



### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

31.08.2023

#### MINUTES OF BOARD OF STUDIES MEETING

**Faculty** : Electronics and Communication Engineering

**Programmes Offered** : 1. B.E - Electronics and Communication Engineering  
2. M.E – VLSI Design

**Date & Time** : 31.08.2023 & 9.30a.m

**Venue** : Meeting Hall, Main Block

**The Members of the Board of Studies are,**

S. No.	Member Category	Name, Designation and Affiliation
1	Chair Person	Dr.A.Gopi Saminathan, Professor & Head, Department of Electronics and Communication Engineering, NPR College of Engineering and Technology, Natham-624401, Dindigul.
2	University Nominee	Dr.R.A.Alaguraja, Professor, Department of Electronics and Communication Engineering, Thiagarajar College of Engineering, Madurai
3	Subject Expert 1	Dr.G.Thavasi Raja Associate Professor, Department of Electronics and Communication Engineering, National Institute of Technology, Trichy
4	Subject Expert 2	Dr.M.Lordwin Cecil Prabakar, Associate Professor, Department of Electronics and Communication Engineering, Vel Tech Rangarajan Dr. Sagunthala R&D IST, Chennai.
5	Expert from outside the Autonomous College	Dr.S.Mohamed Mansoor Roomi, Professor, Department of Electronics and Communication Engineering, Thiagarajar College of Engineering, Madurai
6	Industry Expert	Mr.K.Sivakumar, Senior Program Manager-VLSI, Tessolve Semiconductor Pvt. Ltd., Bangalore
7	Meritorious Alumnus	Mr. M.Kishore Raj, Software Developer, HCL Tech., Madurai

8	All Faculty Members of the Department	1. Dr.M.Ameena Banu, Professor
		2. Dr.S.M.Vijayarajan, Associate Professor
		3. Mrs.S.Kamalam, Assistant Professor
		4. Mr.K.Jayaprakasam, Assistant Professor
		5. Mr.J.G.Sabarish, Assistant Professor
		6. Mr.S.Sudhakar, Assistant Professor
		7. Mrs.C.Kannika Parameshwari, Assistant Professor
		8. Ms.S.Priyadharsini, Assistant Professor
		9. Mr.P.Abdul Samad, Assistant Professor
		10. Mr.S.Allwyn Anand, Assistant Professor
		11. Mrs.G.Renganayahi, Assistant Professor
		12. Mrs.M.Infant Dalima, Assistant Professor
		13. Mr.S.Ayyappan, Assistant Professor
		14. Mrs.P.Jeyalakshmi, Assistant Professor
		15. Mr.S.Ravanaraja, Assistant Professor
		16. Mrs.S.Narkees Begam, Assistant Professor
		17. Mrs.G.Jeyalakshmi, Assistant Professor
		18. Mr.A.G.Paranthaman, Assistant Professor
		19. Mrs.T.Esther, Assistant Professor

Dr.A.Gopi Saminathan, Chairman, Board of Studies of the Faculty of Electronics and Communication Engineering welcomed and introduced the External BoS members to the internal members. He started the presentation with a brief introduction on Vision and Mission of the Department of Electronics and Communication Engineering. He explained the highlights of the new curriculum to the members. The following are the suggestions given by the members.

### 1. B.E- Electronics and Communication Engineering

The Members of Board of Studies reviewed the proposed Curriculum for all 8 semesters and Syllabi (Semester 1 & 2) and offered the following suggestions.

#### Recommendations from Dr.R.A.Alaguraja, University Nominee

1. Engineering Physics in Semester 1 and Physics for Electronics Engineering in Semester 2 may be merged as single course.
2. Contents of Engineering Chemistry and Problem Solving & Python Programming courses may be reduced.
3. Syllabus of Physics and Chemistry courses may be framed with the focus on ECE students. The experiments in Physics and Chemistry Laboratory should be in aligning with the theory courses.
4. In Semester 2, the practical course Professional English Laboratory II, may be considered as Non-credit course.

