ECE
12	920817106026	ISWARYA.N	IV ECE
13	920817106027	JANAKI.S	IV ECE
14	920817106028	JEEVIDHA RAVEENA.S	IV ECE
15	920817106031	KANMANI.M	IV ECE
16	920817106032	KEERTHANA.B	IV ECE
17	920817106033	KEERTHIKA.K	IV ECE
18	920817106034	MADDHUMITHA.J.A.	IV ECE
19	920817106035	MADHUMITHA.V	IV ECE
20	920817106036	MAHESH BOOPATHI.K	IV ECE
21	920817106037	MANIKANDAN.T.S	IV ECE
22	920817106039	MEENA VISHALI.M.G	IV ECE
23	920817106040	MOHANAPRIYA.M	IV ECE
24	920817106041	MOHANAPRIYA.S	IV ECE
25	920817106042	MOHANKUMAR.M.K	IV ECE
26	920817106044	NIVETHA.K	IV ECE
27	920817106045	PALANIKUMAR.P	IV ECE
28	920817106047	POOJA.G.S.	IV ECE
29	920817106048	PREETHI.G	IV ECE
30	920817106049	RAJALAXMI.S	IV ECE
31	920817106051	SAKTHIVEL.M	IV ECE
32	920817106053	SANDHURU.M	IV ECE
33	920817106054	SANGEETHA.A	IV ECE
34	920817106055	SARAVANAKUMAR.C	IV ECE
35	920817106056	SATHEESHKUMAR.T	IV ECE
36	920817106057	SATHISH.K	IV ECE
37	920817106058	SELVAMANI.K.K	IV ECE
38	920817106059	SHANMUGAPRIYA.C	IV ECE
39	920817106060	SHEMA.S	IV ECE
40	920817106061	SHIFA PARVEEN.S	IV ECE

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41	920817106063	SIVARANJANI.C	IV ECE
42	920817106064	SOUNDARIYA.V	IV ECE
43	920818106001	ABILASHA.M	III ECE
44	920818106002	ABINAYA .S	III ECE
45	920818106004	BLESSING.X	III ECE
46	920818106005	DHARSHINI.V	III ECE
47	920818106007	DURGADEVI.B	III ECE
48	920818106008	DURGADEVI.S	III ECE
49	920818106009	HARIPRIYA.M	III ECE
50	920818106010	ILAKKIYA.B	III ECE
51	920818106011	JAYA PRATHAP.S	III ECE
52	920818106024	RAJKUMAR.K	III ECE
53	920818106026	SARITHA RANI.K	III ECE
54	920818106027	SARUMATHI.R	III ECE
55	920818106028	SATHISH KUMAR.G	III ECE
56	920818106029	SEEMA FATHIMA.S	III ECE
57	920818106030	SNEHA.R	III ECE
58	920818106031	SOWMIYA.P	III ECE
59	920818106032	SREE RAGA SUDHA.K	III ECE
60	920818106033	SURYA PRAKASH.V.M	III ECE
61	920818106035	SWETHA.M	III ECE
62	920818106036	VARSHIINI.B	III ECE
63	920819106002	AFRIN SHIFANA A	II ECE
64	920819106003	AJITH KUMAR K	II ECE
65	920819106004	AMIZHTHAA B	II ECE
66	920819106039	NAGA VISHWA G	II ECE
67	920819106040	NALINASHREE N	II ECE
68	920819106041	NANDHA KUMAR G	II ECE
69	920819106042	PAVITHRA N	II ECE
70	920819106043	PORKODI S	II ECE
71	920819106054	SASMITHA PARVEEN K	II ECE
72	920819106055	SHAM HIRUTHIK R	II ECE
73	920819106056	SHARAN S	II ECE
74	920819106057	SHARMILA DEVI G	II ECE
75	920819106058	SHINY RESHMA J	II ECE
76	920819106059	SINGARABRINDHA N	II ECE
77	920819106060	SNEHA P	II ECE
78	920819106061	SOUNDHARYA S	II ECE
79	920819106062	SUMUGAPRIYA M	II ECE
80	920819106063	THAMBI DURAI P K	II ECE
81	920819106066	UMA NANTHINI N	II ECE
82	920819106067	VENKATESH P	II ECE
83	920819106068	VIKRAM S	II ECE
84	920819106069	VISHALI K	II ECE
85	920819106070	YASHICA S	II ECE

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFI CATE COURSE ON DATA SCIENCE & AI

COURSE SCHDULEE

Venue: ECE DSP Lab

Date: 19.02.2021

EXTERNAL RESOURCE PERSONS:
1 Dr.T.Ruso
2.Er.K.Ramesh Kumar

INTERNAL RESOURCE PERSONS:
1.Mrs.C.Kalpana,AP-CSE
2.Mrs.V.Sujitha,AP-CSE

Day 1 22.02.2021	9.30 a.m.to 10.00 a.m.	**Inauguration**	
	10. 00 a.m. to 11.10 a.m.	Session 1	Historical perspective on AI and data science **Dr.T.Ruso**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Reinforcement Learning: Basic overview and examples **Dr.T.Ruso**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Tabular Solution Methods - Multigame bandits **Er.K.Ramesh kumar**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Finite Markov decision process **Mrs.C.Kalpana**
Day 2 23.02.2021	9.30 a.m.to 11.10 a.m.	Session 1	On-policy Prediction with Approximation **Dr.T.Ruso**
	11.10 a.m. to 11.30 a.m.	Tea Break	
	11.30 a.m. to 1.10 p.m.	Session 2	Value function approximation **Er.K.Ramesh kumar**
	1.10 p.m. to 2.00 p.m.	Lunch Break	
	2.00 p.m. to 3.40 p.m.	Session 3	Non-linear function approximation **Er.K.Ramesh kumar**
	3.40 p.m. to 3.50 p.m.	Tea Break	
	3.50 p.m. to 4.30 p.m.	Session 4	Reinforcement Learning in robotics **Mrs.V.Sujitha**

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Day 3 24.02.2021	9.30 a.m.to 11.10 a.m.	Session 1	Robot Environment Interaction **Dr.T.Ruso**
	11.10 a.m. to 11.30 a.m.	Tea Break	
	11.30 a.m. to 1.10 p.m.	Session 2	Bayes filters & Gaussian filters **Dr.T.Ruso**
	1.10 p.m. to 2.00 p.m.	Lunch Break	
	2.00 p.m. to 3.40 p.m.	Session 3	The Kalman filter, **Mrs.C.Kalpana**
	3.40 p.m. to 3.50 p.m.	Tea Break	
	3.50 p.m. to 4.30 p.m.	Session 4	Velocity Motion Model **Er.K.Ramesh Kumar**
Day 4 25.02.2021	9.30 a.m.to 11.10 a.m.	Session 1	Feature engineering and Deep learning, **Mrs.V.Sujitha**
	11.10 a.m. to 11.30 a.m.	Tea Break	
	11.30 a.m. to 1.10 p.m.	Session 2	Model selection **Er.K.Ramesh Kumar**
	1.10 p.m. to 2.00 p.m.	Lunch Break	
	2.00 p.m. to 3.40 p.m.	Session 3	Benchmarking ML systems **Er.K.Ramesh Kumar**
	3.40 p.m. to 3.50 p.m.	Tea Break	
	3.50 p.m. to 4.30 p.m.	Session 4	Electronic Component **Dr.T.Ruso**
Day 5 26.02.21	9.30 a.m.to 11.10 a.m.	Session 1	Agent Architectures and Hierarchical control **Mrs.V.Sujitha**
	11.10 a.m. to 11.30 a.m.	Tea Break	
	11.30 a.m. to 1.10 p.m.	Session 2	Multi agent framework, Representation of Games **Dr.T.Ruso**
	1.10 p.m. to 2.00 p.m.	Lunch Break	
	2.00 p.m. to 3.40 p.m.	Session 3	Computing strategies with perfect information **Er.K.Ramesh Kumar**
	3.40 p.m. to 3.50 p.m.	Tea Break	
	3.50 p.m. to 4.30 p.m.	Session 4	Application of various Computational Devices **Er.K.Ramesh kumar**
	4.30 p.m. to 5.00 p.m.	**Valedictory**	

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEEIRNG

CERTIFICATE COURSE ON DATA SCIENCE & AI

STUDENTS ATTENDANCE

S. No.	Roll No	Student Name	Year	22.02.21		23.02.21		24.02.21		25.02.21		26.02.21	
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1	20ECCC03001	ATCHAYA.R	IV	/	/	/	/	/	/	/	/	/	/
2	20ECCC03002	BALACHANDAR.S	IV	/	/	/	/	/	/	/	/	AB	AB
3	20ECCC03003	BHUVANESHWARI.V	IV	/	/	/	/	/	/	/	/	/	/
4	20ECCC03004	DEEPALAKSHMI.N	IV	/	/	/	/	/	/	/	/	/	/
5	20ECCC03005	DEEPIKA.D	IV	/	/	/	/	/	/	/	/	/	/
6	20ECCC03006	DEVADHARSHINI.R	IV	/	/	/	/	/	/	/	/	/	/
7	20ECCC03007	DHANALAKSHMI.A	IV	/	/	/	/	/	/	/	/	/	/
8	20ECCC03008	DHARINI.S	IV	/	/	/	/	/	/	/	/	/	/
9	20ECCC03009	GAYATHRI.A.K.	IV	/	/	/	/	/	/	/	/	/	/
10	20ECCC03010	GAYATHRI.I	IV	/	/	/	/	/	/	/	/	/	/
11	20ECCC03011	GOWRI.M	IV	/	/	/	/	/	/	/	/	/	/
12	20ECCC03012	ISWARYA.N	IV	/	/	/	/	/	/	/	/	/	/
13	20ECCC03013	JANAKI.S	IV	/	/	/	/	/	/	/	/	/	/
14	20ECCC03014	JEEVIDHA RAVEENA.S	IV	/	/	/	/	/	/	/	/	/	/
15	20ECCC03015	KANMANI.M	IV	/	/	/	/	/	/	/	/	/	/
16	20ECCC03016	KEERTHANA.B	IV	/	/	/	/	/	/	/	/	/	/
17	20ECCC03017	KEERTHIKA.K	IV	/	/	/	/	/	/	/	/	/	/
18	20ECCC03018	MADDHUMITHA.J.A.	IV	/	/	/	/	/	/	/	/	/	/
19	20ECCC03019	MADHUMITHA.V	IV	/	/	/	/	/	/	/	/	/	/
20	20ECCC03020	MAHESH BOOPATHI.K	IV	/	/	/	/	/	/	/	/	/	/
21	20ECCC03021	MANIKANDAN.T.S	IV	/	/	/	/	/	/	/	/	/	/
22	20ECCC03022	MEENA VISHALI.M.G	IV	/	/	/	/	/	/	/	/	/	/
23	20ECCC03023	MOHANAPRIYA.M	IV	/	/	/	/	/	/	/	/	/	/
24	20ECCC03024	MOHANAPRIYA.S	IV	/	/	/	/	/	/	/	/	/	/
25	20ECCC03025	MOHANKUMAR.M.K	IV	/	/	/	/	/	/	/	/	/	/
26	20ECCC03026	NIVETHA.K	IV	/	/	/	/	/	/	/	/	/	/
27	20ECCC03027	PALANIKUMAR.P	IV	/	/	/	/	/	/	/	/	/	/
28	20ECCC03028	POOJA.G.S.	IV	/	/	/	/	/	/	/	/	/	/
29	20ECCC03029	PREETHI.G	IV	/	/	/	/	/	/	/	/	/	/
30	20ECCC03030	RAJALAXMI.S	IV	/	/	/	/	/	/	/	/	/	/
31	20ECCC03031	SAKTHIVEL.M	IV	/	/	/	/	/	/	/	/	/	/
32	20ECCC03032	SANDHURU.M	IV	AB	AB	/	/	/	/	/	/	/	/
33	20ECCC03033	SANGEETHA.A	IV	/	/	/	/	/	/	/	/	/	/
34	20ECCC03034	SARAVANAKUMAR.C	IV	/	/	/	/	/	/	/	/	/	/
35	20ECCC03035	SATHEESHKUMAR.T	IV	/	/	/	/	/	/	/	/	/	/
36	20ECCC03036	SATHISH.K	IV	/	/	/	/	/	/	/	/	/	/
37	20ECCC03037	SELVAMANI.K.K	IV	/	/	/	/	/	/	/	/	/	/
38	20ECCC03038	SHANMUGAPRIYA.C	IV	/	/	/	/	/	/	/	/	/	/
39	20ECCC03039	SHEMA.S	IV	/	/	/	/	/	/	/	/	/	/
40	20ECCC03040	SHIFA PARVEEN.S	IV	/	/	/	/	/	/	/	/	/	/
41	20ECCC03041	SIVARANJANI.C	IV	/	/	/	/	/	/	/	/	/	/
42	20ECCC03042	SOUNDARIYA.V	IV	/	/	/	/	/	/	/	/	/	/
43	20ECCC03043	ABILASHA.M	III	/	/	/	/	/	/	/	/	/	/

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44	20ECCC03044	ABINAYA .S	III	/	/	/	/	/	/	/	/	/	/	/	/
45	20ECCC03045	BLESSING.X	III	/	/	/	/	/	/	/	/	/	/	/	/
46	20ECCC03046	DHARSHINI.V	III	/	/	/	/	/	/	/	/	/	/	/	/
47	20ECCC03047	DURGADEVI.B	III	/	/	/	/	/	/	/	/	/	/	/	/
48	20ECCC03048	DURGADEVI.S	III	/	/	/	/	/	/	/	/	/	/	/	/
49	20ECCC03049	HARIPRIYA.M	III	/	/	/	/	/	/	/	/	/	/	/	/
50	20ECCC03050	ILAKKIYA.B	III	/	/	/	/	/	/	/	/	/	/	/	/
51	20ECCC03051	JAYA PRATHAP.S	III	/	/	/	/	/	/	/	/	/	/	/	/
52	20ECCC03052	RAJKUMAR.K	III	/	/	AB	AB	/	/	/	/	/	/	/	/
53	20ECCC03053	SARITHA RANI.K	III	/	/	/	/	/	/	/	/	/	/	/	/
54	20ECCC03054	SARUMATHI.R	III	/	/	/	/	/	/	/	/	/	/	/	/
55	20ECCC03055	SATHISH KUMAR.G	III	/	/	/	/	/	/	/	/	/	/	/	/
56	20ECCC03056	SEEMA FATHIMA.S	III	/	/	/	/	/	/	/	/	/	/	/	/
57	20ECCC03057	SNEHA.R	III	/	/	/	/	/	/	/	/	/	/	/	/
58	20ECCC03058	SOWMIYA.P	III	/	/	/	/	/	/	/	/	/	/	/	/
59	20ECCC03059	SREE RAGA SUDHA.K	III	/	/	/	/	/	/	/	/	/	/	/	/
60	20ECCC03060	SURYA PRAKASH.V.M	III	/	/	/	/	/	/	/	/	/	/	/	/
61	20ECCC03061	SWETHA.M	III	/	/	/	/	/	/	/	/	/	/	/	/
62	20ECCC03062	VARSHIINI.B	III	/	/	/	/	/	/	/	/	/	/	/	/
63	20ECCC03063	AFRIN SHIFANA A	II	/	/	/	/	/	/	/	/	/	/	/	/
64	20ECCC03064	AJITH KUMAR K	II	/	/	/	/	/	/	/	/	/	/	/	/
65	20ECCC03065	AMIZHTHAA B	II	/	/	/	/	/	/	/	/	/	/	/	/
66	20ECCC03066	NAGA VISHWA G	II	/	/	/	/	/	/	/	/	/	/	/	/
67	20ECCC03067	NALINASHREE N	II	/	/	/	/	/	/	/	/	/	/	/	/
68	20ECCC03068	NANDHA KUMAR G	II	/	/	/	/	/	/	/	/	/	/	/	/
69	20ECCC03069	PAVITHRA N	II	/	/	/	/	/	/	/	/	/	/	/	/
70	20ECCC03070	PORKODI S	II	/	/	/	/	/	/	/	/	/	/	/	/
71	20ECCC03071	SASMITHA PARVEEN K	II	/	/	/	/	/	/	/	/	/	/	/	/
72	20ECCC03072	SHAM HIRUTHIK R	II	/	/	/	/	/	/	/	/	/	/	/	/
73	20ECCC03073	SHARAN S	II	/	/	/	/	/	/	/	/	/	/	/	/
74	20ECCC03074	SHARMILA DEVI G	II	/	/	/	/	/	/	/	/	/	/	/	/
75	20ECCC03075	SHINY RESHMA J	II	/	/	/	/	/	/	/	/	/	/	/	/
76	20ECCC03076	SINGARABRINDHA N	II	/	/	/	/	/	/	/	/	/	/	/	/
77	20ECCC03077	SNEHA P	II	/	/	/	/	/	/	/	/	/	/	/	/
78	20ECCC03078	SOUNDHARYA S	II	/	/	/	/	/	/	/	/	/	/	/	/
79	20ECCC03079	SUMUGAPRIYA M	II	/	/	/	/	/	/	/	/	/	/	/	/
80	20ECCC03080	THAMBI DURAI P K	II	/	/	/	/	/	/	/	/	/	/	/	/
81	20ECCC03081	UMA NANTHINI N	II	/	/	/	/	/	/	/	/	/	/	/	/
82	20ECCC03082	VENKATESH P	II	/	/	/	/	/	/	/	/	/	/	/	/
83	20ECCC03083	VIKRAM S	II	AB	AB	/	/	/	/	/	/	/	/	/	/
84	20ECCC03084	VISHALI K	II	/	/	/	/	/	/	/	/	/	/	/	/
85	20ECCC03085	YASHICA S	II	/	/	/	/	/	/	/	/	/	/	/	/
			PRESENT	83	83	84	84	85	85	85	85	84	84
			ABSENT	02	02	01	01	—	—	—	—	01	01
			COORDINATOR SIGNATURE										

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON DATA SCIENCE & AI

20ECCC03- DATA SCIENCE & AI -QUIZ QUESTION PAPER & ANSWER

1) Artificial Intelligence is about____.

a. Playing a game on Computer
b. Making a machine Intelligent
c. Programming on Machine with your Own Intelligence
d. Putting your intelligence in Machine

ANS: b

2) An AI agent perceives and acts upon the environment using___.

a. Sensors
b. Perceiver
c. Actuators
d. Both a and c

ANS: d

3) Which AI technique enables the computers to understand the associations and relationships between objects and events?

a. Heuristic Processing
b. Cognitive Science
c. Relative Symbolism
d. Pattern Matching

ANS: d

4) Automatic Reasoning tool is used in____.

a. Personal Computers
b. Microcomputers
c. LISP Machines
d. All of the above

ANS: c



5) Which algorithm takes two sentences as input and returns a Unifier?

a. Inference
b. Hill-Climbing
c. Unify algorithm
d. Depth-first search

ANS: c

6) Ways to achieve AI in real-life are_____.

a. Machine Learning
b. Deep Learning
c. Both a & b
d. None of the above

ANS: c

7) The main tasks of an AI agent are_____.

a. Input and Output
b. Moment and Humanly Actions
c. Perceiving, thinking, and acting on the environment
d. None of the above

ANS: c

8) The best AI agent is one which_____

a. Needs user inputs for solving any problem
b. Can solve a problem on its own without any human intervention
c. Need a similar exemplary problem in its knowledge base
d. All of the above

ANS: b



9) The Bayesian Network gives_____

a. A complete description of the problem
b. Partial Description of the domain
c. A complete description of the domain
d. None of the above

ANS: c

10) How many types of Machine Learning are there?

a. 1
b. 2
c. 3
d. 4

ANS: c

PROGRAM COORDINATOR

COLLEGE OF ENGG. & TECHNOLOGY * NPRCOLLEGE NATHAM

HoD/ECE

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Natham, Dindigul (DT) - 624 401.

NPR College of Engineering & Technology

NPR Nagar, Natham, Dindigul - 624401, Tamil Nadu, India.
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON DATA SCIENCE & AI

STUDENT FEEDBACK

Name of the Student : S. BALACHANDAR **Year / Semester:** IV & 8th

Name of the Program: DATA SCIENCE & AI

S.NO.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1.	Course Content	✓			
2.	Way of exposed new knowledge and practices		✓		
3.	Examples Provided during this course		✓		
4.	Course delivered by Resource Person	✓			
5.	Time Management	✓			
6.	Overall rating of this course		✓		
7.	Any Other Comments / Suggestions	The session is very useful to know about AI			

COLLEGE OF ENGG. & TECHNOLOGY * NPR * NATHAM

PROGRAM COORDINATOR

HoD/ECE

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON DATA SCIENCE & AI

STUDENT FEEDBACK

Name of the Student : VARSHINI. B	**Year / Semester:** III rd 4 / 6 th
Name of the Program: DATA SCIENCE & AI	

S.NO.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1.	Course Content	✓			
2.	Way of exposed new knowledge and practices		✓		
3.	Examples Provided during this course	✓			
4.	Course delivered by Resource Person	✓			
5.	Time Management		✓		
6.	Overall rating of this course	✓			
7.	Any Other Comments / Suggestions	This program is very helpful for us to gain knowledge in Data science			

PROGRAM COORDINATOR

NPR COLLEGE OF ENGG. & TECHNOLOGY * NATHAM

HoD/ECE

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON DATA SCIENCE & AI

STUDENT FEEDBACK

Name of the Student :	PORKODI S	**Year / Semester:**	II yr 4th sem
Name of the Program:	DATA SCIENCE & AI		

S.NO.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1.	Course Content	✓			
2.	Way of exposed new knowledge and practices	✓			
3.	Examples Provided during this course		✓		
4.	Course delivered by Resource Person	✓			
5.	Time Management	✓			
6.	Overall rating of this course		✓		
7.	Any Other Comments / Suggestions	This session is useful for me to Know about Datascience & AI			

PROGRAM COORDINATOR

HoD/ECE

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON DATA SCIENCE & AI

STUDENT FEEDBACK SUMMARY REPORT

TOTAL STRENGTH: 85 **DATE: 27.02.21**

S.NO.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1.	Course Content	79	4	1	1
2.	Way of exposed new knowledge and practices	77	5	2	1
3.	Examples Provided during this course	78	5	1	1
4.	Course delivered by Resource Person	79	4	1	1
5.	Time Management	76	4	3	2
6.	Average	77.8	4.4	1.6	1.2



PROGRAM COORDINATOR

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PRINCIPAL

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON DATA SCIENCE & AI

SUMMARY REPORT

The Department of Electronics and Communication Engineering organized a certificate course on **"DATA SCIENCE & AI"** from 22.02.21 to 26.02.21 (5 Days) at ECE DSP Laboratory.

Ms.R.Atchaya, IV ECE delivered the welcome address during the inauguration function.

Dr.J.Sundararajan, Principal of our college inaugurated the program and delivered the inaugural address. Resources Persons Dr.T.Ruso and Er.K.Rameshkumar shared their knowledge with our students. This five days course gives over view about data science & AI and its growth. This program also taught the fundamentals and principles of DATA SCIENCE & AI and Simplify the AI Lifecycle of Preparing Data & Building, Deploying & Managing Your Models. Assess Your AI Journey and Turn Your Machine Learning Insights into Improved Actions. Pattern Detection. Engage an Expert. Predictive Capabilities. The students learnt various existing and emerging technologies of DATA SCIENCE & AI.

85 Students attended from ECE II, III and IV years. Students who participated and successfully completed the Quiz program were awarded with certificates.

Ms. S.Abinaya, III ECE delivered the vote of thanks.

PROGRAM COORDINATOR

HoD/ECE

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PRINCIPAL

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON DATA SCIENCE & AI

COURSE MATERIAL

Material Link:

CHAPTER1: https://www.mygreatlearning.com/blog/artificial-intelligence-books/

CHAPTER2: https://www.goodreads.com/book/show/43093052-analytics-data-science-artificial-intelligence

CHAPTER3: https://www.datasciencenigeria.org/ai-beginners/

CHAPTER4:https://hackr.io/tutorials/learn- artificial-intelligence

CHAPTER5:https://www.coursera.org/learn/ artificial-intelligence

Further Study:

1. Data *Science:* Getting Started with Sketches (Tab) 2nd Edition, Kindle Edition by simon monk
2. *Exploring AI* 1st Edition by Jeremy Blum
3. *Getting Started with Machine learning: The Open Source Electronics Prototyping Platform (Make) 3rd Edition by Massimo Banzi*
4. *Soft Computing: A Hands-On Introduction with 65 Projects 1st Edition by John Boxall*
5. *Beginning Artificial-Intelligence. Edition by Jack Purdum*

PROGRAM COORDINATOR **HoD/ECE** **PRINCIPAL**

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Ms. R. Athaya, IV ECE

for the successful completion of Certificate Course on
"DATA SCIENCE & AI"
Conducted from 22.02.2021 to 26.02.2021(5 days)

HOD-ECE
Dr.A.GOPISAMINATHAN

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

PRINCIPAL
Dr.J.SUNDARARAJAN

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Mr. C. Saravanakumar, IV ECE

for the successful completion of Certificate Course on
"DATA SCIENCE & AI"
Conducted from 22.02.2021 to 26.02.2021(5 days)

HOD-ECE
Dr.A.GOPISAMINATHAN

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PRINCIPAL
Dr.J.SUNDARARAJAN

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Ms. M. Abilasha, III ECE

for the successful completion of Certificate Course on
"DATA SCIENCE & AI"
Conducted from 22.02.2021 to 26.02.2021(5 days)

HOD-ECE
Dr.A.GOPISAMINATHAN

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PRINCIPAL
Dr.J.SUNDARARAJAN

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Mr. K. Ajithkumar, II ECE

for the successful completion of Certificate Course on
"DATA SCIENCE & AI"
Conducted from 22.02.2021 to 26.02.2021(5 days)

HOD-ECE
Dr.A.GOPISAMINATHAN

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Ms. P. Sneha, II ECE

for the successful completion of Certificate Course on
"DATA SCIENCE & AI"
Conducted from 22.02.2021 to 26.02.2021(5 days)

HOD-ECE
Dr.A.GOPISAMINATHAN

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON EMBEDDED C WITH RTOS AND IOT

INDEX

COURSE CODE & NAME: **20ECCC04-EMBEDDED C WITH RTOS AND IOT**

ACADEMIC YEAR: **2020-2021** SEMESTER: **EVEN** DURATION: **34 HOURS**

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PROGRAM COORDINATOR HoD/ECE IQAC PRINCIPAL

Head of the Department
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Coordinator - IQAC
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON DATA SCIENCE & AI

PERMISSION LETTER

From

Mr.J.G.Sabarish,

Assistant Professor,

Department of Electronics and Communication Engineering,

NPR College of Engineering & Technology,

Natham.

To

The Principal,

NPR College of Engineering & Technology,

Natham.

Respected Sir,

Sub: Request for permission to conduct certificate program for ECE students – Reg

We have planned to conduct certificate program on "EMBEDDED C WITH RTOS AND IOT" to our students on 08.03.21, 10.03.21, 11.03.21, 12.03.21 and 13.03.21 (5 Days) in our college premises. We proposed Mr.M.Vignesh Kumar, Senior Engineer, Flextronics Technologies India Pvt Ltd, as resource person for this certificate course program. Kindly permit us to conduct the same.

Thanking you.

Yours faithfully,

Date: 24.02.21

Place: Natham

Head of the Department
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NPR College of Engineering & Technology
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON EMBEDDED C WITH RTOS AND IOT

RESOURCE PERSON PROFILE

Name	:	**Er.M.Vignesh Kumar**
Designation	:	Senior Engineer
Company Name	:	Flextronics Technologies India Pvt Ltd, Chennai.
About Resource Person	:	10+ years of professional experience in the area of Telecom nodes integration and Embedded programming. Experience in system Design HLD, LLD, Acceptance Testing, Implementation support.

Name	:	**Er.S.Suresh Kumar**
Designation	:	Senior Solution Architect
Company Name	:	Ericsson India Pvt Ltd
About Resource Person	:	➢ 14+ years of professional experience in the area of Telecom nodes integration, operation and maintenance. ➢ Experience in Solution Design HLD, LLD, Acceptance Testing, Implementation support, Operation & Maintenance of Packet core nodes and NFVI (HDS and CEE) ➢ Ericsson Packet Core Professional Certifications(EPG,SGSN-MME and SAPC) ➢ Hands on experience on protocol analyzers like Wire shark and testing tool like IXIA ➢ Basic Technical knowledge of Juniper routers and switches and IOT configurations.

PROGRAM COORDINATOR

HoD/ECE

Head of the Department
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NPRCET/OFF/ECE/VAC/2020-2021 DATE: 01.03.2021

CIRCULAR

This is to inform that Department of Electronics and Communication Engineering has planned to conduct a Certificate Course on **"EMBEDDED C WITH RTOS AND IOT"** for the students during the end of this even semester 2020-2021. Interested students can enroll their name on or before 06.03.2021.

The details of the training program are given below.

COURSE NAME	:	EMBEDDED C WITH RTOS AND IOT
RESOURCE PERSONS	:	1.Er.M.Vignesh Kumar 2. Er.K.Ramesh Kumar
VENUE	:	NPRCET Seminar Hall
DATE & DURATION	:	08.03.21,10.03.21,11.03.21,12.03.21 , 13.03.21 & 34 Hours
PROGRAM COORDINATOR	:	Mr.J.G.Sabarish, AP/ECE

PRINCIPAL

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

Copy to:

1. All the HoDs
2. IQAC
3. All the Class Rooms
4. Notice Board
5. File
6. Program Coordinator

NPR College of Engineering & Technology

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The Management, Principal, Staff and Students

Cordially invite you for the inauguration of

"Certificate Course on Embedded C with RTOS and IOT"

On 8th March, 2021

Venue: NPRCET Auditorium at 9.30 a.m.

Chief Guest

Mr.M.VIGNESH KUMAR

Flextronics Technologies India Pvt Ltd, Chennai.

Dr.J.Sundararajan

Principal,

NPR College of Engineering & Technology

Felicitates the function

Organized By

Department of Electronics and Communication Engineering,

NPR College of Engineering & Technology,

NPR Nagar, Natham.

NPR COLLEGE OF ENGG & TECHNOLOGY * NATHAM

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON EMBEDDED C WITH RTOS AND IOT

20ECCC04- EMBEDDED C WITH RTOS AND IOT - COURSE CONTENT

CHAPTER 1: EMBEDDED C PROGRAMMING

- Fundamentals of C and Data types and Constants
- Simple & Formatted I/O and Memory Usage
- Operators & Expressions
- Flow Control and Loops

CHAPTER 2: FUNCTIONS AND ARRAYS

- Returning values from Functions and Recursive Functions
- Call Back Functions and Implications on Stack
- Multi Dimensional Arrays and Arrays of Characters and Strings
- Arrays and Pointers and Passing arrays to functions

CHAPTER 3: STRUCTURES & UNIONS

- Declaration, initialization
- Accessing like objects
- Nested Structures
- Array of Structures and Passing structures through functions

CHAPTER4: POINTERS

- Pointer Assignment & Pointer Arithmetic
- Multiple indirections & Advanced pointer types
- Generic and Null Pointer & Function Pointers
- Pointers to Arrays and Strings

CHAPTER5: IOT AND RTOS

- Sensors & Actuators
- Hardware Platforms
- Wireless Communication Protocols
- Network communication Protocols

CRITERIA TO GET CERTIFICATE:

- Students should register their names for this course
- Students must have **85%** attendance.
- Student should secure **50% marks in the Exam.**

Prepared By: S.Sudhakar, AP/ECE

Approved By,

HoD/ECE

Head of the Department
Department of Electronics & Communication Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

IQAC

Coordinator - IQAC
NPR College of Engineering & Technology
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PRINCIPAL

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON EMBEDDED C WITH RTOS AND IOT

REGISTERED STUDENTS NAME LIST

S.NO.	REGISTER NUMBER	STUDENT NAME	YEAR
1	920817106016	DEEPIKA.D	IV ECE
2	920817106017	DEVADHARSHINI.R	IV ECE
3	920817106018	DHANALAKSHMI.A	IV ECE
4	920817106019	DHARINI.S	IV ECE
5	920817106021	GAYATHRI.A.K.	IV ECE
6	920817106022	GAYATHRI.I	IV ECE
7	920817106023	GOWRI.M	IV ECE
8	920817106026	ISWARYA.N	IV ECE
9	920817106027	JANAKI.S	IV ECE
10	920817106028	JEEVIDHA RAVEENA.S	IV ECE
11	920817106031	KANMANI.M	IV ECE
12	920817106032	KEERTHANA.B	IV ECE
13	920817106033	KEERTHIKA.K	IV ECE
14	920817106034	MADDHUMITHA.J.A.	IV ECE
15	920817106035	MADHUMITHA.V	IV ECE
16	920817106036	MAHESH BOOPATHI.K	IV ECE
17	920817106037	MANIKANDAN.T.S	IV ECE
18	920817106039	MEENA VISHALI.M.G	IV ECE
19	920817106040	MOHANAPRIYA.M	IV ECE
20	920817106041	MOHANAPRIYA.S	IV ECE
21	920817106047	POOJA.G.S.	IV ECE
22	920817106048	PREETHI.G	IV ECE
23	920817106049	RAJALAXMI.S	IV ECE
24	920817106051	SAKTHIVEL.M	IV ECE
25	920817106053	SANDHURU.M	IV ECE
26	920817106054	SANGEETHA.A	IV ECE
27	920817106055	SARAVANAKUMAR.C	IV ECE
28	920817106056	SATHEESHKUMAR.T	IV ECE
29	920817106057	SATHISH.K	IV ECE
30	920817106058	SELVAMANI.K.K	IV ECE
31	920817106059	SHANMUGAPRIYA.C	IV ECE
32	920817106060	SHEMA.S	IV ECE
33	920817106061	SHIFA PARVEEN.S	IV ECE
34	920817106063	SIVARANJANI.C	IV ECE
35	920817106064	SOUNDARIYA.V	IV ECE
36	920817106065	SOWLASH KUMAR.G	IV ECE
37	920817106066	SRIDHARSHINI.T	IV ECE
38	920817106068	SRIRAM.G	IV ECE
39	920817106069	SUJITHA.M	IV ECE
40	920817106070	SURYAKALA.V	IV ECE
41	920818106005	DHARSHINI.V	III ECE

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42	920818106007	DURGADEVI.B	III ECE
43	920818106008	DURGADEVI.S	III ECE
44	920818106009	HARIPRIYA.M	III ECE
45	920818106010	ILAKKIYA.B	III ECE
46	920818106011	JAYA PRATHAP.S	III ECE
47	920818106012	JEYARAJ.S	III ECE
48	920818106013	KIRUTHIKA.R	III ECE
49	920818106014	MANOJ PRABHAKAR,.V	III ECE
50	920818106016	MUKESH KANNA.G	III ECE
51	920818106017	MUTHU VIGNESH.M	III ECE
52	920818106018	NISHA.M	III ECE
53	920818106019	NIVETHA.K.S	III ECE
54	920818106020	PONBHARATHI.V	III ECE
55	920818106021	PRAVEEN MARUDHU.S	III ECE
56	920818106022	PUGALARASU.S	III ECE
57	920818106023	PUSHPA PRIYADHARSHINI.R	III ECE
58	920818106024	RAJKUMAR.K	III ECE
59	920818106026	SARITHA RANI.K	III ECE
60	920818106027	SARUMATHI.R	III ECE
61	920818106028	SATHISH KUMAR.G	III ECE
62	920818106029	SEEMA FATHIMA.S	III ECE
63	920818106030	SNEHA.R (H)	III ECE
64	920818106031	SOWMIYA.P	III ECE
65	920818106032	SREE RAGA SUDHA.K	III ECE
66	920818106033	SURYA PRAKASH.V.M	III ECE
67	920818106035	SWETHA.M	III ECE
68	920819106021	JYOTHIKA B	II ECE
69	920819106022	KAMALESH K	II ECE
70	920819106023	KARUNIAA J S	II ECE
71	920819106024	KEERTHI M	II ECE
72	920819106025	KIRTHICK N	II ECE
73	920819106026	KISHOREKRISHNAA J	II ECE
74	920819106028	MADHUMITHA P	II ECE
75	920819106029	MANOJ KUMAR .A	II ECE
76	920819106030	MANOJKUMAR. S	II ECE
77	920819106031	MOHAMED ASIF M	II ECE
78	920819106032	MOHAMEDIBRAHIM J	II ECE
79	920819106033	MOHAN BABU B	II ECE
80	920819106034	MOHAN S	II ECE
81	920819106053	SARAN G V	II ECE
82	920819106054	SASMITHA PARVEEN K	II ECE
83	920819106055	SHAM HIRUTHIK R	II ECE
84	920819106056	SHARAN S	II ECE
85	920819106057	SHARMILA DEVI G	II ECE
86	920819106058	SHINY RESHMA J	II ECE
87	920819106059	SINGARABRINDHA N	II ECE
88	920819106060	SNEHA P	II ECE
89	920819106061	SOUNDHARYA S	II ECE
90	920819106062	SUMUGAPRIYA M	II ECE

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91	920819106063	THAMBI DURAI P K	II ECE
92	920819106064	THARSHITHA	II ECE
93	920819106065	THARUNKUMAR M	II ECE
94	920819106069	VISHALI K	II ECE
95	920819106070	YASHICA S	II ECE

PROGRAM COORDINATOR

HoD/ECE

Head of the Department
Department of Electronics & Communication Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON EMBEDDED C WITH RTOS AND IOT

COURSE SCHEDULE

Venue: NPRCET Seminar Hall

Date: 06.03.2021

EXTERNAL RESOURCE PERSONS:
1. Er.M.Vignesh Kumar
2. Er.S.Suresh Kumar

INTERNAL RESOURCE PERSONS:
1.Mr.K.Jayaprakasam,AP-ECE
2.Mr.S.Sudhakar,AP-ECE

Day 1 08.03.2021	9.30 a.m. to 10.00 a.m.	**Inauguration**	
	10. 00 a.m. to 11.10 a.m.	Session 1	Fundamentals of C and Data types and Constants **Er.M.Vignesh kumar**
	11.10 a.m. to 11.30 a.m.	*Tea Break*	
	11.30 a.m. to 1.10 p.m.	Session 2	Simple & Formatted I/O and Memory Usage **Mr.S.Sudhakar**
	1.10 p.m. to 2.00 p.m.	*Lunch Break*	
	2.00 p.m. to 3.40 p.m.	Session 3	Operators & Expressions **Mr.K.Jayaprakasam**
	3.40 p.m. to 3.50 p.m.	*Tea Break*	
	3.50 p.m. to 4.30 p.m.	Session 4	Flow Control and Loops **Er.S.Suresh Kumar**

Day 2 10.03.2021	9.30 a.m. to 11.10 a.m.	Session 1	Returning values from Functions and Recursive Functions. **Er.M.Vignesh kumar**
	11.10 a.m. to 11.30 a.m.	Tea Break	
	11.30 a.m. to 1.10 p.m.	Session 2	Call Back Functions and Implications on Stack. **Er.S.Suresh Kumar**
	1.10 p.m. to 2.00 p.m.	Lunch Break	
	2.00 p.m. to 3.40 p.m.	Session 3	Multi Dimensional Arrays and Arrays of Characters and Strings. **Mr.S.Sudhakar**
	3.40 p.m. to 3.50 p.m.	Tea Break	
	3.50 p.m. to 4.30 p.m.	Session 4	Arrays and Pointers and Passing arrays to functions **Mr.K.Jayaprakasam**



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Day 3 11.03.2021	9.30 a.m. to 11.10 a.m.	Session 1	Declaration, initialization **Er.M.Vignesh kumar**
	11.10 a.m. to 11.30 a.m.	Tea Break	
	11.30 a.m. to 1.10 p.m.	Session 2	Accessing like objects **Mr.S.Sudhakar**
	1.10 p.m. to 2.00 p.m.	Lunch Break	
	2.00 p.m. to 3.40 p.m.	Session 3	Nested Structures **Er.S.Suresh Kumar**
	3.40 p.m. to 3.50 p.m.	Tea Break	
	3.50 p.m. to 4.30 p.m.	Session 4	Array of Structures and Passing structures through functions **Mr.K.Jayaprakasam**
Day 4 12.03.2021	9.30 a.m. to 11.10 a.m.	Session 1	Pointer Assignment & Pointer Arithmetic **Mr.K.Jayaprakasam**
	11.10 a.m. to 11.30 a.m.	Tea Break	
	11.30 a.m. to 1.10 p.m.	Session 2	Multiple indirections & Advanced pointer types **Er.M.Vignesh kumar**
	1.10 p.m. to 2.00 p.m.	Lunch Break	
	2.00 p.m. to 3.40 p.m.	Session 3	Generic and Null Pointer & Function Pointers **Er.S.Suresh Kumar**
	3.40 p.m. to 3.50 p.m.	Tea Break	
	3.50 p.m. to 4.30 p.m.	Session 4	Pointers to Arrays and Strings **Mr.S.Sudhakar**
Day 5 13.03.2021	9.30 a.m. to 11.10 a.m.	Session 1	Sensors & Actuators **Er.M.Vignesh kumar**
	11.10 a.m. to 11.30 a.m.	Tea Break	
	11.30 a.m. to 1.10 p.m.	Session 2	Hardware Platforms **Mr.K.Jayaprakasam**
	1.10 p.m. to 2.00 p.m.	Lunch Break	
	2.00 p.m. to 3.40 p.m.	Session 3	Wireless Communication Protocols **Mr.S.Sudhakar**
	3.40 p.m. to 3.50 p.m.	Tea Break	
	3.50 p.m. to 4.30 p.m.	Session 4	Network communication Protocols **Er.S.Suresh Kumar**
	4.30 p.m. to 5.00 p.m.	**Valedictory**	

