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Natham, Dindigul - 624 401. Web: www.nprcet.org

CRITERION 1 CURRICULAR ASPECTS

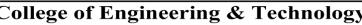
1.3 CURRICULUM ENRICHMENT

1.3.3. Percentage of students undertaking project work/ field work/ Internship (Data for the latest completed academic year 2022 -2023)

Program	Program	emic year 2022 -2023) List of Students undertaking project work/	Page No.
Name	Code	field work/ Internship	ruge 1 (o.
B.E. Civil	103	Arun Kumar N	9
B.E. Civil	103	Jeevitha C	19
B.E. Civil	103	Naveenraj S	4
B.E. Civil	103	Sanjay K	7
B.E. Civil	103	Saranya Devi S	20
B.E. Civil	103	Subash S	8
B.E. Civil	103	Sudharsan K	29
B.E. Civil	103	Venkatesan R	33
B.E. Civil	103	Nithishkumar A R	29
B.E. Civil	103	Purusothaman K	3
B.E. Civil	103	Sachin R	5
B.E. Civil	103	Kishore S P	6
B.E. Civil	103	Alagar K	12
B.E. Civil	103	Anandhan Alaguvel P	16
B.E. Civil	103	Chandira Moorthi B	41
B.E. Civil	103	Gowtham K	21
B.E. Civil	103	Harish M	22
B.E. Civil	103	Mohanraj G	14
B.E. Civil	103	Naveen Kumar S	41
B.E. Civil	103	Pranaveshvar J S	41
B.E. Civil	103	Sharan Sakthivel J	41
B.E. Civil	103	Suriya M	41
B.E. Civil	103	Vijaya Sri Hari I	23
B.E. Civil	103	Vikneshwaran S	41
B.E. Civil	103	Yazhini.S	11
B.E. Civil	103	Alex Pandi.M	17
B.E. Civil	103	Arul Murugan M	41
B.E. Civil	103	Gunapandi T	41
B.E. Civil	103	Hari Prasath M	13
B.E. Civil	103	Jegan.S	41
B.E. Civil	103	Logeshwaran R	41
B.E. Civil	103	Naveen Prasad R	41
B.E. Civil	103	Parthiban R	41
B.E. Civil	103	Prithviraj T	18
B.E. Civil	103	Rajvignesh R	42
B.E. Civil	103	Srilakshmi S	10









College of Engineering & Technology

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Program	Program	List of Students undertaking project work/	Page No.
Name	Code	field work/ Internship	
B.E. Civil	103	Tatta Thamimul Ansari M	42
B.E. Civil	103	Thiraviyam S	42
B.E. Civil	103	Videshwaran R	15
B.E. Civil	103	Vignesh K	42
B.E. Civil	103	Dhanalakshmi P	42
B.E. Civil	103	Bharath Kumar S	42
B.E. Civil	103	Dinakaran K	42
B.E. Civil	103	Elamparuthi B	42
B.E. Civil	103	Kirthik Ananth M	42
B.E. Civil	103	Mohammed Abdula S	42
B.E. Civil	103	Mutharivu K	42
B.E. Civil	103	Praveen C	42
B.E. Civil	103	Ritika S A	42
B.E. Civil	103	Sanjay Yukendra M	42



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We wish him all success for his future endowers.

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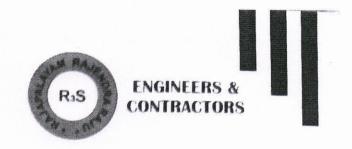
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Date: 30.07.2022

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During the tenure of training his conduct was found good.

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Date: 30.07.2022

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During the tenure of training his conduct was found good.

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This is to certify that Mr. G. Mohanraj, Reg. No: 920820103006, II year, B.E., Civil Engineering, NPR College of Engineering & Technology, Natham, has completed his in-plant training in our construction from 16.07.2022 to 30.07.2022.

