

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai) Kaikkurichi, Pudukkottai -622 303

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NAAC DOCUMENTS



Quality Indicator Frame Work

Criterion – 2

Teaching-Learning and Evaluation

Submitted by

IQAC Internal Quality Assurance Cell

Sri Bharathi Engineering College for Women



(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Criteria 2

Teaching-Learning and Evaluation

350

Key Indicator- 2.3. Teaching- Learning Process (40)

2018-2019

EXPERIENTIAL LEARNING CIVIL ENGINEERING

Activity	Number of Students Attended	Page No.
Internship	11	3
Project	17	18
Laboratory	23	30
TOTAL STUDENTS ATTENDED	51	-



(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Criteria 2

Teaching-Learning and Evaluation

350

Key Indicator- 2.3. Teaching- Learning Process (40)

2018-2019

CIVIL ENGINEERING EXPERIENTIAL LEARNING INTERNSHIP



(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF CIVIL ENGINEERING

Experiential learning(Project,In-Plant Training,Industrial visit,Local visit)

Academic year 2018-2019

S.NO	REGISTER NO	NAME	YEAR/SEM	NAME OF THE LEARNING METHOD
	912617103001	Chandrika.C		
	912617103002	Dhesikaparthi.D		
	912617103003	Karthika.K		
	912617103004	Kasthuri.K		
	912617103005	Monika.K		
1	912617103006	Muthumeena.P	 II/IV	EXPERIENTIAL LEARNING INTERNSHIP- MR Builders &
	912617103007	Pothumpen.A		Promotors
	912617103008	Priyadharshini.S		
	912617103009	Rajeswari.J		
	912617103010	Sivapriya.S		
	912617103701	Lakshmi A		

Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL **SRI BHARATHI ENGINEERING** COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.





(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai) Pudukkottai - Aranthangi Road, Kaikkurichi, Pudukkottai - 622 303.

Date : 30.05.19

BONAFIDE CERTIFICATE

This is to certify that the following students are bonafide students of this college studying IV semester of Second year B.E/ Civil Engineering during this academic year 2018-2019(Odd Semester).

S.NO REG.NO		NAME OF THE STUDENT
1.	912617103001	CHANDRIKA.C
2.	912617103002	DHESIKAPARTHI.D
3.	912617103003	KARTHIKA.K
4.	912617103004	KASTHURI.K
5.	912617103005	MONIKA.K
6.	912617103006	MUTHUMEENA.P

Dr. S.THILAGAVATHIM.E.Ph.D.30 -5 (1)

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

7.	912617103007	POTHUMPEN.A
8.	912617103008	PRIYADHARSHINI.S
9.	912617103009	RAJESWARI.J
10.	912617103010	SIVAPRIYA.S
11.	912617103701	LAKSHMI A

This certificate is issued only for the purpose of attending INPLANT TRAINING in MR BUILDERS & PROMOTORS., THANJAVUR.

Dr. S.THILAG h.D., TM.E.,

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

PRINCIPAL 3012

PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI - 622 :03. PUDUKKOTTAI DISTRICT

ENGINEERS CONTRACTORS PROMOTERS

MR Construction

&Promoters

State Level Class 1 Contractor (PWD, TNEB, Municipal Corporation)

CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that <u>Ms. Chandrika C</u>, II year B.E. (Civil Engineering) student of "**SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN**", Pudukkottai, has done her internship in construction works at "**MR CONSTRUCTION & PROMOTERS**" from 03.06.2019 to 25.06.2019. During her training, she was keen in learning new skills with self-motivation. Her performance exceeded our expectations and she was able to complete the training successfully and on time.

We wish her all the best for her career.

Dr. S.THILAGAVATHIME. Ph.D.

PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkoitai Dt. For M.R. Construction & Promoters

Signature of Authorized Engineer

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CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that <u>Ms. Dhesikaparthi D</u>, II year B.E. (Civil Engineering) student of "**SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN**", Pudukkottai, has done her internship in construction works at "**MR CONSTRUCTION & PROMOTERS**" from 03.06.2019 to 25.06.2019. During her training, she was keen in learning new skills with self-motivation. Her performance exceeded our expectations and she was able to complete the training successfully and on time.