PROGRAM COORDINATOR | HoD/ECE | IQAC | PRINCIPAL

Head of the Department
Department of Electronics & Communication Engineering
NPR College of Engineering & Technology
Natham, Dindigul

Coordinator - IQAC
NPR College of Engineering & Technology
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Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON EMBEDDED C WITH RTOS AND IOT

STUDENTS' ATTENDANCE

Sl.No.	Roll No.	Student Name	Year	08.03.21		10.03.21		11.03.21		12.03.21		13.03.21	
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1	20ECCC04001	DEEPIKA.D	IV ECE	/	/	/	/	/	/	/	/	/	/
2	20ECCC04002	DEVADHARSHINI.R	IV ECE	/	/	/	/	/	/	/	/	/	/
3	20ECCC04003	DHANALAKSHMI.A	IV ECE	/	/	/	/	/	/	/	/	/	/
4	20ECCC04004	DHARINI.S	IV ECE	/	/	/	/	/	/	/	/	/	/
5	20ECCC04005	GAYATHRI.A.K.	IV ECE	/	/	/	/	/	/	/	/	/	/
6	20ECCC04006	GAYATHRI.I	IV ECE	/	/	/	/	/	/	/	/	/	/
7	20ECCC04007	GOWRI.M	IV ECE	/	/	/	/	/	/	/	/	/	/
8	20ECCC04008	ISWARYA.N	IV ECE	/	/	/	/	/	/	/	/	/	/
9	20ECCC04009	JANAKI.S	IV ECE	/	/	/	/	/	/	/	/	/	/
10	20ECCC04010	JEEVIDHA RAVEENA.S	IV ECE	/	/	/	/	/	/	/	/	/	/
11	20ECCC04011	KANMANI.M	IV ECE	/	/	/	/	/	/	/	/	/	/
12	20ECCC04012	KEERTHANA.B	IV ECE	/	/	/	/	/	/	/	/	/	/
13	20ECCC04013	KEERTHIKA.K	IV ECE	/	/	/	/	/	/	/	/	/	/
14	20ECCC04014	MADDHUMITHA.J.A.	IV ECE	/	/	/	/	/	/	/	/	/	/
15	20ECCC04015	MADHUMITHA.V	IV ECE	/	/	/	/	/	/	/	/	/	/
16	20ECCC04016	MAHESH BOOPATHI.K	IV ECE	/	/	/	/	/	/	/	/	/	/
17	20ECCC04017	MANIKANDAN.T.S	IV ECE	/	/	/	/	/	/	/	/	/	/
18	20ECCC04018	MEENA VISHALI.M.G	IV ECE	/	/	/	/	/	/	/	/	/	/
19	20ECCC04019	MOHANAPRIYA.M	IV ECE	/	/	/	/	/	/	/	/	/	/
20	20ECCC04020	MOHANAPRIYA.S	IV ECE	/	/	/	/	/	/	/	/	/	/
21	20ECCC04021	POOJA.G.S.	IV ECE	/	/	/	/	/	/	/	/	/	/
22	20ECCC04022	PREETHI.G	IV ECE	/	/	/	/	/	/	/	/	/	/
23	20ECCC04023	RAJALAXMI.S	IV ECE	/	/	/	/	/	/	/	/	/	/
24	20ECCC04024	SAKTHIVEL.M	IV ECE	/	/	/	/	/	/	/	/	/	/
25	20ECCC04025	SANDHURU.M	IV ECE	/	/	/	/	/	/	/	/	/	/
26	20ECCC04026	SANGEETHA.A	IV ECE	/	/	/	/	/	/	/	/	/	/
27	20ECCC04027	SARAVANAKUMAR.C	IV ECE	/	/	/	/	/	/	/	/	/	/
28	20ECCC04028	SATHEESHKUMAR.T	IV ECE	/	/	/	/	/	/	/	/	/	/
29	20ECCC04029	SATHISH.K	IV ECE	/	/	/	/	/	/	/	/	/	/
30	20ECCC04030	SELVAMANI.K.K	IV ECE	/	/	/	/	/	/	/	/	/	/
31	20ECCC04031	SHANMUGAPRIYA.C	IV ECE	/	/	/	/	/	/	/	/	/	/
32	20ECCC04032	SHEMA.S	IV ECE	/	/	/	/	/	/	/	/	/	/
33	20ECCC04033	SHIFA PARVEEN.S	IV ECE	/	/	/	/	/	/	/	/	/	/
34	20ECCC04034	SIVARANJANI.C	IV ECE	/	/	/	/	/	/	/	/	/	/
35	20ECCC04035	SOUNDARIYA.V	IV ECE	/	/	/	/	/	/	/	/	/	/
36	20ECCC04036	SOWLASH KUMAR.G	IV ECE	/	/	/	/	/	/	/	/	/	/
37	20ECCC04037	SRIDHARSHINI.T	IV ECE	/	/	/	/	/	/	/	/	/	/
38	20ECCC04038	SRIRAM.G	IV ECE	/	/	/	/	/	/	/	/	/	/
39	20ECCC04039	SUJITHA.M	IV ECE	/	/	/	/	/	/	/	/	/	/
40	20ECCC04040	SURYAKALA.V	IV ECE	/	/	/	/	/	/	/	/	/	/
41	20ECCC04041	DHARSHINI.V	III ECE	/	/	/	/	/	/	AN	AN	/	/

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42	20ECCC04042	DURGADEVI.B	III ECE	/	/	/	/	/	/	/	/	AB	AB
43	20ECCC04043	DURGADEVI.S	III ECE	/	/	/	/	/	/	/	/	/	/
44	20ECCC04044	HARIPRIYA.M	III ECE	/	/	/	/	/	/	/	/	/	/
45	20ECCC04045	ILAKKIYA.B	III ECE	/	/	/	/	/	/	/	/	/	/
46	20ECCC04046	JAYA PRATHAP.S	III ECE	/	/	/	/	/	/	/	/	/	/
47	20ECCC04047	JEYARAJ.S	III ECE	/	/	/	/	/	/	/	/	/	/
48	20ECCC04048	KIRUTHIKA.R	III ECE	/	/	/	/	/	/	/	/	/	/
49	20ECCC04049	MANOJ PRABHAKAR.V	III ECE	/	/	/	/	/	/	/	/	/	/
50	20ECCC04050	MUKESH KANNA.G	III ECE	/	/	/	/	/	/	/	/	/	/
51	20ECCC04051	MUTHU VIGNESH.M	III ECE	/	/	/	/	/	/	/	/	/	/
52	20ECCC04052	NISHA.M	III ECE	/	/	/	/	/	/	/	/	/	/
53	20ECCC04053	NIVETHA.K.S	III ECE	/	/	/	/	/	/	/	/	/	/
54	20ECCC04054	PONBHARATHI.V	III ECE	/	/	/	/	/	/	/	/	/	/
55	20ECCC04055	PRAVEEN MARUDHU.S	III ECE	/	/	/	/	/	/	/	/	/	/
56	20ECCC04056	PUGALARASU.S	III ECE	/	/	/	/	/	/	/	/	/	/
57	20ECCC04057	PUSHPA PRIYADHARSHINI.R	III ECE	/	/	/	/	/	/	/	/	/	/
58	20ECCC04058	RAJKUMAR.K	III ECE	/	/	/	/	/	/	/	/	/	/
59	20ECCC04059	SARITHA RANI.K	III ECE	/	/	/	/	/	/	/	/	/	/
60	20ECCC04060	SARUMATHI.R	III ECE	/	/	/	/	/	/	/	/	/	/
61	20ECCC04061	SATHISH KUMAR.G	III ECE	/	/	/	/	/	/	/	/	/	/
62	20ECCC04062	SEEMA FATHIMA.S	III ECE	/	/	/	/	/	/	/	/	/	/
63	20ECCC04063	SNEHA.R (H)	III ECE	/	/	/	/	/	/	/	/	/	/
64	20ECCC04064	SOWMIYA.P	III ECE	/	/	/	/	/	/	/	/	/	/
65	20ECCC04065	SREE RAGA SUDHA.K	III ECE	/	/	/	/	/	/	/	/	/	/
66	20ECCC04066	SURYA PRAKASH.V.M	III ECE	/	/	/	/	/	/	/	/	/	/
67	20ECCC04067	SWETHA.M	III ECE	/	/	/	/	/	/	/	/	/	/
68	20ECCC04068	JYOTHIKA B	II ECE	/	/	/	/	/	/	/	/	/	/
69	20ECCC04069	KAMALESH K	II ECE	/	/	/	/	/	/	/	/	/	/
70	20ECCC04070	KARUNIAA J S	II ECE	/	/	/	/	/	/	/	/	/	/
71	20ECCC04071	KEERTHI M	II ECE	/	/	/	/	/	/	/	/	/	/
72	20ECCC04072	KIRTHICK N	II ECE	/	/	/	/	/	/	/	/	/	/
73	20ECCC04073	KISHOREKRISHNAA J	II ECE	/	/	/	/	/	/	/	/	/	/
74	20ECCC04074	MADHUMITHA P	II ECE	/	/	/	/	/	/	/	/	/	/
75	20ECCC04075	MANOJ KUMAR .A	II ECE	/	/	/	/	/	/	/	/	/	/
76	20ECCC04076	MANOJKUMAR. S	II ECE	/	/	/	/	/	/	/	/	/	/
77	20ECCC04077	MOHAMED ASIF M	II ECE	/	/	/	/	/	/	/	/	/	/
78	20ECCC04078	MOHAMEDIBRAHIM J	II ECE	/	/	/	/	/	/	/	/	/	/
79	20ECCC04079	MOHAN BABU B	II ECE	/	/	/	/	/	/	/	/	/	/
80	20ECCC04080	MOHAN S	II ECE	/	/	/	/	/	/	/	/	/	/
81	20ECCC04081	SARAN G V	II ECE	/	/	/	/	/	/	/	/	/	/
82	20ECCC04082	SASMITHA PARVEEN K	II ECE	/	/	/	/	/	/	/	/	/	/
83	20ECCC04083	SHAM HIRUTHIK R	II ECE	/	/	/	/	/	/	/	/	/	/
84	20ECCC04084	SHARAN S	II ECE	/	/	/	/	/	/	/	/	/	/
85	20ECCC04085	SHARMILA DEVI G	II ECE	/	/	/	/	/	/	/	/	/	/
86	20ECCC04086	SHINY RESHMA J	II ECE	/	/	/	/	/	/	/	/	/	/
87	20ECCC04087	SINGARABRINDHA N	II ECE	/	/	/	/	/	/	/	/	/	/
88	20ECCC04088	SNEHA P	II ECE	/	/	/	/	/	/	/	/	/	/
89	20ECCC04089	SOUNDHARYA S	II ECE	/	/	/	/	/	/	/	/	/	/
90	20ECCC04090	SUMUGAPRIYA M	II ECE	/	/	/	/	/	/	/	/	/	/

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91	20ECCC04091	THAMBI DURAI P K	II ECE	/	/	/	/	/	/	/	/	/	/		
92	20ECCC04092	THARSHITHA	II ECE	/	/	/	/	/	/	AB	AB	/	/		
93	20ECCC04093	THARUNKUMAR M	II ECE	/	/	AB	AB	/	/	/	/	/	/		
94	20ECCC04094	VISHALI K	II ECE	/	/	/	/	/	/	/	/	/	/		
95	20ECCC04095	YASHICA S	II ECE	/	/	/	/	/	/	/	/	/	/		
			PRESENT	95	95	94	94	95	95	93	93	94	94		
			ABSENT	—	—	01	01	—	—	02	02	01	01		
			COORDINATOR SIGNATURE												

HoD/ECE

Head of the Department
Department of Electronics & Communication Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

PRINCIPAL

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

NPR College of Engineering & Technology

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON EMBEDDED C WITH RTOS AND IOT

20ECCC04- EMBEDDED C WITH RTOS AND IOT -QUIZ QUESTION PAPER & ANSWER

1. Which of the factors affect the performance of learner system does not include?
a) Representation scheme used
b) Training scenario
c) Type of feedback
d) Good data structures
Answer: d

2. Different learning methods does not include?
a) Memorization
b) Analogy
c) Deduction
d) Introduction
Answer: d

3. In language understanding, the levels of knowledge that does not include?
a) Phonological
b) Syntactic
c) Empirical
d) Logical
Answer: c

4. A model of language consists of the categories which does not include?
a) Language units
b) Role structure of units
c) System constraints
d) Structural units
Answer: d

5. The action 'STACK(A, B)' of a robot arm specify to _____
a) Place block B on Block A
b) Place blocks A, B on the table in that order
c) Place blocks B, A on the table in that order
d) Place block A on block B
Answer: d

6. ML is a field of AI consisting of learning algorithms that?
a). Improve their performance
b). At executing some task
c). Over time with experience
d). All of the above
Ans : d

7. A model of language consists of the categories which does not include _____.

a). System Unit
b). structural units.
c). data units
d). empirical units
Ans : b

8. Different learning methods does not include?

a). Introduction
b). Analogy
c). Deduction
d). Memorization
Ans : a

9. Which two components are a part of an embedded system?
a).MPU and MOS
b).CPU and DOS
c).CPU and OS
d).MPU and RTOS
Ans: c

10. What is Machine learning?
a) The autonomous acquisition of knowledge through the use of computer programs
b) The autonomous acquisition of knowledge through the use of manual programs
c) The selective acquisition of knowledge through the use of computer programs
d) The selective acquisition of knowledge through the use of manual programs
Answer: a

PROGRAM COORDINATOR

NPR COLLEGE OF ENGG & TECHNOLOGY NATHAM

HoD/ECE

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON EMBEDDED C WITH RTOS AND IOT

STUDENT FEEDBACK

Name of the Student : B. Jyothika	**Year / Semester:** II – 04
Name of the Program: Embedded C With RTOS and IOT	

S.NO.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1.	Course Content	✓			
2.	Way of exposed new knowledge and practices	✓			
3.	Examples Provided during this course		✓		
4.	Course delivered by Resource Person	✓			
5.	Time Management	✓			
6.	Overall rating of this course	✓			
7.	Any Other Comments / Suggestions	This course is very useful for me to learn about Embedded C			

PROGRAM COORDINATOR

COLLEGE OF ENGG. & TECHNOLOGY * NPR * NATHAM

HoD/ECE

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON EMBEDDED C WITH RTOS AND IOT

STUDENT FEEDBACK

Name of the Student : S. Pugalarasu	**Year / Semester:** III - 06
Name of the Program: Embedded C with RTOS and IOT	

S.NO.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1.	Course Content	✓			
2.	Way of exposed new knowledge and practices	✓			
3.	Examples Provided during this course	✓			
4.	Course delivered by Resource Person		✓		
5.	Time Management		✓		
6.	Overall rating of this course	✓			
7.	Any Other Comments / Suggestions	This program is very helpful to gain more knowledge.			

PROGRAM COORDINATOR

NPR COLLEGE OF ENGG & TECHNOLOGY NATHAM

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON EMBEDDED C WITH RTOS AND IOT

STUDENT FEEDBACK

Name of the Student : M. Sakthivel	**Year / Semester:** IV - 08
Name of the Program: Embedded C with RTOS and IOT	

S.NO.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1.	Course Content	✓			
2.	Way of exposed new knowledge and practices	✓			
3.	Examples Provided during this course	✓			
4.	Course delivered by Resource Person		✓		
5.	Time Management		✓		
6.	Overall rating of this course	✓			
7.	Any Other Comments / Suggestions	I have utilized this course to learn lot about Embedded C.			

PROGRAM COORDINATOR

HoD/ECE

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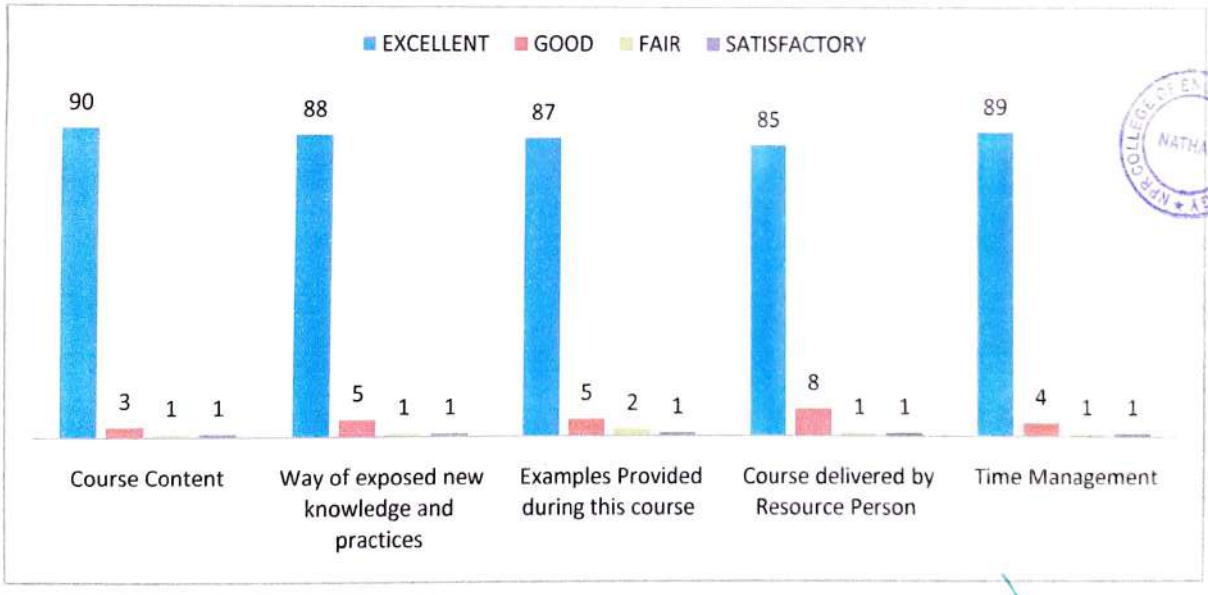
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON EMBEDDED C WITH RTOS AND IOT

STUDENT FEEDBACK SUMMARY REPORT

TOTAL STRENGTH: 95 **DATES: 15.03.21**

S.NO.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1.	Course Content	90	3	1	1
2.	Way of exposed new knowledge and practices	88	5	1	1
3.	Examples Provided during this course	87	5	2	1
4.	Course delivered by Resource Person	85	8	1	1
5.	Time Management	89	4	1	1
6.	Average	87.8	5	1.2	1



PROGRAM COORDINATOR **HoD/ECE** **PRINCIPAL**

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON EMBEDDED C WITH RTOS AND IOT

SUMMARY REPORT

The Department of Electronics and Communication Engineering organized a certificate program "EMBEDDED C WITH RTOS AND IOT" on 08.03.21, 10.03.21, 11.03.21, 12.03.21 and 13.03.21 (5 Days) at NPRCET Seminar Hall.

Ms.S.Janani, IV ECE delivered the welcome address during the inauguration function

Dr.J.Sundararajan, Principal of our college inaugurated the program and delivered the inaugural address.

Resource Person Er.M.Vignesh Kumar and Er.K.Ramesh Kumar shared their knowledge with our students. This five days course gives over an view about IOT and provides overview of an exciting growing field of IOT.

This program also taught the fundamentals and principles of embedded is an open-source electronics platform based on easy-to-use hardware and software. Embedded boards are able to read inputs - light on a sensor, a finger on a button, or a Twitter message - and turn it into an output - activating a motor, turning on an LED, publishing something online. The students learnt various existing and emerging technologies of embedded.

95 Students attended from II, III and IV year ECE classes. Students who participated and successfully completed the Quiz program were awarded with certificates.

Ms.S.Jeyaraj, III ECE delivered the vote of thanks during the valedictory function.

PROGRAM COORDINATOR **HoD/ECE** **PRINCIPAL**

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Department of Electronics & Communication Engineering
NPR College of Engineering & Technology
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Dr. J.SUNDARARAJAN,
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE COURSE ON EMBEDDED C WITH RTOS AND IOT

COURSE MATERIAL

MATERIAL LINK:

CHAPTER1:https://blog.coursesity.com/best-embedded C-tutorials/

CHAPTER2:https://core-electronics.com.au/tutorials/embedded-workshop-for-beginners.html

CHAPTER3:https://www.classcentral.com/tag/embedded

CHAPTER4:https://hackr.io/tutorials/learn-embedded

CHAPTER5:https://www.coursera.org/learn/embedded

FURTHER STUDY:

1. *Programming Embedded C: Getting Started with Sketches (Tab) 2nd Edition, Kindle Edition by simon monk*
2. *Exploring IOT 1st Edition by Jeremy Blum*
3. *Getting Started with IOT: The Open Source Electronics Prototyping Platform (Make) 3rd Edition by Massimo Banzi*
4. *Embeddded Workshop: A Hands-On Introduction with 65 Projects 1st Editionby John Boxall*
5. *Beginning C for IOT, Second Edition: Learn C Programming for the Embedded 2nd ed. Edition by Jack Purdum*

PROGRAM COORDINATOR **HoD/ECE** **PRINCIPAL**

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Ms. K. Vishali - II - ECE

For the successful completion of certificate course on
"EMBEDDED C WITH RTOS AND IOT"
Conducted on 08.03.21, 10.03.21, 11.03.21, 12.03.21 and 13.03.21(5 days)

HOD-ECE
Dr.A.GOPISAMINATHAN

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

PRINCIPAL
Dr.J.SUNDARARAJAN

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Mr. Thanunkumar. M, II-ECE

For the successful completion of certificate course on
"EMBEDDED C WITH RTOS AND IOT"
Conducted on 08.03.21, 10.03.21, 11.03.21, 12.03.21 and 13.03.21(5 days)

HOD-ECE
Dr.A.GOPISAMINATHAN

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

PRINCIPAL
Dr.J.SUNDARARAJAN

NPR College of Engineering & Technology

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Ms. R. Sneha, III-ECE

For the successful completion of certificate course on
"EMBEDDED C WITH RTOS AND IOT"
Conducted on 08.03.21, 10.03.21, 11.03.21, 12.03.21 and 13.03.21(5 days)

HOD-ECE
Dr.A.GOPISAMINATHAN

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Ms.V.Dharshini, III-ECE

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"EMBEDDED C WITH RTOS AND IOT"
Conducted on 08.03.21, 10.03.21, 11.03.21, 12.03.21 and 13.03.21(5 days)

HOD-ECE
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE OF COMPLETION

This certificate is presented to

Ms.D.Deepika, IV-ECE

For the successful completion of certificate course on
"EMBEDDED C WITH RTOS AND IOT"
Conducted on 08.03.21, 10.03.21, 11.03.21, 12.03.21 and 13.03.21(5 days)

HOD-ECE
Dr.A.GOPISAMINATHAN

Dr. J.SUNDARARAJAN,
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE COURSE

INDEX

COURSE CODE & NAME: **20EECC01 & MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS**

ACADEMIC YEAR: 2020 -21 SEMESTER: ODD DURATION: 35HOURS

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PROGRAM CO-ORDINATOR **HOD/EEE** **IQAC** **PRINCIPAL**

Head of the Department
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Coordinator - IQAC
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

PERMISSION LETTER

DATE: 17-08-2020

From:

Prof.G.Elangovan,
Head of the Department,
Electrical and Electronics Engineering,
NPR College of Engineering and Technology,
Natham.

To

The Principal,
NPR College of Engineering and Technology,
Natham.

Respected Sir,

Sub: Request for permission to conduct certificate course for EEE students – Regarding

With reference to the above subject, the application is hereby submitted for your approval to conduct certificate course on **"MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS"** to our students from 24.08.2020 to 28.08.2020 (5 Days) through online mode (Google Meet). In this regard We have proposed **Mr.K.Thirupathy Raja,**Hi-Tech CAD CAM Centre, as the resource person for this Certificate course. Kindly permit us to conduct the same.

REGISTRATION FORM LINK : https://forms.gle/VmjpYqearGLauXoY8

GOOGLE MEET LINK : **https://meet.google.com/uqn-bctg-**

Thanking you.

Yours faithfully,

(Prof.G.Elangovan)
Head of the Department
Department of Electrical & Electronics Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624401.

NPR College of Engineering & Technology
NPR Nagar, Natham, Dindigul - 624401, Tamil Nadu, India.
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE COURSE ON MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS

RESOURCE PERSONS PROFILE

Name	:	**Mr.K.Thirupathy Raja**
Designation	:	Course Trainer
Company Name	:	Hi-Tech CAD CAM Centre. Madurai.
About Resource Person	:	He is working as a senior Course Trainer at Hi-Tech CAD CAM Centre. Madurai. with more knowledge's in Software Design , ECAD MATLAB Programming

Name	:	**Mr.G.Kumaravel**
Designation	:	Course Trainer
Company Name	:	Hi-Tech CAD CAM Centre. Madurai.
About Resource Person	:	He is working as a Course Trainer at Hi-Tech CAD CAM Centre. Madurai. with more knowledge's in Software Design , ECAD SCADA,PLC and MATLAB

PROGRAM COORDINATOR **HOD/EEE** **IQAC** **PRINCIPAL**

Head of the Department
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NPRCET/OFF/EEE/VAC/2020-21 DATE: 19.08.2020

CIRCULAR

This is to inform that Department of Electrical and Electronics Engineering has planned to conduct a Certificate course on **"MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS"** for EEE students in our college campus during this odd semester 2020-21. Interested students can register their names by using below registration link or before 22.08.2020.

Registration form link:https://forms.gle/VmjpYqearGLauXoY8

The details of the training program are given below:

COURSE NAME	:	**MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS**
RESOURCE PERSONS	:	1. Mr.K.Thirupathy Raja 2.Mr.G.Kumaravel Hi-Tech CAD CAM Centre. Madurai
MODE	:	Through online mode (Google Meet) **https://meet.google.com/uqn-bctg-**
DATE & DURATION	:	24.08.2020 to 28.08.2020 & 35 Hours
PROGRAM COORDINATOR	:	Mr. T.Sivakumar, AP/EEE

PRINCIPAL

Dr. J.SUNDARARAJ
B.E., M.Tech., Ph.D
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

Copy to:

1. All the HoDs
2. IQAC
3. Notice Board
4. File
5. All the class rooms
6. Program Coordinator

NPR College of Engineering & Technology

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The Management, Principal, Staffs and Students

cordially invite you for the inauguration of

Certificate Course on

"MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS"

On 24th August, 2020

Venue: Through online mode (Google Meet) **at 10.00 a.m.**

Meeting link: https://meet.google.com/uqn-bctg

CHIEF GUEST

Mr.K.Thirupathy Raja

Hi-Tech CAD CAM Centre. Madurai

PRINCIPAL

Dr.J.SUNDARARAJAN

NPR College of Engineering and Technology

Felicitates the function

Organized by

Department of Electrical and Electronics Engineering,

NPR College of Engineering and Technology, NPR Nagar,

Natham.

NPR College of Engineering & Technology

NPR Nagar, Natham, Dindigul - 624401, Tamil Nadu, India.
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai.
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Phone No: 04544- 246 500, 246501, 246502.
Website : www.nprcolleges.org, www.nprcet.org, Email:nprcetprincipal@nprcolleges.org

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE COURSE

COURSE CODE & NAME: 20EECC01& MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS

COURSE CONTENT

CHAPTER-I Introduction to MATLAB	Brief Introduction
	Installation of MATLAB
	History
	Use of MATLAB
	Key features
CHAPTER-II MATLAB software	Introduction to MATLAB Software
	MATLAB window
	Command window
	Workspace
	Command history
	Setting directory
	Working with the MATLAB user interface
	Basic commands
	Assigning variables
	Operations with variables
CHAPTER-III Data files and Data types	Character and string
	Arrays and vectors
	Column vectors
	Row vectors
CHAPTER-IV Basic Mathematics	BODMAS Rules
	Arithmetic operations
	Operators and special characters
	Mathematical and logical operators
	Solving arithmetic equations
CHAPTER-V Operations on matrix	Creating rows and columns Matrix
	Matrix operations
	Finding transpose, determinant and inverse
	Solving matrix
	Working with script tools
	Writing Script file
	Executing script files
	The MATLAB Editor
	Saving m files

	Using block processing operations
	Calculus: Numerical Integration
	Linear Algebra
	Roots of Polynomials
	Algebraic equations
	Differential Equations (1st & 2nd order)
	Transforms (Fourier, Laplace, etc)
	Ordinary Differential equations
	Examples of few ODEs

Criteria to get certificate

- Students should register their names for this course
- Students must have 80% attendance
- Students should secure 50% marks in the exam

Prepared by: Mrs.K.Tamilselvi, AP/EEE

Approved by,

HOD/EEE

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IQAC

Coordinator - IQAC
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEEIRNG

CERTIFICATE COURSE ON MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS

STUDENTS WILLINGNESS LIST

S.No.	Reg. No.	Name
1	920817105001	ABDUL AJEESH.A
2	920817105003	ABUDHAGIR.K
3	920817105004	ARUNKUMAR.P
4	920817105006	CIRPA.A
5	920817105007	DINESHKUMAR.K(S/OKANNAN)
6	920817105008	DINESHKUMAR. (S/OKAMARAJ)
7	920817105009	DIVAKAR.M
8	920817105010	HARI HARAN S
9	920817105012	KATHIRAVAN.G
10	920817105013	MOHAMED FAIZ.A
11	920817105014	MOHAMEDRIYASDEEN.A
12	920817105015	NISHA.M
13	920817105016	PERUMAL R
14	920817105017	PRABAKARAN S
15	920817105018	RAMKUMAR.R
16	920817105019	RUBAKUMAR B
17	920817105020	SABARISH R
18	920817105022	SENTHILKUMARAN.V
19	920817105023	THIBAHAR.R
20	920817105301	MUHILVANI.A
21	920818105001	ARIVUSELVAN.S
22	920818105001	DEENA KARTHICK.M
23	920818105002	DINESH KUMAR.M
24	920818105004	.MANIVEL.C
25	920818105005	MONIKA.V
26	920818105006	SANJAY KISHORE.K.M
27	920818105007	SARAN.R.B
28	920818105701	VIGNESHWARAN.K

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE COURSE ON MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS

COURSE SCHEDULE

VENUE: Through online mode (Google Meet) **DATE: 24/08/2020**

Meeting link:https://meet.google.com/uqn-bctg

EXTERNAL RESOURCE PERSONS

1. Mr.K.Thirupathy Raja
2. Mr.G.Kumaravel
   Hi-Tech CAD CAM Centre. Madurai

INTERNAL RESOURCE PERSONS

1. Mr. M.Edwin Lawrence AP/EEE
2. Mrs.K.Tamilselvi AP/EEE

Day 1 **24.08.2020**	9.30 a.m – 10.00 a.m	Inauguration	
	10. 00 a.m - 11.10 a.m	Session 1	Installation of MATLAB **Mr.K.Thirupathy Raja**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	Introduction to MATLAB Software **Mr.K.Thirupathy Raja**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to 3.40 p.m	Session 3	Working with the MATLAB user interface **Mr. M.EdwinLawrence AP/EEE**
	3.40 p.m to 3.50 p.m	*Tea Break*	
	3.50 p.m to 4.30 p.m	Session 4	Operations with variables. **Mrs.K.Tamilselvi AP/EEE**
Day 2 **25.08.2020**	9.30 a.m – 11.10 a.m	Session 1	Data files and Data types **Mr.G.Kumaravel**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	BODMAS Rules **Mrs.K.Tamilselvi AP/EEE**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to 3.40 p.m	Session 3	Mathematical and logical operators **Mr.G.Shivaraj**
	3.40 p.m to 3.50 p.m	*Tea Break*	
	3.50 p.m to 4.30 p.m	Session 4	Solving arithmetic equations **Mr.G.Shivaraj**

Day 3 26.08.2020	9.30 a.m – 11.10 a.m	Session 1	Operations on matrix **Mr. M.EdwinLawrence AP/EEE**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	Working with M Files **Mr.K.Thirupathy Raja**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to 3.40 p.m	Session 3	Creating 2D and 3D Plots **Mr.G.Kumaravel**
	3.40 p.m to 3.50 p.m	*Tea Break*	
	3.50 p.m to 4.30 p.m	Session 4	Introduction Of Graphical User Interface **Mr.K.Thirupathy Raja**
Day 4 27.08.2020	9.30 a.m – 11.10 a.m	Session 1	MATLAB Simulink **Mr. M.EdwinLawrence AP/EEE**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	Circuit and Equation Oriented Design **Mrs.K.Tamilselvi AP/EEE**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to 3.40 p.m	Session 3	MATLAB Programming **Mr. M.EdwinLawrence AP/EEE**
	3.40 p.m to 3.50 p.m	*Tea Break*	
	3.50 p.m to 4.30 p.m	Session 4	Loops and Conditional Statements and functions Mrs. B.Kavitha, AP/EEE
Day 5 28.08.2020	9.30 a.m – 11.10 a.m	Session 1	Image Processing with MATLAB **Mr.K.Thirupathy Raja**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	Creating a custom interactive tool **Mr.G.Kumaravel**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to 3.40 p.m	Session 3	Block processing operations **Mr.K.Thirupathy Raja**
	3.40 p.m to 3.50 p.m	*Tea Break*	
	3.50 p.m to 4.30 p.m	Session 4	Symbolic Math in MATLAB **Mr.G.Kumaravel**
	4.30 p.m to 5.00 p.m	Valedictory	

PROGRAM COORDINATOR | **HOD/EEE** | **IQAC** | **PRINCIPAL**

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
CERTIFICATE COURSE ON MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS
STUDENTS ATTENDANCE

S.No.	Roll No.	Name	24.08.20		25.08.20		26.08.20		27.08.20		28.08.20	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1	20EECC01001	ABDUL AJEESH.A	P	P	P	P	P	P	P	P	P	P
2	20EECC01002	ABUDHAGIR.K	P	P	P	P	P	P	P	P	P	P
3	20EECC01003	ARUNKUMAR.P	P	P	P	P	A	A	P	P	P	P
4	20EECC01004	CIRPA.A	P	P	P	P	P	P	P	P	P	P
5	20EECC01005	DINESHKUMAR.K(S/OKANNAN)	P	P	P	P	P	P	P	P	P	P
6	20EECC01006	DINESHKUMAR. (S/OKAMARAJ)	P	P	A	A	P	P	P	P	P	P
7	20EECC01007	DIVAKAR.M	P	P	P	P	P	P	P	P	P	P
8	20EECC01008	HARI HARAN S	P	P	P	P	P	P	P	P	P	P
9	20EECC01009	KATHIRAVAN.G	P	P	P	P	P	P	P	P	P	P
10	20EECC01010	MOHAMED FAIZ.A	P	P	P	P	P	P	P	P	P	P
11	20EECC01011	MOHAMEDRIYASDEEN.A	P	P	P	P	P	P	P	P	P	P
12	20EECC01012	NISHA.M	P	P	P	P	P	P	P	P	P	P
13	20EECC01013	PERUMAL R	P	P	P	P	P	P	P	P	P	P
14	20EECC01014	PRABAKARAN S	P	P	P	P	A	A	P	P	P	P
15	20EECC01015	RAMKUMAR.R	P	P	P	P	P	P	P	P	P	P
16	20EECC01016	RUBAKUMAR B	P	P	P	P	P	P	P	P	P	P
17	20EECC01017	SABARISH R	P	P	P	P	P	P	P	P	P	P
18	20EECC01018	SENTHILKUMARAN.V	P	P	P	P	P	P	P	P	P	P
19	20EECC01019	THIBAHAR.R	P	P	P	P	P	P	P	P	P	P
20	20EECC01020	MUHILVANI A	P	P	P	P	P	P	P	P	P	P
21	20EECC01021	ARIVUSELVAN.S	P	P	P	P	P	P	P	P	P	P
22	20EECC01022	DEENA KARTHICK.M	P	P	P	P	P	P	P	P	P	P
23	20EECC01023	DINESH KUMAR.M	P	P	P	P	P	P	P	P	P	P
24	20EECC01024	.MANIVEL.C	P	P	P	P	P	P	P	P	P	P
25	20EECC01025	MONIKA.V	P	P	P	P	P	P	P	P	P	P
26	20EECC01026	SANJAY KISHORE.K.M	P	P	P	P	P	P	P	P	P	P
27	20EECC01027	SARAN.R.B	P	P	P	P	P	P	P	P	P	P
28	20EECC01028	VIGNESHWARAN.K	P	P	P	P	P	P	P	P	P	P
		PRESENT	28	28	27	27	26	26	26	28	28	28
		ABSENT	NIL	NIL	01	01	02	02	NIL	NIL	NIL	NIL
		PROGRAM CO ORDINATOR										

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE COURSE ON MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS

GOOGLE FORM-QUIZ QUESTIONS

QUIZ QUESTIONS GOOGLE FORM LINK: https://forms.gle/Ro531s4s1H83Xf1e7

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DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING;
CERTIFICATE COURSE ON MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS
(24.08.2020 to 28.08.2020)

QUIZ QUESTIONS

1.NAME OF THE STUDENT *

Short answer text

2.EMAIL ID *

Short answer text



Questions Responses Settings Total points: 20

3.REGISTER NUMBER *

Short answer text

4. YEAR/SEM *

Short answer text

Q1. What is the output of the following code? A=[0 0 0; 0 9 0; 1 2 3]; nnz(A) *

- ○ 5
- ○ 4
- ○ 3
- ○ Error

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Questions Responses Settings Total points: 20

Q2. What is the output of the following code? A =[1 2 3; 32 23 26; 0 0 0]; spones (A) *

- Returns a sparse matrix with the non-zeros replaced by normally distributed random numbers
- Returns a sparse matrix with the zeros replaced by ones
- Returns a sparse matrix with the non-zeros replaced by fractions
- Returns a sparse matrix with the non-zeros replaced by random numbers

Q3. The space located for the matrix generated from the spones command is _____ *

- Same as a sparse matrix
- Same as the original matrix
- Same as an identity matrix
- Double that of the sparse matrix

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Questions Responses Settings Total points: 20

Q4. What is the output of the following code? A=[1 2 3; 4 5 6; 7 8 9];if(nzmax(A)==nzmax(spones(A)) disp('Yeah !') *

- A) No output
- B) Error
- C) Yeah!
- D) Output suppressed

Q5. What is the output of the following code? nnz(spconvert([1 2 3; 4 5 6; 7 8 9]) *

- 3
- 2
- 1
- 0

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Questions Responses Settings Total points: 1

Q6. What is the output of the following code? nzmax(spconvert([1 2 3; 4 5 6; 7 8 9])) *

- A) 2
- B) 3
- 1
- D) Error

Q7. A memory for sparse matrix is depicted by the _____ command *

- spalloc
- sparselloc
- allocspar
- No such command



Questions Responses Settings Total points: 20

Q8. What is the output of the following command? spalloc (2,3, 7) *

- A) A 2*3 Matrix
- B) Memory is allocated for a 2*3 matrix
- C) A 3*2 sparse matrix
- D) Error

Q9. The pattern generated by the spy command is a measure of the number of zeros in the input matrix. *

- True
- False

Q10. The default number of non-zero elements which can be put in the memory allocated by the spalloc command is >1. *

- True
- False

PROGRAM COORDINATOR

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QUIZ QUESTION & ANSWER

1. What is the output of the following code?

A=[0 0 0; 0 9 0; 1 2 3]; nnz[A]

A)4
B)5
C)3
D) Error

2. What is the output of the following code?

A =[1 2 3; 32 23 26; 0 0 0]; spones (A)

A)Returns a sparse matrix with the non-zeros replaced by normally distributed random numbers
B)Returns a sparse matrix with the zeros replaced by ones
C)Returns a sparse matrix with the non-zeros replaced by fractions
D)Returns a sparse matrix with the non-zeros replaced by random numbers

3. The space located for the matrix generated from the spones command is _____

A) Same as a sparse matrix

B) Same as the original matrix

C) Same as an identity matrix

D) Double that of the sparse matrix

4. What is the output of the following code?

```
A=[1 2 3; 4 5 6; 7 8 9];if( nzmax(A)==nzmax(spones(A) ) disp('Yeah !')
```

A) No output

B) Error

C) Yeah!