5. In Semester 2, in the course Electronic Devices, 4<sup>th</sup> unit Title can be changed as Special Purpose Semiconductor Diodes instead of Special Semiconductor Diodes.
6. In Semester 3, Data Structure may be handled with both C and Python.
7. In Semester 4, content related to Microprocessor and Microcontroller may be added with Embedded Systems.
8. Internship in Semester 5 may be removed and Mini Project may be retained in Semester 6.
9. For Theory with Laboratory Integrated Courses, End Semester External Practical Examination is not necessary, Internal Model Examination alone is sufficient.
10. Courses with practical session focusing on software tools may be included which will be helpful for placement.
11. In Verticals for Professional Elective Courses, Underwater Communication may be removed, some of the courses in Space Technologies may be added with High Speed Communication and no. of verticals may be only 6.
12. In Semester 2, the course Engineering Graphics may be replaced by core paper and it may be included in Open Elective List.

#### **Recommendations from Dr.S.Mohamed Mansoor Roomi, Subject Expert**

1. Engineering Physics in Semester 1 and Physics for Electronics Engineering in Semester 2 may be merged as single course.
2. Syllabus of Physics and Chemistry courses may be framed with the focus on ECE students. The experiments in Physics and Chemistry Laboratory should be in aligning with the theory courses.
3. Internship in Semester 5 and Mini Project in Semester 6 may be removed.
4. In Semester 2, the course Transforms and Partial Differential Equations shall be renamed as Partial Differential Equations and Transforms.
5. Courses in a semester must be arranged in an order like Analog, Digital, Communication and other subjects to maintain a flow of content.
6. Core courses like Wireless Communication, Fiber Optic Communication, Microwave Engineering, Satellite Communication, Image Processing can be included.
7. For Theory with Laboratory Integrated Courses, End Semester External Practical Examination is not necessary, Internal Model Examination alone is sufficient.

#### **Recommendations from Dr.G.Thavasi Raja, Subject Expert**

1. In Semester 2, the experiments in Engineering Practices Laboratory may be included in Electronic Devices laboratory and considered as single practical course.
2. In Semester 2, for the course Electronic Devices, latest Edition of Text books and Reference books can be included and bloom's level must be increased.
3. In Semester 2, in the course Circuit Analysis, distribution of periods for each unit can be changed based on the content.



4. In Semester 3, Data Structure may be handled with both C and Python.
5. The course Display Systems in semester 6 may be shifted to Elective.
6. Number of Professional Elective verticals can be reduced and some more courses on recent technologies may be added.

#### Recommendations from Dr.M.Lordwin Cecil Prabahar, Subject Expert

1. Contents of Engineering Chemistry and Problem Solving & Python Programming courses may be reduced.
2. Internal and External mark allotment for all kind of courses may be fixed as 40 and 60 respectively.
3. The Internal mark 40 can be calculated as follows.

Nature of Course	Theory		Practical	
	CIA	Assignment/Seminar	Observation /Record	Model
Theory	3x10=30	2x5=10	-	-
Practical	-	-	30	10
Theory with Laboratory (IC)	3x10=30	-	-	10

4. The End Semester Examination may be conducted as,

Nature of Course	Theory	Practical
Theory	YES	-
Practical	-	YES
Theory with Laboratory (IC)	YES	-

#### Recommendations from Industry Expert

1. In Semester 1, a course on C Programming may be included instead of Problem Solving & Python Programming.
2. One of the emerging technologies and industry requirement 'Embedded System', basic knowledge on 'C Programming' is essential.
3. Before studying Python, knowledge on 'C Programming' is required.
4. Instead of Physics for Electronics Engineering in Semester 2, Problem Solving & Python Programming course may be shifted to Semester 2.