We wish her all the best for her career.

For M.R. Construction & Promoters Managing Partner.

Signature of Authorized Engineer

Dr. S.THILAGAVATHIM.E., Ph.D.,) PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

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State Level Class 1 Contractor (PWD, TNEB, Municipal Corporation)

CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that <u>Ms. Karthika</u> K, II year B.E. (Civil Engineering) student of "SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN", Pudukkottai, has done her internship in construction works at "MR CONSTRUCTION & PROMOTERS" from 03.06.2019 to 25.06.2019. During her training, she was keen in learning new skills with self-motivation. Her performance exceeded our expectations and she was able to complete the training successfully and on time.

We wish her all the best for her career.

For M.R. Construction & Promoters nm R. Managing Partner.

Signature of Authorized Engineer

Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

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TO WHOMSOEVER IT MAY CONCERN

This is to certify that <u>Ms. Kasthuri K</u>, II year B.E. (Civil Engineering) student of "**SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN**", Pudukkottai, has done her internship in construction works at "**MR CONSTRUCTION & PROMOTERS**" from 03.06.2019 to 25.06.2019. During her training, she was keen in learning new skills with self-motivation. Her performance exceeded our expectations and she was able to complete the training successfully and on time.

We wish her all the best for her career.

For M.R. Construction & Promoters Num Managing Partner.

Signature of Authorized Engineer

Dr. S.THILAGAVATHIM.E.Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING

COLLEGE FOR WCC: N Kaikkurchi - 622 303, Pudumulia: Dt.

ENGINEERS CONTRACTORS PROMOTERS

MR Construction

&Promoters

State Level Class 1 Contractor (PWD, TNEB, Municipal Corporation)

CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that <u>Ms. Monika K</u>, II year B.E. (Civil Engineering) student of "**SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN**", Pudukkottai, has done her internship in construction works at "**MR CONSTRUCTION & PROMOTERS**" from 03.06.2019 to 25.06.2019. During her training, she was keen in learning new skills with self-motivation. Her performance exceeded our expectations and she was able to complete the training successfully and on time.

We wish her all the best for her career.

ror M.R. Construction & Promoters Managing Partner.

Signature of Authorized Engineer

Dr. S.THILAGAVATHI M.E.Ph.D.,

PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

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CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that <u>Ms. Muthumeena P</u>, II year B.E. (Civil Engineering) student of "**SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN**", Pudukkottai, has done her internship in construction works at "**MR CONSTRUCTION & PROMOTERS**" from 03.06.2019 to 25.06.2019. During her training, she was keen in learning new skills with self-motivation. Her performance exceeded our expectations and she was able to complete the training successfully and on time.

We wish her all the best for her career.

Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WORL N Kaikkurchi - 622 303, Pudukkottai Dt.

For M.R. Construction & Promoters Managing Partner.

Signature of Authorized Engineer

ENGINEERS CONTRACTORS PROMOTERS

MR Construction

&Promoters

State Level Class 1 Contractor (PWD, TNEB, Municipal Corporation)

CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that <u>Ms. Pothumpen A</u>, II year B.E. (Civil Engineering) student of "SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN", Pudukkottai, has done her internship in construction works at "MR CONSTRUCTION & PROMOTERS" from 03.06.2019 to 25.06.2019. During her training, she was keen in learning new skills with self-motivation. Her performance exceeded our expectations and she was able to complete the training successfully and on time.

We wish her all the best for her career.

Dr. S.THILAGAVATHIM.E., Ph.D., PRINCIPAL **SRI BHARATHI ENGINEERING** COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkotlai Dt.

For M.R. Construction & Promoters Managing Partner.

Signature of Authorized Engineer

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CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that <u>Ms. Priyadharshini S</u>, II year B.E. (Civil Engineering) student of "SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN", Pudukkottai, has done her internship in construction works at "MR CONSTRUCTION & PROMOTERS" from 03.06.2019 to 25.06.2019. During her training, she was keen in learning new skills with self-motivation. Her performance exceeded our expectations and she was able to complete the training successfully and on time.