D) Output suppressed

5. What is the output of the following code?

```
nnz(spconvert([1 2 3; 4 5 6; 7 8 9])
```

A) 3

B) 2

C) 1

D) 6

6. What is the output of the following code?

```
nzmax(spconvert([1 2 3; 4 5 6; 7 8 9])
```

A) 2

B) 3

C) 1

D) Error

7. A memory for sparse matrix is depicted by the _____ command.

A) spalloc

B) sparselloc

C) allocspar

D) No such command

8) What is the output of the following command?

spalloc (2,3, 7)

A) A 2*3 Matrix

B) Memory is allocated for a 2*3 matrix

C) A 3*2 sparse matrix

D) Error

9) The default number of non-zero elements which can be put in the memory allocated by the spalloc command is >1.

A) True

B) False

10)The pattern generated by the spy command is a measure of the number of zeros in the input matrix.

A) True

B) False

ANSWERS

1) D

2) B

3) A

4) A

5) A

6) B

7) A

8) B

9) B

10) B

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STUDENT FEED BACK FORM

STUDENT FEEDBACK FORM LINK: https://forms.gle/QHKqSj4Jh9hTCEZ36

Questions Responses Settings

NPR COLLEGE OF ENGINEERING & TECHNOLOGY,NATHAM
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
CERTIFICATE COURSE ON MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS 24.08.2020 to 28.08.2020

STUDENT FEEDBACK FORM

Name of the Student *

Short answer text

Register Number *

Short answer text

Year/ Sem *

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Questions Responses Settings

E Mail id *

Short answer text

1.Course Content *

	Column 1
EXCELLENT	
GOOD	
FAIR	
SATISFACTORY	

2.Way of Exposed New Knowledge and Practices *

	Column 1
EXCELLENT	
GOOD	
FAIR	
SATISFACTORY	

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Questions Responses Settings

3.Examples Provided during this Course *

	Column 1
EXCELLENT	○
GOOD	○
FAIR	○
SATISFACTORY	○

4.Course Delivered by Resource Person *

	Column 1
EXCELLENT	○
GOOD	○
FAIR	○
SATISFACTORY	○

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Questions Responses Settings

5.Time Management *

	Column 1
EXCELLENT	○
GOOD	○
FAIR	○
SATISFACTORY	○

6.Overall rating of this Course *

	Column 1
EXCELLENT	○
GOOD	○
FAIR	○
SATISFACTORY	○

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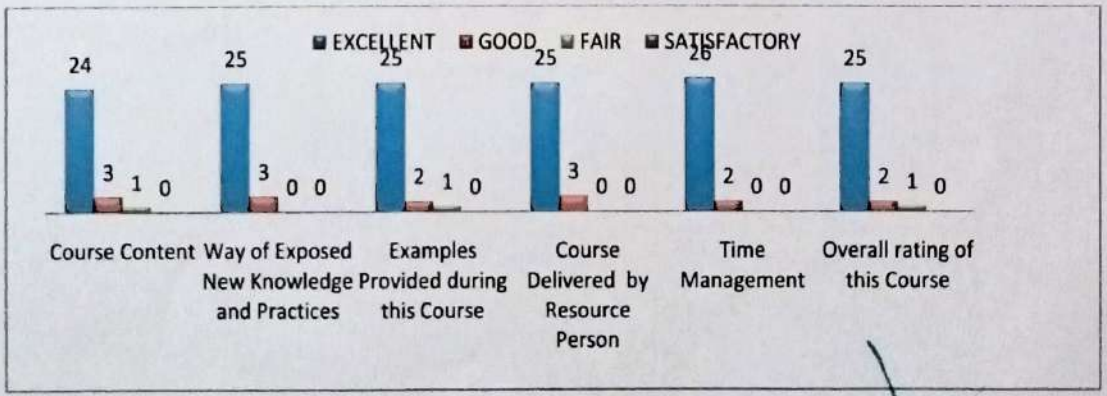
STUDENTS FEEDBACK ANALYSIS REPORT

TOTAL STRENGTH: 28 **DATE: 28.08.20**

S.No.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	24	03	01	00
2	Way of Exposed New Knowledge and Practices	25	03	00	00
3	Examples Provided during this Course	25	02	01	00
4	Course Delivered by Resource Person	25	03	00	00
5	Time Management	26	02	00	00
6	Overall rating of this Course	25	02	01	00
	Average	25	2.5	0.5	00

Number of students completed successfully: 28



PROGRAM COORDINATOR **HOD/EEE** **PRINCIPAL**

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CERTIFICATE COURSE ON MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS

SUMMARY

The Department of Electrical and Electronics Engineering Organized a certificate course on **"MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS"** from 24.08.20 to 28.08.20 (5 days) through online mode (Google Meet), on 24.08.2020 during the inauguration program Ms.V.Monika, Third Year EEE student has delivered the welcome address. Dr.J.Sundararajan, Principal of our college inaugurated the program and delivered the inaugural address. Mr.K.Thirupathy raja and Mr.G.Kumaravel Hi-Tech CAD CAM Centre. Madurai participated with us and shared their knowledge with our students. This five days course gave us the good over view on **MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS** and provided lots of information. In addition to this, it also gave the information on future outcomes of MATLAB application in Electrical Engineering.

The resource persons shared their knowledge about fundamentals and principles of **MATLAB & SIMULINK** in power system which enables the students to have skills to resolve complex real world problems and for decision support. Our students learnt various existing and emerging technologies in electrical engineering **MATLAB PROGRAMMING.** 28 students of EEE department attended the course and completed it successfully and were awarded with certificates.

During the valedictory function on 28.08.2020 Mr. K.Abudhagir, Final Year EEE student delivered the vote of thanks.

PROGRAM COORDINATOR **HOD/EEE** **PRINCIPAL**

Head of the Department of Electrical & Electronics Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

NPR College of Engineering & Technology
NPR Nagar, Natham, Dindigul - 624401, Tamil Nadu, India.
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai.
An ISO 9001:2015 Certified Institution.
Phone No: 04544- 246 500, 246501, 246502.
Website : www.nprcolleges.org, www.nprcet.org, Email:nprcetprincipal@nprcolleges.org

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE COURSE ON MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS

COURSE MATERIAL

CHAPTER 1: https://www.mathworks.com/help/matlab/language-fundamentals.html

CHAPTER 2: http://mayankagr.in/images/matlab_tutorial.pdf

CHAPTER 3: https://www.mathworks.com/help/pdf_doc/matlab/matlab_prog.pdf

CHAPTER 4: http://www.hkn.umn.edu/resources/files/matlab/MatlabCommands.pdf

CHAPTER 5: https://curentysputk.files.wordpress.com/2013/05/introduction_to_matlab_application_to_electrical_engineering.pdf

PROGRAM COORDINATOR **HOD/EEE** **PRINCIPAL**

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE OF COMPLETION

This is to certify that

Mr. P. Arunkumar IV Year EEE

has successfully completed the Certificate course on

'MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS'

from 24.08.2020 to 28.08.2020.

HOD/EEE
PROF.G.ELANGOVAN

PRINCIPAL
DR.J.SUNDARARAJAN

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ISO 9001

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE OF COMPLETION

This is to certify that

Mr. K. ABUDHAGIR, IV YEAR EEE

has successfully completed the Certificate course on

'MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS'

from 24.08.2020 to 28.08.2020.

HOD/EEE
PROF.G.ELANGOVAN

PRINCIPAL
DR.J.SUNDARARAJAN

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE OF COMPLETION

This is to certify that

Mr. R. THIBAHAR, IV YEAR EEE

has successfully completed the Certificate course on

'MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS'

from 24.08.2020 to 28.08.2020.

HOD/EEE
PROF.G.ELANGOVAN

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE OF COMPLETION

This is to certify that

Ms. V. MONIKA, III YEAR EEE

has successfully completed the Certificate course on

'MATLAB & SIMULINK FOR ELECTRICAL ENGINEERS'

from 24.08.2020 to 28.08.2020.

HOD/EEE
PROF.G.ELANGOVAN

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE OF COMPLETION

This is to certify that

Mr. C. MANIVEL, III YEAR EEE

has successfully completed the Certificate course on

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from 24.08.2020 to 28.08.2020.

HOD/EEE
PROF.G.ELANGOVAN

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE

INDEX

COURSE CODE & NAME: **20EEAO01 & DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION**

ACADEMIC YEAR: 2020 -21 SEMESTER: ODD DURATION: 35HOURS

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PROGRAM CO-ORDINATOR HOD/EEE IQAC PRINCIPAL

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

PERMISSION LETTER

DATE: 23-11-2020

From:

Prof. G.Elangovan
The Head of the Department,
Electrical and Electronics Engineering,
NPR College of Engineering and Technology,
Natham.

To

The Principal,
NPR College of Engineering and Technology,
Natham.

Respected Sir,

Sub: Request for permission to conduct an add on course for EEE students – Regarding

With reference to the above subject, the application is hereby submitted for your approval to conduct an add on course on **"DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION"** to our EEE students from 30/11/2020 to 04/12/2020 (5 Days) through online mode (Google Meet). In this regard we have proposed **Mr.B.JEYACHANDRAN, Sanlog Automation Technology, Trichy and his team** as a resource person for this add on course. Kindly permit us to conduct the same.

REGISTRATION FORM LINK : https://forms.gle/J6EHfUaNC6Vemw2QA

GOOGLE MEET LINK : **https://meet.google.com/xaj-rkvu-zcf**

Thanking you.

Yours faithfully,

(Prof.G.Elangovan)

Head of the Department
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION

RESOURCE PERSONS PROFILE

Name	:	**Mr.B.Jeyachandran**
Designation	:	Field Application Engineer
Company Name	:	Sanlog Automation Technology,Trichy
About Resource Person	:	1. He is Technically accomplished & competent professional Control & Instrumentation Engineer with 14+ years of rich experience in DeltaV DCS (Instrumentation and Control) configuration, Commissioning, operations, Maintenance,. 2. Working experience in Onshore, Offshore and FPSO oil& Gas Production / Processing Plants Instrumentation field as Engineer & supervisor for Construction, FAT&SAT, Pre-commissioning, commissioning and Start-Up of Different Type Distributed control systems,

Name	:	**Mr.K.T.Thiyagarajan**
Designation	:	Field Application Engineer
Company Name	:	Sanlog Automation Technology,Trichy
About Resource Person	:	1.Good Hands-on Experience DCS. 2.Good experience in Offshore FPSO and Onshore projects. 3.Ability to DeltaV DCS and Ovation DCS configuration, Graphics development, FAT, SAT and commissioning in Onshore & Offshore.

PROGRAM COORDINATOR | **HOD/EEE** | **IQAC** | **PRINCIPAL**

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NPRCET/OFF/EEE/VAC/2020-21

DATE: 24.11.2020

CIRCULAR

This is to inform that Department of Electrical and Electronics Engineering has planned to conduct an add on course on **"DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION"** for our EEE students through online mode(Google Meet) during this odd semester 2020-2021. Interested students can register their names by using given below the registration link on or before 27.11.2020.

Registration form link: https://forms.gle/J6EHfUaNC6Vemw2QA

The details of the training program are given below:

COURSE NAME	:	**Distributed Control System For Industrial Automation**
RESOURCE PERSON	:	1.Mr.B.Jeyachandran, Sanlog Automation Technology,Trichy
MODE	:	through online mode (Google Meet) **https://meet.google.com/xaj-rkvu-zcf**
DATE & DURATION	:	30/11/2020 to 04/12/2020 & 30 Hours
PROGRAM COORDINATOR	:	T. Sivakumar,AP/EEE

PRINCIPAL

Dr. J.SUNDARARAJAN,
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Copy to:

1. All the HoDs
2. IQAC
3. Notice Board
4. File
5. All the class rooms
6. Program Coordinator

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The Management, Principal, Staffs and Students

cordially invite you for the inauguration of

Add on course on

" DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION"

On 30th November, 2020

Venue: Through on line mode (Google Meet) at 10.00 a.m.

(Meeting Link : https://meet.google.com/xaj-rkvu-zcf)

CHIEF GUEST

Mr. B.Jeyachandran

Sanlog Automation Technology,Trichy

PRINCIPAL

Dr.J.Sundararajan

NPR College of Engineering and Technology

Felicitates the function

Organized by

Department of Electrical and Electronics Engineering,

NPR College of Engineering and Technology, NPR Nagar,

Natham.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE

COURSE CODE & NAME: 20EEAO01 & DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION

COURSE CONTENT

CHAPTER 1: INTRODUCTION TO COMPUTER BASED CONTROL SYSTEMS

- Introduction to computer based measurement and control systems
- Role of computers in measurement and (process) control
- Basic components of computer based measurement and control systems
- Architecture – computer based process control system
- Human Machine Interface (HMI)
- Hardware for computer based process control system
- Interfacing computer system with process
- Economics of computer based system for industrial application

CHAPTER 2: OVERVIEW OF DISTRIBUTED CONTROL SYSTEMS

- Introduction
- Basic concepts of a Distributed Computing System (DCS)
- Evolution of a DCS
- Present market trends in DCSs
- Basic DCS specifications
- General description of a commercial DCS
- Advantage of DCSs
- DCS selection criteria
- DCS architecture

CHAPTER 3: AN OVERVIEW OF SCADA SYSTEMS

- Introduction
- Basics of SCADA system
- SCADA key features
- Remote terminal units (RTUs)
- Typical requirements for an RTU system
- PLCs used as RTUs

- Consideration and benefits of SCADA system
- DCS versus SCADA terminology
- SCADA software package

CHAPTER 4: BASIC DCS CONTROLLER CONFIGURATION

- Historical
- Control modes
- Tracking and initialisation in control slots used for cascade control
- Control functions
- Control algorithms
- Sequential programs for batch processing
- Defining equipment procedures
- Phase logic programming
- Phase logic interface
- Logic block functions in advanced controller
- DCS controller configuration

CHAPTER 5: TYPICAL DISTRIBUTED CONTROL SYSTEMS AND SCADA SYSTEMS

- Introduction
- Honeywell Plant Scape system
- Foxboro I/A series distributed control systems
- Delta V system
- Citect
- Wonderware
- The use of a DCS in a paper-manufacturing environment
- The use of a DCS in a petroleum-refining environment
- The benefits of a DCS when used in an offshore oil and gas processing environment
- Introduction
- System strategy
- Automation plan
- Project implementation
- Installation and commissioning
- Change management

Criteria to get certificate

- Students should register their names for this course
- Students must have 80% attendance
- Students should secure 50% marks in the exam

Prepared By: Mr.T.Sivakumar,AP/EEE

Approved By,

HOD/EEE

Head of the Department
Department of Electrical & Electronics Engineering
NPR College of Engineering & Technology
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IQAC

Coordinator - IQAC
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION

STUDENTS WILLINGNESS LIST

S.No.	Reg. No.	Name
1	920817105001	ABDUL AJEESH.A
2	920817105003	ABUDHAGIR.K
3	920817105004	ARUNKUMAR.P
4	920817105006	CIRPA.A
5	920817105007	DINESHKUMAR.K(S/OKANNAN)
6	920817105008	DINESHKUMAR. (S/OKAMARAJ)
7	920817105009	DIVAKAR.M
8	920817105010	HARI HARAN S
9	920817105012	KATHIRAVAN.G
10	920817105013	MOHAMED FAIZ.A
11	920817105014	MOHAMEDRIYASDEEN.A
12	920817105015	NISHA.M
13	920817105016	PERUMAL R
14	920817105017	PRABAKARAN S
15	920817105018	RAMKUMAR.R
16	920817105019	RUBAKUMAR B
17	920817105020	SABARISH R
18	920817105022	SENTHILKUMARAN.V
19	920817105023	THIBAHAR.R
20	920817105301	MUHILVANI.A
21	920818105001	ARIVUSELVAN.S
22	920818105001	DEENA KARTHICK.M
23	920818105002	DINESH KUMAR.M
24	920818105004	.MANIVEL.C
25	920818105005	MONIKA.V
26	920818105006	SANJAY KISHORE.K.M
27	920818105007	SARAN.R.B
28	920818105701	VIGNESHWARAN.K

PROGRAM COORDINATOR

HOD/EEE

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION

COURSE SCHEDULE

Venue: Through online mode (Google Meet) at 10.00 a.m. **Date:30-11-2020**

(Meeting Link : https://meet.google.com/xaj-rkvu-zcf)

External Resource Persons	Internal Resource Persons
1.Mr.B.Jeyachandran 2.Mr.K.T.Thiyagarajan	1.T. Sivakumar,AP/EEE
Sanlog Automation Technology,Trichy	2. Mr.K.Rajesh, AP/EEE

	9.30 a.m – 10.00 a.m	Inauguration	
	10. 00 a.m - 11.10 a.m	Session 1	Introduction to computer based measurement and control systems Architecture – computer based process control system **Mr.B.Jeyachandran**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	Basic components of computer based measurement and control systems **Mr.B.Jeyachandran**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to3.40 p.m	Session 3	Human Machine Interface (HMI) **Mr.B.Jeyachandran**
	3.40 p.m to 3.50 p.m	*Tea Break*	
	3.50 p.m to 4.30 p.m	Session 4	Hardware for computer based process control system **T. Sivakumar,AP/EEE**

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Day 2 **01-12-2020**	9.30 a.m – 11.10 a.m	Session 1	**OVERVIEW OF DISTRIBUTED CONTROL SYSTEMS** Basic concepts of a Distributed Computing System (DCS) **Mr.K.T.Thiyagarajan**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	Present market trends in DCSs Basic DCS specifications **Mr.K.T.Thiyagarajan**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to3.40 p.m	Session 3	Basic Dcs Controller Configuration Control modes,algorithms **Mr.K.Rajesh, AP/EEE**
	3.40 p.m to 3.50 p.m	*Tea Break*	
	3.50 p.m to 4.30 p.m	Session 4	Tracking and initialisation in control slots used for cascade control Control functions **T. Sivakumar,AP/EEE**
Day 3 **02-12-2020**	9.30 a.m – 11.10 a.m	Session 1	Programming Of DCS Tips and tricks in programming **Mr.K.Rajesh, AP/EEE**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	Alarm System Management **T. Sivakumar,AP/EEE**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to3.40 p.m	Session 3	Data configuration procedures necessary for setting up the DCS area database **Mr.K.Rajesh, AP/EEE**
	3.40 p.m to 3.50 p.m	*Tea Break*	
	3.50 p.m to 4.30 p.m	Session 4	The use of a DCS in a paper-manufacturing environment **T. Sivakumar,AP/EEE**
Day 4 **03-12-2020**	9.30 a.m – 11.10 a.m	Session 1	The benefits of a DCS when used in an offshore oil and gas processing environment **Mr.K.Rajesh, AP/EEE**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	Distributed Control Systems Implementation, System strategy **T. Sivakumar,AP/EEE**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to3.40 p.m	Session 3	Distributed Control Systems Implementation **Mr.K.Rajesh, AP/EEE**
	3.40 p.m to 3.50 p.m	*Tea Break*	

	3.50 p.m to 4.30 p.m	Session 4	Configuration control procedures adopted to ensure data integrity **T. Sivakumar,AP/EEE**
Day 5 **04-12-2020**	9.30 a.m – 11.10 a.m	Session 1	System strategy,Automation plan **Mr.K.T.Thiyagarajan**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	Automation plan,Project implementation **Mr.K.T.Thiyagarajan**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to3.40 p.m	Session 3	Distributed Control System Applications **Mr.B.Jeyachandran**
	3.40 p.m to 3.50 p.m	*Tea Break*	
	3.50 p.m to 4.30 p.m	Session 4	The benefits of a DCS when used in an offshore oil and gas processing environment **Mr.B.Jeyachandran**
	4.30 p.m to 5.00 p.m	Valedictory	

PROGRAM COORDINATOR **HOD/EEE** **IQAC** **PRINCIPAL**

Head of the Department
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION

STUDENTS ATTENDANCE

S.No.	Roll No.	Name	30.11.20		01.12.20		02.12.20		03.12.20		04.12.20	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1.	20EEAO001	ABDUL AJEESH.A	P	P	P	P	P	P	P	P	P	P
2.	20EEAO002	ABUDHAGIR.K	P	P	P	P	P	P	P	P	P	P
3.	20EEAO003	ARUNKUMAR.P	P	P	P	P	P	P	P	P	P	P
4.	20EEAO004	CIRPA.A	P	P	P	P	P	P	P	P	P	P
5.	20EEAO005	DINESHKUMAR.K(S/OK ANNAN)	P	P	P	P	P	P	P	P	P	P
6.	20EEAO006	DINESHKUMAR (S/OKAMARAJ)	P	P	P	P	P	P	P	P	P	P
7.	20EEAO007	DIVAKAR.M	P	P	A	A	P	P	P	P	P	P
8.	20EEAO008	HARI HARAN.S	P	P	P	P	P	P	P	P	P	P
9.	20EEAO009	KATHIRAVAN.G	P	P	P	P	P	P	P	P	P	P
10.	20EEAO010	MOHAMED FAIZ.A	P	P	P	P	P	P	P	P	P	P
11.	20EEAO011	MOHAMEDRIYASDEEN.A	P	P	P	P	P	P	P	P	P	P
12.	20EEAO012	NISHA.M	P	P	P	P	P	P	P	P	P	P
13.	20EEAO013	PERUMAL.R	P	P	P	P	P	P	P	P	P	P
14.	20EEAO014	PRABAKARAN.S	P	P	P	P	P	P	P	P	P	P
15.	20EEAO015	RAMKUMAR.R	P	P	P	P	P	P	P	P	P	P
16.	20EEAO016	RUBAKUMAR.B	P	P	P	P	P	P	P	P	P	P
17.	20EEAO017	SABARISH.R	P	P	P	P	P	P	P	P	P	P
18.	20EEAO018	SENTHILKUMARAN.V	P	P	P	P	P	P	P	P	P	P
19.	20EEAO019	THIBAHAR.R	P	P	P	P	A	A	P	P	P	P
20.	20EEAO020	MUHILVANI.A	P	P	P	P	P	P	P	P	P	P
21.	20EEAO021	ARIVUSELVAN.S	P	P	P	P	P	P	P	P	P	P
22.	20EEAO022	DEENA KARTHICK.M	P	P	P	P	P	P	P	P	P	P
23.	20EEAO023	DINESH KUMAR.M	P	P	A	A	P	P	P	P	P	P
24.	20EEAO024	MANIVEL.C	P	P	P	P	P	P	P	P	P	P
25.	20EEAO025	MONIKA.V	P	P	P	P	P	P	P	P	P	P
26.	20EEAO026	SANJAY KISHORE.K.M	P	P	P	P	P	P	P	P	P	P
27.	20EEAO027	SARAN.R.B	P	P	P	P	P	P	P	P	P	P
28.	20EEAO028	VIGNESHWARAN.K	P	P	P	P	P	P	P	P	P	P
PRESENT			28	28	26	26	27	27	28	28	28	28
ABSENT			NIL	NIL	02	02	01	01	NIL	NIL	NIL	NIL
TOTAL			28	28	28	28	28	28	28	28	28	28
PROGRAM COORDINATOR												

HOD/EEE

Head of the Department
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PRINCIPAL

Dr. J.SUNDARARAJAN
B.E., M.Tech., Ph.D.,
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Natham, Dindigul (Dt) - 624 401.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION

GOOGLE FORM-QUIZ QUESTIONS

QUIZ QUESTION LINK : https://forms.gle/bn9cA4ZwQh3ouZfp6

Questions Responses Settings Total points: 22

NPR COLLEGE OF ENGINEERING & TECHNOLOGY,NATHAM;

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING;

ADD ON COURSE ON DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION (30.11.2020 to 04.12.2020)

QUIZ QUESTIONS

NAME OF THE STUDENT *

Short answer text

E MAIL ID *

Short answer text



Questions Responses Settings Total points: 22

REGISTRATION NUMBER *

Short answer text

YEAR/SEM *

Short answer text

Q1. Transient response in the system is basically due to *

-)Forces
- Friction
- Stored energy
- Coupling

COLLEGE OF ENGG. & TECHNOLOGY * NPR * NATHAM

Questions Responses Settings Total points: 22

Q2. Effect of feedback on the plant is to *

- a) Control system transient response
- b)Reduce the sensitivity to plant parameter variations
- c) Both (a) and (b)
- d) None of these

Q3. Transfer function of a system is defined as the ratio of output to input in *

- a) Z-transformer
- b) Fourier transform
- c) Laplace transform
- d) All of these

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:::

Q4. In an open loop system *

- a) Output control the input signal
- b) Output has no control over input signal
- c) Some other variable control the input signal
- d) Neither output nor any other variable has any effect on input

Q6. Transfer function of a system can used to study its *

- a) Steady state behavior
- b) Transient behavior
- c) Both (a) and (b)
- d) None of these

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Questions Responses Settings Total points: 22

Q6. Electrical resistance is analogous to *

- a) Inertia
- b) Dampers
- c) Spring
- d) Fluid capacity

:::

Q7. Automatic control system in which output is a variable is called *

- a) Closed loop system
- b) Servomechanism
- c) Automatic regulating system
- d) Process control system

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Q8. Output of the feedback control system should be a function of *

- a) Input
- b) Reference and output
- c) Feedback signal
- d) None of these

Q9. Steady state error is always zero in response to the displacement input for *

- a) Type 0 system
- b) Type 1 system
- c) Type 2 system
- d) Type (N > 1) system for N= 0, 1, 2...N

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Questions Responses Settings

Total points: 22

:::

Q10. Relation between Fourier integral and Laplace transformer is through *

- a) Time domain
- b) Frequency domain
- c) Both (a) and (b)
- d) None of these

PROGRAM COORDINATOR

HOD/EEE

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION

SAMPLE QUESTION PAPER & ANSWER

1. Transient response in the system is basically due to

a) Forces
b) Friction
c) Stored energy
d) Coupling

2. Effect of feedback on the plant is to

a) Control system transient response
b) Reduce the sensitivity to plant parameter variations
c) Both (a) and (b)
d) None of these

3. Transfer function of a system is defined as the ratio of output to input in
a) Z-transformer
b) Fourier transform
c) Laplace transform
d) All of these

4. In an open loop system

a) Output control the input signal
b) Output has no control over input signal
c) Some other variable control the input signal
d) Neither output nor any other variable has any effect on input

5. Transfer function of a system can used to study its

a) Steady state behavior
b) Transient behavior
c) Both (a) and (b)
d) None of these

6. Electrical resistance is analogous to

a) Intertia
b) Dampers
c) Spring
d) Fluid capacity

7. Automatic control system in which output is a variable is called

a) Closed loop system
b) Servomechanism
c) Automatic regulating system
d) Process control system

8. Output of the feedback control system should be a function of

a) Input
b) Reference and output
c) Feedback signal
d) None of these

9. Steady state error is always zero in response to the displacement input for

a) Type 0 system
b) Type 1 system
c) Type 2 system
d) Type (N > 1) system for N= 0, 1, 2....N

10. Relation between Fourier integral and Laplace transformer is through

a) Time domain
b) Frequency domain
c) Both (a) and (b)
d) None of these

ANSWERS:

1. C
2. C
3. C
4. D
5. C
6. B
7. D
8. B
9. D
10. C

PROGRAM COORDINATOR

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION

STUDENT FEEDBACK GOOGLE FORM

STUDENT FEEDBACK FORM LINK: https://forms.gle/y56AdpTDKu46b1kx6

Questions Responses Settings

NPR COLLEGE OF ENGINEERING & TECHNOLOGY,NATHAM;
DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING;
ADD ON COURSE ON DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION
(30/11/2020 to 04/12/2020)

FEED BACK FORM

NAME OF THE STUDENT *

Short answer text

E MAIL ID *

Short answer text



Questions Responses Settings

REGISTRATION NUMBER *

Short answer text

YEAR/SEM *

Short answer text

1. Course Content *

	Column 1
EXCELLENT	○
GOOD	○
FAIR	○
SATISFACTORY	○

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Questions Responses Settings

2. Way of Exposed New Knowledge and Practices *

	Column 1
EXCELLENT	○
GOOD	○
FAIR	○
SATISFACTORY	○

3. Examples Provided during this Course *

	Column 1
EXCELLENT	○
GOOD	○
FAIR	○
SATISFACTORY	○



Questions Responses Settings

4. Course Delivered by Resource Person *

	Column 1
EXCELLENT	○
GOOD	○
FAIR	○
SATISFACTORY	○

:::

6. Time Management *

	Column 1
EXCELLENT	○
GOOD	○
FAIR	○
SATISFACTORY	○

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6. Overall rating of this Course *

	Column 1
EXCELLENT	○
GOOD	○
FAIR	○
SATISFACTORY	○

PROGRAM COORDINATOR

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Head of the Department
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

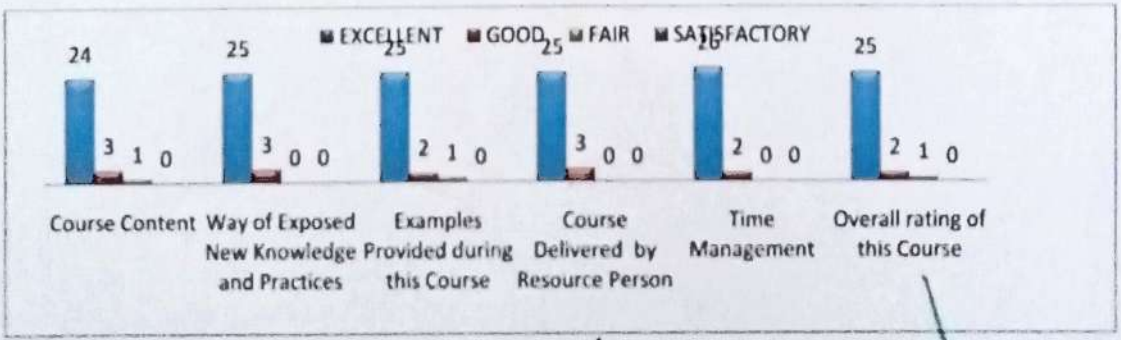
DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION

STUDENTS FEEDBACK ANALYSIS REPORT

TOTAL STRENGTH: 28 **DATE: 04.12.20**

S.No.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	24	03	01	00
2	Way of Exposed New Knowledge and Practices	25	03	00	00
3	Examples Provided during this Course	25	02	01	00
4	Course Delivered by Resource Person	25	03	00	00
5	Time Management	26	02	00	00
6	Overall rating of this Course	25	02	01	00
	Average	25	2.5	0.5	00

Number of students completed successfully: 28



PROGRAM COORDINATOR

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION

SUMMARY REPORT

The Department of Electrical and Electronics Engineering has organized an add on course on **Distributed Control System For Industrial Automation** from 30/11/2020 to 04/12/2020 through on line mode (Google Meet). The program has been initiated by Ms.M.Nisha, Final year EEE student by delivering the Welcome Address.

Dr.J.Sundararajan, Principal of our college has participated in the program and delivered the inaugural address. Mr.B.Jeyachandran, and Mr.K.T.Thiyagarajan from Sanlog Automation Technology,Trichy participated with us and shared their knowledge with our students.

This five days course overlined the principles of SCADA Configuration and basics of DCS Controller configuration. It is an opportunity that Department offers the students to gain knowledge on this topic. In Addition to this, it also gave information on Distributed Control System Applications and Implementations. 28 of our students participated and completed the course and completed it successfully and awarded with certificates by after the Quiz.

Finally, the course was concluded by Mr.M.Divakar final year EEE with vote of thanks.

PROGRAM COORDINATOR **HOD/EEE** **PRINCIPAL**

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION

COURSE MATERIAL

CHAPTER 1:.https://nptel.ac.in/content/storage2/courses/108105063/pdf/L-(SM)%20(IA&C)%20((EE)NPTEL).pdf

CHAPTER 2:.https://instrumentationtools.com/tag/distributed-control-system-nptel/

CHAPTER 3:.https://www.elprocus.com/distributed-control-system-features-and-elements/

CHAPTER 4:http://www.eeci-institute.eu/pdf/M010/L5_distributed.pdf

CHAPTER5:https://automationforum.in/t/free-industrial-automation-and-plc-programming-ebooks-pdf/4720

PROGRAM COORDINATOR **HOD/EEE** **PRINCIPAL**

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE OF COMPLETION

This is to certify that

MR. R. B. SARAN, III YEAR EEE

has successfully completed the add on course on

'DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION'

from 30.11.2020 to 04.12.2020.

HOD / EEE
(Prof.G.ELANGOVAN)

PRINCIPAL
(Dr.I.SUNDARARAJAN)

NPR COLLEGE OF ENGINEERING & TECHNOLOGY

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE OF COMPLETION

This is to certify that

MR. R. SABARISH, IV YEAR EEE

has successfully completed the add on course on

'DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION'

from 30.11.2020 to 04.12.2020.

HOD / EEE
(Prof.G.ELANGOVAN)

PRINCIPAL
(Dr.K.SUNDARARAJAN)

NPR COLLEGE OF ENGINEERING & TECHNOLOGY

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE OF COMPLETION

This is to certify that

Ms. A. CIRPA, IV YEAR EEE

has successfully completed the add on course on

'DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION'

from 30.11.2020 to 04.12.2020.

HOD / EEE
(Prof.G.ELANGOVAN)

PRINCIPAL
(Dr.I.SUNDARARAJAN)

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE OF COMPLETION

This is to certify that

Mr. P. Arunkumar, IV Year / EEE

has successfully completed the add on course on

'DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION'

from 30.11.2020 to 04.12.2020.

HOD / EEE
(Prof.G.ELANGOVAN)

PRINCIPAL
(Dr.I.SUNDARARAJAN)

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE OF COMPLETION

This is to certify that

Ms. V. MONIKA, III YEAR EEE

has successfully completed the add on course on

'DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION'

from 30.11.2020 to 04.12.2020.

HOD / EEE
(Prof.G.ELANGOVAN)

PRINCIPAL
(Dr.J.SUNDARARAJAN)

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE (2020-21)

INDEX

COURSE CODE & NAME: **20EEAO02 & PCB Design for analog and digital circuits**

ACADEMIC YEAR: 2020 -21 SEMESTERS: EVEN DURATION: 36 HOURS

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PROGRAM CO-ORDINATOR

HOD/EEE

IQAC

PRINCIPAL

Coordinator - IQAC
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

PERMISSION LETTER

DATE: 06-02-2021

From:

Prof. G.Elangovan,
Head of the Department,
Electrical and Electronics Engineering,
NPR College of Engineering & Technology,
Natham.

To

The Principal,
NPR College of Engineering & Technology,
Natham.

Respected Sir,

Sub: Request for permission to conduct an add on course for EEE students – Regarding

With reference to the above subject, the application is hereby submitted for your approval to conduct add on course on "**PCB Design for analog and digital circuits** "to our students on 13-02-2021,20-02-2021,27-02-2021,06-03-2021& 13-03-2021 (During Saturdays) in our college premises. In this regard, we have proposed **Mr. C.Balachandhar, Galwin Technology,Trichy** and his team as the resource persons for this add on course. Kindly permit us to conduct the same.

Thanking you.

Yours faithfully,

(Prof. G.Elangovan)
Head of the Department
Department of Electrical & Electronics Engg.
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

02

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

PCB DESIGN FOR ANALOG AND DIGITAL CIRCUITS

RESOURCE PERSONS PROFILE

Name	:	**Mr. C.Balachandhar**
Designation	:	Design Engineer
Company Name	:	Galwin Technology,Trichy
About Resource Person	:	He is Having 19 years Experience In Managing Projects And Resources. Experience In Electrical System Design And Control Systems., Knowledge Of Low And Medium Voltage Power Systems , Applicable Standards. and PCB Designing

Name	:	**Mr.S.Sirajutheen.**
Designation	:	Design Engineer
Company Name	:	Galwin Technology,Trichy
About Resource Person	:	His Experience in PCB Designing designing, developing and maintaining electrical systems and components and Lead design engineer and consultant

PROGRAM COORDINATOR

HOD/EEE

IQAC

PRINCIPAL

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Natham, Dindigul (Dt)-624 401.

Coordinator - IQAC
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NPR College of Engineering & Technology

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NPRCET/OFF/EEE/VAC/2020-21 DATE: 07.02.2021

CIRCULAR

This is to inform that Department of Electrical and Electronics Engineering has planned to conduct an add on course on **"PCB Design for analog and digital circuits"** for our EEE students in our college campus during this even semester 2020-21. Interested students can enroll their name to the program coordinator on or before 10-02-2021.

The details of the training program are given below:

RESOURCE PERSONS	:	1.Mr. C.Balachandhar 2. Mr.S.Sirajutheen Galwin Technology,Trichy
VENUE	:	PSS Main Lab
DATE & DURATION	:	13-02-2021,20-02-2021,27-02-2021,06-03-2021& 13-03-2021 (During Saturdays) & 36 Hours
PROGRAM COORDINATOR	:	Mr.T.Sivakumar,AP/EEE

PRINCIPAL

Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D.,
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Natham, Dindigul (Dt) - 624 401.

Copy to:

1. All the HoDs
2. IQAC
3. Notice Board
4. All the class rooms
5. File
6. Program Coordinator

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The Management, Principal, Staff and Students

cordially invite you for the inauguration of

Add on Course on

"PCB Design for analog and digital circuits"

On 13th February 2021

Venue: PSS Lab at 10.00 a.m

RESOURCE PERSON

Mr. C.Balachandhar

Galwin Technology,Trichy

PRINCIPAL

Dr.J.Sundararajan

NPR College of Engineering & Technology

Felicitates the function

Organized by

Department of Electrical and Electronics Engineering,

NPR College of Engineering & Technology, NPR Nagar,

Natham.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON
PCB DESIGN FOR ANALOG AND DIGITAL CIRCUITS
COURSE CONTENT

Chapter 1: Introduction to Circuit Designing

- Fundamental of circuit design
- Creating New Components
- Introduction to Analog Circuit Design
- Introduction to Digital Circuit Design
- Placing Symbols and Ports
- Labeling components
- Circuit optimization

Chapter 2: Introduction to PCB Design

- Definition and Evolution of PCB
- Purposes of a PCB
- Types of PCBs
- Creating the Blank PCB
- Defining a sheet template
- Printed Circuit Technology
- PCB Construction (Power and Ground Plane)
- PCB Printing & Etching process

Chapter 3: Proteus PCB Schematic

- Defining the Board Shape & Placement Boundary
- Creating a board outline & placement / routing boundary
- Basic concepts of PCB Designing
- Schematic capture
- From schematic to PCB
- Placing, editing, and connecting parts and electrical symbols
- Adding and editing graphics and text

Chapter 4: Proteus PCB Editor

- Creating and editing parts
- Preparing to create a net list
- Creating a net list
- Exporting and importing schematic data
- PCB Material.
- Board Layers, Colors and Grids.
- Defining the Electrical/Mechanical Layer
- Defining PWR/GND layers.

Chapter 5: Design Transfer to the PCB and Design Rule Check

- Design synchronization with schematic tool.
- Design transfer using a Net list.
- Design rules concepts.
- Design Rule Checking

Chapter 6: Component Placement & Shielding

- Placing components.
- Finding components for placement.
- Moving components.
- Shielding Practices.
- Copper Pour

Chapter 7: Routing PCB Layout Routing and Grounding

- Routing guidelines
- Discontinuities – bend vias, pads and connectors.
- Basic layout rules.
- Basic grounding rules.