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TO WHOMSOEVER IT MAY CONCERN

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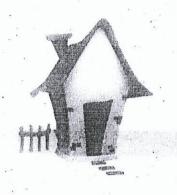
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Date: 13.08.2022

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Date: 30/07/2022

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Date:30/07/2022

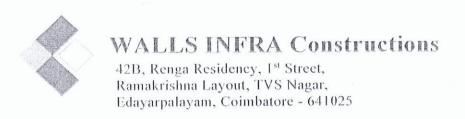
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EXPERIMENTAL INVESTIGATION OF MORTAR WITH LADLE SLAG AND CITRIC ACID

A PROJECT REPORT

Submitted by

JEEVITHA.C 920819103002

SARANYA DEVI.S 920819103005

In partial fulfilment for the award of the degree

BACHELOR OF ENGINEERING

IN

CIVIL ENGINEERING

NPR COLLEGE OF ENGINEERING & TECHNOLOGY

NATHAM-624401



ANNA UNIVERSITY: CHENNAI 600 025

MAY 2023

ANNA UNIVERSITY: CHENNAI 600 025

BONAFIDE CERTIFICATE

Certified that this project report "EXPERIMENTAL INVESTIGATION OF MORTAR WITH LADLE SLAG AND CITRIC ACID" is the bonafide work of JEEVITHA.C(920819103002), SARANYA DEVI.S (920819103005) who carried out the project work under my supervision.

SIGNATURE

SIGNATURE

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Submitted for the viva-voce Examination held at NPR College of Study. Engineering and Technology, Natham on 1.8:05.203

INTERNALIEXAMINER

B. Cally 19705/23
EXTERNAL EXAMINER

ii iii

ABSTRACT

This project report discusses on the experimental investigation of mortar with ladle slag on a partial replacement in cement. In this project the research undertaken on waste material from steel industry to reuse that waste and keep environment safe. Ladle slag usage also gives greater advantage in reduction in cost. In this research work 60% to 70% of replacement of cement by using ladle slag and 2% citric acid added for control of setting time. There is increase in compressive strength, split tensile strength and adhesion test of mortar partially replaced with cement. Addition of higher percentage ladle slag leads to bleeding and segregation. Silica fume eliminates soundness problem.

CHAPTER 8

CONCLUSION

It has been concluded that based on the test results, the utilization of ladle slag and citric acid has considerably increased the strength properties of mortar.

The specimens were casted for various proportions of ladle slag (10 to 100%) and citric acid (2%), the test results indicated ladle slag 80% and citric acid 2% addition gives improved result when compared to other combinations. Then the specimen casted with optimum percentage ladle slag & optimum percentage citric acid in the mortar and the test results compared with conventional mortar.

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EXPERIMENTAL INVESTIGATION ON HIGH STRENGTH CONCRETE USING PERLITE AS A AGGREGATE

A PROJECT REPORT

Submitted by

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SUDHARSAN K

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NITHEESH KUMAR AR

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In partial fulfilment for the award of the degree

of

BACHELOR OF ENGINEERING

IN

CIVIL ENGINEERING



DEPARTMENT OF CIVIL ENGINEERING

NPR COLLEGE OF ENGINEERING & TECHNOLOGY

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ANNA UNIVERSITY: CHENNAI 600 025 MAY 2023

ANNA UNIVERSITY: CHENNAI 600 025

BONAFIIDE CERTIFICATE

Certified that this project report "EXPERIMENTAL INVESTIGATION ON HIGH STRENGTH CONCRETE USING PERLITE AS A AGGREGATE" is the bonafide work of SANJAY K (920819103004), KUMAR (920819103008), NITHEESH SUDHARSAN (920819103301) who carried out the project work under my supervision.