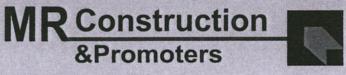
We wish her all the best for her career.

Dr. S.THILAGAVATHI M.E., Ph.D.,

PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

For M.R. Construction & Promoters

Managing Partner. Signature of Authorized Engineer



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CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Rajeswari J. II year B.E. (Civil Engineering) student of "SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN", Pudukkottai, has done her internship in construction works at "MR CONSTRUCTION & PROMOTERS" from 03.06.2019 to 25.06.2019. During her training, she was keen in learning new skills with self-motivation. Her performance exceeded our expectations and she was able to complete the training successfully and on time.

We wish her all the best for her career.

Dr. S.THILAGAVATHIM.E., Ph.D.,

PRINCIPAL SRI BHARATHI ENGINEERING **COLLEGE FOR WOMEN** Kaikkurchi - 622 303, Pudukkottal Dt,

For M.R. Construction & Promoters R.E Managing Partner.

Signature of Authorized Engineer

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CERTIFICATE

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This is to certify that <u>Ms. Sivapriya S</u>, II year B.E. (Civil Engineering) student of "SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN", Pudukkottai, has done her internship in construction works at "MR CONSTRUCTION & PROMOTERS" from 03.06.2019 to 25.06.2019. During her training, she was keen in learning new skills with self-motivation. Her performance exceeded our expectations and she was able to complete the training successfully and on time.

We wish her all the best for her career.

Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WCMEN Kaikkurchi - 622 303, Pudukkottai Dt.

For M.R. Construction & Promoters mm Managing Partner.

Signature of Authorized Engineer

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CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that <u>Ms. Lakshmi A</u>, II year B.E. (Civil Engineering) student of "SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN", Pudukkottai, has done her internship in construction works at "MR CONSTRUCTION & PROMOTERS" from 03.06.2019 to 25.06.2019. During her training, she was keen in learning new skills with self-motivation. Her performance exceeded our expectations and she was able to complete the training successfully and on time.

We wish her all the best for her career.

For M.R. Construction & Promoters

Managing Partner.

Signature of Authorized Engineer

Dr. S.THILAGAVATHLM.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOLLIN Kaikkurchi - 622 303, Pudukkotta: Dt.



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Criteria 2

Teaching-Learning and Evaluation

350

Key Indicator- 2.3. Teaching- Learning Process (40)

2018-2019

CIVIL ENGINEERING EXPERIENTIAL LEARNING PROJECT



(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF CIVIL ENGINEERING

Experiential learning(Project, In-Plant Training, Industrial visit, Local visit)

Academic year 2018-2019

BATCH NO	REGISTER NO	NAME	YEAR/SEM	TOPIC	NAME OF THE LEARNING METHOD
	912615103001	Abinaya.S		An Experimental	
1	912615103005	Ayesha Najum.M		Investigation On	
1	912615103009	Gomathi.S	IV/VIII	Mechanical Properties Of	
	912615103014	Rasika.R		Sisal Fiber Reinforced Concrete	
	912615103002	Alamelu Mangai.M		Providing An Intake	
	912615103004	Ananthi.V		Channel For Temble	
2	912615103010	Haritha.S	IV/VIII	Urani At	
	912615103013	Raihana Jasmine.A.S		Azhagambalpuram Village In Pudukkottai District	EXPERIENTIAL
	912615103006	Elamathi.G		Stabilization Of Black	LEARNING
3	912615103008	Gayathri.R		Cotton Soil For	METHOD- PROJECT
	912615103012	Madhumitha.M		Pavement Using Fly Ash And Lime	
	912615103007	Elanthendral.N		An Experimental Study	
4	912615103015	Syed Ali Fathima.G		Of Waste Water	12hJ
	912615103302	Suriya.T		Treatment Using Natural Coagulants	Dr. S.THILAGAVATHI M.E.Ph.D
	912615103011	Karthika.T		An Experimental Study	PRINCIPAL
5	912615103016	Vaithegi.V		On Partial Replacement	SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN
	912615103303	Vanimathi.M		Of Fine Aggregate By Using Steel Slag	Kaikkurchi - 622 303, Pudukkottai Dt.