Chapter 8: Footprint libraries & Drawings

- Pad Design.
- Foot print design.
- Creating CAM files
- Assembly Drawing
- Master Drawing

Chapter 9: Drilling And Soldering

- Drilling and Soldering
- Drilling of designed PCB
- Soldering Process of Components
- Testing & Troubleshooting

Chapter 10: Other CAD Software's for PCB

- Orcad
- Eagle

CRITERIA TO GET CERTIFICATE

- Students should register their names for this course
- Students must have 80% attendance
- Students should secure 50% marks in the exam

Prepared By: Mrs.S.T.SARANYA, AP/EEE

Approved By,

HOD/EEE

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

PCB DESIGN FOR ANALOG AND DIGITAL CIRCUITS

STUDENTS WILLING LIST

S.No.	Reg. No.	Name
1	920819105001	AHAMED AFZAR A
2	920819105002	ARAVINDKUMAR K
3	920819105003	GURU PRASATH A
4	920819105004	KARTHI KEYAN R
5	920819105005	KASTHURI M
6	920819105006	LAKSHMI PRIYA A
7	920819105007	LOGESHWARAN N
8	920819105009	PITCHIYATHA D
9	920819105010	POORNAKUMAR V
10	920819105011	PRADAPKANNAN B
11	920819105012	RAJAMURUGAN M
12	920819105013	RAJASEKAR M
13	920819105014	SUJEETHRAN S
14	920819105015	USHADEVI C
15	920819105016	VIGNESH M
16	920819105301	PRIYADHARSHINI.K

PROGRAM COORDINATOR

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NPR College of Engineering & Technology

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON
PCB DESIGN FOR ANALOG AND DIGITAL CIRCUITS
COURSE SCHEDULE

External Resource Persons:

1.Mr. C.Balachandhar

2. Mr.S.Sirajutheen.

Galwin Technology,Trichy

Internal Resource Persons:

1. Mrs.S.T.SARANYA

NPRCET, AP/EEE

2. Mr. S.SATHYAMOORTHY

NPRCET,AP/EEE

Day 1 **13-02-21**	9.00 a.m	Registration	
	9.30 a.m – 10.00 a.m	Inauguration	
	10. 00 a.m - 11.10 a.m	Session 1	Introduction to Circuit Designing **Mr. C.Balachandhar**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	Creating New Components **Mr.S.Sirajutheen**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to 3.40 p.m	Session 3	Placing Symbols and Ports **Mr. C.Balachandhar**
	3.40 p.m to 3.50 p.m	*Tea Break*	
	3.50 p.m to 4.30 p.m	Session 4	Circuit optimization **Mr.S.Sirajutheen**

Day 2 **20-02-21**	9.30 a.m – 11.10 a.m	Session 1	Creating the Blank PCB **Mrs.S.T.SARANYA AP/EEE**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	Printed Circuit Technology **Mr. S.SATHYAMOORTHY AP/EEE**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to 3.40 p.m	Session 3	Proteus PCB Schematic **Mrs.S.T.SARANYA AP/EEE**
	3.40 p.m to 3.50 p.m	*Tea Break*	
	3.50 p.m to 4.30 p.m	Session 4	Adding and editing graphics and text **Mr. S.SATHYAMOORTHY AP/EEE**

Day 3 27-02-21	9.30 a.m – 11.10 a.m	Session 1	Design Transfer to the PCB and Design Rule Check **Mr. C.Balachandhar**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30a.m to 1.10p.m	Session 2	Design synchronization with schematic tool **Mr.S.Sirajutheen**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to 3.40 p.m	Session 3	Component Placement & Shielding **Mr. C.Balachandhar**
	3.40 p.m to 3.50 p.m	*Tea Break*	
	3.50 p.m to 4.30 p.m	Session 4	Routing PCB Layout Routing and Grounding **Mr.S.Sirajutheen**
Day 4 06-03-21	9.30 a.m – 11.10 a.m	Session 1	Basic layout rules. **Mrs.S.T.SARANYA AP/EEE**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	CAD Softwares for PCB **Mr. S.SATHYAMOORTHY AP/EEE**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to 3.40 p.m	Session 3	Orcad Software for PCB **Mrs.S.T.SARANYA AP/EEE**
	3.40 p.m to 3.50 p.m	*Tea Break*	
	3.50 p.m to 4.30 p.m	Session 4	Footprint libraries & Drawings **Mr. S.SATHYAMOORTHY AP/EEE**
Day 5 13-03-21	9.30 a.m – 11.10 a.m	Session 1	Drilling of designed PCB **Mr. C.Balachandhar**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	Soldering Process of Components **Mr.S.Sirajutheen**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to 3.40 p.m	Session 3	Testing & Troubleshooting **Mr. C.Balachandhar**
	3.40 p.m to 3.50 p.m	*Tea Break*	
	3.50 p.m to 4.30 p.m	Session 4	Testing & Troubleshooting **Mr.S.Sirajutheen**
	4.30 p.m to 5.00 p.m	Valedictory	

PROGRAM COORDINATOR

HOD/EEE

IQAC

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

PCB DESIGN FOR ANALOG AND DIGITAL CIRCUITS

STUDENTS ATTENDANCE

S.NO,	ROLL NO.	NAME	13.02.21		20.02.21		27.02.21		06.03.21		13.03.21	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1	20EEAO02001	AHAMED AFZAR A	/	/	/	/	/	/	/	/	/	/
2	20EEAO02002	ARAVINDKUMAR K	/	/	/	/	/	/	/	/	/	/
3	20EEAO02003	GURU PRASATH A	/	/	A	A	/	/	/	/	/	/
4	20EEAO02004	KARTHI KEYAN R	/	/	/	/	/	/	/	/	/	/
5	20EEAO02005	KASTHURI M	/	/	/	/	/	/	/	/	/	/
6	20EEAO02006	LAKSHMI PRIYA A	/	/	/	/	/	/	/	/	/	/
7	20EEAO02007	LOGESHWARAN N	/	/	/	/	/	/	/	/	/	/
8	20EEAO02008	PITCHIYATHA D	/	/	/	/	/	/	/	/	/	/
9	20EEAO02009	POORNAKUMAR V	/	/	/	/	/	/	/	/	/	/
10	20EEAO02010	PRADAPKANNAN B	/	/	/	/	/	/	/	/	/	/
11	20EEAO02011	RAJAMURUGAN M	/	/	/	/	/	/	/	/	/	/
12	20EEAO02012	RAJASEKAR M	/	/	/	/	A	A	/	/	/	/
13	20EEAO02013	SUJEETHRAN S	/	/	/	/	/	/	/	/	/	/
14	20EEAO02014	USHADEVI C	/	/	/	/	/	/	/	/	/	/
15	20EEAO02015	VIGNESH M	/	/	/	/	/	/	/	/	/	/
16	20EEAO02016	PRIYADHARSHINI.K	/	/	/	/	A	A	/	/	/	/
		PRESENT	16	16	15	15	14	14	16	16	16	16
		ABSENT	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
		PROGRAM COORDINATOR										

HOD/EEE

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

PCB DESIGN FOR ANALOG AND DIGITAL CIRCUITS

SAMPEL QUESTION PAPER & ANSWER

NAME OF THE STUDENT:

DURATION : 10 MINUTES **MARKS: 10**

1). Which among the below mentioned packages does not belong to the category of 'Small Outline Package'?

a. SO
b. SOP
c. SOT
d. SON

2) Which type of solderability testing is carried out for the generation of solder sample due to immersion of wire or sheet metal specimen in a bath of molten solder?

a. Solder Bath Testing
b. Meniscus Rise Testing
c. Solder Iron Testing
d. None of the above

3) Which among the below stated soldering methods is also renowned as 'High Frequency Resistance Soldering'?

a. Iron Soldering
b. Furnace Soldering
c. Torch Soldering
d. Electrical Soldering

4) Which among the below mentioned approaches belongs to the category of In-circuit Testing?

a. Impedance testing
b. Component testing
c. Apply Signal and check output
d. All of the above

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5) High current circuits are purposely located or placed near the edge of PCB in accordance to the supply lines for _____

a. Removal of heat
b. Isolation of stray current
c. Reduction of path length
d. All of the above

6) What is/are the necessity/ies to provide guarding to precision differential amplifiers?

a. To increase leakage resistance
b. To reduce capacitance between signal conductors & ground
c. Both a and b
d. None of the above

7) Which phenomenon is not reduced by the circuit paths of lowest impedances especially provided by power and return planes for shielding purposes?

a. Radiation
b. Convection
c. Noise
d. Crosstalk

8) Which among the below specified assertions is not a grounding consideration associated with ADC as well as DAC?

a. Analog side to analog ground
b. Digital side to digital ground
c. Use of separate power supply and connection of their ground leads to single point reference
d. Reduction of inductive loop area between power and return traces

9) Which among the below stated devices/equipments are preferred for elimination of ground and supply line noise especially in TTL/CMOS / ECL PCB designing?

a. Coupling capacitor
b. Decoupling capacitor
c. Snubber circuits
d. All of the above

10) Which among the below mentioned assertions is not a way of cross-talk reduction while designing digital PCBs?

a. Decrease in the distance between conductors
b. Shielding of clock lines with guard strips
c. Reduction in the loop area of circuits
d. Avoid running of parallel traces for longer distances especially for asynchronous signals



ANSWERS:

1) D

2) B

3) D

4) D

5) A

6) C

7) B

8) D

9) B

10) A

PROGRAM CO ORDINATOR

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

PCB DESIGN FOR ANALOG AND DIGITAL CIRCUITS

STUDENT FEEDBACK

Name of the Student : C. Usha Devi	Year / Semester: II / 4
Name of the Program: DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION	

S.No.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	✓			
2	Way of Exposed New Knowledge and Practices	✓			
3	Examples Provided during this Course	✓			
4	Course Delivered by Resource Person	✓			
5	Time Management	✓			
6	Overall rating of this Course	✓			
7	Any Other Comments / Suggestions	It is useful for me			

PROGRAM COORDINATOR

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

PCB DESIGN FOR ANALOG AND DIGITAL CIRCUITS

STUDENT FEEDBACK

Name of the Student : A. Lakshmi Priya	Year / Semester: III / 4
Name of the Program: DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION	

S.No.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	✓			
2	Way of Exposed New Knowledge and Practices	✓			
3	Examples Provided during this Course	✓			
4	Course Delivered by Resource Person		✓		
5	Time Management	✓			
6	Overall rating of this Course	✓			
7	Any Other Comments / Suggestions	It is Useful forme			

PROGRAM COORDINATOR

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ADD ON COURSE ON

PCB DESIGN FOR ANALOG AND DIGITAL CIRCUITS

STUDENT FEEDBACK

Name of the Student : KARTHI KEYAN P	**Year / Semester:** II / IV
Name of the Program: DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION	

S.No.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	✓			
2	Way of Exposed New Knowledge and Practices	✓			
3	Examples Provided during this Course		✓		
4	Course Delivered by Resource Person	✓			
5	Time Management	✓			
6	Overall rating of this Course		✓		
7	Any Other Comments / Suggestions	It is useful for me			

PROGRAM COORDINATOR

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ADD ON COURSE ON

PCB DESIGN FOR ANALOG AND DIGITAL CIRCUITS

STUDENT FEEDBACK

Name of the Student : LOUIES II WARIN	Year / Semester: II / IV
Name of the Program: DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION	

S.No.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	✓			
2	Way of Exposed New Knowledge and Practices	✓			
3	Examples Provided during this Course		✓		
4	Course Delivered by Resource Person		✓		
5	Time Management	✓			
6	Overall rating of this Course	✓			
7	Any Other Comments / Suggestions	It is useful for me			

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

PCB DESIGN FOR ANALOG AND DIGITAL CIRCUITS

STUDENT FEEDBACK

Name of the Student : M. kasturi	**Year / Semester:** II / 04
Name of the Program: DISTRIBUTED CONTROL SYSTEM FOR INDUSTRIAL AUTOMATION	

S.No.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content		✓		
2	Way of Exposed New Knowledge and Practices	✓			
3	Examples Provided during this Course	✓			
4	Course Delivered by Resource Person	✓			
5	Time Management	✓			
6	Overall rating of this Course	✓			
7	Any Other Comments / Suggestions	It is useful for me			

PROGRAM COORDINATOR

HOD/EEE

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Department of Electrical & Electronics E...
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON
PCB DESIGN FOR ANALOG AND DIGITAL CIRCUITS
STUDENTS FEEDBACK ANALYSIS REPORT

TOTAL STRENGTH: 16 **DATE: 13.03.21**

S.No.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	14	01	01	00
2	Way of Exposed New Knowledge and Practices	15	01	00	00
3	Examples Provided during this Course	14	02	00	00
4	Course Delivered by Resource Person	15	01	00	00
5	Time Management	16	00	00	00
6	Overall rating of this Course	13	02	01	00
	Average	14.5	1.16	0.33	00

Number of students completed successfully: 16



PROGRAM COORDINATOR **HOD/EEE** **IQAC** **PRINCIPAL**

Head of the Department
Department of Electrical & Electronics Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

Coordinator - IQAC
NPR College of Engineering & Technology
Natham, Dindigul (Dt)-624 401

Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D.,
Principal
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

PCB DESIGN FOR ANALOG AND DIGITAL CIRCUITS

SUMMARY OF REPORT

The Department of Electrical and Electronics Engineering Organized an add on course on **"PCB Design For Analog And Digital Circuits"** on 13-02-2021,20-02-2021,27-02-2021,06-03-2021& 13-03-2021 (During Saturdays) at PSS Lab, Ms.M.Kasthuri Second Year student has delivered the welcome address.

Dr.J.Sundararajan, Principal of our college inaugurated the program and delivered the inaugural address. **Mr.C.Balachandhar and Mr.K.Sirajutheen,** Galwin Technology, Trichy had participated with us and shared their knowledge with our students.

This five days course gave us the good over view on **PCB and Circuit Design** and provided lots of information on the topic. In addition to this, also they gave Hands on training for Electrical Design the information on Design for various types of **Electrical Systems**.

They shared their knowledge of Preparing Printed Circuit Board and remedies of faults from the Printed Circuit Board which enables the students to have skills to resolve complex real problems in PCB Design. Our students learnt various existing and emerging technologies of **PCB and Circuit Design**

16 students of II year EEE department attended the course and completed the course successfully and awarded with certificates after the quiz.

Finally, the course was concluded by Mr.M.Vignesh, second year with vote of thanks.

PROGRAM COORDINATOR

HOD/EEE

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE ON

PCB DESIGN FOR ANALOG AND DIGITAL CIRCUITS

COURSE MATERIAL

1. https://www.autodesk.in/solutions/pcb-design-software
2. https://resources.altium.com/p/how-to-become-a-pcb-designer-in-today-s-world
3. https://www.ee.iitb.ac.in/~pcpandey/courses/ee616/pcblayout_c_aug07.pdf
4. http://guru.nmamit.in/pluginfile.php/27/mod_forum/attachment/642/SWAYAM-NPTEL.pdf
5. https://onlinecourses.swayam2.ac.in/aic20_sp59/preview
6. http://www.svnit.ac.in/web/department/electronics/EC404.php

PROGRAM COORDINATOR

HOD/EEE

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE OF COMPLETION

This is to certify that

Ms. A. LAKSHMI PRIYA II YEAR EEE

has successfully completed the add on course on

'PCB Design for analog and digital circuits'

on 13-02-2021,20-02-2021,27-02-2021,06-03-2021& 13-03-2021 (05 days)

HOD/EEE
PROF.G.ELANGOVAN

PRINCIPAL
DR.J.SUNDARARAJAN

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CERTIFICATE OF COMPLETION

This is to certify that

Mr. N. LOGESHWARAN II YEAR EEE

has successfully completed the add on course on

'PCB Design for analog and digital circuits'

on 13-02-2021,20-02-2021,27-02-2021,06-03-2021& 13-03-2021 (05 days)

HOD/EEE
PROF.G.ELANGOVAN

PRINCIPAL
DR.J.SUNDARARAJAN

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CERTIFICATE OF COMPLETION

This is to certify that

Mr. R. KARTHIKEYAN II YEAR EEE

has successfully completed the add on course on

'PCB Design for analog and digital circuits'

on 13-02-2021,20-02-2021,27-02-2021,06-03-2021& 13-03-2021 (05 days)

HOD/EEE
PROF.G.ELANGOVAN

PRINCIPAL
DR.J.SUNDARARAJAN

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE OF COMPLETION

This is to certify that

Ms. G. USHA DEVI II YEAR EEE

has successfully completed the add on course on

'PCB Design for analog and digital circuits'

on 13-02-2021,20-02-2021,27-02-2021,06-03-2021& 13-03-2021 (05 days)

HOD/EEE
PROF.G.ELANGOVAN

PRINCIPAL
DR.J.SUNDARARAJAN

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE OF COMPLETION

This is to certify that

Ms. M. KASTHURI II YEAR EEE

has successfully completed the add on course on

'PCB Design for analog and digital circuits'

on 13-02-2021,20-02-2021,27-02-2021,06-03-2021& 13-03-2021 (05 days)

HOD/EEE
PROF.G.ELANGOVAN

PRINCIPAL
DR.J.SUNDARARAJAN

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE PROGRAM (2020-2021)

INDEX

COURSE CODE & NAME: **20EECC02 & WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES**

ACADEMIC YEAR: 2020 -21 SEMESTERS: EVEN DURATION: 32 HOURS

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PROGRAM CO-ORDINATOR HOD/EEE IQAC PRINCIPAL

Head of the Department
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

PERMISSION LETTER

DATE: 15.02.2021

From:

Prof.G.Elangovan,
Head of the Department,
Electrical and Electronics Engineering,
NPR College of Engineering & Technology,
Natham.

To

The Principal,
NPR College of Engineering & Technology,
Natham.

Respected Sir,

Sub: Request for permission to conduct certificate course for EEE students – Regarding

With reference to the above subject, the application is hereby submitted for your approval to conduct certificate course on **"WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES"** to our students from 22/2/2021 to 26/2/2021 (5 Days) in our college premises. In this regard, we have proposed Mr.K.RAJESH AP/EEE and Mr.M.EDWIN LAWRENCE, AP/EEE of our EEE Department Faculties as resource persons for this certificate course. Kindly permit us to conduct the same.

Thanking you.

Yours faithfully,

(Prof.G.Elangovan)

Head of the Department
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE PROGRAM ON

WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES

RESOURCE PERSONS PROFILE

RESOURCE PERSON 1

Name of the Resou6rce Person: Mr.K.RAJESH

Name of the College	: NPR COLLEGE OF ENGINEERING AND TECHNOLOGY
Name of the Department	: ELECTRICAL AND ELECTRONICS ENGINEERING
Present Designation	: ASSISTANT PROFESSOR
Residential Address	: 8/129,RAJLAKSHMI NAGAR,GOPALPATTY.DINDIGUL(DIST)
Contact Nos.	: 9600649296
Email	: rajeshk@nprcolleges.org

I. Particulars of Educational Qualification:

Category	Name of the Degree	Specialization	Year of Passing	Name of the College	Name of the University	% of Marks / Grades obtained	Class obtained
UG	B.E	EEE	2007	PSNA College of Engg and Tech	Anna University	65%	FIRST
PG	M.E	Power Electronics and Drives	2010	RAJA College of Engg and Tech	Anna University	74.4%	FIRST

IV. Academic Experience:

Name of the College	Designation	Joining Date	Relieving Date	Experience		
				Years	Months	Days
1. NPR college of engg and tech.	Assistant professor	08.06.15	-	1	05	-
2. Magna college of engineering	Assistant professor	02.06.14	30.05.15	-	11	3
3. Kurinji college of Engineering & Technology	Lecturer	02.06.09	30.06.11	2	-	28
			Total	4	05	01

RESOURCE PERSON 2

1. Name	Mr.M.EDWNLAWRANCE
2. Date of Birth &Age	01-01-1987&34
3. Designation	Assistant Professor
4. Department	EEE
5. Area of Specialization	Power system analysis& Electrical mavhines
8. Address for correspondence	1/5 ,water tank street, karamadai,palaya kannivadi,Dindigul-624705
9. Phone Number	8667346102
10. Email Id	edwinlawrance@nprcolleges.org

11. Academic Qualifications (SSLC to Post Graduation)

Course	Subject	Institution	University	Year of Passing	% of Marks	Class
PG	ME Power management	Anna university Regional centre ,Madurai	Anna university,Chennai	2013	7.63	First

UG	BE EEE	Odaiyappa College of Engineering and Technology Theni	Anna university,Chennai	2008	77%	First

13. Teaching Experience

Designation	Name of the employer	Date of Joining	Date of Leaving
Graduate Apprentice	Tamilnadu Electricity Board, Dindigul	30-08-2008	29-08-2009
Lecturer	TheniKammavarSangam Polytechnic College,Theni	11-12-2009	31-08-2011
Assistant Professor	Veerammal Engineering College,Dindigul	15-07-2013	14-06-2014
Assistant Professor	SSM institute of engineering and technology,Dindigul	26-03-2015	29-06-2019

15. Total Teaching Experience (in years)

At previous institution	At present institution	No. of Years	Research Experience excluding years spent for M.Phil/Ph.D
5Years	01 year	06 years	NIL

HOD/EEE
Head of the Department
Department of Electrical & Electronics Engineering
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PRINCIPAL
Dr. J.SUNDARARAJAN,
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NPRCET/OFF/EEE/VAC/2020-21

DATE: 16.02.2021

CIRCULAR

This is to inform that Department of Electrical and Electronics Engineering has planned to conduct a Certificate course on **"WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES"** for EEE students in our college campus during this even semester 2020-2021. Interested students can enroll their name to the program coordinator or before 19.02.2021

The details of the training program are given below:

RESOURCE PERSONS	:	1. Mr.K.RAJESH AP/EEE/NPRCET
		2.Mr.M.EDWIN LAWRENCE,AP/EEE/NPRCET
VENUE	:	PSS Main Lab at 10.00 a.m.
DATE & DURATION	:	22/2/2021 to 26/2/2021 & 32 Hours
PROGRAM COORDINATOR	:	Mr.T.Sivakumar, AP/EEE

PRINCIPAL

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

Copy to:

1. All the HoDs
2. IQAC
3. Notice Board
4. File
5. All the class rooms
6. Program Coordinator

NPR College of Engineering & Technology
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The Management, Principal, Staff and Students

cordially invite you for the inauguration of

Certificate Course on

"WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES"

On 22nd February 2021

Venue: PSS Main Lab **at 10.00 a.m.**

Resource Persons

1. Mr.K.RAJESH, AP/EEE/NPRCET
2. Mr.M.EDWIN LAWRENCE, AP/EEE/NPRCET

PRINCIPAL

Dr.J.Sundararajan

NPR College of Engineering & Technology

Felicitates the function

Organized by

Department of Electrical and Electronics Engineering,

NPR College of Engineering and Technology, NPR Nagar,

Natham.

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE COURSE ON

WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES

COURSE CONTENT

CHAPTER 1: WEB DESIGN PRINCIPLES

- Basic principles involved in developing a web site
- Planning process
- Five Golden rules of web designing
- Designing navigation bar
- Page design
- Home Page Layout
- Design Concept.

CHAPTER 2: BASICS IN WEB DESIGN

- Brief History of Internet
- What is World Wide Web
- Why create a web site
- Web Standards
- Audience requirement.

CHAPTER 3: INTRODUCTION TO HTML

- What is HTML
- HTML Documents
- Basic structure of an HTML document
- Creating an HTML document
- Mark up Tags
- Heading-Paragraphs
- Line Breaks
- HTML Tags.

CHAPTER 4: ELEMENTS OF HTML

- Introduction to elements of HTML
- Working with Text
- Working with Lists, Tables and Frames
- Working with Hyperlinks, Images and Multimedia
- Working with Forms and controls

CHAPTER 5: INTRODUCTION TO CASCADING STYLE SHEETS

- Concept of CSS
- Creating Style Sheet
- CSS Properties
- CSS Styling(Background, Text Format, Controlling Fonts)
- Working with block elements and objects
- Working with Lists and Tables
- CSS Id and Class
- Box Model(Introduction, Border properties, Padding Properties, Margin properties)
- CSS Advanced(Grouping, Dimension, Display, Positioning, Floating, Align,Pseudo class, Navigation Bar, Image Sprites, Attribute sector)
- CSS Color
- Creating page Layout and Site Designs.

CHAPTER 6: INTRODUCTION TO WEB PUBLISHING OR HOSTING

- Creating the Web Site
- Saving the site
- Working on the web site
- Creating web site structure
- Creating Titles for web pages
- Themes-Publishing web sites

Criteria to get Certificate

- Students should register their names for this course
- Students must have 80% attendance
- Students should secure 50% marks in the exam

Prepared by: Mr.M.Edwin Lawrence, AP/EEE

Approved by,

HOD/EEE **IQAC** **PRINCIPAL**

Head of the Department
Department of Electrical & Electronics Engineering
NPR College of Engineering & Technology
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Coordinator - IQAC
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE COURSE ON

WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES

STUDENTS WILLING LIST

S.No.	REG. No.	NAME
1.	920817105001	.ABDUL AJEESH.A
2.	920817105003	ABUDHAGIR.K
3.	920817105004	ARUN KUMAR.P
4.	920817105006	CIRPA.A
5.	920817105007	DINESHKUMAR (s/o kannan)
6.	920817105008	DINESHKUMAR K (s/o kamaraj)
7.	920817105009	DIVAKAR M
8.	920817105010	HARI HARAN S
9.	920817105012	KATHIRAVAN G
10.	920817105013	MOHAMED FAIZ A
11.	920817105014	MOHAMED RIYASDEEN A
12.	920817105015	NISHA M
13.	920817105016	PERUMAL R
14.	920817105017	PRABAKARAN S
15.	920817105018	RAMKUMAR R
16.	920817105019	RUBAKUMAR B
17.	920817105020	SABARISH R
18.	920817105022	SENTHIL KUMARAN V
19.	920817105023	THIBAHAR.M
20.	920817105301	A.MUHILVAN.AI
21.	920818105002	.DEENA KARTHICK.M
22.	920818105003	.DINESH KUMAR.M
23.	920818105004	.MANIVEL.C
24.	920818105005	.MONIKA.V

PROGRAM COORDINATOR

Head of the Department
Department of Electrical & Electronics Engineering
NPR College of Engineering & Technology
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HOD/EEE

Head of the Department
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
CERTIFICATE PROGRAM ON
WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES
Course Schedule

Venue: PSS MAIN LAB **at 10.00 a.m.**

Internal Resource Persons			
1. Mr.K.RAJESH, AP/EEE/NPRCET 2. Mr.M.EDWIN LAWRENCE,AP/EEE/NPRCET			
Day 1 **22.02.2021**	9.00 a.m	Registration	
	9.30 a.m – 10.00 a.m	Inauguration	
	10. 00 a.m - 11.10 a.m	Session 1	Basic principlesinvolved in developing a web site **Mr.K.RAJESH AP/EEE; AP/EEE**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	Designing navigation bar **Mr.M.EDWINLAWRENCE,AP/EEE,**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to 3.40 p.m	Session 3	Home Page Layout **Mr.K.RAJESH AP/EEE; AP/EEE**
	3.40 p.m to 3.50 p.m	*Tea Break*	
	3.50 p.m to 4.30 p.m	Session 4	Design Concept. **Mr.M.EDWINLAWRENCE,AP/EEE**
Day 2 **23.02.2021**	9.30 a.m – 11.10 a.m	Session 1	Basics In Web Design Brief History of Internet-Audience requirement. **Mr.K.RAJESH AP/EEE; AP/EEE**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	World Wide Web- create a web site **Mr.M.EDWINLAWRENCE,AP/EEE**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to 3.40 p.m	Session 3	Web Standards **Mr.K.RAJESH AP/EEE; AP/EEE**
	3.40 p.m to 3.50 p.m	***Tea Break***	
	3.50 p.m to 4.30 p.m	**Session 4**	Elements Of HTML **Mr.M.EDWINLAWRENCE,AP/EEE**
Day 3 **24.02.2021**	9.30 a.m – 11.10 a.m	Session 1	Working with Forms and controls **Mr.K.RAJESH AP/EEE; AP/EEE**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	Introduction to elements of HTML **Mr.M.EDWINLAWRENCE,AP/EEE**
	1.10 p.m to 2.00 p.m	*Lunch Break*	

	2.00 p.m to 3.40 p.m	Session 3	Working with Text-Working with Lists, Tables and Frames **Mr.K.RAJESH AP/EEE; AP/EEE**
	3.40 p.m to 3.50 p.m	*Tea Break*	
	3.50 p.m to 4.30 p.m	Session 4	Working with Hyperlink s, Images and Multimedia **Mr.M.EDWINLAWRENCE,AP/EEE**
Day 4 **25.02.2021**	9.30 a.m – 11.10 a.m	Session 1	Introduction To Cascading Style Sheets-Concept of CSS **Mr.K.RAJESH AP/EEE; AP/EEE**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	Working with block elements and object-Working with Lists and Tables- **Mr.M.EDWINLAWRENCE,AP/EEE**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to 3.40 p.m	Session 3	Box Model(Introduction, Border properties, Padding Properties, Margin properties)CSS Color **Mr.K.RAJESH AP/EEE; AP/EEE**
	3.40 p.m to 3.50 p.m	*Tea Break*	
	3.50 p.m to 4.30 p.m	Session 4	Creating page Layout and Site Designs **Mr.M.EDWINLAWRENCE,AP/EEE**
Day 5 **26.02.2021**	9.30 a.m – 11.10 a.m	Session 1	Introduction To Web Publishing Or Hosting- **Mr.K.RAJESH AP/EEE; AP/EEE**
	11.10 a.m to 11.30 a.m	*Tea Break*	
	11.30 a.m to 1.10 p.m	Session 2	Creating the Web Site-Saving the site **Mr.M.EDWINLAWRENCE,AP/EEE**
	1.10 p.m to 2.00 p.m	*Lunch Break*	
	2.00 p.m to 3.40 p.m	Session 3	Working on the web site Creating web site structure **Mr.K.RAJESH AP/EEE; AP/EEE**
	3.40 p.m to 3.50 p.m	*Tea Break*	
	3.50 p.m to 4.30 p.m	Session 4	Creating Titles for web pages Themes-Publishing web sites **Mr.M.EDWINLAWRENCE,AP/EEE**
	4.30 p.m to 5.00 p.m	Valedictory	

PROGRAM COORDINATOR **HOD/EEE** **IQAC** **PRINCIPAL**

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE PROGRAM ON

WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES

STUDENTS ATTENDANCE

S.NO	ROLL NO	NAME	22.02.21		23.02.21		24.02.21		25.02.21		26.02.21	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1.	20EECC02001	ABDUL AJEESH.A	/	/	/	/	/	/	/	/	/	/
2.	20EECC02002	ABUDHAGIR.K	/	/	/	/	/	/	/	/	/	/
3.	20EECC02003	ARUN KUMAR.P	/	/	/	/	/	/	/	/	/	/
4.	20EECC02004	CIRPA.A	/	/	/	/	/	/	/	/	/	/
5.	20EECC02005	DINESHKUMAR (s/o kannan)	/	/	/	/	/	/	/	/	/	/
6.	20EECC02006	DINESHKUMAR K (s/o kamaraj)	/	/	/	/	/	/	/	/	/	/
7.	20EECC02007	DIVAKAR M	/	/	/	/	/	/	/	/	/	/
8.	20EECC02008	HARI HARAN S	/	/	/	/	/	/	/	/	/	/
9.	20EECC02009	KATHIRAVAN G	/	/	/	/	/	/	/	/	/	/
10.	20EECC02010	MOHAMED FAIZ A	/	/	A	A	/	/	/	/	/	/
11.	20EECC02011	MOHAMED RIYASDEEN A	/	/	/	/	A	A	/	/	/	/
12.	20EECC02012	NISHA M	/	/	/	/	/	/	/	/	/	/
13.	20EECC02013	PERUMAL R	/	/	/	/	/	/	/	/	/	/
14.	20EECC02014	PRABAKARAN S	/	/	/	/	/	/	/	/	/	/
15.	20EECC02015	RAMKUMAR R	/	/	/	/	/	/	/	/	/	/
16.	20EECC02016	RUBAKUMAR B	/	/	/	/	/	/	/	/	/	/
17.	20EECC02017	SABARISH R	/	/	/	/	/	/	/	/	/	/
18.	20EECC02018	SENTHIL KUMARAN V	/	/	/	/	/	/	/	/	/	/
19.	20EECC02019	THIBAHAR.M	/	/	/	/	/	/	/	/	/	/
20.	20EECC02020	.MUHILVANI.A	/	/	/	/	/	/	/	/	/	/
21.	20EECC02021	DINESH KUMAR.M	/	/	/	/	/	/	/	/	/	/
22.	20EECC02022	.MANIVEL.C	/	/	/	/	/	/	/	/	/	/
23.	20EECC02023	MONIKA,.V	/	/	/	/	/	/	/	/	/	/
24.	20EECC02024	DEENA KARTHICK.M	/	/	/	/	/	/	/	/	/	/
		PRESENT	24	24	23	23	23	23	24	24	24	24
		ABSENT	Nil	Nil	01	01	01	01	Nil	Nil	Nil	Nil
		PROGRAM COORDINATOR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE PROGRAM ON

WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES

QUIZ QUESTIONS & ANSWERS

NAME OF THE STUDENT:

DURATION: 10 MINUTES **MARKS: 10**

1. Web page editors works on a ____ principle.

(A) WWW
(B) HTML
(C) WYSIWYG
(D) WYGWYSI

2. Which program is used by web clients to view the web pages?

(A) Web browser
(B) Protocol
(C) Web server
(D) Search Engine

3. What is the name of the location address of the hypertext documents?

(A) Uniform Resource Locator
(B) Web server
(C) File
(D) Web address

4. What are shared on the Internet and are called as Web pages?

(A) Programs
(B) Cables
(C) Hypertext documents
(D) None

5. How many colour names are used by the browsers?

(A) 8

(B) 10

(C) 12

(D) 16

6. Which tag is used to display text in title bar of a web document?

(A) Body tag

(B) Meta tag

(C) Title tag

(D) Comment tag

7. The ____ attribute is used to identify the values of variables.

(A) text

(B) http-equiv

(C) content

(D) name

8. The language that instructs the browser on how to display the hypertext, and adds pictures to the document is _____.

(A) C

(B) COBOL

(C) HTML

(D) BASIC

9. Which tag is used to identify the keywords describing the site?

(A) Comment tag

(B) Title tag

(C) Meta tag

(D) Anchor tag

10. Which are used with a tag to modify its function?

(A) Files

(B) Functions

(C) Attributes

(D) Documents

ANSWERS:

1) C

2) A

3) A

4) C

5) D

6) C

7) C

8) C

9) C

10) C

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STUDENT FEEDBACK

Name of the Student : M. Deena Kaarthick	Year / Semester: III / 6
Name of the Program: WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES	

S.No.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	✓			
2	Way of Exposed New Knowledge and Practices	✓			
3	Examples Provided during this Course	✓			
4	Course Delivered by Resource Person	✓			
5	Time Management	✓			
6	Overall rating of this Course	✓			
7	Any Other Comments / Suggestions	It is very useful for me			

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STUDENT FEEDBACK

Name of the Student : M. DHINESH KUMAR	Year / Semester: III / VI
Name of the Program: WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES	

S.No.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	✓			
2	Way of Exposed New Knowledge and Practices	✓			
3	Examples Provided during this Course	✓	✓		
4	Course Delivered by Resource Person	✓			
5	Time Management	✓			
6	Overall rating of this Course	✓			
7	Any Other Comments / Suggestions	I get more knowledge in project			

PROGRAM COORDINATOR

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STUDENT FEEDBACK

Name of the Student : V. Monika	**Year / Semester:** III / 6
Name of the Program: WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES	

S.No.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	✓			
2	Way of Exposed New Knowledge and Practices	✓			
3	Examples Provided during this Course	✓			
4	Course Delivered by Resource Person	✓			
5	Time Management	✓			
6	Overall rating of this Course	✓			
7	Any Other Comments / Suggestions	It is very useful Program for me			

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CERTIFICATE PROGRAM ON

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STUDENT FEEDBACK

Name of the Student : C. MANIVEL	Year / Semester: 3 / VI
Name of the Program: WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES	

S.No.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	✓			
2	Way of Exposed New Knowledge and Practices	✓			
3	Examples Provided during this Course	✓			
4	Course Delivered by Resource Person		✓		
5	Time Management	✓			
6	Overall rating of this Course	✓			
7	Any Other Comments / Suggestions	It is useful for me			

PROGRAM COORDINATOR HOD/EEE PRINCIPAL

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CERTIFICATE PROGRAM ON

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STUDENT FEEDBACK

Name of the Student : M. Nisha	Year / Semester: IV / 8
Name of the Program: WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES	

S.No.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	✓			
2	Way of Exposed New Knowledge and Practices		✓		
3	Examples Provided during this Course	✓			
4	Course Delivered by Resource Person	✓			
5	Time Management	✓			
6	Overall rating of this Course		✓		
7	Any Other Comments / Suggestions	It get new knowledge			

PROGRAM COORDINATOR

HOD/EEE

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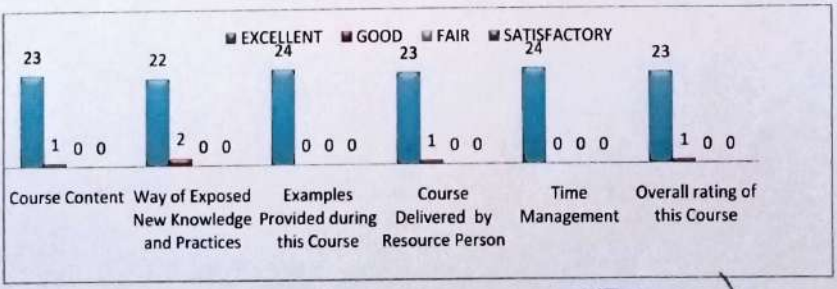
STUDENTS FEEDBACK ANALYSIS REPORT

TOTAL STRENGTH: 24 **DATE: 26.02.2021**

S.No.	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	23	01	00	00
2	Way of Exposed New Knowledge and Practices	22	02	00	00
3	Examples Provided during this Course	24	00	00	00
4	Course Delivered by Resource Person	23	01	00	00
5	Time Management	24	00	00	00
6	Overall rating of this Course	23	01	00	00
	Average	23.16	0.833	00	00

Number of students completed the course successfully: 24



PROGRAM COORDINATOR | HOD/EEE | IQAC | PRINCIPAL

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SUMMARY OF STUDENT FEEDBACK REPORT

The Department of Electrical and Electronics Engineering has organized certificate course on **WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES** from **22/02/2021** to **26.02.2021** on PSS Main lab. The program has been inaugurated by Mr.M.Dheenakarthik, III-EEE by Delivering Welcome Address.

Dr.J.Sundararajan, Principal of our college has participated in the program and delivered the inaugural address. Mr.K.RAJESH AP/EEE &. Mr.M.EDWIN LAWRENCE, AP/EEE of our college EEE Department Faculties had participated with us and shared their knowledge with our students.

This five days course over lined the configuration and basics of **Web Designing**. It is an opportunity that Department offers the students to gain knowledge regarding the topic. In addition to this, it also gave the information on **Web Designing using JAVA technologies** Applications and Implementations. 24 of our students participated in the course and completed it successfully and awarded with certificates by conducting Quiz.

Finally the course was concluded by Ms.A.Cirpa Final year EEE with vote of thanks.

PROGRAM COORDINATOR | HOD/EEE | IQAC | PRINCIPAL

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COURSE MATERIAL

1. https://www.interaction-design.org/literature/topics/web-design
2. https://www.tutorialspoint.com/internet_technologies/website_designing.htm
3. https://skillcrush.com/blog/be-a-successful-web-designer/
4. https://tutorial.techaltum.com/webdesigning.html
5. https://www.tutorialspoint.com/website_development/website_development_tutorial.pdf

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DEPARTMENT OF ELECTRICAL AND ELCETRONICS ENGINEERING

CERTIFICATE OF COMPLETION

This is to certify that

MISS. V. MONIKA - III Yr EEE

has successfully completed the certificate course on

'WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES'

from 22/2/2021 to 26/2/2021.

HOD/EEE
PROF.G.ELANGOVAN

PRINCIPAL
DR.J.SUNDARARAJAN

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This is to certify that

MISS M. NISHA - IV Yr. EEE

has successfully completed the certificate course on

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from 22/2/2021 to 26/2/2021.

HOD/EEE
PROF.G.ELANGOVAN

PRINCIPAL
DR.J.SUNDARARAJAN

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CERTIFICATE OF COMPLETION

This is to certify that

MR. M. DEENA KARTHICK - III Yr - EEE

has successfully completed the certificate course on

'WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES'

from 22/2/2021 to 26/2/2021.

HOD/EEE
PROF.G.ELANGOVAN

PRINCIPAL
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CERTIFICATE OF COMPLETION

This is to certify that

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has successfully completed the certificate course on

'WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES'

from 22/2/2021 to 26/2/2021.

HOD/EEE
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DEPARTMENT OF ELECTRICAL AND ELCETRONICS ENGINEERING

CERTIFICATE OF COMPLETION

This is to certify that

MR.C.MANIVEL - III YR EEE

has successfully completed the certificate course on

'WEB COMPONENT DEVELOPMENT USING JAVA TECHNOLOGIES'

from 22/2/2021 to 26/2/2021.