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Submitted for the viva-voice Examination of CE8811 project work held at NPR College of Engineering and Technology, Natham on .18.19.5.12.023

ABSTRACT

The aim of this study is to determine the feasibility of utilizing perlite as

the partial replacement for the fine aggregate. In this study, the natural perlite was

replaced for fine aggregate in the levels of 20%, 40%, 60% and 80%. The

performance of high strength concrete is compared with the conventional concrete

specimen. The cast samples were used to study the reduction in density without

compromising the mechanical properties (i.e., compression strength and tensile

strength) of the developed concrete at 7 days, 14 days and 28 days. This concrete

has been an interest due to its advantages compared to normal concrete. High

strength concrete can be produced by the use of perlite as aggregates. As the

results, expandable perlite obviously has the effect in reducing the concrete

density.

KEYWORDS: High strength, perlite

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CHAPTER 8

CONCLUSION

8.1 GENERAL

- > The addition of perlite, dolomite powder and fly ash which shows increase in compressive strength of vermiculite concrete by achieving the maximum strength is 10% greater than conventional concrete as the 28 days results.
- Perlite addition results in significant increase in split tensile strength achieving the maximum strength 5.4% than conventional concrete.
- > The implication of vermiculite shows greater significance in compressive strength but lesser in split tensile strength of vermiculite concrete.
- From the results above, it is clearly understandable that perlite addition beyond 40% leads to gradual decrease of all strength properties due to the low self-weight of the specimen that results in reduction of strength.

8.2 SCOPE OF THE FUTURE WORK

This investigation can be further extended by casting reinforced beams to determine flexural strength and deflection that play major role in large structures. Also, it is planned to cast brick with perlite and other non-structural elements due to the conclusion and the specimen is subjected for fire resistance test in order to find out the fire resistance capacity of perlite.

EXPERIMENTAL STUDY ON STABILIZED MUD BLOCK **USING E-WASTE AND GGBS**

A project report

Submitted by

R.VENKATESAN 920819103009

In partial fulfilment for the award of the degree

BACHELOR OF ENGINEERING

IN

CIVIL ENGINEERING



DEPARTMENT OF CIVIL ENGINEERING

NPR COLLEGE OF ENGINEERING & TECHNOLOGY NATHAM-624 401 project work hold at NPR

ANNA UNIVERSITY: CHENNAI 600 025

MAY 2023

ANNA UNIVERSITY: CHENNAI 600 025

BONAFIIDE CERTIFICATE

Certificate that this project report "EXPERIMENTAL STUDY ON STABILIZED MUD BLOCK USIN E-WASTE AND GGBS" is this bonafide work of R.VENKATESAN (920819103009) who carried out the project work under any supervision

SIGNATURE

Dr.A.HEMALATHA,M.Tech.,Ph.D

HEAD OF THE DEPARTMENT

Department of Civil Engineering

NPR College of Engineering &

Technology, Natham - 624 401.

SIGNATURE

Dr.A.HEMALATHA, M.TECH., Ph.D

SUPERVISOR

Department of Civil Engineering

NPR college of Engineering &

Technology, Natham -624 401

Submitted for the viva-voice Examination of CE8811 project work held at NPR College of Engineering and Technology, Natham on 12:5:23

INTERNAL EXAMINER

EXTERNAL EXAMINER

ABSTRACT

E-waste that is increasing day by day turning into a major threat to public health and successively pollutes the setting. India ranks fifth in the world for E-waste generation about a pair of million a lot of E-waste is generated associate rally and an unrevealed quantity of E-waste is foreign from alternative countries around the world. The significance of this project is to use locally available waste material in to useful manner there by reducing the slight impact on environment.in this project. The mud blocks are made up of red soil, GGBS, e-waste and geo polymer solution as binder. Here the geo polymeric solution [sodium hydroxide NaOH and sodium silicate Na₂Sio₄] used as alkali activator. The molarity of NaOH solution is 8M and the proportioning of NaOH: Na₂Sio₄ was taken as 1:2.