HOD / CIVIL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, College Code / Name

Internal Marks Report

: 9126 - SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

Branch Code / Name

Semester: 08

University : AUC

: 103 - B.E. Civil Engineering

Regulation : 2013

S.No	Register Number	Name	CE6016	CE6021	CE6811	MG6851
1 -	912615103001	ABINAYA S	17	18	18	18
2	912615103002	ALAMELU MANGAI M	18	18	19	18
3	912615103004	ANANTHI V	18	18	19	18
4	912615103005	AYESHA NAJUM M	18	18	18	18
5	912615103006	ELAMATHI G	18	18	18	18
6	912615103007	ELANTHENDRAL N	18	18	18	18
7	912615103008	GAYATHRI R	19	19	19 .	19
8	912615103009	GOMATHI S	17	17	19	18
9	912615103010	HARITHA S	17	17	18	17
10	912615103011	KARTHIKA T	18	18	18	18
11	912615103012	MADHUMITHA M	18	18	18	17
12	912615103013	RAIHANA JASMINE A S	19	18	19	19
13	912615103014	RASIKA R	17	18	18	18
14	912615103015	SYED ALI FATHIMA G	19	19	19	19
15	912615103016	VAITHEGI V	18	18	18	17
16	912615103302	SURIYA T	19	18	18	18
17	912615103303	VANIMATHI M	17	18	17	17

Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottal Dt.

ANNA UNIVERSITY: CHENNAI 600 025

BONAFIDE CERTIFICATE



Cartified

+Lat

41.:-

AN EXPERIMENTAL INVESTIGATION ON MECHANICAL PROPERTIES OF SISAL FIBER REINFORCED CONCRETE



A PROJECT REPORT

Submitted by

ABINAYA.S AYESHA NAJUM.M GOMATHI.S RASIKA.R 912615103001
912615103005
912615103009
912615103014

in partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

IN

CIVIL ENGINEERING

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, PUDUKKOTTAI-622 303

ANNA UNIVERSITY: CHENNAI 600 025

Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

MARCH - 2019





PROVIDING AN INTAKE CHANNEL FOR TEMPLE URANI AT AZHAKAMBALPURAM VILLAGE IN PUDUKKOTTAI DISTRICT

A PROJECT REPORT

Submitted by

M.ALAMELU MANGAI91V.ANANTHI91S.HARITHA91A.S.RAIHANA JASMINE91

912615103002 912615103004 912615103010

912615103013

In partial fulfilment for the award of the degree

of

BACHELOR OF ENGINEERING

in

Dr. S.THILAGAVATHI M.E. Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

CIVIL ENGINEERING

SRI BHARATHI ENGINEERINGCOLLEGEFORWOMEN KAIKKURICHI,PUDUKKOTTAI-622303

ANNA UNIVERSITY: CHENNAI 600 025

MARCH - 2019

i

ANNA UNIVERSITY: CHENNAI 600 025

BONAFIDE CERTIFICATE

Certified that this project report "PROVIDING AN INTAKE CHANNEL FOR TEMPLE URANI AZHAKAMBALPURAM AT VILLAGE IN **PUDUKKOTTAI** DISTRICT" is the bonafide work of ALAMELU MANGAI.M (912615103002), **ANANTHI.V** (912615103004), HARITHA.S (912616103007) and RAIHANA JASMINE A.S (912615103013) who carried out the project work under my supervision.

NATURE

Ms.R.MANJU, M.E., HEAD OF THE DEPARTMENT.

Department of civil Engineering Sri Bharathi Engineering College for Women, Kaikkurichi, Pudukkottai - 622 303.

SIGNA

Ms.N.CHITHIRAI SELVI, M.E., ASST.PROFESSOR,

Department of civil Engineering Sri Bharathi Engineering College for women, Kaikkurichi, Pudukkottai – 622 303.