HOD/EEE
PROF.G.ELANGOVAN

PRINCIPAL
DR.J.SUNDARARAJAN

NPR College of Engineering & Technology
NPR Nagar, Natham, Dindigul - 624401, Tamil Nadu, India.
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DEPARTMENT OF MANAGEMENT STUDIES

ADD - ON COURSE

BUSINESS AND SUSTAINABLE DEVELOPMENT

INDEX

COURSE CODE &NAME: **20BAA001 & BUSINESS AND SUSTAINABLE DEVELOPMENT**

ACADEMIC YEAR: **2020 -2021** SEMESTER: **ODD** DURATION: **30 HOURS**

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PROGRAM COORDINATOR

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IQAC
Coordinator - IQAC
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PRINCIPAL
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Principal
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NPR COLLEGE OF ENGG. & TECHNOLOGY ★ NATHAM

10th February, 2021

From

The Head of the Department,
Department of Management Studies,
NPR college of Engineering & Technology,
Natham.

To

The Principal,
NPR college of Engineering & Technology,
Natham.

Respected Sir,

Sub: Seeking permission to conduct add on Course for MBA Students - Reg.

We have planned to conduct Add on course on "Business and Sustainable development" to our MBA students on 27.02.2021, 06.03.2021, 13.03.2021 & 23.03.2021 in our college premises. We proposed Dr. R. Ramakrishnan, Chief consultant, Vivin Consultant, chennai as a resource person for this program. Kindly permit us to conduct the Same.

Thanking You,

Yours faithfully,

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Nathams, Dindigul (Dt) - 624 401.

NPR COLLEGE OF ENGG. & TECHNOLOGY ★ NATHAM

Dr. V. Velmurugan
(HOD MBA)

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DEPARTMENT OF MANAGEMENT STUDIES

ADD ON COURSE

BUSINESS AND SUSTAINABLE DEVELOPMENT

RESOURCE PERSON PROFILE

Name	:	**Dr.R.Ramakrishnan**
Designation	:	Chief consultant,
Institution Name	:	Vivin Consultant, Chennai
About Resource Person	:	**Dr.R.Ramakrishnan** working as a Chief consultant in Vivin consultant has wide and varied experience in government of India service in the diplomatic and administrative side and 7 years of experience in private enterprise in the top management in manufacturing as well as information technology fields combined with more 14 years of teaching experience – Total experience 47 years. The editor of an international journal and reviewer for 8 international journals related to management. A creative writer and freelance journalist, having published stories and articles on science and environment on web sites. His area of expertise in preparing course materials on operational research, quality engineering. Reliability engineering, probability and statistics, MIS for MBA and ME level.

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DEPARTMENT OF MANAGEMENT STUDIES

ADD ON COURSE

BUSINESS AND SUSTAINABLE DEVELOPMENT

CIRCULAR

Date: 22/02/2021

This is to inform that Department of Management Studies is planned to conduct an Add-on Course program on **"BUSINESS AND SUSTAINABLE DEVELOPMENT"** for the students during 2020-2021.Interested students can enroll their name to the program coordinator on or before 24/02/2021. The details of the training program are given below

COURSE NAME	:	BUSINESS AND SUSTAINABLE DEVELOPMENT
RESOURCE PERSON	:	Dr.R.Ramakrishnan, Chief Consultant Vivin Consultants, Chennai
VENUE	:	MBA Seminar Hall
DATE & DURATION	:	27/02/2021,06/03/2021,13/03/2021,20/03/2021 & 30Hrs
PROGRAM COORDINATOR	:	Ms.S.Booma, Assistant Professor Department of Management Studies, NPR College of Engineering & Technology

PRINCIPAL

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul - 624 401.

Copy to:

1. All the HoDs
2. All the Class Rooms
3. Notice Board
4. File
5. Program Coordinator
6. IQAC

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DEPARTMENT OF MANAGEMENT STUDIES

The Management, Principal, Faculty and Students of Department of Management Studies cordially invite you for

ADD ON COURSE

On

BUSINESS AND SUSTAINABLE

Date: 27/02/2021

Time: 10.00 AM to 4.00 PM

Programme Date: 27/02/2021, 06/03/2021, 13/03/2021, 20/03/2021

VENUE:

NPR MBA Seminar Hall

Resource Person

Dr.R.Ramakrishnan, Chief Consultant
Vivin Consultants, Chennai

Dr.J.Sundararajan
Principal
NPR College of Engineering and Technology
Will felicitate the function

Organized by
Department of Management Studies
NPR College of Engineering & Technology

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DEPARTMENT OF MANAGEMENT STUDIES

ADD ON COURSE

BUSINESS AND SUSTAINABLE DEVELOPMENT

COURSE CONTENT

Week 1 - Chapter 1: Introduction to Sustainability, Key issues, Business Implication and Firm's response

Introduction to Sustainable Development and Sustainability - Evolution of Sustainable Development - Importance of Sustainability - Sustainability - A mega trend - Environment, Human & Economy - Robert Solow Conceptualization of Sustainability - Introduction to Firm Response - Sustainable Products

Week 2 - Sustainability Tools: Assessment, Management and Reporting Tools

Cleaner Production - Cleaner Production Illustrations - Life Cycle Assessment - Understanding LCA through Examples - Design for Environment - Sustainability Reporting - Current Status of ESG in Indian Companies

Week 3 – Sustainability standards and strategies

Corporate strategy – Competitive environment strategies – Eco branding - Competitive Environmental Strategy Matrix - CSR and Social Sustainability - Sustainable Development Goal (SDG) - Sustainability Standards - Sustainability Standards

Week 4 - beyond firms, Regulation, Market, New perspective towards Sustainability

Green Supply Chain - Examples of Green Supply Chain - Environmental Regulations and Policy Instruments - Market based instruments in India - Environmental Laws and Disclosure Regulations - Risks and Opportunities - Sustainable financial product and services - Sustainable Value Framework - Course Summary

Criteria to get Certificate:

- Average assignment score = 25% of average of best 3 assignments out of the total 4 assignments given in the course.
- Exam score = 75% of the proctored certification exam score out of 100
- Final score = Average assignment score + Exam score

Prepared By: Ms.S. Booma, AP/MBA

Approved By,

PROGRAM COORDINATOR	HOD/MBA	IQAC	PRINCIPAL
	Head of the Department, Department of MBA, NPR College of Engineering & Technology, Natham, Dindigul (Dt) - 624 401.	Coordinator - IQAC, NPR College of Engineering & Technology, Natham, Dindigul (Dt)-624 401	Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D., Principal, N.P.R. College of Engineering & Technology, Natham, Dindigul (Dt) - 624 401.

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DEPARTMENT OF MANAGEMENT STUDIES

ADD ON COURSE

BUSINESS AND SUSTAINABLE DEVELOPMENT

REGISTERED STUDENTS NAME LIST

S. No	Register Number	Student Name	Year
1.	920819631001	AJITH KUMAR G	II YEAR
2.	920819631004	GUNA A	II YEAR
3.	920819631005	ISHWARYA C	II YEAR
4.	920819631010	MOHANA PRIYA K	II YEAR
5.	920819631013	RAGAVI M	II YEAR
6.	920819631016	SNEHA M	II YEAR
7.	920819631020	THANGAPANDI A	II YEAR
8.	920819631021	THENMOZHI S	II YEAR
9.	920820631002	AJITHKUMAR D	I YEAR
10.	920820631006	BALA MURUGAN M	I YEAR
11.	920820631007	BAVI SUREKA K	I YEAR
12.	920820631009	CHITRA R	I YEAR
13.	920820631012	ELAMEGA E	I YEAR
14.	920820631014	GUHAN A C	I YEAR
15.	920820631016	JENITHAKARTHIGA S	I YEAR
16.	920820631019	LAKSHMI PRIYA J	I YEAR
17.	920820631020	MADHAN K	I YEAR
18.	920820631021	MANIKANDAN J	I YEAR
19.	920820631025	NISHA JENIFER A	I YEAR
20.	920820631027	PUNITHA R	I YEAR
21.	920820631028	RAJPRABAKARAN J	I YEAR
22.	920820631030	SATHISH KUMAR K	I YEAR
23.	920820631032	SINDHU P	I YEAR
24.	920820631035	VIJAYAROHINI B	I YEAR

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DEPARTMENT OF MANAGEMENT STUDIES

ADD ON COURSE

BUSINESS AND SUSTAINABLE DEVELOPMENT

COURSE SCHEDULE

Venue : MBA Seminar Hall

External Resource Persons : Dr.R.Ramakrishnan

Internal Resource Persons : Ms.S.Booma, AP/MBA

Date : 27/02/2021, 06/03/2021, 13/03/2021, 20/03/2021

Date	8.50 a.m. to 11.20 a.m.	11.20 a.m.to 11.30 a.m.	11.30 a.m.to 1.00 p.m.	1.00 p.m. to 1.20 p.m.	1.20 p.m. to 3.20 p.m.	3.20 p.m. to 3.30 p.m.	3.30 p.m. to 5.00 p.m.
Day 1 27/02/2021	**SESSION I** **Inauguration & Introduction**	Tea Break	**SESSION II** **Dr.R.Ramakrishnan** Introduction to Sustainable Development and Sustainability	Lunch	**SESSION III** **Dr.R.Ramakrishnan** Sustainability - A mega trend - Environment, Human & Economy	Tea Break	**SESSION IV** **Ms.S.Booma** Robert Solow Conceptualization of Sustainability
Day 2 06/03/2021	**SESSION I** **Dr.R.Ramakrishnan** Cleaner Production - Cleaner Production Illustrations - Life Cycle Assessment		**SESSION II** Dr.R.Ramakrishnan Understanding LCA through Examples - Design for Environment		**SESSION III** **Ms.S.Booma** Sustainability Reporting		**SESSION IV** Dr.R.Ramakrishnan Current Status of ESG in Indian Companies
Day 3 13/03/2021	**SESSION I** **Dr.R.Ramakrishnan** Corporate strategy – Competitive environment strategies		**SESSION II** **Ms.S.Booma** Eco branding - Competitive Environmental Strategy Matrix		**SESSION III** **Dr.R.Ramakrishnan** CSR and Social Sustainability - Sustainable Development Goal (SDG)		**SESSION IV** **Dr.R.Ramakrishnan** Sustainability Standards - Sustainability Standards
Day 4 20/03/2021	**SESSION I** **Dr.R.Ramakrishnan** Green Supply Chain - Examples of Green Supply Chain - Environmental Regulations and Policy Instruments		**SESSION II** **Dr.R.Ramakrishnan** Market based instruments in India - Environmental Laws and Disclosure Regulations		**SESSION III** **Ms.S.Booma** Risks and Opportunities - Sustainable financial product and services		**SESSION IV** **Dr.R.Ramakrishnan** Sustainable Value Framework - Course Summary

PROGRAM COORDINATOR

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Coordinator IQAC
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DEPARTMENT OF MANAGEMENT STUDIES

ADD ON COURSE

BUSINESS AND SUSTAINABLE DEVELOPMENT

STUDENTS ATTENDANCE

Sl. No	Roll Number	STUDENT NAME	YR	27/02/21		06/03/21		13/03/21		20/03/21	
1	920819631001	AJITH KUMAR G	II	/	/	/	/	/	/	/	/
2	920819631004	GUNA A	II	/	/	/	/	/	/	/	/
3	920819631005	ISHWARYA C	II	/	/	/	/	/	/	/	/
4	920819631010	MOHANA PRIYA K	II	/	/	/	/	/	/	/	/
5	920819631013	RAGAVI M	II	/	/	/	/	/	/	/	/
6	920819631016	SNEHA M	II	/	/	A	A	/	/	/	/
7	920819631020	THANGAPANDI A	II	/	/	/	/	/	/	/	/
8	920819631021	THENMOZHI S	II	/	/	/	/	/	/	/	/
9	920820631002	AJITHKUMAR D	I	/	/	/	/	/	/	/	/
10	920820631006	BALA MURUGAN M	I	/	/	/	/	/	/	/	/
11	920820631007	BAVI SUREKA K	I	/	/	/	/	/	/	/	/
12	920820631009	CHITRA R	I	/	/	/	/	/	/	/	/
13	920820631012	ELAMEGA E	I	/	/	/	/	/	/	/	/
14	920820631014	GUHAN A C	I	/	/	A	A	/	/	/	/
15	920820631016	JENITHAKARTHIGA S	I	/	/	/	/	/	/	/	/
16	920820631019	LAKSHMI PRIYA J	I	/	/	/	/	/	/	/	/
17	920820631020	MADHAN K	I	/	/	/	/	/	/	/	/
18	920820631021	MANIKANDAN J	I	/	/	/	/	A	A	/	/
19	920820631025	NISHA JENIFER A	I	/	/	/	/	/	/	/	/
20	920820631027	PUNITHA R	I	/	/	/	/	/	/	/	/
21	920820631028	RAJPRABAKARAN J	I	/	/	/	/	/	/	/	/
22	920820631030	SATHISH KUMAR K	I	/	/	/	/	/	/	/	/
23	920820631032	SINDHU P	I	/	/	/	/	/	/	/	/
24	920820631035	VIJAYAROHINI B	I	/	/	/	/	/	/	/	/

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DEPARTMENT OF MANAGEMENT STUDIES

ADD ON COURSE

21BAA002 & BUSINESS AND SUSTAINABLE DEVELOPMENT

SAMPLE QUIZ QUESTION PAPER & ANSWER

1) Design for sustainability requires a strong focus _____
   a) Most important on the social dimension
   b) on the Environmental and Economic Dimension
   c) on the Environmental Dimension
   d) on all the three dimensions: Social, Economic and Environmental
2) on all the three dimensions: Social, Economic and Environmental
   a. World development repot
   b. Brundtland commission report
   c. First earth summit report
   d. Human development report
3) Which one of the three is more sustainable?
   a. Terracotta Cup
   b. Paper cups lined with a thin layer of EVA (type of plastic) inside
   c. Disposable polystyrene (type of plastic) cup
   d. Depends on the context of usage and needs to be calculated (can't be predicted intuitively)
4) The definition of Sustainable Development has two key concepts. Which are these?
   a. The concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given
   b. Reduction in consumption
   c. Reduction in pollution
   d. Introduce systems thinking
5) The Circles of Sustainability model is being used by organizations such as _____
   a. Food and Agriculture Organization of the United Nations
   b. The United Nations Cities Programme and Metropolis
   c. United Nations Framework Convention on Climate Change
   d. United Nations Educational, Scientific and Cultural Organization
6) The cumulative model of determination of topics that are communicated through mass media involves
   a. An intensification of reporting that leads to a higher ranking of the topic on the audience agenda.
   b. Facilitating the topic becoming a part of the audience agenda when a

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Minimum amount of reporting has taken place.

c. Achievement of a certain status and ranking by a topic in the eyes of the audience beyond which intensive reporting has little or no impact on the ranking of the respective topic.

d. None of the above. None of the above.

7) Preventive communication involves:
   a. Preventing communication during disasters
   b. Communication with the society asking them to prevent risks
   c. Communication about the potential risks in the environment.
   d. None of the above.

8) The accounts section in an organization is an example of:
   a. An integrative system.
   b. A communicative system
   c. A domain specific processing system
   d. None of the above.

9) PSS model is a model of consumption based on _____.
   a. access and sharing
   b. Ownership
   c. More is less
   d. Lower carbon footprint
   e. Ease of design and implementation

10) In _____ level, the context of innovation is on human settlements and the spatio-social conditions of their communities. This can be addressed on different scales, from neighborhoods to cities.
   a. Product innovation
   b. Product-Service System
   c. Spatio-social
   d. Socio-technical System

Answers

1)D 2)B 3)D 4)A 5)B 6)A 7)C 8)C 9)A 10)C

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DEPARTMENT OF MANAGEMENT STUDIES

ADD ON COURSE

BUSINESS AND SUSTAINABLE DEVELOPMENT

STUDENT FEEDBACK

Name of the Student : Thenmozhi	**Year / Semester:** II / III
Name of the Program: Business and Sustainable Development	

S. No	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	✓			
2	Way of exposed new knowledge and practices		✓		
3	Examples Provided during this course			✓	✓
4	Course delivered by Resource Person				
5	Time Management			✓	
6	Overall rating of this course	✓			
7	Any Other Comments / Suggestions	NIL			

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DEPARTMENT OF MANAGEMENT STUDIES

ADD ON COURSE

BUSINESS AND SUSTAINABLE DEVELOPMENT

STUDENT FEEDBACK

Name of the Student : A.C.Guhan	Year / Semester: I / I
Name of the Program: Business and Sustainable Development	

S. No	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content				✓
2	Way of exposed new knowledge and practices			✓	
3	Examples Provided during this course				✓
4	Course delivered by Resource Person			✓	
5	Time Management		✓		
6	Overall rating of this course			✓	
7	Any Other Comments / Suggestions	Very nice Program & Very useful for us.			

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DEPARTMENT OF MANAGEMENT STUDIES

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BUSINESS AND SUSTAINABLE DEVELOPMENT

STUDENT FEEDBACK

Name of the Student : Madhan. K	**Year / Semester:** II / I
Name of the Program: Business and Sustainable Development	

S. No	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	✓			
2	Way of exposed new knowledge and practices		✓		
3	Examples Provided during this course			✓	
4	Course delivered by Resource Person		✓		
5	Time Management	✓			
6	Overall rating of this course			✓	
7	Any Other Comments / Suggestions	Good.			

PROGRAM COORDINATOR

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NPR Nagar, Natham, Dindigul - 624401, Tamil Nadu, India.
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DEPARTMENT OF MANAGEMENT STUDIES

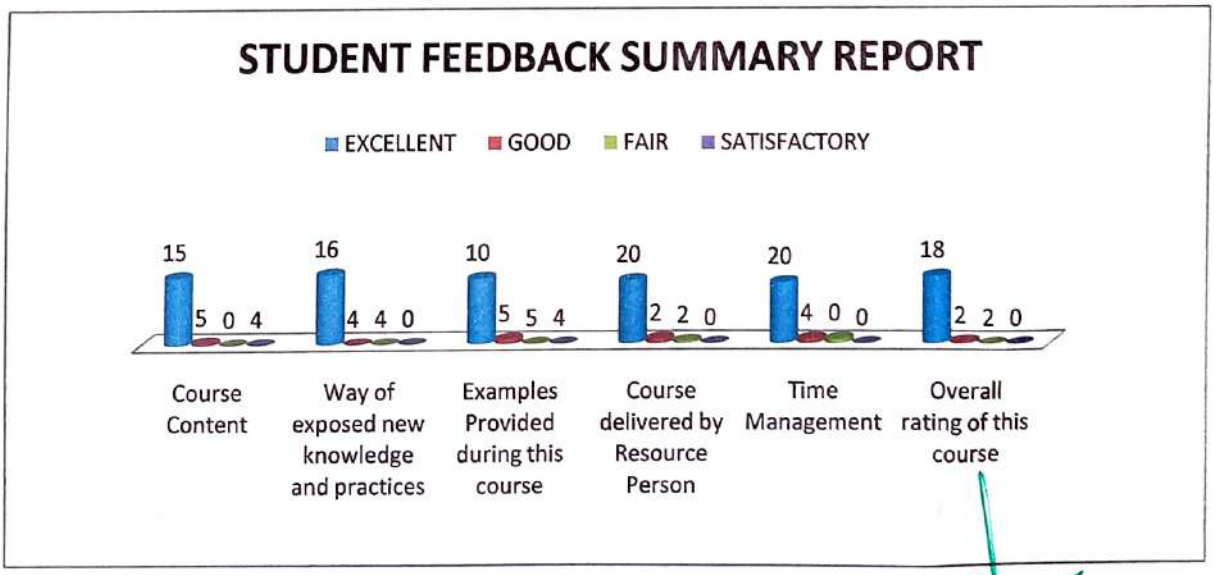
ADD ON COURSE

BUSINESS AND SUSTAINABLE DEVELOPMENT

STUDENT FEEDBACK SUMMARY REPORT

REGISTERED STUDENTS: 24 **DATE:22/03/2021**

S. No	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	15	5	0	4
2	Way of exposed new knowledge and practices	16	4	4	0
3	Examples Provided during this course	10	5	5	4
4	Course delivered by Resource Person	20	2	2	0
5	Time Management	20	4	0	0
6	Overall rating of this course	18	2	2	2
Average					



PROGRAM COORDINATOR **HoD/MBA** **PRINCIPAL**

Head of the Department
Department of MBA
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

Dr. J.SUNDARARAJAN
B.E., M.Tech.
Principal
N.P.R. College of Engineering & T
Natham, Dindigul (Dt) - 6

NPR College of Engineering & Technology
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DEPARTMENT OF MANAGEMENT STUDIES

ADD ON COURSE

BUSINESS AND SUSTAINABLE DEVELOPMENT

SUMMARY REPORT

Department of Management Studies organized Add on Course on "**BUSINESS AND SUSTAINABLE DEVELOPMENT**" from 27/02/2021, 06/03/2021, 13/03/2021, & 20/03/2021 at our College Premises. Ms. Mohana Priya II MBA has delivered welcome address.

Dr.J.SUNDARARAJAN, Principal felicitated the course. This four week course gives over view about **BUSINESS AND SUSTAINABLE DEVELOPMENT**. Dr.R.Ramakrishnan had shared their knowledge about **BUSINESS AND SUSTAINABLE DEVELOPMENT**. Basically, Entrepreneurship Development is basically the process of improving the skill set as well as the knowledge of the entrepreneurs. This can be done through various methods such as classroom sessions or training program specially designed to increase the entrepreneurial acumen. So that students enable to have skills that will help them to start business in future.

The students learnt various existing and available sources to start up business opportunity in India. 24 Students were attended from MBA I & II year. Students those participated and successfully completed the Quiz program has awarded with certificates.

Vote of thanks delivered by **Mr.A.Thangapandi** - II MBA.

PROGRAM COORDINATOR

HoD/MBA
(Dr. B. Kalamurugan)
Head of the Department
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NPR College of Engineering & Technology
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IQAC
Coordinator - IQAC
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Natham, Dindigul (Dt)-624 401

PRINCIPAL
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Principal
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DEPARTMENT OF MANAGEMENT STUDIES

ADD ON COURSE

BUSINESS AND SUSTAINABLE DEVELOPMENT

COURSE MATERIAL

Material Link:

1. https://www.undp.org
2. https://www.unsdsn.org
3. https://www.sdgindex.org

References:

[1] Sustainable Development- Linking economy, society, environment By Tracey Strange and Anne Bayley

[2] SUSTAINABLE DEVELOPMENT STRATEGIES – Compiled by Barry Dalal-Clayton and Stephen Bass Of The International Institute for Environment and Development Earth scan publication Ltd.London

[3] Foundation of sustainable business theory function and strategy – Maria S Gianni

PROGRAM COORDINATOR

HOD/MBA

PRINCIPAL

Dr. J.SUNDARARAJAN,
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NPR COLLEGE OF ENGG & TECHNOLOGY NATHAM

NPR COLLEGE OF ENGINEERING AND TECHNOLOGY

ADD ON COURSE
ON
"Business and Sustainable Development"

Certificate of participation

This is to certify that of Mr. AJITH KUMAR G II MBA has attended the Add On Course "**Business and Sustainable Development**" Organised by Department Of **Management Studies**, NPR COLLEGE OF ENGINEERING AND TECHNOLOGY on 27/02/2021, 06/02/2021, 13/02/2021 & 20/02/2021

HOD

PRINCIPAL

NPR COLLEGE OF ENGINEERING AND TECHNOLOGY

ADD ON COURSE
ON
"Business and Sustainable Development"

Certificate of participation

This is to certify that of Ms. P. Sindhu I MBA has attended the Add On Course "**Business and Sustainable Development**" Organised by Department Of **Management Studies**, NPR COLLEGE OF ENGINEERING AND TECHNOLOGY on 27/02/2021, 06/02/2021, 13/02/2021 & 20/02/2021

HOD

PRINCIPAL

NPR COLLEGE OF ENGINEERING AND TECHNOLOGY

ADD ON COURSE
ON
"Business and Sustainable Development"

Certificate of participation

This is to certify that of Ms. R. Chithra I MBA has attended the Add On Course "**Business and Sustainable Development**" Organised by Department Of **Management Studies**, NPR COLLEGE OF ENGINEERING AND TECHNOLOGY on 27/02/2021, 06/02/2021, 13/02/2021 & 20/02/2021

HOD

PRINCIPAL

NPR COLLEGE OF ENGINEERING AND TECHNOLOGY

ADD ON COURSE
ON
"Business and Sustainable Development"

Certificate of participation

This is to certify that of Ms. K. Mohana Priya. D MBA. has attended the Add On Course "**Business and Sustainable Development**" Organised by Department Of **Management Studies**, NPR COLLEGE OF ENGINEERING AND TECHNOLOGY on 27/02/2021, 06/02/2021, 13/02/2021 & 20/02/2021

HOD

PRINCIPAL

NPR COLLEGE OF ENGINEERING AND TECHNOLOGY

ADD ON COURSE
ON
"Business and Sustainable Development"

Certificate of participation

This is to certify that of Mr. Bala Murugan T. MBA has attended the Add On Course "**Business and Sustainable Development**" Organised by Department Of **Management Studies**, NPR COLLEGE OF ENGINEERING AND TECHNOLOGY on 27/02/2021, 06/02/2021, 13/02/2021 & 20/02/2021

HOD

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DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE ON RAPID PROTOTYPE

INDEX

COURSE CODE & NAME: **20MEAO01 & RAPID PROTOTYPE**

ACADEMIC YEAR: **2020 -2021** SEMESTER: **ODD** DURATION: **30 HOURS**

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PROGRAM CO-ORDINATOR

HoD/MECH

IQAC

PRINCIPAL

G. SUNDARARAJAN

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Natham, Dindigul (Dt) - 624 401.

Coordinator - IQAC
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DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE ON RAPID PROTOTYPE

PERMISSION LETTER

DATE: 10.08.2020

From

Dr. T. Malaichamy,
Head of the Department,
Department of Mechanical Engineering,
NPR College of Engineering and Technology,
Natham.

To

The Principal,
NPR College of Engineering and Technology,
Natham.

Respected Sir,

Sub: Seeking permission to conduct Add-on Course for Mechanical Engineering students - Regarding.

We have planned to conduct an Add-on Course on **"RAPID PROTOTYPE"** to our Mechanical Engineering students on the following days Week 1 - 17/08/2020 to 21/08/2020 Week 2 – 24/08/2020 to 29/08/2020 Week 3 – 31/08/2020 to 05/09/2020 Week 4 – 07/09/2020 to 09/09/2020 in our college premises. We have proposed **Prof.N.Annamalai, Assistant Professor,** as the resource person for this Add-on course. Kindly permit us to conduct the same.

RegistrationLink:https://docs.google.com/forms/d/e/1FAIpQLSeQxYBsINj-9W4k2JkHUhCwB6J0cdde1IX3Y0aDnA5y2k54KQ/viewform?usp=sf_link

Google Meet Link: https://meet.google.com/kvo-txwv-htd

Thanking you

Yours faithfully,

HoD – MECH

(Dr. T. Malaichamy)

Head of the Department
Department of Mechanical Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

DEPARTMENT OF MECHANICAL ENGINEERING
ADD - ON COURSE ON RAPID PROTOTYPE
RESOURCE PERSON PROFILE

Name	:	**Dr. N. Annamalai,**
Designation	:	**Professor**
Institution Name	:	Mookambigai College of Engineering, Pudukottai
About Resource Person	:	**Dr.N.Annamalai** is working as a professor Mookambigai College of Engineering, Pudukottai has wide and varied experience in academic side .Over 27 years of experience in engineering colleges. The editor of an international journal and reviewer for 8 international journals related to management. A creative writer and freelance journalist, having published stories and articles on science and environment on web sites. His area of expertise in preparing course materials on operational research, quality engineering. Reliability engineering, probability and statistics. Reverse engineering MIS for MBA and ME level. His excellence towards in online course for engineering students and giving guest lecture for various college students.

CIRCULAR

Date:12/08/2020

This is to inform that Department of MECHANCIAL ENGINEERING has planned to conduct an Add-on Course on **"RAPID PROTOTYPE"** for the students during the Academic year 2020-2021.Interested students can enroll their name to the program coordinator on or before 16/08/2020.

Registration from Link:https://docs.google.com/forms/d/e/1FAIpQLSeQxYBsINj-9W4k2JkHUhCwB6J0cdde1IX3Y0aDnA5y2k54KQ/viewform?usp=sf_link

The details of the training program are given below

COURSE NAME	:	RAPID PROTOTYPE
RESOURCE PERSON	:	Dr.N.Annamali
VENUE	:	Google Meet
DATE & DURATION	:	17/08/2020 to 09/09/2020 , 30Hours
GOOGLE MEET LINK	:	https://meet.google.com/kvo-txwv-htd
PROGRAM COORDINATOR	:	Mr.G.Sundarajan, Assistant Professor Department of Mechanical Engineering NPR College of Engineering & Technology,Natham.

PRINCIPAL

Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt), - 624 401.

Copy to:

1. All the HoDs
2. IQAC
3. All the Class Rooms
4. Notice Board
5. File
6. Program Co-ordinator

DEPARTMENT OF MECHANICAL ENGINEERING
ADD - ON COURSE ON RAPID PROTOTYPE
STUDENTS REGISTRATION FORM

Registration from Link:https://docs.google.com/forms/d/e/1FAIpQLSeQxYBsINj-9W4k2JkHUhCwB6J0cdde1IX3Y0aDnA5y2k54KQ/viewform?usp=sf_link

NPR COLLEGE OF ENGINEERING & TECHNOLOGY, NATHAM

DEPARTMENT OF MECHANICAL ENGINEERING

nprcetmech@nprcolleges.org (not shared) Switch account

* Required

Add-on Course on "RAPID PROTOTYPE"
STUDENTS REGISTRATION FORM

STUDENT REGISTER NUMBER *

Your answer

STUDENT NAME *

Your answer

YEAR *

Your answer

MOBILE NUMBER *

Your answer



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The Management, Principal, Faculty and Students of Mechanical Engineering cordially invite you for the inauguration of the

ADD - ON COURSE

ON

RAPID PROTOTYPE

Date: 17/08/2020

GOOGLE MEET LINK:https://meet.google.com/kvo-txwv-htd

Resource Person

Prof.N.Annamalai
Mookambigai College of Engineering, Pudukottai

Dr.J.Sundararajan

Principal

NPR College of Engineering & Technology

Will felicitate the function

Organized By

Department of Mechanical Engineering
NPR College of Engineering & Technology
NPR Nagar, Natham.

NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

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DEPARTMENT OF MECHANICAL ENGINEERING
ADD - ON COURSE ON RAPID PROTOTYPE
COURSE CONTENT

Week 1 - Chapter 1: Introduction to Rapid Manufacturing (RM)

Product Development: Classification of manufacturing processes, Different manufacturing systems, Introduction to Rapid Prototyping (RP), Need of RP in context to batch production, FMS and CIM and its application. Product prototyping – solid modeling and prototype representation, reverse engineering, prototyping and manufacturing using CNC machining. Basic principles of RP steps in RP, Process chain in RP in integrated CAD-CAM environment, Advantages of RP

Week 2 - Product Design Process

Rapid Manufacturing Process Optimization: factors influencing accuracy. Data preparation errors, Part building errors, Error in finishing, influence of build orientation. Classification of different RP techniques based on raw materials, layering technique (2D or 3D) and energy sources. Process technology and comparative study of stereo lithography (SL) with photo polymerization.

Week 3 – Design for Modularity

Laminated object manufacturing solid ground curing, Repetitive masking and deposition. Beam interference solidification, Holographic interference solidification special topic on RP using metallic alloys, Programming in RP modeling, Slicing, Internal Hatching, Surface skin films, support structure. Software for RP: STL files, Overview of Solid view, magics, imics, magic communicator, etc. Internet based software, Collaboration tools.

Week 4 –Reverse Engineering

Reverse engineering of software, Binary reverse engineering, Binary software techniques, Software classification, Source code, number of UML tools, Reverse engineering of Protocols,Need of reverse engineering, Methodologies for Reverse Engineering, understanding of Reverse Engineering through example, reasons for reverse engineering, process for Reverse Engineering, Phases of Reverse Engineering, conceptual System Reasons for Reverse Engineering, Difficulties in Reverse Engineering, Levels of abstraction: Application level, Functional level, Structural level , Mini project exercise based on understanding of modules contents

Criteria to get Certificate:

- Average assignment score = 25% of average of best 3 assignments out of the total 4 assignments given in the course.
- Exam score = 75% of the proctored certification exam score out of 100
- Final score = Average assignment score + Exam score

Prepared By: Mr.G.Sundarajan, AP/MECH

Approved By

PROGRAM CO-ORDINATOR

HOD/MECH

IQAC

PRINCIPAL

Head of the Department
Department of Mechanical Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401

Co-ordinator - IQAC

Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE ON RAPID PROTOTYPE

REGISTERED STUDENTS NAME LIST

S. No	Register Number	Student Name	Class
1.	920819114001	ABILASH A	II MECH
2.	920819114003	ANBARASAN V	II MECH
3.	920819114005	AYYAM PERUMAL P	II MECH
4.	920819114008	DINESHPANDI B	II MECH
5.	920819114010	GOWTHAMAN M	II MECH
6.	920819114012	IMAN MOHAMMED T	II MECH
7.	920819114013	MAHA LAKSHMI G	II MECH
8.	920819114014	MANIKANDAN N	II MECH
9.	920819114016	MEENAKSHI SUNDARAM G	II MECH
10.	920819114018	MOHAMED SIDDIQ A	II MECH
11.	920819114019	MOHANA RAGUL P	II MECH
12.	920819114020	MUGESHWARAN N	II MECH
13.	920819114021	MUTHUSAMY P	II MECH
14.	920819114023	NAVEEN RAJ K	II MECH
15.	920819114024	NITHESWAR M	II MECH
16.	920819114026	RAGHULPANDIAN B	II MECH
17.	920819114027	RAKESH M	II MECH
18.	920819114030	RAMANAN M	II MECH
19.	920819114031	RAMKUMAR A	II MECH
20.	920819114033	SANGARAN S	II MECH
21.	920819114035	SARAVANAKUMAR M	II MECH
22.	920819114037	SHOBANA K	II MECH
23.	920819114039	VELPACKIYARAJ M	II MECH
24.	920819114301	CHANDRU P	II MECH
25.	920818114001	ABINASH V	III MECH
26.	920818114002	ALAGARSAMY M	III MECH
27.	920818114004	ASWINNAGANATH G	III MECH
28.	920818114005	BALAMURUGAN M S	III MECH
29.	920818114006	BHUVANESWARAN C	III MECH
30.	920818114010	JOTHIVEL M	III MECH
31.	920818114011	MANI VANNAN V	III MECH
32.	920818114012	MANOJKUMAR R	III MECH

COLLEGE OF ENGG. & TECHNOLOGY NATHAM

33.	920818114016	PERIYANDI P	III MECH
34.	920818114018	PRATHIBAN K	III MECH
35.	920818114022	SABARI NATHAN T	III MECH
36.	920818114026	SRIRAM A	III MECH
37.	920818114027	SRIRAM S	III MECH
38.	920818114028	SRIVEL A	III MECH
39.	920818114029	SURIYAVISWA M	III MECH
40.	920818114030	SURYA D	III MECH
41.	920818114033	VELMURUGAN P	III MECH
42.	920818114036	VISHVA G	III MECH
43.	920818114302	JEEVAKALIDAS S	III MECH
44.	920818114303	MANIKANDAN K	III MECH
45.	920818114701	GOWTHAM KUMAR M	III MECH

PROGRAM CO-ORDINATOR

HoD/MECH

COLLEGE OF ENGG. & TECHNOLOGY * NPR * NATHAM

Head of the Department
Department of Mechanical Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE ON RAPID PROTOTYPE

COURSE SCHEDULE

Mode : Google Meet

Google meet link : https://meet.google.com/kvo-txwv-htd

Time: 4.30 p.m. to 6.00 p.m.

External Resource Person:

1. Dr. N. Annamalai-Professor.

Internal Resource Person:

Mr. G. Sundarajan -AP/MECH

S. No.	Date	Syllabus	Resource Person	Hours
1	17.08.2020	Introduction to Rapid Manufacturing	Dr. N. Annamalai	1.5
2	18.08.2020	Classification of manufacturing processes	Dr. N. Annamalai	1.5
3	19.08.2020	Different manufacturing systems	Dr. N. Annamalai	1.5
4	20.08.2020	Introduction to rapid Prototyping (RP), Need of RP in context to batch production	Dr. N. Annamalai	1.5
5	21.08.2020	FMS and CIM and its application. Product prototyping – solid modeling and prototype representation	Dr. N. Annamalai	1.5
6	24.08.2020	Data preparation errors, Part building errors, Error in finishing, influence of build orientation	Mr. G. Sundarajan	1.5
7	25.08.2020	Classification of different RP techniques based on raw materials	Mr. G. Sundarajan	1.5
8	26.08.2020	Process technology and comparative study of stereo lithography (SL) with photo polymerization.	Dr. N. Annamalai	1.5
9	27.08.2020	Laminated object manufacturing solid ground curing	Dr. N. Annamalai	1.5
10	28.08.2020	Repetitive masking and deposition.	Dr. N. Annamalai	1.5
11	29.08.2020	Beam interference solidification, Holographic interference solidification special topic on RP using metallic alloys	Mr. G. Sundarajan	1.5

12	31.08.2020	Programming in RP modeling, Slicing, Internal Hatching, Surface skin films, support structure.	Mr. G. Sundarajan	1.5
13	01.09.2020	STL files, Overview of Solid view, magics, imics, magic communicator, etc. Internet based software, Collaboration tools	Mr. G. Sundarajan	1.5
14	02.09.2020	Reverse engineering of software, Binary reverse engineering, Binary software techniques	Dr. N. Annamalai	1.5
15	03.09.2020	Software classification, Source code, number of UML tools, Reverse engineering of Protocols,Need of reverse engineering	Dr. N. Annamalai	1.5
16	04.09.2020	Methodologies for Reverse Engineering, understanding of Reverse Engineering through example	Dr. N. Annamalai	1.5
17	05.09.2020	Reasons for reverse engineering, process for Reverse Engineering, Phases of Reverse Engineering,	Dr. N. Annamalai	1.5
18	07.09.2020	Conceptual System Reasons for Reverse Engineering, Difficulties in Reverse Engineering	Dr. N. Annamalai	1.5
19	08.09.2020	Application level, Functional level, Structural level	Dr. N. Annamalai	1.5
20	09.09.2020	Mini project exercise based on understanding of modules contents	Dr. N. Annamalai	1.5
Total Hours				**30**

PROGRAM CO-ORDINATOR

HOD/MECH

IQAC

PRINCIPAL

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DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE ON RAPID PROTOTYPE

STUDENTS ATTENDANCE

S.No	Reg.No	Student Name	Year	Date: August 17	19	19	20	21	24	25	26	27	28	29	31	September 1	2	3	4	5	7	8	9
1	920819114001	ABILASH A	II	/	a	/	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/
2	920819114003	ANBARASAN V	II	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
3	920819114005	AYYAM PERUMAL P	II	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
4	920819114008	DINESHPANDI B	II	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
5	920819114010	GOWTHAMAN M	II	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
6	920819114012	IMAN MOHAMMED T	II	/	/	/	/	/	/	/	/	/	/	/	/	a	/	/	a	/	/	/	/
7	920819114013	MAHA LAKSHMI G	II	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	a	/	/
8	920819114014	MANIKANDAN N	II	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
9	920819114016	MEENAKSHI SUNDARAM G	II	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/
10	920819114018	MOHAMED SIDDIQ A	II	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
11	920819114019	MOHANA RAGUL P	II	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
12	920819114020	MUGESHWARAN N	II	/	/	/	/	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/
13	920819114021	MUTHUSAMY P	II	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
14	920819114023	NAVEEN RAJ K	II	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/
15	920819114024	NITHESWAR M	II	/	/	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/
16	920819114026	RAGHULPANDIAN B	II	/	/	/	/	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/
17	920819114027	RAKESH M	II	/	/	/	/	/	/	/	/	/	/	a	/	/	/	/	a	/	/	/	/
18	920819114030	RAMANAN M	II	/	/	/	/	/	/	/	/	/	o	/	/	/	/	/	/	/	/	/	/
19	920819114031	RAMKUMAR A	II	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
20	920819114033	SANGARAN S	II	/	/	a	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/	/
21	920819114035	SARAVANAKUMAR M	II	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
22	920819114037	SHOBANA K	II	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
23	920819114039	VELPACKIYARAJ M	II	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
24	920819114301	CHANDRU P	II	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/
25	920818114001	ABINASH V	III	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
26	920818114002	ALAGARSAMY M	III	/	/	/	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/	a
27	920818114004	ASWINNAGANATH G	III	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
28	920818114005	BALAMURUGAN M S	III	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
29	920818114006	BHUVANESWARAN C	III	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
30	920818114010	JOTHIVEL M	III	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
31	920818114011	MANI VANNAN V	III	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	a
32	920818114012	MANOJKUMAR R	III	/	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	/
33	920818114016	PERIYANDI P	III	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
34	920818114018	PRATHIBAN K	III	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/
35	920818114022	SABARI NATHAN T	III	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
36	920818114026	SRIRAM A	III	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	a	/	/	/
37	920818114027	SRIRAM S	III	/	/	/	/	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/
38	920818114028	SRIVEL A	III	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

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| | | |

DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE ON RAPID PROTOTYPE

QUIZ QUESTIONS

GOOGLE FORM LINK:

https://docs.google.com/forms/d/e/1FAIpQLScuBeofwkLHPL86oqhl3iNDnoThVHoV7vmfV1gxI66rl1xhgg/viewform?usp=sf_link

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DEPARTMENT OF MECHANICAL ENGINEERING

nprcetmech@nprcolleges.org Switch account

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* Required

RAPID PROTOTYPE
QUIZ QUESTION

Reverse engineering is a process of redesigning an existing product to improve and broaden its functions add quality and to increase the useful life. *

- ○ YES
- ○ No

The rapid prototyping classification based on the form of the starting raw material are liquid based powder based solid based and gaseous based *

- ○ YES
- ○ No



In which manufacturing process the use of tooling of the product is minimal? *

- a) Subtractive manufacturing
- b) Rapid manufacturing
- c) Subtractive manufacturing
- d) All of these

In Rapid manufacturing STL file format stand *

- a) Standardized tooling library
- b) Standard Training language
- c) Standardized tessellation library
- d) Standard tessellation language

Rapid manufacturing techniques are _____ economical when more prototype needs to build for the _____ components *

- a) Highly, different
- b) Highly, same
- c) Not different
- d) Not same

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"Rapid Manufacturing cannot be seen as a way to more effectively predict the amount of time to fabricate models." *

- a) True
- b) False

Which of the following statement/s about CNC machining is correct *

- a) It can be used for soft materials
- b) It can be used for machinable waxes
- c) It can be used for medium density fiberboard
- d) All of these

What is the third step in Reverse Engineering? *

- a) Digitization of the object
- b) Creation of CAD model
- c) Prototype
- d) None of these

What is the advantages of Reverse Engineering? *

- a) High accuracy
- b) Low costs
- c) Insensitivity to color or transparency
- d) All of these

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Rapid Manufacturing is a revolutionizing product development and manufacturing technology *

- a) True
- b) False

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COLLEGE OF ENGG. & TECHNOLOGY NATHAM

HoD/MECH

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Natham, Dindigul (DT) - 624 401.

DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE ON RAPID PROTOTYPE

STUDENT FEEDBACK

GOOGLE FEEDBACK FORM LINK:

https://docs.google.com/forms/d/e/1FAIpQLSdUn921JGW0W6Sw-q6NOox9nvdY7YoMP4zUfCvaZkuwSerXDw/viewform?usp=sf_link

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DEPARTMENT OF MECHANICAL ENGINEERING

nprcetmech@nprcolleges.org Switch account

* Required

Email *

Your email

ADD ON COURSE- RAPID PROTOTYPE
STUDENTS FEEDBACK FORM

REGISTER NUMBER *

Your answer

STUDENT NAME LIST *

Your answer

YEAR / SEMESTER *

Your answer

Course Content *

- [ ] EXCELLENT
- [ ] GOOD
- [ ] FAIR
- [ ] SATISFACTORY

Way of exposed new knowledge and practices *

- ○ EXCELLENT
- ○ GOOD
- ○ FAIR
- ○ SATISFACTORY

Examples Provided during this course *

- ○ EXCELLENT
- ○ GOOD
- ○ FAIR
- ○ SATISFACTORY

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Course delivered by Resource Person *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

Time Management *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

Overall rating of this course *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

Any Other Comments / Suggestions *

Your answer

Clear form

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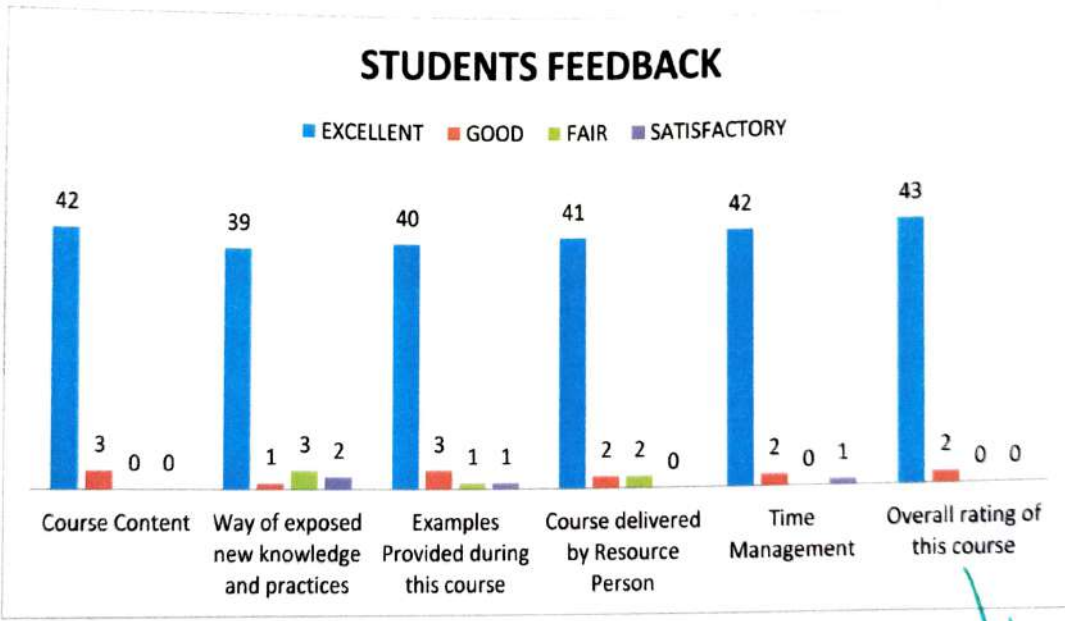
DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE

RAPID PROTOTYPE - STUDENT FEEDBACK SUMMARY REPORT

ATTENDED STUDENTS: 45 **DATE: 09.09.2020**

S. No	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	42	3	0	0
2	Way of exposed new knowledge and practices	39	1	3	2
3	Examples Provided during this course	40	3	1	1
4	Course delivered by Resource Person	41	2	2	0
5	Time Management	42	2	0	1
6	Overall rating of this course	43	2	0	0
Average		**91.48**	**4.81**	**2.22**	**1.48**



PROGRAM CO-ORDINATOR

HoD/MECH

IQAC

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Coordinator - IQAC
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Principal
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Natham, Dindigul (Dt) - 624 401.

DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE ON RAPID PROTOTYPE

SUMMARY REPORT

Department of Mechancial Engineering organized an Add on Course on "Rapid Prototype" from 17/8/2020 to 21/8/2020, 24/8/2020 to 29/8/2020, 31/8/2020 to 5/9/2020, 7/9/2020 to 09/9/2020 through online. II year mechanical engineering student Mr.S.Aswin Balaji delivered the welcome address.

Dr.J.Sundararajan, Principal felicitated the students. This four week course gave the over view of Rapid Prototype. Prof.N.Annamalai had shared his knowledge about Rapid Prototype. Basically, online courses are basically the process of improving the skill set as well as the knowledge of the entrepreneurs. This can be done through various methods such as classroom sessions or training program specially designed to increase the entrepreneurial acumen. So that students enable to have skills that will help them to improve their knowledge in future.

The students learnt various existing and available sources to gain knowledge towards rapid prototype during the course. 45 Students attended from II & III Year Mechanical Engineering. Students those who participated and successfully completed the Quiz program were awarded with certificates,later through mail.

Mr.M.Gowtham Kumar of III Year Mechanical Engineering delivered the vote of thanks.

PROGRAM CO-ORDINATOR (G.SUNDARARAJAN)

HoD/MECH

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ADD - ON COURSE ON RAPID PROTOTYPE

COURSE MATERIAL

Material Link:

1. https://www.undp.org
2. https://www.unsdsn.org
3. https://www.sdgindex.org

References:

1. Rapid Manufacturing, Flham D.T &Dinjoy S.S Verlog London 2001

2. Rapid Prototyping Materials, Gurumurthi, IISc Bangalore

3. Rapid Automated, Lament wood. Indus press New York

4. Stereo Lithography and other RP & M Technologies, Paul F. Jacobs: SME. NY 1996.

5. Rapid Prototyping, Terry Wohlers Wohler's Report 2000" Wohler's Association 2000.

PROGRAM CO-ORDINATOR

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DEPARTMENT OF MECHANICAL ENGINEERING

ADD ON COURSE

ON

"RAPID PROTOTYPE"

CERTIFICATE OF PARTICIPATION

This is to certify that.....MAHA LAKSHMI...G..... of .....II...YEAR....has attended the **Add on Course** on "RAPID PROTOTYPE" conducted from 17.08.2020 to 09.09.2020.

HoD-MECH
Dr.T.MALAICHAMY

PRINCIPAL
Dr.J.SUNDARARAJAN

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ADD ON COURSE

ON

"RAPID PROTOTYPE"

CERTIFICATE OF PARTICIPATION

This is to certify that.....MANIKANDAN...K..... of .....III...YEAR.....has attended the **Add on Course** on **"RAPID PROTOTYPE"** conducted from **17.08.2020 to 09.09.2020.**

HoD-MECH
Dr.T.MALAICHAMY

NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

PRINCIPAL
Dr.J.SUNDARARAJAN

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ADD ON COURSE

ON

"RAPID PROTOTYPE"

CERTIFICATE OF PARTICIPATION

This is to certify that.....SURYA....D..... of ....III....-..MECH....has attended the **Add on Course** on **"RAPID PROTOTYPE"** conducted from **17.08.2020 to 09.09.2020.**

HoD-MECH
Dr.T.MALAICHAMY

NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

PRINCIPAL
Dr.J.SUNDARARAJAN

DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE ON 3D PRINTING

INDEX

COURSE CODE & NAME: **20MEAO02 & 3D PRINTING**

ACADEMIC YEAR: **2020 -2021** SEMESTER: **ODD** DURATION: **30 HOURS**

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PROGRAM CO-ORDINATOR **HoD/MECH** **IQAC** **PRINCIPAL**

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Coordinator - IQAC
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DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE ON 3D PRINTING

PERMISSION LETTER

DATE: 07.08.2020

From

Dr. T. Malaichamy,
Department of Mechanical Engineering,
NPR College of Engineering & Technology,
Natham.

To

The Principal,
NPR College of Engineering & Technology,
Natham.

Respected Sir,

Sub: Seeking permission to conduct Add-on Course for Mechanical Engineering students

- Regarding.

We have planned to conduct an Add-on Course on **"3D PRINTING"** to our Mechanical Engineering students on the following days Week 1 -17/08/2020 to 21/08/2020 Week 2 – 24/08/2020 to 29/08/2020 Week 3 – 31/08/2020 to 05/09/2020 Week 4 – 07/09/2020 to 09/09/2020 in our college premises. We have proposed **Dr.R.Ramakrishnan, Chief Consultant**, Vivin Consultant, Chennai as the resource person for this Add-on course. Kindly permit us to conduct the same.

RegistrationLink: https://docs.google.com/forms/d/e/1FAIpQLSeE1GB4Rk9M_W-FScnVsdwqvdmLHJnw4iNwA_9Ra9jcEt65UQ/viewform?usp=sf_link

Google Meet Link: https://meet.google.com/otu-hzbf-cwz

Thanking you

Yours faithfully,

Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

COLLEGE OF ENGG. & TECHNOLOGY ★ NPR NATHAM

HoD – MECH
(Dr. T. Malaichamy)
Head of the Department
Department of Mechanical Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE ON 3D PRINTING

RESOURCE PERSON PROFILE

Name : Dr.R.Ramakrishnan,
Chief Consultant,
Vivin Consultant,
Chennai.

Designation : Chief consultant

Organization : Vivin Consultant, Chennai

About Resource Person : **Dr. R. Ramakrishnan** has completed his B.E-Mechanical Engineering in Kumaraguru College of Technology, Coimbatore.

He is currently working as Chief consultant in Vivin Consultant, Chennai India.

He has 15 years experience in the same field.

NPR COLLEGE OF ENGG. & TECHNOLOGY ★ NATHAM

CIRCULAR

Date: 09/08/2020

This is to inform that Department of MECHANCIAL ENGINEERING has planned to conduct an Add-on Course on **"3D PRINTING"** for the students for the Academic year 2020-2021.Interested students can enroll their name to the program coordinator on or before 15/08/2020.

Registration form Link: https://docs.google.com/forms/d/e/1FAIpQLSeE1GB4Rk9M_W-FScnVsdwqydmLHJnw4iNwA_9Ra9jcEt65UQ/viewform?usp=sf_link

The details of the training program are given below

COURSE NAME	:	3D PRINTING
RESOURCE PERSON	:	Dr. R. Ramakrishnan
VENUE	:	Google Meet
DATE & DURATION	:	17/08/2020 to 09/09/2020 , 30Hours
GOOGLE MEET LINK	:	https://meet.google.com/otu-hzbf-cwz
PROGRAM COORDINATOR	:	Mr.T.Balasubramani, Assistant Professor Department of Mechanical Engineering NPR College of Engineering & Technology, Natham.

COLLEGE OF ENGG. & TECH. NATHAM

PRINCIPAL

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Copy to:

1. All the HoDs
2. IQAC
3. All the Class Rooms
4. Notice Board
5. File
6. Program Co-ordinator

DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE ON 3D PRINTING

STUDENTS REGISTRATION FORM

Registration form Link: https://docs.google.com/forms/d/e/1FAIpQLSeE1GB4Rk9M_W-FScnVsdwqydmLHJnw4iNwA_9Ra9jcEt65UQ/viewform?usp=sf_link

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DEPARTMENT OF MECHANICAL ENGINEERING

nprcetmech@nprcolleges.org Switch account

* Required

Email *

Your email

ADD ON COURSE ON 3D PRINTING
REGISTRATION FORM

STUDENT REGISTER NUMBER *

Your answer

STUDENT NAME *

Your answer

YEAR / SEMESTER *

Your answer

MOBILE NUMBER *

Your answer

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The Management, Principal, Staff and Students

Cordially invite you for the inauguration of

"ADD - ON COURSE ON

3D PRINTING"

On 17th August, 2020

Through: Google Meet at 1.00 p.m.

GOOGLE MEET LINK: https://meet.google.com/otu-hzbf-cwz

Chief Guest
Dr.R.Ramakrishnan
Chief consultant
Vivin Consultant, Chennai

Dr.J.Sundararajan
Principal,
NPR College of Engineering & Technology
Felicitates the function

NPR COLLEGE OF ENGG. & TECHNOLOGY * NATHAM

Organized By

Department of Mechanical Engineering,
NPR College of Engineering & Technology,
NPR Nagar, Natham.

DEPARTMENT OF MECHANICAL ENGINEERING
ADD - ON COURSE ON 3D PRINTING
COURSE CONTENT

Week 1 – Introduction

Prototyping fundamentals, Historical development, Advantages of AMT, Commonly used terms, process chain, 3D modelling, Data Conversion, and transmission, Checking and preparing, Building, Post processing, RP data formats, Classification of AMT process, Applications to various fields

Week 2 - Liquid based systems:

Stereo lithography apparatus (SLA): Models and specifications, process, working principle, photopolymers, photo polymerization, layering technology, laser and laser scanning, applications, advantages and disadvantages, case studies. Solid ground curing (SGC): Models and specifications, process, working, principle, applications, advantages and disadvantages, case studies.

Week 3 –Solid based systems

Laminated object manufacturing (LOM): Models and specifications, Process, Working principle, Applications, Advantages and disadvantages, Case studies. Fused Deposition Modeling (FDM): Models and specifications, Process, Working principle, Applications, Advantages and disadvantages, Case studies, practical demonstration

Week 4 - Powder Based Systems

Selective laser sintering (SLS): Models and specifications, process, working principle, applications, advantages and disadvantages, case studies. Three dimensional printing (3DP): Models and specification, process, working principle, applications, advantages and disadvantages, case studies.

Criteria to get Certificate:

Average assignment score = 25% of average of best 3 assignments out of the total 4 assignments given in the course.

Exam score = 75% of the proctored certification exam score out of 100

Final score = Average assignment score + Exam score

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Prepared By: Mr. T. Balasubramani, AP/MECH

Approved By

PROGRAM	HOD/MECH	IQAC	PRINCIPAL
CO-ORDINATOR	Head of the Department, Department of Mechanical Engineering, NPR College of Engineering & Technology, Natham, Dindigul (Dt)-624 401	Coordinator - IQAC, NPR College of Engineering & Technology, Natham, Dindigul (Dt)-624 401	Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D., Principal, N.P.R. College of Engineering & Technology, Natham, Dindigul (Dt) - 624 401.

DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE ON 3D PRINTING

REGISTERED STUDENTS NAME LIST

S. No	Register Number	Student Name	Class
1.	920817114001	AAKASH K	IV MECH
2.	920817114002	ABDULLABEE A	IV MECH
3.	920817114007	ALAN JACOB J	IV MECH
4.	920817114008	AMEERKHAN A	IV MECH
5.	920817114012	ARAVINDHAN J	IV MECH
6.	920817114017	DHAYALAN M	IV MECH
7.	920817114021	GOWTHAM G	IV MECH
8.	920817114023	GOWTHAM L	IV MECH
9.	920817114024	HARIHARA SUDHAN T	IV MECH
10.	920817114028	HIRICHARAN V N	IV MECH
11.	920817114031	JEEVA V	IV MECH
12.	920817114032	JEGATHEESH K	IV MECH
13.	920817114034	KALIDAS P	IV MECH
14.	920817114035	KARTHIKEYAN K	IV MECH
15.	920817114036	KARTHIKEYAN V	IV MECH
16.	920817114037	KEERTHI VASAN R	IV MECH
17.	920817114040	MAGARAJ PRASANNA S	IV MECH
18.	920817114041	MANIBHARATHI S	IV MECH
19.	920817114042	MANIKANDAN K	IV MECH
20.	920817114044	MATHIVANAN N	IV MECH
21.	920817114045	MELVIN INFANT RAJ J	IV MECH
22.	920817114047	MOHAMED RIYAS A	IV MECH
23.	920817114048	MOHAMMED JAVED N	IV MECH
24.	920817114049	MURALI MANOGARAN V	IV MECH
25.	920817114302	DHIWAKAR R	IV MECH
26.	920817114306	MUKILAN R A	IV MECH
27.	920817114309	SIVAPERUMAL A	IV MECH
28.	920817114310	VASUDEVAN V	IV MECH
29.	920817114053	NAGA SANTHOSH N	IV MECH
30.	920817114054	NANTHAKUMAR K	IV MECH
31.	920817114055	NARESH KUMAR S	IV MECH
32.	920817114057	NITHEESH KUMAR G	IV MECH

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33.	920817114059	NITHISH S V	IV MECH
34.	920817114063	PRAVEENKUMAR P	IV MECH
35.	920817114065	PRAVEEN PANDIAN N	IV MECH
36.	920817114068	RAHUL R	IV MECH
37.	920817114070	RAJA V	IV MECH
38.	920817114071	RAMKUMAR S	IV MECH
39.	920817114074	RUTHRESH S	IV MECH
40.	920817114075	SAMSUDEEN A	IV MECH
41.	920817114078	SARAVANAKUMAR R	IV MECH
42.	920817114080	SATHISH KUMAR S	IV MECH
43.	920817114081	SAVARIRAJ S	IV MECH
44.	920817114083	SHEIK BARITH S	IV MECH
45.	920817114084	SHEIKZAHID S	IV MECH
46.	920817114085	SIVANESAN K	IV MECH
47.	920817114087	SURENDARNATH P	IV MECH
48.	920817114089	SURYA PRAKASH A	IV MECH
49.	920817114090	TAMILARASAN M	IV MECH
50.	920817114096	VIGNESH KUMAR M	IV MECH
51.	920817114100	VISHNU GIRI K	IV MECH
52.	920817114305	MOHAN P	IV MECH
53.	920817114501	NIKESHKUMAR R	IV MECH
54.	920817114701	DINESH PANDI C	IV MECH
55.	920817114702	PAUL JACOB KIRUBAHARAN R	IV MECH

PROGRAM CO-ORDINATOR

COLLEGE OF ENGG. & TECHNOLOGY NATHAM NPR

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DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE ON 3D PRINTING

COURSE SCHEDULE

Mode : Google Meet

Google meet link : https://meet.google.com/otu-hzbf-cwz

Time: 4.30 p.m. to 6.00 p.m.

External Resource Person:

1. Dr. R. Ramakrishnan, Chief consultant.

Internal Resource Person:

Mr. T. Balasubramani, AP/MECH

S. No.	Date	Syllabus	Resource Person	Hours
1	17.08.2020	Introduction, Prototyping fundamentals, Historical development, Advantages of AMT	Dr.R.Ramakrishnan, Chief consultant	1.5
2	18.08.2020	Commonly used terms, process chain, 3D modeling	Dr.R.Ramakrishnan, Chief consultant	1.5
3	19.08.2020	Data Conversion and transmission, Checking and preparing	Dr.R.Ramakrishnan, Chief consultant	1.5
4	20.08.2020	Building, Post processing, RP data formats	Dr.R.Ramakrishnan, Chief consultant	1.5
5	21.08.2020	Classification of AMT process, Applications to various fields	Mr.T.Balasubramani, AP/MECH	1.5
6	24.08.2020	Stereo lithography apparatus (SLA): Models and specifications, process, working principle,	Dr.R.Ramakrishnan, Chief consultant	1.5
7	25.08.2020	Photopolymers, Photo polymerization,	Dr.R.Ramakrishnan, Chief consultant	1.5
8	26.08.2020	Layering technology, Laser and Laser scanning	Dr.R.Ramakrishnan, Chief consultant	1.5
9	27.08.2020	Solid ground curing (SGC): Models and specifications	Dr.R.Ramakrishnan, Chief consultant	1.5
10	28.08.2020	Solid ground curing (SGC) Process and Working	Dr.R.Ramakrishnan, Chief consultant	1.5

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11	29.08.2020	Laminated object manufacturing (LOM): Models and specifications	Dr.R.Ramakrishnan, Chief consultant	1.5
12	31.08.2020	Laminated object manufacturing - Process and Working principle	Dr.R.Ramakrishnan, Chief consultant	1.5
13	01.09.2020	Laminated object manufacturing - Applications, advantages and disadvantages	Mr.T.Balasubramani, AP/MECH	1.5
14	02.09.2020	Fused Deposition Modeling (FDM): Models and specifications	Mr.T.Balasubramani, AP/MECH	1.5
15	03.09.2020	Fused Deposition Modeling - Process, Working principle	Mr.T.Balasubramani, AP/MECH	1.5
16	04.09.2020	Fused Deposition Modeling - Applications, advantages and disadvantages	Dr.R.Ramakrishnan, Chief consultant	1.5
17	05.09.2020	Selective laser sintering (SLS): Models and specifications	Dr.R.Ramakrishnan, Chief consultant	1.5
18	07.09.2020	Selective laser sintering -Process, Working principle, Applications, advantages and disadvantages	Dr.R.Ramakrishnan, Chief consultant	1.5
19	08.09.2020	Three dimensional printing (3DP): Models and specification	Dr.R.Ramakrishnan, Chief consultant	1.5
20	09.09.2020	Three dimensional printing - Process, Working principle, Applications, advantages and disadvantages	Dr.R.Ramakrishnan, Chief consultant	1.5
Total Hours				30

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Coordinator - IQAC
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DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE ON 3D PRINTING

STUDENTS ATTENDANCE

S.No	Reg.No	Student Name	Year	August												September								
				Date																				
				17	18	19	20	21	24	25	26	27	28	29	31	1	2	3	4	5	7	8	9	
1	920817114001	AAKASH K	IV	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	a	/	/	/	
2	920817114002	ABDULLABEE A	IV	a	/	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	
3	920817114007	ALAN JACOB J	IV	/	/	/	/	/	/	a	/	/	/	/	a	/	/	/	a	/	/	/	/	
4	920817114008	AMEERKHAN A	IV	/	/	/	/	a	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	
5	920817114012	ARAVINDHAN J	IV	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	a		a			
6	920817114017	DHAYALAN M	IV	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/	
7	920817114021	GOWTHAM G	IV	/	/	/	a	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	
8	920817114023	GOWTHAM L	IV	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	
9	920817114024	HARIHARA SUDHAN T	IV	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
10	920817114028	HIRICHARAN V N	IV	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	a	/	/	/	/	
11	920817114031	JEEVA V	IV	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
12	920817114032	JEGATHEESH K	IV	/	/	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	
13	920817114034	KALIDAS P	IV	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	
14	920817114035	KARTHIKEYAN K	IV	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/	a	
15	920817114036	KARTHIKEYAN V	IV	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
16	920817114037	KEERTHI VASAN R	IV	/	/	/	/	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/	
17	920817114040	MAGARAJ PRASANNA S	IV	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
18	920817114041	MANIBHARATHI S	IV	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	
19	920817114042	MANIKANDAN K	IV	/	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	
20	920817114044	MATHIVANAN N	IV	/	/	/	a	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
21	920817114045	MELVIN INFANT RAJ J	IV	/	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
22	920817114047	MOHAMED RIYAS A	IV	/	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	
23	920817114048	MOHAMMED JAVED N	IV	/	/	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	
24	920817114049	MURALI MANOGARAN V	IV	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	
25	920817114302	DHIWAKAR R	IV	/	/	/	/	/	/	/	/	/	/	/	/	/	a	/	/	a				
26	920817114306	MUKILAN R A	IV	/	/	/	/	/	a	/	/	/	/	/	/	/	/	a	/	/				
27	920817114309	SIVAPERUMAL A	IV	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
28	920817114310	VASUDEVAN V	IV	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
29	920817114053	NAGA SANTHOSH N	IV	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
30	920817114054	NANTHAKUMAR K	IV	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	a	/	/	/	/	
31	920817114055	NARESH KUMAR S	IV	/	/	/	/	/	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	
32	920817114057	NITHEESH KUMAR G	IV	/	/	/	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/	/	
33	920817114059	NITHISH S V	IV	/	/	/	/	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/	
34	920817114063	PRAVEENKUMAR P	IV	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
35	920817114065	PRAVEEN PANDIAN N	IV	/	/	/	/	a	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	
36	920817114068	RAHUL R	IV	/	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	/	
37	920817114070	RAJA V	IV	/	/	/	a	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	
38	920817114071	RAMKUMAR S	IV	/	/	/	/	/	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	
39	920817114074	RUTHRESH S	IV	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/	

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ADD - ON COURSE ON 3D PRINTING

QUIZ QUESTIONS

GOOGLE FORM LINK: https://docs.google.com/forms/d/e/1FAIpQLSes9fxMX7iOX4zAa-DOrVe1pI1F4BU0lSttbyNAuQpGbPS1ng/viewform?usp=sf_link

NPR COLLEGE OF ENGINEERING & TECHNOLOGY, NATHAM

DEPARTMENT OF MECHANICAL ENGINEERING

nprcetmech@nprcolleges.org Switch account

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3D PRINTING
QUIZ QUESTION

1) Solid Modelling is * 10 points

- A. Related to geometrical modelling and computer graphics
- B. Modelling three dimensional solids
- C. Engineering Drawing
- D. 3-D Printing

2) Welding for T-Joint angle junctions having fillet radius 5mm. * 10 points

- A. Can be finished or grinded
- B. Can be smoothness or polished
- C. Should not be grinded or finished
- D. Cannot be done

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3) Spherical surface model representation having 60mm radius * 10 points

- A. Should use circular shaped facets
- B. Can have bisecting triangular facets
- C. Should use spherical shaped facets
- D. Cannot have square facets

4) 3D Printed layers are * 10 points

- A. Not done using primitive shapes
- B. Done using primitive shapes
- C. Done using solid blocks
- D. Done using material removal operation

5) Engineering drawing * 10 points

- A. Solid modelling
- B. 3D Graphical representation
- C. Drawing done in CAD
- D. A Type of technical drawing

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10 points

6) Solid geometry meshes uses *

- A. Bisecting triangular facets
- B. Bisecting spherical surfaces
- C. Non bisecting triangular facets
- D. Can't be approximated

7) Which of the following methods can be used to create scaffolds? * 10 points

- A. Using hydrogels
- B. Using concrete
- C. Using wood
- D. None of these

8) What is the limitation for adhesive bonding? * 10 points

- A. These processes require external supports
- B. Tooling or alignment is required
- C. Both of these
- D. None of these

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PROGRAM CO-ORDINATOR

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ADD - ON COURSE ON 3D PRINTING

STUDENT FEEDBACK

GOOGLE FEEDBACK FORM LINK:

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DEPARTMENT OF MECHANICAL ENGINEERING

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ADD -ON COURSE- 3D-PRINTING

STUDENT FEEDBACK FORM

REGISTER NUMBER *

Your answer

STUDENT NAME LIST *

Your answer

YEAR / SEMESTER *

Your answer

Course Content *

- [ ] EXCELLENT
- [ ] GOOD
- [ ] FAIR
- [ ] SATISFACTORY

Way of exposed new knowledge and practices *

- ○ EXCELLENT
- ○ GOOD
- ○ FAIR
- ○ SATISFACTORY

Examples Provided during this course *

- ○ EXCELLENT
- ○ GOOD
- ○ FAIR
- ○ SATISFACTORY

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Course delivered by Resource Person *

- ○ EXCELLENT
- ○ GOOD
- ○ FAIR
- ○ SATISFACTORY

Time Management *

- ☐ EXCELLENT
- ☐ GOOD
- ☐ FAIR
- ☐ SATISFACTORY

Overall rating of this course *

- ☐ EXCELLENT
- ☐ GOOD
- ☐ FAIR
- ☐ SATISFACTORY

Any Other Comments / Suggestions *

Your answer

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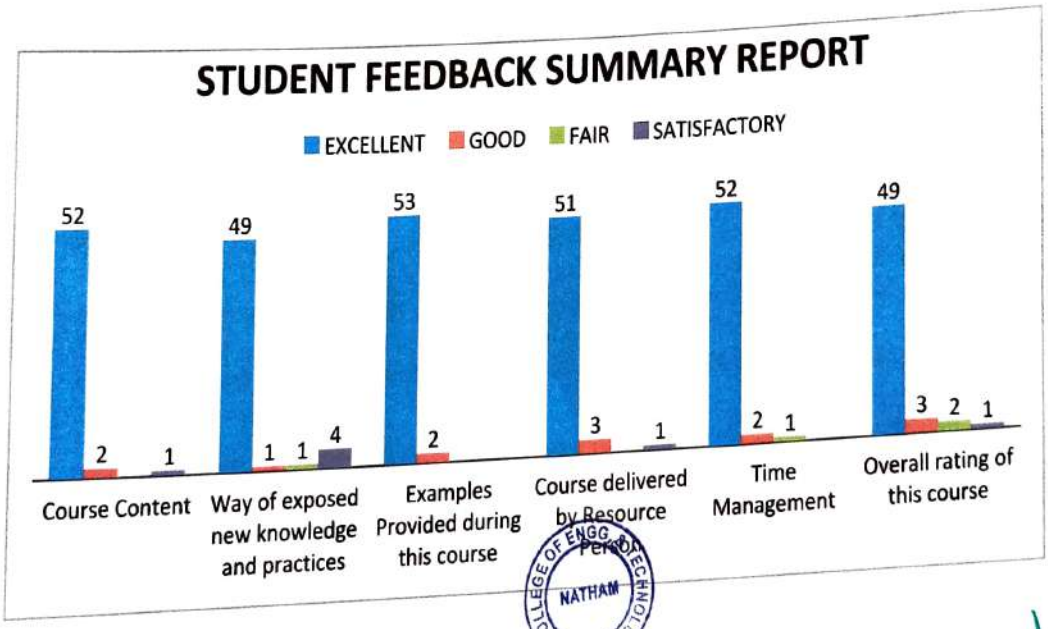
DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE

3D PRINTING - STUDENT FEEDBACK SUMMARY REPORT

REGISTERED STUDENTS: 55 **DATE: 09.09.2020**

S. No	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	52	2	-	1
2	Way of exposed new knowledge and practices	49	1	1	4
3	Examples Provided during this course	53	2	-	-
4	Course delivered by Resource Person	51	3	-	1
5	Time Management	52	2	1	-
6	Overall rating of this course	49	3	2	1
Average		**92.72**	**3.93**	**1.21**	**2.12**



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DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE ON 3D PRINTING

SUMMARY REPORT

Department of Mechanical Engineering organized an Add on Course on "**3D PRINTING**" from 17/8/2020 to 21/8/2020, 24/8/2020 to 29/8/2020, 31/8/2020 to 5/9/2020, 7/9/2020 to 9/9/2020 at our College Premises. IV year mechanical engineering student Mr. A. Samsudeen delivered the welcome address.

Dr.J.SUNDARARAJAN, Principal felicitated the students. This four week course will give the over view of **3D PRINTING**. **Dr. R. Ramakrishnan, Chief consultant, Vivin Consultant, Chennai** had shared his knowledge about **3D PRINTING**. Basically, online courses are basically the process of improving the skill set as well as the knowledge of the entrepreneurs. This can be done through various methods such as classroom sessions or training program specially designed to increase the entrepreneurial acumen. So that students enable to have skills that will help them to improve their knowledge in future.

The students learnt various existing and available sources to gain knowledge towards 3D printing during the course. 55 Students attended from MECH-IV year classes. Students those who participated and successfully completed the Quiz program were awarded with certificates.

Vote of thanks was delivered by student Mr. ABDULLABEE A - IV MECH.

PROGRAM CO-ORDINATOR

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PRINCIPAL
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B.E., M.Tech., P...
Principal
N.P.R. College of Engineering & Tech...
Natham, Dindigul (Dt) - 624 4...

DEPARTMENT OF MECHANICAL ENGINEERING

ADD - ON COURSE ON 3D PRINTING

COURSE MATERIAL

Material Link:

1. https://www.undp.org
2. https://www.unsdsn.org
3. https://www.sdgindex.org

References:

1. Chua C.K., Leong K.F. and LIM C.S Rapid prototyping: Principles an Applications,World Scientific publications, 3rdEd., 2010
2. D.T. Pham and S.S. Dimov, "Rapid Manufacturing", Springer, 2001
3. Terry Wohlers, "Wholers Report 2000", Wohlers Associates, 2000
4. Paul F. Jacobs, "Rapid Prototyping and Manufacturing"–, ASME Press, 1996
5. Ian Gibson, Davin Rosen, Brent Stucker "Additive Manufacturing Technologies, Springer, 2nd Ed, 2014.

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B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

NPR COLLEGE OF ENGINEERING & TECHNOLOGY
NPR NAGAR,NATHAM,DINDIGUL-624401, TAMIL NADU, INDIA.
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website:www.nprcolleges.org E-mail: nprgi@nprcolleges.org

ISO 9001

DEPARTMENT OF MECHANICAL ENGINEERING

ADD ON COURSE
ON
" 3D-PRINTING"

This is to certify that ..Mr. V. Raja..... of ..IV - Mech. has attended the **Add on Course** on "**3D PRINTING**" conducted from **17.08.2020 to 09.09.2020**

HoD-MECH
Dr.T.MALAICHAMY

PRINCIPAL
Dr.J.SUNDARARAJAN

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ISO 9001

DEPARTMENT OF MECHANICAL ENGINEERING

ADD ON COURSE
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" 3D-PRINTING"

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HoD-MECH
Dr.T.MALAICHAMY

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DEPARTMENT OF MECHANICAL ENGINEERING

ADD ON COURSE
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This is to certify that .....Mr. K. AAKASH..... of IV - MECH.. has attended the **Add on Course** on "**3D PRINTING**" conducted from **17.08.2020 to 09.09.2020**

HoD-MECH
Dr.T.MALAICHAMY

PRINCIPAL
Dr.J.SUNDARARAJAN

NPR College of Engineering & Technology
NPR Nagar, Natham, Dindigul - 624401, Tamil Nadu, India
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
An ISO 9001:2015 Certified Institution
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Website : www.nprcolleges.org, www.nprcet.org, Email:nprcetprincipal@nprcolleges.org

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER

INDEX

COURSE NAME: **20MECC03- MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER**

ACADEMIC YEAR: 2020-2021 SEMESTER: EVEN DURATION: **30 HOURS**

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PROGRAM CO-ORDINATOR **HoD/MECH** **IQAC** **PRINCIPAL**

Head of the Department
Department of Mechanical Engineering
NPR College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

Coordinator - IQAC
NPR College of Engineering & Technology
Natham, Dindigul (Dt)-624 401

Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D.,
Principal
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DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER

PERMISSION LETTER

DATE: 14.12.2020

From

Dr. T. Malaichamy,
Department of Mechanical Engineering,
NPR College of Engineering & Technology,
Natham.

To

The Principal,
NPR College of Engineering & Technology,
Natham.

Respected Sir,

Sub: Seeking permission to conduct Certificate Course for Mechanical Engineering students - Regarding.

We have planned to conduct a Certificate Course on **"MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER"** to our Mechanical Engineering students from 21.12.2020 to 25.01.2021 (20 Days) from 4.30 p.m. to 6.00 p.m. in our college premises. We have proposed **Mr.N.Sivakumar, Service Manager, GG-Automobiles, Meenakshi Bazaar Scott Rd, Madurai,** as the resource person for this certificate course. Kindly permit us to conduct the same.

RegistrationLink:https://docs.google.com/forms/d/e/1FAIpQLSdc3EdJ2DjPvi-RsPd9EnW6RIrfGZ0WBj6Q4DU9oVYQZKkl7w/viewform?usp=sf_link

Google Meet Link: https://meet.google.com/jvd-pazt-nko

Thanking you

Yours faithfully,

HoD – MECH
(Dr. T. Malaichamy)
Head of the Department
Department of Mechanical Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER

RESOURCE PERSON PROFILE

Name : **Mr.N.SIVAKUMAR**

Designation : **Service Manager**

Organization : GG-Automobiles, Meenakshi Bazaar Scott Road, Madurai

About the Resource Person : Mr. N.Sivakumar is currently working as Service manager with GG-Automobiles, Meenakshi Bazaar Scott Road, Madurai. He has completed his DME (Mech) in Thanapandiyan Polytechnic College, Madurai. He is an experienced technical person with a demonstrated history of working in the Automobile industry.

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CIRCULAR

Date: 16/12/2020

This is to inform that Department of MECHANCIAL ENGINEERING has planned to conduct a Certificate Course on **"MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER"** for the students during the Academic year 2020-2021.Interested students can enroll their name to the program coordinator on or before 19/12/2020.

Registration form Link: https://docs.google.com/forms/d/e/1FAIpQLSdc3EdJ2DjPvi-RsPd9EnW6RIrfGZ0WBj6Q4DU9oVYQZKkl7w/viewform?usp=sf_link

The details of the training program are given below

COURSE NAME	:	MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER
RESOURCE PERSON	:	Mr.N.Sivakumar
VENUE	:	Google Meet
DATE & DURATION	:	21.12.2020 to 25.01.2021, 30Hours
GOOGLE MEET LINK	:	https://meet.google.com/jvd-pazt-nko
PROGRAM COORDINATOR	:	Mr.G.Sundararajan, Assistant Professor Department of Mechanical Engineering.

PRINCIPAL
Dr. J.SUNDARARAJAN,
B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

Copy to:

1. All the HoDs
2. IQAC
3. All the Class Rooms
4. Notice Board
5. File
6. Program Co-ordinator

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER

STUDENTS REGISTRATION FORM

Registration form Link: https://docs.google.com/forms/d/e/1FAIpQLSdc3EdJ2DjPvI-RsPd9EnW6RIrfGZ0WBj6Q4DU9oVYQZKkl7w/viewform?usp=sf_link

NPR COLLEGE OF ENGINEERING & TECHNOLOGY, NATHAM
DEPARTMENT OF MECHANICAL ENGINEERING

The respondent's email (null) was recorded on submission of this form

1. Email *

CERTIFICATE COURSE ON MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER
REGISTRATION FORM

2. REGISTER NUMBER *

3. NAME OF THE STUDENT *

4. NAME OF THE DEPARTMENT *

COLLEGE OF ENGG. & TECHNOLOGY NATHAM

5. YEAR OF STUDY *

6. MOBILE NUMBER *

Google Forms

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The Management, Principal, Staff and Students

Cordially invite you for the inauguration of

CERTIFICATE COURSE ON

MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER

On 21st DECEMBER, 2020

Through: Google Meet at 1.30 p.m.