#### General Suggestions:

1. Number of BoS meeting per year may be maximum of 2.
2. Based on the complexities of subjects, the order of subjects may be rearranged in a semester.
3. More care must be taken while giving Course Code to avoid confusions.
4. Number of Course Outcomes (COs) can be fixed as minimum of 6.
5. For Continuous Internal Assessments, the syllabus for each assessment shall be mentioned in terms of number of COs.
6. For all Courses, the Internal and External Mark split up, End Semester Assessment method (Theory, Practical, Internal, External).



7. For Theory with Laboratory Integrated Courses, End Semester Examination for practical is not required and one model practical examination is sufficient.
8. For all the subjects usage of acronyms in curriculum and syllabus shall be avoided and foreign author books must be given as text books.

## **2. M.E- VLSI Design**

The Members of Board of Studies reviewed the proposed Curriculum and Syllabi for all 4 semesters and offered the following suggestions.

### **Recommendations from BoS Members on Curriculum:**

1. One new course may be included based on suggestions from CDAC for framing the syllabus.
2. The course VLSI Signal Processing in Semester 3 may be removed.
3. A theory course for FPGA may be included.

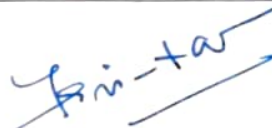






# NPR

**COLLEGE OF ENGINEERING & TECHNOLOGY**  
(AN AUTONOMOUS)

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NPR Nagar, Natham - 624 401, Dindigul Dist, Tamil Nadu. Ph: 04544 - 246500, 501, 502



		
Dr.A.Gopi Saminathan, Professor & Head, Department of Electronics and Communication Engineering, NPR College of Engineering and Technology, Natham-624401, Dindigul.	Dr.R.A.Alaguraja, Professor, Department of Electronics and Communication Engineering, Thiagarajar College of Engineering, Madurai	
		
Dr.G.Thavasi Raja Associate Professor, Department of Electronics and Communication Engineering, National Institute of Technology, Trichy	Dr.M.Lordwin Cecil Prabahar, Associate Professor, Department of Electronics and Communication Engineering, Vel Tech Rangarajan Dr. Sagunthala R&D IST, Chennai	
	Online	Absent
Dr.S.Mohamed Mansoor Roomi, Professor, Department of Electronics and Communication Engineering, Thiagarajar College of Engineering, Madurai	Mr.K.Sivakumar, Senior Program Manager- VLSI, Tessolve Semiconductor Pvt. Ltd., Bangalore	Mr. M.Kishore Raj, Software Developer, HCL Tech., Madurai



# NPR

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### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

31.08.2023

### BOARD OF STUDIES MEETING – ATTENDANCE REPORT


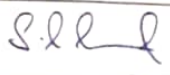
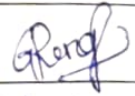


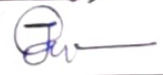
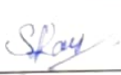
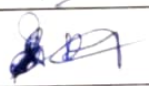
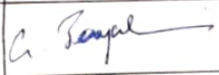

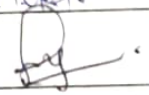
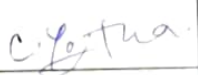

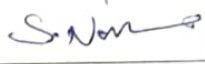
Date : 31.08.2023

Time : 9.30a.m

Venue : Meeting Hall, Main Block

S. No.	Name of the Member	Member Category	Signature
1.	Dr.A.Gopi Saminathan	Chair Person	
2.	Dr.R.A.Alaguraja	University Nominee	
3.	Dr.G.Thavasi Raja	Subject Expert 1	
4.	Dr.M.Lordwin Cecil Prabahar	Subject Expert 2	
5.	Dr.S.Mohamed Mansoor Roomi	Expert from outside the Autonomous College	
6.	Mr.K.Sivakumar	Industry Expert	Online
7.	Mr. M.Kishore Raj	Meritorious Alumnus	Absent
8.	Dr.M.Ameena Banu	Professor/ECE	
9.	Dr.S.M.Vijayarajan	Associate Professor/ECE	
10.	Mrs.S.Kamalam	Assistant Professor/ECE	
11.	Mr.K.Jayaprakasam	Assistant Professor/ECE	
12.	Mr.J.G.Sabarish	Assistant Professor/ECE	
13.	Mr.S.Sudhakar	Assistant Professor/ECE	
14.	Mrs.C.Kannika Parameshwari	Assistant Professor/ECE	
15.	Ms.S.Priyadharsini	Assistant Professor/ECE	