Submitted for the project viva - voice examination held on .. 2.6.3.113

INER

EXTERNAL EXAMINER

Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.



STABILIZATION OF BLACK COTTON

SOIL FOR PAVEMENT USING



FLY ASH AND LIME

A PROJECT REPORT

Submitted by

ELAMATHI.G	912615103006
GAYATHRI.R	912615103008
MADHUMITHA.M	912615103012

In partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

IN

CIVIL ENGINEERING

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

KAIKKURICHI, PUDUKKOTTAI-622303

ANNAUNIVERSITY: CHENNAI 600025

MARCH-2019

Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

ANNA UNIVERSITY: CHENNAI 600 025

BONAFIDE CERTIFICATE

Certified that this project report "STABILIZATION OF BLACK COTTON SOIL FOR PAVEMENT USING FLY ASH AND LIME" is the bonafide work of ELAMATHI.G (912615103006), GAYATHRI.R (912615103008) and MADHUMITHA.M (912615103012) who carried out the project work under my supervision.

Ms.R.MANJU, M.E., HEAD OF THE DEPARTMENT, Department of civil Engineering Sri Bharathi Engineering College for Women, Kaikkurichi, Pudukkottai - 622 303.

SIGNATURE Mrs.P.DENNIS FLORA, M.E., ASST.PROFESSOR, Department of civil Engineering Sri Bharathi Engineering College for women, Kaikkurichi, Pudukkottai – 622 303.

Submitted for the project viva - voice examination held on. 26/3/2019

MINER

EXTERNAL EXAMINER

Dr. S.THILAGAVATHI M.E. Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.





AN EXPERIMENTAL STUDY OF WASTE WATER TREATMENT USING NATURAL COAGULANTS

A PROJECT REPORT

Submitted by

ELANTHENDRAL .N	912615103007
SYED ALI FATHIMA .G	912615103015
SURIYA.T	912615103302

in partial fulfilment for the award of the degree Of

BACHELOR OF ENGINEERING

IN

CIVIL ENGINEERING

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, PUDUKKOTTAI-622 303

ANNA UNIVERSITY: CHENNAI 600 025

MARCH-2019

i

Dr. S.THILAGAVATHI M.E., Ph.D. PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

ANNA UNIVERSITY: CHENNAI 600 025

BONAFIDE CERTIFICATE

Certified that this project report "AN EXPERIMENTAL STUDY OF WASTE WATER TREATMENT USING NATURAL COAGULANTS" is the bonafide work of ELANTHENDRAL.N (912615103007), SYED ALI FATHIMA.G (912615103015) and SURIYA.T (912615103302) who carried out the project work under my supervision.



Ms.R.MANJU, M.E., HEAD OF THE DEPARTMENT,

Department of civil Engineering Sri Bharathi Engineering College for Women, Kaikkurichi, Pudukkottai - 622 303. R. G.

Ms.R.MANJU, M.E., ASST.PROFESSOR,

Department of civil Engineering Sri Bharathi Engineering College for women, Kaikkurichi, Pudukkottai – 622 303.

Submitted for the project viva - voice examination held on ... 26-3-19

EXAMINER

EXTERNAL EXAMINER

Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.





AN EXPERIMENTAL STUDY ON PARTIAL REPLACEMENT OF FINE AGGREGATE BY USING STEEL SLAG

A PROJECT REPORT

Submitted by

KARTHIKA.T VAITHEGI.V VANIMATHI.M 912615103011 912615103016 912615103303

In Partial fulfillment for the award of the degree

Of

BACHELOR OF ENGINEERING

IN

CIVIL ENGINEERING

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

KAIKKURICHI, PUDUKKOTTAI-622303

ANNA UNIVERSITY: CHENNAI - 600 025

MARCH - 2019

Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

ANNA UNIVERSITY: CHENNAI 600 025

BONAFIDE CERTIFICATE

Certified that this project report "AN EXPERIMENTAL STUDY ON PARTIAL REPLACEMENT OF FINE AGGREGATE BY USING STEEL SLAG" is the bonafide work of KARTHIKA.T (912615103011), VAITHEGI.V (912615103016) and VANIMATHI.M (912615103303) who carried out the project work under my supervision.