GOOGLE MEET LINK: https://meet.google.com/jvd-pazt-nko

Chief Guest
Mr.N.Sivakumar
Service Manager
GG-Automobiles, Madurai

Dr.J.Sundararajan
Principal,
NPR College of Engineering & Technology
Felicitates the function

Organized By

Department of Mechanical Engineering,
NPR College of Engineering & Technology,
NPR Nagar, Natham.

DEPARTMENT OF MECHANICAL ENGINEERING
CERTIFICATE COURSE ON MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER

COURSE CONTENT

Week 1 - Chapter 1:

- Introduction to Engine, Description of internal & external combustion engines, Classification of IC engines,
- Principle & working of 2&4-stroke diesel engine (Compression ignition Engine (C.I), Principle of Spark Ignition Engine(SI), differentiate between 2-stroke and 4 stroke, C.I engine and S.I Engine,
- Direct injection and Indirect injection, Technical terms used in engine, Engine specification
- Basic engine components -Engine cams & Description & functions of pistons, piston rings,
- Common troubles and remedies of piston. Description and function of Crank shaft, Engine bearings.

Week 2 - Chapter 2:

- Valves & Valve Trains : Function of Engine Valves, different types, materials, Type of valve operating mechanism, Importance of Valve seats, Valve-timing setting,
- Description of Camshafts & drives, importance of Cam lobes, Timing belts & chains.
- Trouble shooting procedure for Excessive smoke, overheating, knocking or abnormal noise.

Week 3 - Chapter 3:

- Intake & exhaust systems - Carbureted systems, Principle of Carburetor, type of carburetor
- Working of constant velocity type carburetor, Carburetor operation-Carburetion, Carburetor systems, Metering jets, Accelerating, Carburetor barrels , Carburetor filters
- Diesel fuel Injection system, Tanks & lines, air cleaners, Intake manifolds.

Week 4 –Chapter 4:

- Braking Systems - Braking fundamentals, Principles of braking, description, construction and operation of Drum & disc brakes, advantage over drum brake,
- Description and working principle of master cylinder, Hydraulic pressure & force, Brake fade.
- Braking system components- Brake pedal/lever, Brake fluid hose, Brake fluid, Bleeding, Applying brakes, Brake force, Brake light switch

Week 5 -Chapter 5:

- Clutches & Transmission:- Clutch principles, Wet & dry clutches Single-plate clutches, Multi-plate clutches, Operating mechanisms, Automatic clutch
- Gearbox layout & operation Gearbox layouts, description of gear shift mechanism, gear ratio, Gearbox operation, Gear drive position - Neutral, 1st to 5th position.

Criteria to get Certificate:

Average assignment score = 25% of average of best 3 assignments out of the total 4 assignments given in the course.

Exam score = 75% of the proctored certification exam score out of 100

Final score = Average assignment score + Exam score

Prepared By: Mr.G.Sundararajan, AP/MECH

Approved By

PROGRAM CO-ORDINATOR	HOD/MECH	IQAC	PRINCIPAL
	Head of the Department, Department of Mechanical Engineering, NPR College of Engineering & Technology, Natham, Dindigul (DT) - 624 401.	Coordinator - IQAC, NPR College of Engineering & Technology, Natham, Dindigul (Dt)-624 401	Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D., Principal, N.P.R. College of Engineering & Technology, Natham, Dindigul (Dt) - 624 401.

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER

REGISTERED STUDENTS NAME LIST

S. No.	Register Number	Student Name	Class
1.	920819114003	ANBARASAN V	II MECH
2.	920819114004	ASWINBALAJI S	II MECH
3.	920819114005	AYYAM PERUMAL P	II MECH
4.	920819114008	DINESHPANDI B	II MECH
5.	920819114010	GOWTHAMAN M	II MECH
6.	920819114013	MAHA LAKSHMI G	II MECH
7.	920819114015	MANIKANDAN R	II MECH
8.	920819114018	MOHAMED SIDDIQ A	II MECH
9.	920819114020	MUGESHWARAN N	II MECH
10.	920819114021	MUTHUSAMY P	II MECH
11.	920819114023	NAVEEN RAJ K	II MECH
12.	920819114024	NITHESWAR M	II MECH
13.	920819114026	RAGHULPANDIAN B	II MECH
14.	920819114028	RAKESH S	II MECH
15.	920819114030	RAMANAN M	II MECH
16.	920819114032	RUBAN P	II MECH
17.	920819114033	SANGARAN S	II MECH
18.	920819114034	SANKAR G	II MECH
19.	920819114036	SHAARIF AHAMED S	II MECH
20.	920819114037	SHOBANA K	II MECH
21.	920819114039	VELPACKIYARAJ M	II MECH
22.	920819114301	CHANDRU P	II MECH
23.	920818114002	ALAGARSAMY M	III MECH
24.	920818114003	ASWIN M	III MECH
25.	920818114005	BALAMURUGAN M S	III MECH
26.	920818114007	DINESH KUMAR S	III MECH
27.	920818114008	HARISH J	III MECH
28.	920818114010	JOTHIVEL M	III MECH
29.	920818114012	MANOJKUMAR R	III MECH
30.	920818114016	PERIYANDI P	III MECH
31.	920818114018	PRATHIBAN K	III MECH
32.	920818114020	PRAVEENRAJ S	III MECH

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33.	920818114023	SANGUNATHAN R	III MECH
34.	920818114026	SRIRAM A	III MECH
35.	920818114027	SRIRAM S	III MECH
36.	920818114029	SURIYAVISWA M	III MECH
37.	920818114032	SYED AKMAL M	III MECH
38.	920818114034	VINITHKUMAR A	III MECH
39.	920818114036	VISHVA G	III MECH
40.	920818114302	JEEVAKALIDAS S	III MECH
41.	920818114303	MANIKANDAN K	III MECH
42.	920818114502	SANTHOSH KUMAR M	III MECH
43.	920818114701	GOWTHAM KUMAR M	III MECH

PROGRAM CO-ORDINATOR

HoD/MECH

Head of the Department
Department of Mechanical Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

COLLEGE OF ENGG. & TECHNOLOGY * NPR * NATHAM

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER

COURSE SCHEDULE

Mode : Google Meet

Google meet link : https://meet.google.com/otu-hzbf-cwz

Time: 4.30 p.m. to 6.00 p.m.

External Resource Person:

1. Mr. N. Sivakumar, Service Manager.

Internal Resource Person:

Mr. G. Sundararajan, AP/MECH

S. No.	Date	Syllabus	Resource Person	Hours
1	21.12.2020	Introduction to Engine, Description of internal & external combustion engines, Classification of IC engines	Mr.N.Sivakumar, Service manager	1.5
2	22.12.2020	Principle & working of 2&4-stroke diesel engine (Compression ignition Engine (C.I), Principle of Spark Ignition Engine(SI), differentiate between 2-stroke and 4 stroke, C.I engine and S.I Engine	Mr.N.Sivakumar, Service manager	1.5
3	23.12.2020	Direct injection and Indirect injection, Technical terms used in engine, Engine specification	Mr.N.Sivakumar, Service manager	1.5
4	24.12.2020	Basic engine components -Engine cams & Description & functions of pistons, piston rings	Mr.N.Sivakumar, Service manager	1.5
5	28.12.2020	Common troubles and remedies of piston. Description and function of Crank shaft, Engine bearings.	Mr.G.Sundararajan, AP/MECH,	1.5
6	29.12.2020	Function of Engine Valves, different types, materials, Type of valve operating mechanism, Importance of Valve seats, Valve-timing setting.	Mr.G.Sundararajan, AP/MECH,	1.5
7	30.12.2020	Description of Camshafts & drives, importance of Cam lobes, Timing belts & chains.	Mr.G.Sundararajan, AP/MECH,	1.5

8	31.12.2020	Trouble shooting procedure for Excessive smoke, overheating, knocking or abnormal noise.	Mr.N.Sivakumar, Service manager	1.5
9	04.01.2021	Intake & exhaust systems - Carbureted systems, Principle of Carburetor, type of carburetor	Mr.N.Sivakumar, Service manager	1.5
10	05.01.2021	Working of constant velocity type carburetor, Carburetor operation-Carburetion, Carburetor systems, Metering jets, Accelerating, Carburetor barrels , Carburetor filters	Mr.N.Sivakumar, Service manager ,	1.5
11	06.01.2021	Diesel fuel Injection system, Tanks & lines, air cleaners, Intake manifolds.	Mr.G.Sundararajan, AP/MECH,	1.5
12	07.01.2021	Braking Systems - Braking fundamentals, Principles of braking, description, construction and operation of Drum & disc brakes, advantage over drum brake,	Mr.G.Sundararajan, AP/MECH,	1.5
13	08.01.2021	Clutch principles, Wet & dry clutches Single-plate clutches, Multi-plate clutches,	Mr.N.Sivakumar, Service manager	1.5
14	11.01.2021	Operating mechanisms, Description of cam chain mechanism. Automatic clutch	Mr.N.Sivakumar, Service manager	1.5
15	12.01.2021	Gearbox layout & operation Gearbox layouts, description of gear shift mechanism, gear ratio,	Mr.N.Sivakumar, Service manager	1.5
16	19.01.2021	Trouble shooting procedure for Clutch slip when accelerating, clutch will not disengage, motor cycle creeps with clutch disengaged.	Mr.G.Sundararajan, AP/MECH,	1.5
17	20.01.2021	Misfirin,Study about LPG / CNG powered engines used in Two Wheelers. Safety while handling gas units.	Mr.G.Sundararajan, AP/MECH,	1.5
18	21.01.2021	Emission Control-Sources of emission, Combustion, Hydrocarbons, Hydrocarbons in exhaust gases.	Mr.G.Sundararajan, AP/MECH,	1.5

19	22.01.2021	Suspension Systems- Principles of suspension, Suspension force, Description, location, suspension-description, construction and working principle of telescopic front suspension, suspension oil.	Mr.N.Sivakumar, Service manager	1.5
20	25.01.2021	Shock absorber types-Hydraulic shock absorbers, Gas-pressurized shock absorbers, Load-adjustable shock absorbers, Automatic load-adjustable shock absorbers	Mr.N.Sivakumar, Service manager	1.5
Total Hours				30

PROGRAM CO-ORDINATOR | HOD/MECH | IQAC | PRINCIPAL

Head of the Department
Department of Mechanical Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

Coordinator - IQAC
NPR College of Engineering & Technology
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DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER

STUDENTS ATTENDANCE

S.No	Reg.No.	Student Name	Year	Date
1	920819114003	ANBARASAN V	II	
2	920819114004	ASWINBALAJI S	II	
3	920819114005	AYYAM PERUMAL P	II	
4	920819114008	DINESHPANDI B	II	
5	920819114010	GOWTHAMAN M	II	
6	920819114013	MAHA LAKSHMI G	II	
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12	920819114024	NITHESWAR M	II	
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37	920818114032	SYED AKMAL M	III	
38	920818114034	VINITHKUMAR A	III	

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39	920818114036	VISHVA G	III	
40	920818114302	JEEVAKALIDAS S	III	
41	920818114303	MANIKANDAN K	III	
42	920818114502	SANTHOSH KUMAR M	III	
43	920818114701	GOWTHAM KUMAR M	III	
			TOTAL PRESENT	
			TOTAL ABSENT	
			SIGNATURE	

PROGRAM CO-ORDINATOR

HoD/MECH

Head of the Department
Department of Mechanical Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

NPR COLLEGE OF ENGINEERING & TECHNOLOGY * NATHAM

PRINCIPAL

Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D.,
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Natham, Dindigul (Dt) - 624 401.

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER

QUIZ QUESTIONS

GOOGLE FORM LINK:

https://docs.google.com/forms/d/e/1FAIpQLSdm9pL0tqu8ugzMgp4E0tzgF51h4m_f0szL594blArTa1x05A/viewform?usp=sf_link

NPR COLLEGE OF ENGINEERING & TECHNOLOGY,NATHAM

DEPARTMENT OF MECHANICAL ENGINEERING

* Required

MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER

1. 1.The temperature indicating instrument in vehicles indicates the temperature of *

   Mark only one oval.

   - ◯ Engine piston
   - ◯ Engine cylinder
   - ◯ Lubricating oil
   - ◯ Jacket cooling water

2. 2.Two general types of tyres are *

   Mark only one oval.

   - ◯ Tube type and tubeless
   - ◯ Solid and tubeless
   - ◯ Air and pneumatic
   - ◯ Split rim and drop centre



3. 3.How many cells are used in a 12 volt car battery? *

Mark only one oval.

- ◯ 2
- ◯ 4
- ◯ 6
- ◯ 8

4. 4.The motion of the cam is transferred to the valves through *

Mark only one oval.

- ◯ Pistons
- ◯ Rocker arms
- ◯ Camshaft pulley
- ◯ Valve stems

5. 5.The power actually developed inside the engine cylinder is called as *

Mark only one oval.

- ◯ Indicated power
- ◯ Brake power
- ◯ Frictional power
- ◯ None of these

COLLEGE OF ENGG. & TECHNOLOGY NATHAM

6. 6.If the air-fuel mixture in a spark ignition engine is too rich, then air-fuel ratio is about *

Mark only one oval.

- ◯ 17:1
- ◯ 15:1
- ◯ 13:1
- ◯ 10:1

7. 7.Petrol that detonates easily is called *

Mark only one oval.

- ◯ High octane petrol
- ◯ Low octane petrol
- ◯ Unleaded petrol
- ◯ Blended fuel

8. 8.The advantage of a tubeless tyre over tube type tyre is *

Mark only one oval.

- ◯ Slow air leakage
- ◯ Better fuel efficiency
- ◯ Less chances of running flat
- ◯ All of these

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9. 9.In a single dry plate clutch, torsional vibrations are absorbed by *

Mark only one oval.

- ◯ Coil springs known as torsional springs
- ◯ Cushion springs
- ◯ Central hub
- ◯ Clutch pedal

10. 10.The battery is an electrochemical device, which means battery *

Mark only one oval.

- ◯ Makes chemicals by mechanical means
- ◯ Uses chemical action to provide electricity
- ◯ Has curved plates instead of flat plates
- ◯ Does not use an electrolyte

11. 11.An overinflated tyre will wear the tread most near the *

Mark only one oval.

- ◯ Edges
- ◯ Corners
- ◯ Centre
- ◯ None of these



12. 12.The calorific value of Diesel is about *

Mark only one oval.

- 36.5 MJ/kg
- 38.5 MJ/kg
- 42.5 MJ/kg
- 45.5 MJ/kg

13. 13.The function of oil control rings is that it *

Mark only one oval.

- Lubricates the cylinder wall by releasing oil from its hole
- Keeps the cylinder wall lubricated by holding oil in its channel
- Prevents engine oil from going into the combustion chamber and returns excess lubricating oil off the cylinder wall through the return holes in the piston to the oil pan
- Maintains a seal and prevents escape of burned gases and oil leakage

14. 14.Two advantages of using helical gears rather than spur gears in a transmission system are *

Mark only one oval.

- Strength and cost
- Strength and less end thrust
- Noise level and strength
- Noise level and economy

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15. 15.The correct flow of power through the drive train is *

Mark only one oval.

- ◯ Engine drive shafts, clutch, main shaft, counter shaft, final driven gear, wheels
- ◯ Engine clutch, main shaft, counter shaft, final driven gear, drive shafts, wheels
- ◯ Engine clutch, counter shaft, main shaft, final driven gear, drive shafts, wheels
- ◯ Engine main shaft, counter shaft, clutch, final driven gear, drive shafts, wheels

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PROGRAM CO-ORDINATOR

HoD/MECH

Head of the Department
Department of Mechanical Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER

STUDENT FEEDBACK

GOOGLE FEEDBACK FORM LINK:

https://docs.google.com/forms/d/e/1FAIpQLSeldVtzru2C6b5daQ1nYtid-2Wi6VgdDFa7nyvq-NRxMj803g/viewform?usp=sf_link

NPR COLLEGE OF ENGINEERING & TECHNOLOGY, NATHAM

DEPARTMENT OF MECHANICAL ENGINEERING

The respondent's email (**null**) was recorded on submission of this form.
* Required

1. Email *

CERTIFICATE COURSE ON MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER
STUDENT FEEDBACK FORM

2. REGISTER NUMBER *

3. STUDENT NAME LIST *

4. YEAR / SEMESTER *

5. Course Content *

Check all that apply.

- [ ] EXCELLENT
- [ ] GOOD
- [ ] FAIR
- [ ] SATISFACTORY

6. Way of exposed new knowledge and practices *

Mark only one oval.

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

7. Examples Provided during this course *

Mark only one oval.

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

8. Course delivered by Resource Person *

Mark only one oval.

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

9. Time Management *

Check all that apply

- [ ] EXCELLENT
- [ ] GOOD
- [ ] FAIR
- [ ] SATISFACTORY

10. Overall rating of this course *

Check all that apply.

- [ ] EXCELLENT
- [ ] GOOD
- [ ] FAIR
- [ ] SATISFACTORY

11. Any Other Comments / Suggestions *

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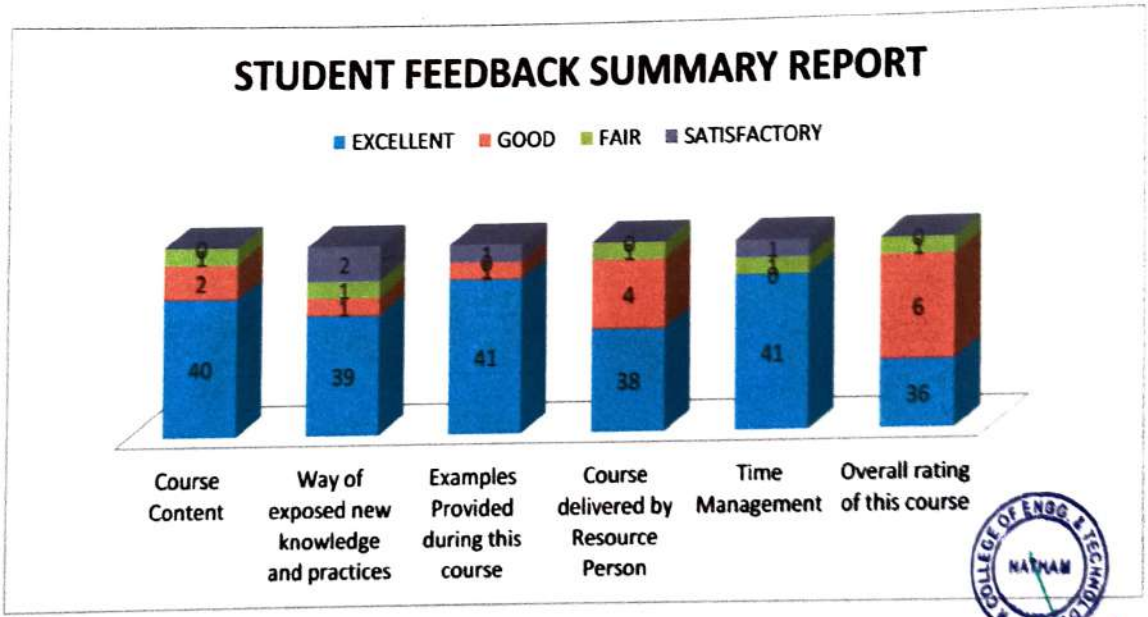
DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER

STUDENT FEEDBACK SUMMARY REPORT

REGISTERED STUDENTS: 43 **DATE: 25.01.2021**

S. No	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	40	2	1	-
2	Way of exposed new knowledge and practices	39	1	1	2
3	Examples Provided during this course	41	1	-	1
4	Course delivered by Resource Person	38	4	1	-
5	Time Management	41	-	1	1
6	Overall rating of this course	36	6	1	-
Average		**91.08**	**5.42**	**1.93**	**1.55**



PROGRAM CO-ORDINATOR

HoD/MECH

IQAC

PRINCIPAL

Head of the Department
Department of Mechanical Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401

Coordinator - IQAC
NPR College of Engineering & Technology
Natham, Dindigul (Dt)-624 401

Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D.
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER

SUMMARY REPORT

Department of Mechanical Engineering organized a Certificate Course on Mechanic Repair & Maintenance of Two Wheeler from 21.12.2020 to 25.01.2021 (20 Days) in our College Premises. During the inauguration III year Mechanical Engineering student Mr. K. Manikandan delivered the welcome address.

Dr. J. Sundararajan, Principal felicitated the students. This four week course gave over view of Mechanic Repair & Maintenance of Two Wheeler. Mr. N. Sivakumar, Service Manager, GG-Automobiles, Madurai shared his knowledge about Mechanic Repair & Maintenance of Two Wheeler. On completion of this course the students know about dismantling of two wheeler engine, inspection procedures, carburetor, fuel tank, suspension systems, steering system components, breaking system, trouble shooting procedures and emission control.

43 Students attended from II and III year Mechanical Engineering classes. Students those who participated and successfully completed the Quiz program were awarded with certificates.

Vote of thanks was delivered by II Year student Ms. G. Mahalakshmi.

PROGRAM CO-ORDINATOR

G. SUNDARARAJAN

HoD/MECH

Head of the Department
Department of Mechanical Engineering
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Natham, Dindigul (DT) - 624 401.

PRINCIPAL

Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D.,
Principal
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Natham, Dindigul (Dt) - 624 401.

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DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER

COURSE MATERIAL

Material Link:

Chapter 1: https://www.youtube.com/watch?v=cKYtjVAg8R4

Chapter 2: http:nptel.ac.in/courses/125106001

Chapter 3: https://www.youtube.com/watch?v=FP2USTR09GY

Chapter 4: http:nptel.ac.in/courses/125106001

Chapter 5: https://www.youtube.com/watch?v=FP2USTR09GY

PROGRAM CO-ORDINATOR

HoD/MECH

Head of the Department
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Natham, Dindigul (DT) - 624 401

PRINCIPAL

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Natham, Dindigul (Dt) - 624 401.

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NPR COLLEGE OF ENGINEERING & TECHNOLOGY

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Phone No: 04544-246 500, 246501 246502
website:www.nprcolleges.org E-mail: nprgi@nprcolleges.org

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE

ON

MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER

CERTIFICATE OF PARTICIPATION

This is to certify that ...Mr. R. Manoj Kumar..... of.....III - MECH.....has attended the Certificate Course on " **MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER**" conducted from **21.12.2020 to 25.01.2021**.

Dr.T.MALAICHAMY
HOD-MECH

NATHAM

Dr.J.SUNDARARAJAN
PRINCIPAL

NPR COLLEGE OF ENGINEERING & TECHNOLOGY

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DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE
ON
MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER

CERTIFICATE OF PARTICIPATION

This is to certify that .....Mr. S. Sriram..... of...III - MECH.....has attended the Certificate Course on " **MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER**" conducted from **21.12.2020 to 25.01.2021**.

Dr.T.MALAICHAMY
HOD-MECH

NPR COLLEGE OF ENGG. & TECHNOLOGY * NATHAM

Dr.J.SUNDARARAJAN
PRINCIPAL

NPR COLLEGE OF ENGINEERING & TECHNOLOGY

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DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE
ON
MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER

CERTIFICATE OF PARTICIPATION

This is to certify that ..Mr..M..VELPACKIYARAJ... of.....II - MECH.....has attended the Certificate Course on " **MECHANIC REPAIR & MAINTENANCE OF TWO WHEELER**" conducted from **21.12.2020 to 25.01.2021**.

Dr.T.MALAICHAMY
HOD-MECH

COLLEGE OF ENGG. & TECHNOLOGY * NPR * NATHAM

Dr.J.SUNDARARAJAN
PRINCIPAL

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DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON BASIC G-CODE PROGRAMMING FOR CNC LATHE

INDEX

COURSE NAME: **21MECC04- BASIC G-CODE PROGRAMMING FOR CNC LATHE**

ACADEMIC YEAR: 2020-2021 SEMESTER: EVEN DURATION: **30 HOURS**

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PROGRAM CO-ORDINATOR

HoD/MECH

IQAC

PRINCIPAL

Head of the Department
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DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON BASIC G-CODE PROGRAMMING FOR CNC LATHE

PERMISSION LETTER

DATE: 16.12.2020

From

Dr.T.Malaichamy,
The Head of the Department,
Department of Mechanical Engineering,
NPR College of Engineering & Technology,
Natham.

To

The Principal,
NPR College of Engineering & Technology,
Natham.

Respected Sir,

Sub: Seeking permission to conduct Certificate Course for Mechanical Engineering students - Regarding.

We have planned to conduct a Certificate Course on **"BASIC G-CODE PROGRAMMING FOR CNC LATHE"** to our Mechanical Engineering students from 21.12.2020 to 25.01.2021 (20 Days) from 1.30 p.m. to 3.00 p.m. in our college premises. We have proposed **Mr.G.Karthikeyan, Service Manager, HI-Tech CNC Training Centre, Madurai,** as the resource person for this certificated course, kindly permit us to conduct the same.

Registration Link:

https://docs.google.com/forms/d/10ISn9FHqTY9Y77QCVawBJvstLGNFGgb5vLwfuj03mKs

Google Meet Link: : https://meet.google.com/otu-hzbf-cwz

Thanking you

Yours faithfully,

HoD – MECH
Dr.T.Malaichamy

Head of the Department
Department of Mechanical Engineering
NPR College of Engineering & Technology
Natham, Dindigul (DT) - 624 401.

NPR College of Engineering & Technology
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DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON BASIC G-CODE PROGRAMMING FOR CNC LATHE

RESOURCE PERSON PROFILE

Name : **Mr.G.Karthikeyan,**

Designation : **Service manager**

Institution Name : **HI-Tech CNC Training Centre, Madurai.**

About Resource Person : Mr. G.Karthikeyan is currently working as Service Manager, HI-Tech CNC training center, Madurai. He has completed his BE (Mech) in PTR Engineering College, Madurai. He is an experienced technical person with a demonstrated history of working in the manufacturing sector. He has 5 years experience in the same field.

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CIRCULAR

Date: 16/12/2020

This is to inform that Department of Mechanical Engineering has planned to conduct a Certificate Course on "Basic G-code programming for CNC lathe" for the students during the Academic year 2020-2021. Interested students can enroll their name to the program coordinator on or before 19/12/2020.

Registration form Link:

https://docs.google.com/forms/d/10ISn9FHqTY9Y77QCVawBJvstLGNFGgb5vLwfuj03mKs

The details of the training program are given below

COURSE NAME	:	**"BASIC G-CODE PROGRAMMING FOR CNC LATHE"**
RESOURCE PERSON	:	Mr.G.Karthikeyan
VENUE	:	Google Meet
DATE & DURATION	:	21.12.2020 to 25.01.2021, 30 Hours
GOOGLE MEET LINK	:	: https://meet.google.com/otu-hzbf-cwz
PROGRAM COORDINATOR	:	Mr.M.Mathan Raj, Assistant Professor Department of Mechanical Engineering NPR College of Engineering & Technology, Natham.

PRINCIPAL
Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D.,
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

Copy to:

1. All the HoDs
2. IQAC
3. All the Class Rooms
4. Notice Board
5. File
6. Program Co-ordinator

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON BASIC G-CODE PROGRAMMING FOR CNC LATHE

STUDENTS REGISTRATION FORM

Registration form Link:

https://docs.google.com/forms/d/10ISn9FHqTY9Y77QCVawBJvstLGNFGgb5yLwfuj03mKs

NPR COLLEGE OF ENGINEERING AND TECHNOLOGY, NATHAM

CERTIFICATE COURSE ON BASIC G-CODE PROGRAMMING FOR CNC LATHE - Registration form.

EMAIL ADDRESS *

Short answer text

REGISTER NUMBER *

Short answer text

NAME OF THE STUDENT

Short answer text



NAME OF THE DEPARTMENT *

Short answer text

YEAR OF STUDYING *

Short answer text

MOBILE NUMBER

Short answer text

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The Management, Principal, Staff and Students

Cordially invite you for the inauguration of

CERTIFICATE COURSE ON

"BASIC G-CODE PROGRAMMING FOR CNC LATHE"

On 21st DECEMBER, 2020

Venue: Google Meet at 1.30 p.m.

GOOGLE MEET LINK: https://meet.google.com/otu-hzbf-cwz

Chief Guest

Mr. G.Karthikeyan

Service manager

HI-Tech CNC Training Centre, Madurai

Dr.J.Sundararajan

Principal,

NPR College of Engineering & Technology

Felicitates the function

Organized By

Department of Mechanical Engineering,

NPR College of Engineering & Technology,

NPR Nagar, Natham.

COLLEGE OF ENGG. & TECHNOLOGY NATHAM

NPR College of Engineering & Technology
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DEPARTMENT OF MECHANICAL ENGINEERING
CERTIFICATE COURSE ON BASIC G-CODE PROGRAMMING FOR CNC LATHE

COURSE CONTENT

Week 1 - Chapter 1:

- Introduction of CNC machines
- Type of CNC Machines
- G-Codes M-Codes
- Tool Holders & Inserts

Week 2 - Chapter 2:

- Cutters Specification
- Basic Programming
- Axis Absolute Method & Incremental Method
- Cutter Radius Compensation

Week 3 - Chapter 3:

- Canned Cycles
- Creation of Sub Program
- Hands on Practical training on production
- Experiment no :1

Week 4 - Chapter 4:

- Experiment no :2
- Experiment no :3
- Experiment no :4
- Experiment no :5

Week 5 - Chapter 5:

- Experiment no :6
- Experiment no :7
- Experiment no :8
- Experiment no :9 & 10

Criteria to get Certificate:

- Students should register their names for this course
- Students must have 85% attendance.
- Student should secure 75% marks in the Exam

COLLEGE OF ENGG. & TECHNOLOGY NATHAM

PROGRAM CO-ORDINATOR | **HOD/MECH** | **IQAC** | **PRINCIPAL**

Head of the Department
Department of Mechanical Engineering
NPR College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

Coordinator - IQAC
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Natham, Dindigul (Dt) - 624 401.

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON BASIC G-CODE PROGRAMMING FOR CNC LATHE

REGISTERED STUDENTS NAME LIST

S. No	Register Number	Student Name	Class	Year
1.	920817114001	AAKASH K	IV MECH	2020-2021
2.	920817114002	ABDULLA BEE A	IV MECH	2020-2021
3.	920817114008	AMEER KHAN A	IV MECH	2020-2021
4.	920817114010	ANIS RAM PRABU M	IV MECH	2020-2021
5.	920817114011	ARAVIND B	IV MECH	2020-2021
6.	920817114012	ARAVINDHAN J	IV MECH	2020-2021
7.	920817114018	DINESH M	IV MECH	2020-2021
8.	920817114020	GOKULNATH R	IV MECH	2020-2021
9.	920817114022	GOWTHAM K	IV MECH	2020-2021
10.	920817114024	HARIHARASUDHAN T	IV MECH	2020-2021
11.	920817114025	HARISH S	IV MECH	2020-2021
12.	920817114028	HIRICHARAN V N	IV MECH	2020-2021
13.	920817114031	JEEVA V	IV MECH	2020-2021
14.	920817114032	JEGATHEESH K	IV MECH	2020-2021
15.	920817114034	KALIDAS P	IV MECH	2020-2021
16.	920817114035	KARTHIKEYAN K	IV MECH	2020-2021
17.	920817114037	KEERTHIVASAN R	IV MECH	2020-2021
18.	920817114038	KUMARESAN N	IV MECH	2020-2021
19.	920817114040	MAGARAJ PRASANNA S	IV MECH	2020-2021
20.	920817114041	MANIBHARATHI S	IV MECH	2020-2021
21.	920817114043	MANOJKUMAR S	IV MECH	2020-2021
22.	920817114045	MELVIN INFANT RAJ J	IV MECH	2020-2021
23.	920817114046	MOHAMED AZEEZ T	IV MECH	2020-2021
24.	920817114048	MOHAMMED JAVED N	IV MECH	2020-2021
25.	920817114301	ASHUATHAMAN.R	IV MECH	2020-2021
26.	920817114302	DHIWAKAR.R	IV MECH	2020-2021
27.	920817114306	MUKILAN.R.A	IV MECH	2020-2021
28.	920817114308	SABAREESWARANATH.N	IV MECH	2020-2021
29.	920817114310	VASUDEVAN.V	IV MECH	2020-2021
30.	920817114051	MUTHUKUMARS	IV MECH	2020-2021
31.	920817114054	NANTHAKUMARK	IV MECH	2020-2021
32.	920817114056	NAVEEN KUMAR M	IV MECH	2020-2021
33.	920817114057	NITHEESH KUMAR G	IV MECH	2020-2021

COLLEGE OF ENGG. & TECHNOLOGY NATHAM

34.	920817114058	NITHESH KUMAR V	IV MECH	2020-2021
35.	920817114059	NITHISH S V	IV MECH	2020-2021
36.	920817114063	PRAVEENKUMARP	IV MECH	2020-2021
37.	920817114064	PRAVEEN KUMARS	IV MECH	2020-2021
38.	920817114066	PREM KAVI N	IV MECH	2020-2021
39.	920817114068	RAHULR	IV MECH	2020-2021
40.	920817114070	RAJAV	IV MECH	2020-2021
41.	920817114073	ROSHAN KUMAR A	IV MECH	2020-2021
42.	920817114074	RUTHRESHS	IV MECH	2020-2021
43.	920817114078	SARAVANAKUMARR	IV MECH	2020-2021
44.	920817114079	SASI KUMARA	IV MECH	2020-2021
45.	920817114081	SAVARIRAJ S	IV MECH	2020-2021
46.	920817114083	SHEIK BARITH S	IV MECH	2020-2021
47.	920817114084	SHEIKZAHIDS	IV MECH	2020-2021
48.	920817114085	SIVANESAN K	IV MECH	2020-2021
49.	920817114088	SURYA T	IV MECH	2020-2021
50.	920817114090	TAMILARASAN M	IV MECH	2020-2021
51.	920817114096	VIGNESH KUMARM	IV MECH	2020-2021
52.	920817114100	VISHNU GIRIK	IV MECH	2020-2021
53.	920817114305	MOHAN.P	IV MECH	2020-2021
54.	920817114311	VELU PREM.A	IV MECH	2020-2021
55.	920817114501	NIKESH KUMAR	IV MECH	2020-2021
56.	920817114702	PAUL JACOB KIRUBAKARAN	IV MECH	2020-2021

PROGRAM CO-ORDINATOR

HoD/MECH

Head of the Department
Department of Mechanical Engineering
NPR College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON BASIC G-CODE PROGRAMMING FOR CNC LATHE

COURSE SCHEDULE

Mode : Google Meet

Google meet link : https://meet.google.com/otu-hzbf-cwz

Time: 1.30 p.m. to 3.00 p.m.

External Resource Person:

1. Mr.G.Karthikeyan, Service manager.

Internal Resource Person:

Mr.M.Mathan Raj, AP/MECH

S. No.	Date	Syllabus	Resource Person	Hours
1	21.12.2020	Introduction of CNC machines	Mr.G.Karthikeyan Service manager	1.5
2	22.12.2020	Type of CNC Machines	Mr.G.Karthikeyan Service manager	1.5
3	23.12.2020	G-Codes M-Codes	Mr.G.Karthikeyan, Service manager	1.5
4	24.12.2020	Tool Holders & Inserts	Mr. Mr.G.Karthikeyan Service manager	1.5
5	28.12.2020	Cutters Specification	Mr.M.Mathan Raj, AP/MECH,	1.5
6	29.12.2020	Basic Programming	Mr.M.Mathan Raj, AP/MECH,	1.5
7	30.12.2020	Axis Absolute Method & Incremental Method	Mr.M.Mathan Raj, AP/MECH,	1.5
8	31.12.2020	Cutter Radius Compensation	Mr.G.Karthikeyan, Service manager	1.5

9	04.01.2021	Canned Cycles	Mr. G.Karthikeyan, Service manager	1.5
10	05.01.2021	Creation of Sub Program	Mr. G.Karthikeyan, Service manager ,	1.5
11	06.01.2021	Hands on Practical training on production	Mr.M.Mathan Raj, AP/MECH,	1.5
12	07.01.2021	Experiment no :1	Mr.M.Mathan Raj, AP/MECH,	1.5
13	08.01.2021	Experiment no :2	Mr.M.Mathan Raj AP/MECH	1.5
14	11.01.2021	Experiment no :3	Mr. G.Karthikeyan,, Service manager	1.5
15	12.01.2021	Experiment no :4	Mr. G.Karthikeyan,, Service manager	1.5
16	19.01.2021	Experiment no :5	Mr.M.Mathan Raj AP/MECH	1.5
17	20.01.2021	Experiment no :6	Mr.M.Mathan Raj AP/MECH	1.5
18	21.01.2021	Experiment no :7	Mr.M.Mathan Raj AP/MECH	1.5

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19	22.01.2021	Experiment no :8	Mr. G.Karthikeyan,, Service manager	1.5
20	25.01.2021	Experiment no :9 &10	Mr. G.Karthikeyan,, Service manager	1.5
Total Hours				**30**

PROGRAM CO-ORDINATOR

HOD/MECH

IQAC

PRINCIPAL

Head of the Department
Department of Mechanical Engineering
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Coordinator - IQAC
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Natham, Dindigul (Dt)-624 401

Dr. J.SUNDARARAJAN
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DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON Basic G-Code Programming for CNC Lathe

STUDENTS ATTENDANCE

S.No	Reg.No	Student Name	Year	Date
1	920817114001	AAKASH K	IV	
2	920817114002	ABDULLA BEE A	IV	
3	920817114008	AMEER KHAN A	IV	
4	920817114010	ANIS RAM PRABU M	IV	
5	920817114011	ARAVIND B	IV	
6	920817114012	ARAVINDHAN J	IV	
7	920817114018	DINESH M	IV	
8	920817114020	GOKULNATH R	IV	
9	920817114022	GOWTHAM K	IV	
10	920817114024	HARIHARASUDHAN T	IV	
11	920817114025	HARISH S	IV	
12	920817114028	HIRICHARAN V N	IV	
13	920817114031	JEEVA V	IV	
14	920817114032	JEGATHEESH K	IV	
15	920817114034	KALIDAS P	IV	
16	920817114035	KARTHIKEYAN K	IV	
17	920817114037	KEERTHIVASAN R	IV	
18	920817114038	KUMARESAN N	IV	
19	920817114040	MAGARAJ PRASANNA S	IV	
20	920817114041	MANIBHARATHI S	IV	
21	920817114043	MANOJKUMAR S	IV	
22	920817114045	MELVIN INFANT RAJ J	IV	
23	920817114046	MOHAMED AZEEZ T	IV	
24	920817114048	MOHAMMED JAVED N	IV	
25	920817114301	ASHUATHAMAN.R	IV	
26	920817114302	DHIWAKAR.R	IV	
27	920817114306	MUKILAN.R.A	IV	
28	920817114308	SABAREESWARANATH.N	IV	
29	920817114310	VASUDEVAN.V	IV	
30	920817114051	MUTHUKUMARS	IV	
31	920817114054	NANTHAKUMARK	IV	
32	920817114056	NAVEEN KUMAR M	IV	
33	920817114057	NITHEESH KUMAR G	IV	
34	920817114058	NITHESH KUMAR V	IV	
35	920817114059	NITHISH S V	IV	
36	920817114063	PRAVEENKUMARP	IV	
37	920817114064	PRAVEEN KUMARS	IV	
38	920817114066	PREM KAVI N	IV	
39	920817114068	RAHULR	IV	

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40	920817114070	RAJAV	IV	
41	920817114073	ROSHAN KUMAR A	IV	
42	920817114074	RUTHRESHS	IV	
43	920817114078	SARAVANAKUMARR	IV	
44	920817114079	SASI KUMARA	IV	
45	920817114081	SAVARIRAJ S	IV	
46	920817114083	SHEIK BARITH S	IV	
47	920817114084	SHEIKZAHIDS	IV	
48	920817114085	SIVANESAN K	IV	
49	920817114088	SURYA T	IV	
50	920817114090	TAMILARASAN M	IV	
51	920817114096	VIGNESH KUMARM	IV	
52	920817114100	VISHNU GIRIK	IV	
53	920817114305	MOHAN.P	IV	
54	920817114311	VELU PREM.A	IV	
55	920817114501	NIKESH KUMAR	IV	
56	920817114702	PAUL JACOB KIRUBAKARAN	IV	
			TOTAL PRESENT	
			TOTAL ABSENT	
			SIGNATURE	

PROGRAM CO-ORDINATOR

HOD/MECH

PRINCIPAL

Head of the Department
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Dr. J.SUNDARARAJAN,
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NPR COLLEGE OF ENGG. & TECHNOLOGY * NATHAM

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON BASIC G-CODE PROGRAMMING FOR CNC LATHE

QUIZ QUESTIONS

GOOGLE FORM LINK: https://docs.google.com/forms/d/1lXPHnehev_-JxAagJdFtHidzcmrENEYM9TD5YTVb3js/edit

BASIC G-CODE PROGRAMMING FOR CNC LATHE. QUIZ QUESTIONS

DEPARTMENT OF MECHANICAL ENGINEERING

EMAIL ADDRESS *

Short answer text

1) In machining of a work piece, the material is removed by *

- A) drilling action
- B) Melting action
- C)shearing action
- D) using brittleness of the material

2) The depth that the tool is plunged into the surface is called *

- A) Feed
- B) depth of cut
- C)Depth of tool
- D) Working depth

3) Feed is measured in units of *

- A) Length of revolution
- B) Degree of revolution
- C) Length
- D) Velocity

4) CNC machining centres do not include operations like *

- A) Milling
- B) Boring
- C) Welding
- D) Tapping

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5) In CNC systems multiple microprocessors and programmable logic controllers work *

A) in parallel

B)in series

C) one after the other

D) for 80% of the total machining time

6) Which of the following is not the advantage of CNC machines? *

A)) Higher flexibility

B) Improved quality

C)) Reduced scrap rate

D)) Improved strength of the components

7) In how many ways CNC machine tool systems can be classified? *

A) 2

B) 3

C) 4

D) 5

8) Point-to-point systems are used for *

- A) reaming
- B) Parting
- C) grooving
- D) Facing

9) In part programming, interpolation is used for obtaining _____ trajectory. *

- A) helicoidal
- B) pentagonal
- C) Triangular
- D) Zig-zag

10) For CNC machining skilled part programmers are needed.