The propotion of GGBS was maintained 15% for all mixes and the percentage of e-waste added was ranged from 5% to 11% at the rate of 2% increment. Mud blocks are casted using semi automatic mud block making machine names as HYDRAFORM. Totally 120 blocks were casted 150 and cured at 60°c at in hot air oven curing and teste were carried out on 1st, 3rd, 7th, 14th, and 21st day of oven curing. During this period of curing wet compression test, dry compression test, water absorption test, ultrasonic pulse velocity tests are conducted. from above all the mix propotion the mix D1, D2 shows the good result in strength and D3 show less water absorption, it is also that addition of e-waste had an influent effect on weight but when it exceeds more than 13% it affects the strength and durability of the block.

CHAPTER 5 CONCLUSIONS

CONCLUSION

From studies and tests conducted the strength of geo polymer mud blocks using E-waste and GGBS was determined for the various percentage of replacement. Totally 160 blocks were casted and tests were carried out.

Tests like dry compression test, wet compression test, water absorption test and Ultrasonic Pulse Velocity (UPV) test were conducted for mud blocks 3rd day, 7th day, 14th and 21st day.

As a conclusion of these tests the following results are given,

- The maximum dry compression test absorbed as 10.36 MPa from mixed proportion of D1 and minimum dry compression test absorbed as 5.94 MPa.
- 2. The maximum wet compression test absorbed as 4.63 MPa from mixed proportion of D1 and minimum wet compression test absorbed as 2.05 MPa.
- 3. The best water absorption test obtained as 10.32 % from mixed proportion of D3.
- 6 From the above results we can conclude that 5% is found to be optimum mix.
- 7 The compression test was gradually decreasing with addition of E-waste with stabilizer more than 13%.



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PERMISSSION LETTER

31.03.2023

From

Dr. A. Hemalatha,
Head of the Department,
Department of Civil Engineering,
NPR College of Engineering & Technology,

Natham.

To

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

Respected Sir,

Sub: Requesting permission for Industrial visit - reg.

This is to bring to kind notice that with reference to the Memorandum of Understanding signed with R3S Engineers & Contractors, we are planning to arrange an Industrial visit to their Construction site during the 3rd week of April 2023 for our II, III and IV year Civil Engineering students to gain practical knowledge about the latest development in construction industry. In this regard, We request you to grant us permission for an industrial visit on above mentioned date.

Thanking you

Yours faithfully,

Dr. A. Hemalatha





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Industrial visit to Industrial visit to Construction of Terminal Building at Tiruchirappalli Airport

REQUISITION LETTER

01.04.2023

From

Dr. A. Hemalatha,

Head of the Department,

Department of Civil Engineering,

NPR College of Engineering & Technology,

Natham.

To

The Managing Director, R3S Engineers & Contractors, Woraiyur, Trichy.

Respected Sir,

Sub: Requesting permission for Industrial visit - reg.

With reference to the Memorandum of Understanding signed on 21.09.2022, We request you to kindly arrange an Industrial Visit to your construction site during the 3rd week of April 2023 for our II, III and IV year Civil Engineering students to gain practical knowledge about the latest development in construction industry.

Thanking you



Yours faithfully,

Dr. A. Hemalatha



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Industrial visit to Construction of Terminal Building at Tiruchirappalli Airport

CONFIRMATION LETTER FROM INDUSTRY





To

The Principal, NPR College of Engineering & Technology, Natham- 624 401.

Respected Sir,

Sub: Permission for Industrial visit - reg.

With reference to letter dated 01.04.2023, We grant permission for an Industrial visit to our construction site – Terminal Building at Tiruchirapalli Airport on 13th April, 2023 for II, III and IV year Civil Engineering students.