K. W SIGNATURE Ms.R.MANJU, M.E., HEAD OF THE DEPARTMENT, Department of civil Engineering Sri Bharathi Engineering College for Women, Kaikkurichi, Pudukkottai - 622 303.

SIGNATURE Ms.G.GAYATHRI, M.E., ASST.PROFESSOR, Department of civil Engineering Sri Bharathi Engineering College for women, Kaikkurichi, Pudukkottai – 622 303.

Submitted for the project viva - voice examination held on.....

AL EXAMINER

EXP RNAL EXAMINER

Dr. S.THILAGAVATHI M.E., Ph.D. PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.



(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Criteria 2

Teaching-Learning and Evaluation

350

Key Indicator- 2.3. Teaching- Learning Process (40)

2018-2019

CIVIL ENGINEERING EXPERIENTIAL LEARNING LABORATORY



(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF CIVIL ENGINEERING Experiential learning(Project,In-Plant Training,Industrial visit,Local visit)

2018-2019 (LABORATORY COURSES-II Year)

CE8361

SURVEYING LABORATORY

LTPC 0042

OBJECTIVE :

At the end of the course the student will posses knowledge about Survey field techniques

LIST OF EXPERIMENTS:

Chain Survey

- 1. Study of chains and its accessories, Aligning, Ranging, Chaining and Marking Perpendicular offset
- 2. Setting out works Foundation marking using tapes single Room and Double Room

Compass Survey

1. Compass Traversing - Measuring Bearings & arriving included angles

Levelling - Study of levels and levelling staff

- 2. Fly levelling using Dumpy level & Tilting level
- 3. Check levelling

Theodolite - Study of Theodolite

- 4. Measurements of horizontal angles by reiteration and repetition and vertical angles
- 5.Determination of elevation of an object using single plane method when base is accessible/inaccessible.

Tacheometry - Tangential system - Stadia system

- 5. Determination of Tacheometric Constants
- 6. Heights and distances by stadia Tacheometry
- 7. Heights and distances by Tangential Tacheometry

Total Station - Study of Total Station, Measuring Horizontal and vertical angles

- 8. Traverse using Total station and Area of Traverse
- Determination of distance and difference in elevation between two inaccessible points using Total station

TOTAL: 60 PERIODS

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DEPARTMENT OF CIVIL ENGINEERING Experiential learning(Project,In-Plant Training,Industrial visit,Local visit)

LIST OF EQUIPMENTS FOR A BATCH OF 30 STUDENTS

SI.No.	Description of Equipment	Quantity
1.	Total Station	3 Nos
2.	Theodolites	Atleast 1 for every 5 students
3.	Dumpy level / Filling level	Atleast 1 for every 5 students
4.	Pocket stereoscope	1
5.	Ranging rods	
6.	Levelling staff	
7.	Cross staff	
8.	Chains	
9.	Tapes	1 for a set of 5 students
10.	Arrows	
11.	Prismatic Compass	10 nos
12.	Surveyor Compass	2 nos
13.	Survey grade or Hand held GPS	3 nos

Batch List

S.NO	Reg No	Name of the student	Batch	Laboratory Course	Year/Branch
	912617103001	Chandrika.C			
	912617103002	Dhesikaparthi.D			
	912617103003	Karthika.K	I		
	912617103004	Kasthuri.K			
	912617103005	Monika.K		CE8361-	
1	912617103006	Muthumeena.P		SURVEYING	II/CIVIL
	912617103007	Pothumpen.A		LABORATORY	II/CIVIL
	912617103008	Priyadharshini.S			
	912617103009	Rajeswari.J	II		
-	912617103010	Sivapriya.S			
	912617103701	Lakshmi.A		0	
			JV'		0
		Dr. S.THILAGA	VATHI M.E	.,Ph.D.,	K
		SRI BHARATH		RING	HOD / CIVIL
		COLLEGE	FOR WOME	N SRIBH	ARATHI ENGINE
		Kaikkurchi - 622	303, Pudukkot	tai Dt.	KAKKUDICU

HoD/Civil

KAIKKURICHI.