16.	Mr.P.Abdul Samad	Assistant Professor/ECE	
17.	Mr.S.Allwyn Anand	Assistant Professor/ECE	
18.	Mrs.G.Renganayahi	Assistant Professor/ECE	
19.	Mrs.M.Infant Dalima	Assistant Professor/ECE	
20.	Mr.S.Ayyappan	Assistant Professor/ECE	
21.	Mrs.P.Jeyalakshmi	Assistant Professor/ECE	
22.	Mr.S.Ravanaraja	Assistant Professor/ECE	
23.	Mrs.S.Narkees Begam	Assistant Professor/ECE	
24.	Mrs.G.Jeyalakshmi	Assistant Professor/ECE	
25.	Mr.A.G.Paranthaman	Assistant Professor/ECE	
26.	Mrs.T.Esther	Assistant Professor/ECE	
<b>Invited Members</b>			
27.	Mrs.C.Yogitha	Assistant Professor/Maths	
28.	Dr.G.Kandiban	Associate Professor/Physics	
29.	Dr.S.Nagasubramanian	Assistant Professor/Chemistry	

  
**Dr.A.Gopi Saminathan**  
Chairman-BoS



## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

05.09.2023

### ACTION TAKEN REPORT AFTER BoS MEETING

The Board of Studies meeting was held on 31.08.2023 for the UG and PG programs under Department of Electronics and Communication Engineering. The Board of Studies Members reviewed the proposed Curriculum for all 8 semesters and Syllabi (Semester 1 & 2) for UG and proposed Curriculum for all 4 semesters for M.E-VLSI Design and offered the suggestions. The steps taken against the suggestions are listed here.

S. No.	Member	Suggestions Given	Actions Taken
1	Dr.R.A.Alaguraja, Professor, Dept. of ECE, Thiagarajar College of Engineering, Madurai. University Nominee	Engineering Physics in Semester 1 and Physics for Electronics Engineering in Semester 2 may be merged as single course.	Content of both courses merged together and kept in Semester 1 as <b>Physics for Electronics Engineering</b> .
		In Semester 2, 4 <sup>th</sup> unit title in the course Electronic Devices may be changed.	Special Semiconductor Diodes was changed as <b>Special Purpose Semiconductor Diodes</b> .
		Internship in Semester 5 is not needed and Mini Project in Semester 6 may be removed.	<b>Internship</b> in Semester 5 was removed and <b>Mini Project</b> in Semester 6 was retained.
		In Semester 4, content related to Microprocessor and Microcontroller may be added with Embedded Systems.	While framing syllabus <b>Embedded Systems</b> , it will be considered.
		For Theory with Laboratory Integrated Courses, End Semester External Practical Examination is not necessary, Internal Model Examination alone is sufficient.	The information was passed to DAC office and CoE section. It will be decided based on the discussion with all Head of the Departments and Principal.
		Courses with practical session focusing on software tools may be included which will be helpful for placement.	It will be taken into account in future.