Thanking you

For R35 ENGINEERS AND CONTRACTORS

Er.R.SUDEESH.M.E.,

Civil Engineering Consultant

& concrete Technologist





94449 91027



r3sindia@gmail.com | sudeesh.r@gmail.com







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Industrial visit to Construction of Terminal Building at Tiruchirappalli Airport

LIST OF PARTICIPATING STUDENTS

S. No.	Register Number	Name of the student	Class
1	920819103001	Arunkumar N	IV year Civil
2	920819103002	Jeevitha C	IV year Civil
3	920819103003	Naveenraj S	IV year Civil
4	920819103004	Sanjay K	IV year Civil
5	920819103005	Saranya Devi S	IV year Civil
6	920819103007	Subash S	IV year Civil
7	920819103008	Sudharsan K	IV year Civil
8	920819103009	Venkatesan R	IV year Civil
9	920819103301	Nithishkumar A R	IV year Civil
10	920819103302	Purusothaman K	IV year Civil
11	920819103304	Kishore S P	IV year Civil
12	920820103001	Alagar K	III year Civil
13	920820103002	Anandhan Alaguvel P	III year Civil
14	920820103003	Chandira Moorthi B	III year Civil
15	920820103005	Harish M	III year Civil
16	920820103006	Mohanraj G	III year Civil
17	920820103007	Naveen Kumar S	III year Civil
18	920820103011	Suriya M	III year Civil
19	920820103013	Vikneshwaran S	III year Civil
20	920820103014	Yazhini S	III year Civil
21	920820103301	Alex Pandi M	III year Civil
22	920820103302	Arul Murugan M	III year Civil
23	920820103303	Gunapandi T	III year Civil
24	920820103304	Hari Prasath M	III year Civil
25	920820103305	Jegan S	III year Civil
26	920820103307	Logeshwaran M	III year Civil
27	920820103308	Naveen Prasad R	III year Civil
28	920820103309	Parthiban R	III year Civil
29	920820103310	Prithviraj Enge	III year Civil



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Industrial visit to

Construction of Terminal Building at Tiruchirappalli Airport

LIST OF PARTICIPATING STUDENTS

S. No.	Register number	Name of the student	Class
30	920820103311	Rajvignesh R	III year Civil
31	920820103312	Srilakshmi S	III year Civil
32	920820103313	Tatta Thamimul Ansari M	III year Civil
33	920820103315	Videshwaran R	III year Civil
34	920820103316	Vignesh K	III year Civil
35	920820103317	Dhanalakshmi P	III year Civil
36	920821103002	Bharath Kumar S	II year Civil
37	920821103004	Elambaruthi B	II year Civil
38	920821103005	Kirthik Ananth M	II year Civil
39	920821103006	Mohammed Abdula S	II year Civil
40	920821103007	Mutharivu K	II year Civil
41	920821103008	Praveen C	II year Civil
42	920821103010	Rithika S A	II year Civil
43	920821103011	Sanjay Yukendra M	II year Civil
44	920821103012	Subanu M	II year Civil
45	920821103013	Syedali Fathima K	II year Civil
46	920821103014	Veeramari S	II year Civil
47	920821103301	Anbuselvam S	II year Civil
48	920821103302	Logarani A	II year Civil

Class	Present
II year Civil	13
III year Civil	24
IV year Civil	11
Total	48



w. DLCc

PROGRAMME CO-ORDINATOR

Hop - CIVIL

Head of the Department

Department of Civil Engineering

NPR College of Engineering & Technolog Natham, Dindigul (DT) - 624 401. PRINCIPAL

BEAMTech, Ph.D.,

Principal

M.P.R. College of Engineering & Technology Natham, Dindigur (Or) - 024 481.





College of Engineering & Technology

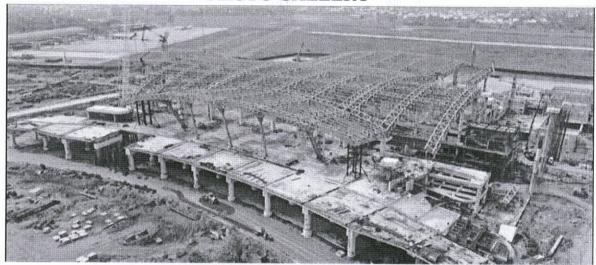
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Industrial visit to Construction of Terminal Building at Tiruchirappalli Airport

PHOTO GALLERY



Construction of Terminal Building at Tiruchirapalli Airport





Construction of Air Traffic Control unit