Multiple choice

- A) true
- B) False
- Add option or add "Other"

PROGRAM CO-ORDINATOR

HoD/MECH

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Natham, Dindigul (DT) - 624 401.

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON BASIC G-CODE PROGRAMMING FOR CNC LATHE

STUDENT FEEDBACK

GOOGLE FEEDBACK FORM LINK: https://docs.google.com/forms/d/1s89YtpN0dd-cMkzku3tGlyC8o43HWyPMPKbl9TD3fo

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DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON BASIC G-CODE PROGRAMMING FOR CNC LATHE

STUDENT FEEDBACK FORM

REGISTER NUMBER *

Short answer text

STUDENT NAME *

Short answer text

YEAR/SEMESTER *

Short answer text



Course Content *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

Way of exposed new knowledge and practices *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY

Examples Provided during this course *

- EXCELLENT
- GOOD
- FAIR
- SATISFACTORY



Course delivered by Resource Person *

- ○ EXCELLENT
- ○ GOOD
- ○ FAIR
- ○ SATISFACTORY

Time Management *

- ○ EXCELLENT
- ○ GOOD
- ○ FAIR
- ○ SATISFACTORY

Overall rating of this course *

- ○ EXCELLENT
- ○ GOOD
- ○ FAIR
- ○ SATISFACTORY

Any other comments / suggestions *

Your answer



Submit

Clear form

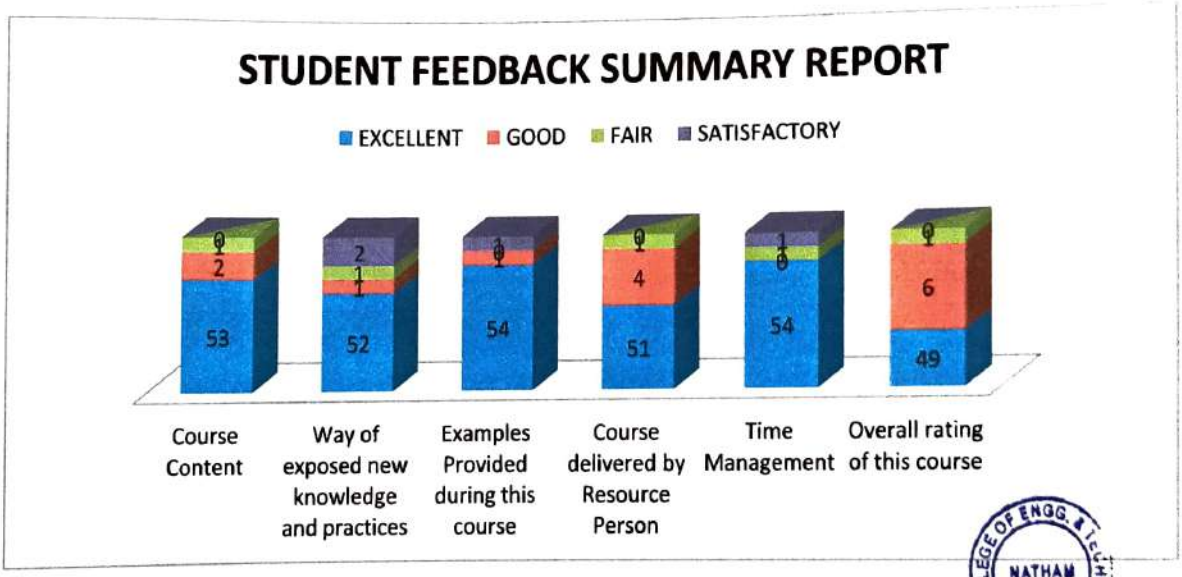
DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON BASIC G-CODE PROGRAMMING FOR CNC LATHE

STUDENT FEEDBACK SUMMARY REPORT

REGISTERED STUDENTS: 56 **DATE: 25.01.2021**

S. No	CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
1	Course Content	53	2	1	-
2	Way of exposed new knowledge and practices	52	1	1	2
3	Examples Provided during this course	54	1	-	1
4	Course delivered by Resource Person	51	4	1	-
5	Time Management	54	-	1	1
6	Overall rating of this course	49	6	1	-
Average		**93.15**	**4.16**	**1.5**	**1.19**



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CH. MATHAN RAJ
AP/Mech

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DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON BASIC G-CODE PROGRAMMING FOR CNC LATHE

SUMMARY REPORT

Department of Mechanical Engineering organized a Certificate Course on "Basic G-code programming for CNC lathe" from 21.12.2020 to 25.01.2021 (20 Days) at our College Premises on 21.12.2020. III-year mechanical engineering student Mr. Manikandan.K delivered the welcome address.

Dr.J.Sundararajan, Principal felicitated the students. This four-week course will give the over view of Basic G-code programming for CNC lathe. Mr.G.Karthikeyan, HI-Tech CNC Training Centre, Madurai, had shared his knowledge about coding in CNC machines and its various applications. Basically, online courses are the process of improving the skill set as well as the knowledge of the entrepreneurs. This can be done through various methods such as classroom sessions or training program specially designed to increase the entrepreneurial acumen. So that students enable to have skills that will help them to improve their knowledge in future.

The students learnt various existing and available sources to gain knowledge towards Programming in CNC lathe during the course. 56 Students attended from Mech-IV year class. Students those who participated and successfully completed the Quiz program were awarded with certificates, later through mail.

Vote of thanks was delivered by student Ms. Abdulla Bee. A of IV year.

PROGRAM CO-ORDINATOR

HoD/MECH

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DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE COURSE ON BASIC G-CODE PROGRAMMING FOR CNC LATHE

COURSE MATERIAL

Material Link:

Chapter 1: https://nptel.ac.in/content/storage2/courses/108105063

Chapter 2: https://nptel.ac.in/content/storage2/courses/112103174

Chapter 3: https://nptel.ac.in/courses/112/105/112105211/

Chapter 4: https://nptel.ac.in/courses/112/102/112102103/

Chapter 5: https://www.youtube.com/watch?v=NCEHRvFQqMo

Further Study:

1. CNC Programming Handbook, Third Edition (Volume 1) BY PETER SMID
2. Programming of CNC Machines Fourth Edition BY KEN EVANS
3. Basics of CNC (Computer Numerical Control) Programming: CNC…BY Mr. JAYESH S

PROGRAM CO-ORDINATOR

HoD/MECH

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Department of Mechanical Engineering

CERTIFICATE COURSE

ON

BASIC G-CODE PROGRAMMING FOR CNC LATHE

Certificate of Participation

This is to certify that..Mr.R..ARAVIND....of.....IV...-...MECH....., has attended the Certificate Course on "BASIC G-CODE PROGRAMMING FOR CNC LATHE" conducted from 21.12.2020 to 25.01.2021.

Hod-Mech
Dr. T.Malaichamy

COLLEGE OF ENGG. & TECHNOLOGY NATHAM NPR

Principal
Dr.J.Sundararajan

NPR COLLEGE OF ENGINEERING & TECHNOLOGY

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Department of Mechanical Engineering

CERTIFICATE COURSE

ON

BASIC G-CODE PROGRAMMING FOR CNC LATHE

Certificate of Participation

This is to certify that.Mr..P..MOHAN.....of.....IV.....MECH....., has attended the Certificate Course on "BASIC G-CODE PROGRAMMING FOR CNC LATHE" conducted from 21.12.2020 to 25.01.2021.

Hod-Mech
Dr. T.Malaichamy

NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

Principal
Dr.J.Sundararajan

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Department of Mechanical Engineering

CERTIFICATE COURSE

ON

BASIC G-CODE PROGRAMMING FOR CNC LATHE

Certificate of Participation

This is to certify that Mr. S.V. NITHISH of IV - MECH, has attended the Certificate Course on "BASIC G-CODE PROGRAMMING FOR CNC LATHE" conducted from 21.12.2020 to 25.01.2021.

Hod-Mech
Dr. T.Malaichamy

NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

Principal
Dr.J.Sundararajan

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DEPARTMENT OF SCIENCE & HUMANITIES

ADD ON COURSE (2020-2021)

INDEX

COURSE CODE : 20SHAO01

COURSE NAME : VERBAL COMMUNICATION

ACADEMIC YEAR: 2020 -2021 SEMESTER: ODD DURATION: 32 HOURS

S.NO.	PARTICULARS	PAGE. NO.
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PROGRAM COORDINATOR **HoD/S&H** **IQAC** **PRINCIPAL**

Coordinator IQAC
NPR College of Engineering & Technology
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B.E., M.Tech., Ph.D.
Principal
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Natham, Dindigul (Dt) - 624 401

From

Dr. T. Priya
Head of the Department,
Department of Science and Humanities,
NPR college of Engineering & Technology,
Natham.

To

The Principal,
NPR college of Engineering & Technology,
Natham.

Subject: Request for Permission to conduct Add on for I year students - Reg.

We have planned to conduct Add on course on "Verbal communication" to our I year students on 15/02/21, 16/02/21, 17/02/21, 18/02/21, 19/02/21. (5 days) in our college premises. We have proposed Mrs. R. Thiripurasundari, English communication Trainer. and Ms. R Sindhu. Assistant Professor of English at NPR college of Engineering and Technology as Resource Persons for this add on course in our college. kindly Permit us to conduct the same.

Thanking you

Yours faithfully

Date: 01.02.21
Place: Natham.

NATHAM

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DEPARTMENT OF SCIENCE & HUMANITIES

ADD ON COURSE ON VERBAL COMMUNICATION

RESOURCE PERSON PROFILE

Name	: Mrs. R. ThiripuraSundari M.A. M.Phil.,
Designation	: English Communication Trainer
Institution Name	: NPR Group of Institutions, Natham
About Resource Person	: She has been working as the English Communication Trainer in NPR Group of Institutions. She has 7 Years of experience in the Teaching field. Her area of interest is Mythology in Literature & ELT

Name	: Ms.R.Sindhu M.A. M.Phil.
Designation	: Assistant Professor
Institution Name	: NPR College of Engineering and Technology, Natham
About Resource Person	: She has been working as an Assistant Professor-English in NPR College of Engineering and Technology She has 2 Years of experience in the Teaching field. Her area of interest is Literature and Novels

PROGRAM COORDINATOR **HoD/S&H** **PRINCIPAL**

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DEPARTMENT OF SCIENCE & HUMANITIES

ADD ON COURSE ON VERBAL COMMUNICATION

CIRCULAR

NPRCET/OFF/S&H/VAC/2020-2021 DATE: 08.02.2021

This is to inform that Department of Science and Humanities is planned to conduct an Add on Course on **"VERBAL COMMUNICATION"** for I year students. Interested students can enroll their name to the program coordinator on or before 12.02.2021.

The details of the training program are given below.

COURSE NAME	:	**VERBAL COMMUNICATION**
RESOURCE PERSONS	:	Mrs.R. ThiripuraSundari, English Communication Trainer, NPR Group of Institutions. Mrs. R. Sindhu, Assistant Professor-English, NPR College of Engineering & Technology.
VENUE	:	Communication Lab
DATE & DURATION	:	15.02.2021 to 19.02.2021 & 32 Hours
PROGRAM COORDINATOR	:	Mrs. K.Kavitha AP/English, NPR College of Engineering and Technology.

PRINCIPAL

Dr. J.SUTHA M.E., Ph.D.,
Principal
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Copy to:

1. IQAC

2. All the HODs

3. All the Class Rooms

4. Notice Board

5. File

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The Management, Principal, Staff and Students

Cordially invite you for the inauguration of

"Add On Course on Verbal Communication"

On 15th Feb, 2021

Venue: Communication Lab at 9.30 a.m.

Chief Guest

Mrs. R.Thiripurasundari,

English Communication Trainer

NPR Group of institutions.

FELICITATION ADDRESS

Dr.J. Sundararajan

Principal,

NPR College of Engineering & Technology

Organized By

Department of Science & Humanities,

NPR College of Engineering & Technology,

NPR College of Engineering & Technology
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NPR Nagar, Natham.

DEPARTMENT OF SCIENCE & HUMANITIES

20SHAO01- ADD ON COURSE ON VERBAL COMMUNICATION

COURSE CONTENT

Chapter 1:

- Importance of good verbal communication
- Your strengths and weaknesses
- Personal goals and areas of development

Chapter 2:

- How to build report
- Sustaining conversation

Chapter 3:

- Structuring a clear message
- Cohesive and clear language
- Staying on topic

Chapter 4:

- Importance of being direct and using precise language
- Improving vocal pace and tone
- Improving intonation

Chapter 5:

- Active listening skills
- Good responding habits for clear communication
- Turn-taking and avoiding interrupting

NPR COLLEGE OF ENGG & TECHNOLOGY NATHAM

NPR College of Engineering & Technology

NPR Nagar, Natham, Dindigul - 624401, Tamil Nadu, India.
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai.
An ISO 9001:2015 Certified Institution.
Phone No: 04544- 246 500, 246501, 246502.
Website : www.nprcolleges.org, www.nprcet.org, Email:nprcetprincipal@nprcolleges.org

Criteria to get Certificate

- Students should register their names for this course
- Students must have 85% attendance
- Students should secure50% marks in the exam

Prepared by: Mrs. K.Kavitha AP/English

Approved by:

HoD/S&H

IQAC

Coordinator - IQAC
NPR College of Engineering & Technology
Natham, Dindigul (Dt)-624 401

PRINCIPAL

Dr. J.SUNDARARAJAN
B.E., M.Tech., Ph.D.
Principal
N.P.R. College of Engineering & Tech
Natham, Dindigul (Dt) - 624...

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DEPARTMENT OF SCIENCE & HUMANITIES

ADD ON COURSE ON VERBAL COMMUNICATION

REGISTERED STUDENTS NAME LIST

S. No.	Register Number	Student Name	Year
1.	920820103001	ALAGAR K	I Civil
2.	920820103004	GOWTHAM C	I Civil
3.	920820103007	NAVEEN KUMAR S	I Civil
4.	920820103008	PRANESHWARI J S	I Civil
5.	920820103011	SURIYA M	I Civil
6.	920820103014	YAZHINI S	I Civil
7.	920820104001	AARTHY M	I CSE
8.	920820104001	ABINAYA A	I CSE
9.	920820104003	DEEPIKA V	I CSE
10.	920820104004	DHARSHANAPRIYA K	I CSE
11.	920820104006	GEETHANJALI S	I CSE
12.	920820104008	JERON RABINSON T	I CSE
13.	920820104009	JOSHUVA BASKARAN M	I CSE
14.	920820104011	KALEESWARAN S	I CSE
15.	920820104013	KARTHIKEYAN.M	I CSE
16.	920820104015	KEERTHI S	I CSE
17.	920820104019	MATHIVANAN V	I CSE
18.	920820104019	MUNEESWARI L	I CSE
19.	920820104020	MUTHULAKSHMI M	I CSE
20.	920820104022	NAVEEN K	I CSE
21.	920820104023	NIVETHA K	I CSE
22.	920820104025	PONNALAGU N	I CSE
23.	920820104027	PRAVEEN N	I CSE
24.	920820104028	PRIYADHARSHINI M	I CSE
25.	920820104032	SALINI S	I CSE
26.	920820104033	SANJAY H	I CSE
27.	920820104035	SARAVANAPANDI P	I CSE
28.	920820104036	SHABARIKANTH GK	I CSE
29.	920820104037	SHABARISH A	I CSE
30.	920820104038	SHALINI M	I CSE
31.	920820104038	SHRINIDHI G	I CSE
32.	920820104040	SOWMIYA T	I CSE
33.	920820104042	SUBBULAKSHMI T	I CSE
34.	920820104046	THARVINRAJA S	I CSE
35.	920820104048	VIJAYAKUMAR N	I CSE
36.	920820104049	VINOTH A	I CSE
37.	920820104050	YUVANESHKUMAR K	I CSE
38.	920820105001	BASKAR A	I EEE
39.	920820105002	BHARATHI RAJA C	I EEE
40.	920820105005	ISHASAHAMED A	I EEE
41.	920820105009	KABILSHARMA M	I EEE
42.	920820105012	MOHAMMED AASIK S	I EEE

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43.	920820105013	RAMAR V	I EEE
44.	920820105014	SARAVANA MUTHU K	I EEE
45.	920820105016	SARWESH R	I EEE
46.	920820105019	VENKATESH V	I EEE
47.	920820114001	ABISHEKKUMAR M	I MECH
48.	920820114002	AJAYKUMAR B	I MECH
49.	920820114004	MOHANRAJ S	I MECH
50.	920820114005	RAGURAM B	I MECH
51.	920820114008	SIVABALAN N	I MECH
52.	920820114010	VENKADESAN N	I MECH
53.	920820106002	AJAY GOWTHAM S	I ECE
54.	920820106003	AJITHA S	I ECE
55.	920820106004	AKASH S	I ECE
56.	920820106006	ARCHANA P	I ECE
57.	920820106007	ARIHARAN K	I ECE
58.	920820106014	HAMESHWAR S	I ECE
59.	9208201060314	ILAKKIYA B	I ECE
60.	920820106015	JEFFERY ALBERT J	I ECE
61.	920820106010	M J DHAARINI	I ECE
62.	920820106012	HARINI C	I ECE
63.	920820106014	HEMESHWAR S	I ECE
64.	920820106019	MAHAVARSHINI S	I ECE
65.	920820106020	MAHESWARI R	I ECE
66.	920820106026	MUNEESWARI L	I ECE
67.	920820106027	NANDHINI A	I ECE
68.	920820106028	NIVETHITHA V	I ECE
69.	920820106032	SABEER AHAMED T	I ECE
70.	920820106035	SANJAI KUMAR S	I ECE
71.	920820106036	SANTHINI R	I ECE
72.	920820106037	SELVA KUMAR M	I ECE
73.	920820106043	SURESH A	I ECE
74.	920820106044	THARANI V	I ECE

PROGRAM COORDINATOR

NPR COLLEGE OF ENGG. & TECHNOLOGY - NATHAM

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DEPARTMENT OF SCIENCE & HUMANITIES

20SHAO01- ADD ON COURSE ON VERBAL COMMUNICATION

Course Schedule

Venue: Communication Lab **Date :08.02.2021**

Date	9.30 to 11.10 a.m.	11.10 to 11.30 a.m.	11.30 a.m. to 1.10 p.m.	1.10 to 2.00 p.m.	2.00 to 3.40 p.m.	3.40 to 3.50 p.m.	3.50 to 4.30 p.m.
15.02.2021	Introduction of communication skills Mrs.R. ThiripuraSundari, (English Communication Trainer)	Break	Your strengths and weaknesses Mrs. R. Sindhu, (Assistant Professor-English)	Lunch	Personal goals and areas of development Mrs.R. ThiripuraSundari, (English Communication Trainer)	Break	How to build report Mrs. R. Sindhu, (Assistant Professor-English)
16.02.2021	Importance and benefits of effective communication Mrs. R. Sindhu, (Assistant Professor-English)		Sustaining conversation Mrs.R. ThiripuraSundari, (English Communication Trainer)		Structuring a clear message Mrs. R. Sindhu, (Assistant Professor-English)		Cohesive and clear language Mrs.R. ThiripuraSundari, (English Communication Trainer)
17.02.2021	Staying on topic Mrs.R. ThiripuraSundari, (English Communication Trainer)		Importance of being direct and using precise language Mrs. R. Sindhu, (Assistant Professor-English)		Improving vocal pace and tone Mrs.R. ThiripuraSundari, (English Communication Trainer)		Improving intonation Mrs. R. Sindhu, (Assistant Professor-English)

COLLEGE OF ENGG. & TECHNOLOGY NATHAM

18.02.2021	Active listening skills Mrs. R. Sindhu, (Assistant Professor-English)		Good responding habits for clear communication Mrs.R. ThiripuraSundari, (English Communication Trainer)		Turn-taking and avoiding interrupting Mrs. R. Sindhu, (Assistant Professor-English)		Adapt communication to the needs of the individual Mrs.R. ThiripuraSundari, (English Communication Trainer)
19.02.2021	Interpret verbal communication (Mrs.R. ThiripuraSundari, English Communication Trainer)		Model effective interpersonal skills Mrs. R. Sindhu, (Assistant Professor-English)		Barriers to Communication: Some things that get in the way of clear communication Mrs.R. ThiripuraSundari, (English Communication Trainer)		Requires focusing on body language and the message being sent Mrs. R. Sindhu, (Assistant Professor-English)

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DEPARTMENT OF SCIENCE & HUMANITIES

ADD ON COURSE ON VERBAL COMMUNICATION

STUDENT ATTENDANCE

S. No	Register Number	Student Name	Year	15/2	16/2	17/2	18/2	19/2
1.	920820103001	ALAGAR K	I Civil	✓	✓	✓	✓	✓
2.	920820103004	GOWTHAM C	I Civil	✓	✓	✓	✓	✓
3.	920820103007	NAVEEN KUMAR S	I Civil	✓	✓	✓	✓	✓
4.	920820103008	PRANESHWARI J S	I Civil	✓	✓	✓	✓	✓
5.	920820103011	SURIYA M	I Civil	✓	✓	✓	✓	✓
6.	920820103014	YAZHINI S	I Civil	✓	a	✓	✓	✓
7.	920820104001	AARTHY M	I CSE	✓	✓	✓	✓	✓
8.	920820104001	ABINAYA A	I CSE	✓	✓	✓	✓	✓
9.	920820104003	DEEPIKA V	I CSE	✓	✓	✓	✓	✓
10.	920820104004	DHARSHANAPRIYA K	I CSE	✓	a	✓	✓	✓
11.	920820104006	GEETHANJALI S	I CSE	✓	✓	✓	✓	✓
12.	920820104008	JERON RABINSON T	I CSE	✓	✓	✓	✓	✓
13.	920820104009	JOSHUVA BASKARAN M	I CSE	✓	✓	✓	✓	✓
14.	920820104011	KALEESWARAN S	I CSE	✓	✓	a	✓	✓
15.	920820104013	KARTHIKEYAN.M	I CSE	✓	✓	✓	✓	✓
16.	920820104015	KEERTHI S	I CSE	✓	✓	✓	✓	✓
17.	920820104019	MATHIVANAN V	I CSE	✓	✓	✓	✓	✓
18.	920820104019	MUNEESWARI L	I CSE	✓	✓	✓	✓	✓
19.	920820104020	MUTHULAKSHMI M	I CSE	✓	✓	✓	✓	✓
20.	920820104022	NAVEEN K	I CSE	✓	✓	✓	✓	✓
21.	920820104023	NIVETHA K	I CSE	✓	✓	✓	a	✓
22.	920820104025	PONNALAGU N	I CSE	✓	✓	✓	✓	✓
23.	920820104027	PRAVEEN N	I CSE	✓	✓	✓	✓	✓
24.	920820104028	PRIYADHARSHINI M	I CSE	✓	✓	✓	✓	✓
25.	920820104032	SALINI S	I CSE	✓	✓	✓	✓	✓
26.	920820104033	SANJAY H	I CSE	✓	✓	✓	✓	✓
27.	920820104035	SARAVANAPANDI P	I CSE	✓	✓	✓	✓	✓
28.	920820104036	SHABARIKANTH GK	I CSE	✓	✓	✓	✓	✓
29.	920820104037	SHABARISH A	I CSE	✓	✓	✓	✓	a
30.	920820104038	SHALINI M	I CSE	✓	✓	✓	✓	✓
31.	920820104038	SHRINIDHI G	I CSE	✓	✓	✓	✓	✓
32.	920820104040	SOWMIYA T	I CSE	✓	✓	✓	✓	✓
33.	920820104042	SUBBULAKSHMI T	I CSE	✓	✓	✓	✓	✓
34.	920820104046	THARVINRAJA S	I CSE	✓	✓	✓	✓	✓
35.	920820104048	VIJAYAKUMAR N	I CSE	✓	✓	✓	✓	✓
36.	920820104049	VINOTH A	I CSE	✓	✓	✓	✓	✓
37.	920820104050	YUVANESHKUMAR K	I CSE	✓	✓	✓	✓	✓
38.	920820105001	BASKAR A	I EEE	✓	✓	✓	a	✓
39.	920820105002	BHARATHI RAJA C	I EEE	✓	✓	✓	✓	✓
40.	920820105005	ISHASAHAMED A	I EEE	✓	✓	✓	✓	✓

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41.	920820105009	KABILSHARMA M	I EEE	✓	✓	✓	✓	✓
42.	920820105012	MOHAMMED AASIK S	I EEE	✓	✓	✓	✓	✓
43.	920820105013	RAMAR V	I EEE	✓	✓	✓	✓	✓
44.	920820105014	SARAVANA MUTHU K	I EEE	✓	✓	✓	✓	a
45.	920820105016	SARWESH R	I EEE	✓	✓	✓	✓	✓
46.	920820105019	VENKATESH V	I EEE	✓	✓	✓	✓	✓
47.	920820114001	ABISHEKKUMAR M	I MECH	✓	✓	✓	✓	✓
48.	920820114002	AJAYKUMAR B	I MECH	✓	a	✓	a	✓
49.	920820114004	MOHANRAJ S	I MECH	✓	✓	✓	✓	✓
50.	920820114005	RAGURAM B	I MECH	✓	✓	✓	✓	✓
51.	920820114008	SIVABALAN N	I MECH	✓	✓	✓	✓	✓
52.	920820114010	VENKADESAN N	I MECH	✓	✓	✓	✓	✓
53.	920820106002	AJAY GOWTHAM S	I ECE	✓	✓	✓	a	✓
54.	920820106003	AJITHA S	I ECE	✓	✓	✓	✓	✓
55.	920820106004	AKASH S	I ECE	✓	✓	✓	✓	✓
56.	920820106006	ARCHANA P	I ECE	✓	✓	✓	✓	✓
57.	920820106007	ARIHARAN K	I ECE	✓	a	✓	✓	✓
58.	920820106014	HAMESHWAR S	I ECE	✓	✓	✓	✓	✓
59.	9208201060314	ILAKKIYA B	I ECE	✓	✓	✓	✓	✓
60.	920820106015	JEFFERY ALBERT J	I ECE	✓	✓	✓	✓	✓
61.	920820106010	M J DHAARINI	I ECE	✓	✓	✓	✓	✓
62.	920820106012	HARINI C	I ECE	✓	✓	✓	a	✓
63.	920820106014	HEMESHWAR S	I ECE	✓	✓	✓	✓	✓
64.	920820106019	MAHAVARSHINI S	I ECE	✓	✓	✓	✓	✓
65.	920820106020	MAHESWARI R	I ECE	✓	✓	✓	✓	✓
66.	920820106026	MUNEESWARI L	I ECE	✓	✓	✓	✓	✓
67.	920820106027	NANDHINI A	I ECE	✓	✓	✓	✓	✓
68.	920820106028	NIVETHITHA V	I ECE	✓	✓	a	✓	✓
69.	920820106032	SABEER AHAMED T	I ECE	✓	✓	✓	✓	✓
70.	920820106035	SANJAI KUMAR S	I ECE	a	✓	✓	✓	✓
71.	920820106036	SANTHINI R	I ECE	✓	✓	✓	✓	✓
72.	920820106037	SELVA KUMAR M	I ECE	✓	✓	✓	a	a
73.	920820106043	SURESH A	I ECE	✓	✓	✓	✓	✓
74.	920820106044	THARANI V	I ECE	✓	✓	✓	✓	✓
PRESENT				73	70	72	68	71
ABSENT				1	4	2	6	3
PROGRAM COORDINATOR								

HoD/S&H

PRINCIPAL

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DEPARTMENT OF SCIENCE & HUMANITIES

ADD ON COURSE ON VERBAL COMMUNICATION

SAMPLE QUESTION PAPER WITH ANSWER KEY

1. In order for effective verbal communication to occur, the message must be clear and _____.
   A. Present
   B. Interpreted
   C. Concise
   D. Withheld

2. Persons in LPSCS careers must effectively communicate with:
   A. The public
   B. Co-workers
   C. Supervisors
   D. All of the above

3. Slang terminology should always be used in order for the public to understand the message being conveyed.
   A. True
   B. False

4. Written communication should have all EXCEPT the following:
   A. Moderate speed of speech
   B. Correct grammar
   C. Correct punctuation
   D. Correct spelling

5. The individual who analyzes and interprets the message is the:
   A. Speaker
   B. Message
   C. Receiver
   D. Feedback

6. Legal terminology should be modified or defined.
   A. True
   B. False

7. Which of the following can be a distraction which can interfere with communication? Impaired vision
   C. Facing the receiver
   D. Inclement weather
   E. Good lighting



8. Denial is a _____.
   F. Communication skill
   G. Defense mechanism
   H. Therapeutic technique
   I. Alternative method of communication

9. Which type of listening will help us to communicate in a better way in a socio-cultural environment?
   A. Critical listening
   B. Appreciative listening
   C. Diplomatic listening
   D. Empathetic listening

10. Summarizing given facts while speaking is an act of:
   A. Comprehension
   B. Repetition
   C. Shortening
   D. Elaborating

Answer key: 1 C, 2 D, 3 B, 4 A, 5 C ,6 A, 7 A, 8 B, 9 A, 10 B.

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DEPARTMENT OF SCIENCE & HUMANITIES

ADD ON COURSE ON VERBAL COMMUNICATION

STUDENT FEEDBACK

Name of the Student : B. AJAYKUMAR	Year / Semester: I/I I Mechanical.
Name of the Program: VERBAL COMMUNICATION	

CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
COURSE CONTENT	✓			
TECHNICAL SKILL		✓		
INTERACTION	✓			
PRACTICAL SESSION		✓		
COMMUNICATION	✓			

Any Other Comments / Suggestions:

The Course was very useful

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STUDENT FEEDBACK

Name of the Student : A. Suresh	Year / Semester: I/I I - ECE
Name of the Program: VERBAL COMMUNICATION	

CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
COURSE CONTENT	✓			
TECHNICAL SKILL		✓		
INTERACTION			✓	
PRACTICAL SESSION			✓	
COMMUNICATION		✓		

Any Other Comments / Suggestions:

Very useful Program for our communication

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DEPARTMENT OF SCIENCE & HUMANITIES

ADD ON COURSE ON VERBAL COMMUNICATION

STUDENT FEEDBACK

Name of the Student : DEEPIKA. V	**Year / Semester: I/I** - CSE
Name of the Program: VERBAL COMMUNICATION	

CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
COURSE CONTENT	✓			
TECHNICAL SKILL		✓		
INTERACTION	✓			
PRACTICAL SESSION	✓			
COMMUNICATION		✓		

Any Other Comments / Suggestions:

Enjoyable Session. We need more Interaction session with students.

PROGRAM COORDINATOR

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DEPARTMENT OF SCIENCE & HUMANITIES

ADD ON COURSE ON VERBAL COMMUNICATION

STUDENT FEEDBACK

Name of the Student : Baskar. A	Year / Semester: I/I I-EEE
Name of the Program: VERBAL COMMUNICATION	

CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
COURSE CONTENT	✓			
TECHNICAL SKILL		✓		
INTERACTION	✓			
PRACTICAL SESSION	✓			
COMMUNICATION		✓		

Any Other Comments / Suggestions:

Good, Easy to understand

PROGRAM COORDINATOR

COLLEGE OF ENGG & TECHNOLOGY * NPR NATHAM

HoD/S&H

NPR College of Engineering & Technology

NPR Nagar, Natham, Dindigul - 624401, Tamil Nadu, India.
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai.
An ISO 9001:2015 Certified Institution.
Phone No: 04544- 246 500, 246501, 246502.
Website : www.nprcolleges.org, www.nprcet.org, Email:nprcetprincipal@nprcolleges.org

DEPARTMENT OF SCIENCE & HUMANITIES

ADD ON COURSE ON VERBAL COMMUNICATION

STUDENT FEEDBACK

Name of the Student : YAZHINI. S	Year / Semester: I/I I - CIVIL
Name of the Program: VERBAL COMMUNICATION	

CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
COURSE CONTENT	✓			
TECHNICAL SKILL		✓		
INTERACTION			✓	
PRACTICAL SESSION				✓
COMMUNICATION	✓			

Any Other Comments / Suggestions:

Very useful to my future career

PROGRAM COORDINATOR

NPR COLLEGE OF ENGG & TECHNOLOGY NATHAM

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DEPARTMENT OF SCIENCE & HUMANITIES

ADD ON COURSE ON VERBAL COMMUNICATION

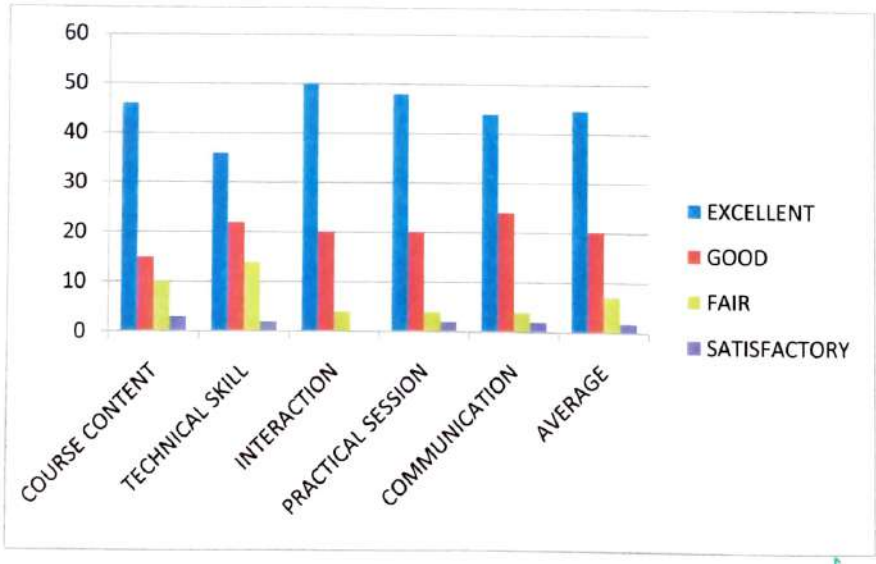
STUDENT FEEDBACK SUMMARY REPORT

TOTAL STRENGTH: 74

DATE: 22.02.2021

CONTENT	EXCELLENT	GOOD	FAIR	SATISFACTORY
COURSE CONTENT	46	15	10	3
TECHNICAL SKILL	36	22	14	2
INTERACTION	50	20	4	0
PRACTICAL SESSION	48	20	4	2
COMMUNICATION	44	24	4	2
AVERAGE	44.8	20.2	7.2	1.8

Number of Student's successfully completed: 74



PROGRAM COORDINATOR **HoD/S&H** **PRINCIPAL**

NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D.
Principal
N.P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

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DEPARTMENT OF SCIENCE & HUMANITIES

ADD ON COURSE ON VERBAL COMMUNICATION

SUMMARY REPORT

Department of Science & Humanities organized Add on course on" VERBAL COMMUNICATION" from 15.02.2021 to 19.02.2021 at Communication Lab. Ms. V. Tharani, I-year ECE delivered the welcome address during the inauguration session on 15.02.2021.

Dr. J. Sundararajan, Principal facilitated the students. He gave over view about Verbal Communication and its role in Engineering and Technology.

Mrs. R.ThiripuraSundari, English Communication Trainer and Mrs. R.Sindhu Assistant Professor have shared their knowledge about Verbal Communication with our students. This session helped our students to improve their communication skills.

Moreover, shared their knowledge about the fundamental principles and communication skills. They also enhanced our students with fluency in English. Those skills might help our students to improve a lot of interpersonal skills. 74 students from I-year B.E. attended this course and Certificates were awarded to the students those who successfully completed this course and attended the Quiz.

Ms. M. Surya, I Civil delivered the vote of thanks during the valedictory session on 19.02.2021.

PROGRAM COORDINATOR **HoD/S&H** **PRINCIPAL**

Dr. J.SUNDARARAJAN, B.E., M.Tech., Ph.D
Principal
P.R. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

NPR College of Engineering & Technology

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DEPARTMENT OF SCIENCE & HUMANITIES

ADD ON COURSE ON VERBAL COMMUNICATION

COURSE MATERIAL

Chapter 1:https://youtu.be/c24hvf-7Eh4

Chapter 2 :https://youtu.be/j_FjuhhEmCM

Chapter 3 :https://youtu.be/GgIi7EkEc-M

Chapter 4: https://youtu.be/Z8gmrNRnv78

Chapter 5: https://youtu.be/cjBPnIXK60U

PROGRAM COORDINATOR **HoD/S&H** **PRINCIPAL**

NPR COLLEGE OF ENGG. & TECHNOLOGY NATHAM

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NPR College of Engineering & Technology

NPR Nagar, Natham, Dindigul - 624401, Tamil Nadu, India.

DEPARTMENT OF SCIENCE AND HUMANITIES

ADD ON COURSE

ON

'VERBAL COMMUNICATION'

Certificate of Participation

This is to certify that Mr/Ms.....S.KEERTHI.....I-CSG..... has successfully completed the Add on course on 'VERBAL COMMUNICATION' conducted from 15/02/2021 to 19/02/2021 during the academic year (2020-2021).

HOD
Dr.T.PRIYA

PRINCIPAL
Dr.J.SUNDARARAJAN

NPR College of Engineering & Technology

NPR Nagar, Natham, Dindigul - 624401, Tamil Nadu, India.

DEPARTMENT OF SCIENCE AND HUMANITIES

ADD ON COURSE

ON

'VERBAL COMMUNICATION'

Certificate of Participation

This is to certify that Mr/Ms.....R. SARWESH.....I-EEE..... has successfully completed the Add on course on 'VERBAL COMMUNICATION' conducted from 15/02/2021 to 19/02/2021 during the academic year (2020-2021).

HOD

Dr.T.PRIYA

PRINCIPAL

Dr.J.SUNDARARAJAN

NPR College of Engineering & Technology

NPR Nagar, Natham, Dindigul - 624401, Tamil Nadu, India.

DEPARTMENT OF SCIENCE AND HUMANITIES

ADD ON COURSE

ON

' VERBAL COMMUNICATION '

Certificate of Participation

This is to certify that Mr/Ms.....S..NAVEEN..KUMAR.....I-CIVIL..... has successfully completed the Add on course on 'VERBAL COMMUNICATION' conducted from 15/02/2021 to 19/02/2021 during the academic year (2020-2021).

HOD

Dr.T.PRIYA

NATHAM

PRINCIPAL

Dr.J.SUNDARARAJAN

NPR College of Engineering & Technology

NPR Nagar, Natham, Dindigul - 624401, Tamil Nadu, India.

DEPARTMENT OF SCIENCE AND HUMANITIES

ADD ON COURSE

ON

'VERBAL COMMUNICATION'

Certificate of Participation

This is to certify that Mr/Ms.....B.RAGURAM.....I-MECH..... has successfully completed the Add on course on 'VERBAL COMMUNICATION' conducted from 15/02/2021 to 19/02/2021 during the academic year (2020-2021).

HOD

Dr.T.PRIYA

NATHAM

PRINCIPAL

Dr.J.SUNDARARAJAN

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DEPARTMENT OF SCIENCE AND HUMANITIES

ADD ON COURSE

ON

'VERBAL COMMUNICATION'

Certificate of Participation

This is to certify that Mr/Ms.....S.AJITHA.....I-ECE..... has successfully completed the Add on course on 'VERBAL COMMUNICATION' conducted from 15/02/2021 to 19/02/2021 during the academic year (2020-2021).

HOD

Dr.T.PRIYA

PRINCIPAL

Dr.J.SUNDARARAJAN