		In Semester 2, the course Engineering Graphics may be replaced by core paper and it may be included in Open Elective List.	In Semester 2, the course Engineering Graphics was replaced by <b>Electronic Devices</b> and Engineering Graphics was included in Open Elective List as <b>Engineering Graphics Design</b> .
		Suggested to avoid acronyms for new terms in syllabus for example, UVM in the course Design for verification using UVM.	Course title can be changed as Design for verification using Universal Verification Methodology (UVM).
2	Dr.S.Mohamed Mansoor Roomi, Professor, Dept. of ECE, Thiagarajar College of Engineering, Madurai. <b>Subject Expert</b>	Transforms and Partial Differential Equations course title in Semester 2 may be changes based on the syllabus order.	It was renamed as <b>Partial Differential Equations and Transforms</b> .
		Core courses Wireless Communication, Fibre Optic Communication, Satellite Communication and Microwave Engineering may be included in the curriculum.	<b>Optical Communication and Networks and Microwave Engineering</b> were included as core courses in Semester 6.
		In M.E Semester 3, VLSI Signal Processing course may be removed.	<b>VLSI Signal Processing</b> course was removed.
3	Dr.G.Thavasi Raja Associate Professor, Dept. of ECE, National Institute of Technology, Trichy <b>Subject Expert</b>	In Semester 2, separate Engineering Practices lab is not required, instead of that some of the experiments related to Electronics may be included in Electronic Devices laboratory.	Experiments related to <b>electronic components and display devices</b> were included in Electronic Devices laboratory.
		The core course Display Systems in semester 6 may be shifted to Elective list.	The course Display Systems was shifted to Professional Elective Vertical under Semiconductor technologies.
		In M.E-VLSI Design curriculum, order of subjects may be changed based on the usage of	In M.E-VLSI Design curriculum, the order of subjects was changed.

		verilog and system verilog tools.	
4	Dr.M.Lordwin Cecil Prabahar, Associate Professor, Dept. of ECE, Vel Tech Rangarajan Dr. Sagunthala R&D IST, Chennai. <b>Subject Expert</b>	Number of Verticals (8) for Professional Elective Courses may be reduced.	The vertical for <b>Underwater Communication</b> was removed, some of the courses in <b>Space Technologies</b> were added with High Speed Communication and no. of verticals was reduced to 6.
		Internal and External mark allotment for all kind of courses may be fixed as 40 and 60 respectively.	The information was passed to CoE section. It will be decided based on the discussion with all Head of the Departments and Principal.
		In M.E-VLSI Design curriculum, a new course on FPGA may be included.	A course <b>Designing with FPGA</b> is included in Semester 2 and the corresponding practical course <b>FPGA laboratory</b> was shifted from Semester 1 to Semester 2.
5	Mr.K.Sivakumar, Senior Program Manager-VLSI, Tessolve Semiconductor Pvt. Ltd., Bangalore <b>Industry Expert</b>	Before studying a course on Problem Solving and Programming using Python, a course on C is required. Also, for working with Embedded systems, knowledge on C is essential.	A course <b>Problem Solving and C Programming</b> is included in Semester 1 as Integrated Course and Problem Solving and Python Programming is shifted to Semester 2 as <b>Python Programming</b> .

### Action Taken against General Suggestions:

S. No.	Suggestions Given	Action Taken
1.	Number of BoS meeting per year may be maximum of 2	Considered
2.	Based on the complexities of subjects, the order of subjects may be rearranged in a semester.	Considered in Semester 1 and 2 now.
3.	More care must be taken while giving Course Code to avoid confusions.	Conveyed to DAC office and CoE section.
4.	Number of Course Outcomes (COs) can be fixed as minimum of 6.	Considered for ECE subjects currently.
5.	For Continuous Internal Assessments, the syllabus for each assessment shall be mentioned in terms of number of COs.	Considered for ECE subjects currently.



6.	For all Courses, the Internal and External Mark split up, End Semester Assessment method (Theory, Practical, Internal, External) must be given with syllabus.	Will be implemented.
7.	For Theory with Laboratory Integrated Courses, End Semester Examination for practical is not required and one model practical examination is sufficient.	Decided to consider model practical examination alone for Theory with Laboratory integrated course.

**Dr.A.Gopi Saminathan**  
Chairman-BoS