DUDUVVO



ANNA UNIVERSITY :: CHENNAI - 600 025 OFFICE OF THE CONTROLLER OF EXAMINATIONS **Assessment Details Entered**

NOV. / DEC. EXAMINATION, 2018 [R-2017] - EXAMINATIONS

Inst Code & Name : 9126 - SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

Branch Code / Name : 103 : B.E. Civil Engineering University : AUC Semester: 03

912617103001 CHANDRIKA C	CE8301		11	11	12	87	10	11	95	9	11	_
	CE8302	12	13	11	12	80	11	12	87	8	10	
	CE8311									54	60	
	CE8351	11	11	9	11	80	15	15	90	6	8	
	CE8361									47	60	
	CE8391	10	11	11	12	81	12	12	82	7	10	
	CE8392	11	11	9	10	85	15	15	81	7	9	
	HS8381									28	30	-
	MA8353	15	16	14	15	81	16	16	88	11	13	
912617103002 DHESIKAPARTHI D	CE8301	10	11	9	12	72	3	11	75	11	11	1
	CE8302	12	13	8	12	75	4	12	76	10	10	-
	CE8311									48	60	-
	CE8351	10	11	9	11	72	4	15	74	8	8	-
	CE8361									47	60	1
	CE8391	11	11	10	12	76	3	12	75	10	10	-
	CE8392	11	11	7	10	77	3	15	76	9	9	-
	HS8381									26	30	•
	MA8353	15	16	11	15	70	5	16	76	12	13	•
912617103003 KARTHIKA K	CE8301	11	11	12	12	80	11	11	84	11	11	-
	CE8302	13	13	12	12	80	12	12	90	10	10	
	CE8311									60	60	
	CE8351	11	11	11	11	85	15	15	95	8	8	
	CE8361									60	60	
	CE8391	11	11	12	12	82	12	12	81	10	10	• •
	CE8392	11	11	10	10	89	15	15	82	9	9	• •
	HS8381									30	30	
	MA8353	16	16	15	15	90	16	16	89	13	13	•
912617103004 KASTHURI K	CE8301	10	11	9	12	88	10	11	80	10	11	• •
	CE8302	12	13	12	12	95	10	12	85	9	10	
	CE8311									60	60	• •
	CE8351	10	11	10	11	96	14	15	81	7		• •
	CE8361									55	60	
	CE8391	10	11	11	12	88	11	12	82	9	10	
	CE8392	10	11	9	10	88	14	15	83		9	
	HS8381									30	30	
	MA8353	14	16	13	15	99	15	16	90	12		
912617103005 MONIKA K	CE8301	6	11	12	12	78	10		81	9		
	CE8302	6	13	10	12	75	12	12	80		10	-
	CE8311										60	
	CE8351	6	11	10	11	71	15	15	80			-
	CE8361									47	60	-
	CE8391	6	11	12	12	90	12	12	88			
	CE8392	6	11	10	10	82			89	5	<u>10</u> 9	1
	HS8381											-
	MA8353	7	16	13	15	71			84	26	30	-
912617103006 MUTHUMEENA P	CE8301	11	11	13	12	80			81	10		
<u> </u>	CE8302	12	13	11	12	93			86			-
	CE8311							12	95	9		-
	@E8351		11	10						60	60	-
	CE8361			10	_ 11	95			87		8	-
THILAGAVATHIME.	Ph. DCE8391		11	12	12	02				60	60	-
	CE8392		11	12	12	93		12	84		10	-
PRINCIPAL						92	15	15	82	8	9	

Kaikkurchi - 622 303, Pudukkottai Dt.



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NOV. / DEC. EXAMINATION, 2018 [R-2017] - EXAMINATIONS

Inst Code & Name : 9126 - SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

	MA8353	16	16	14	15	91	16	16	88	12	13	90
912617103007 POTHUMPEN A	CE8301	11	11	11	12	74		11	82	9	11	82
	CE8302	12	13	11	12	75	12	12	81	9	10	85
	CE8311									60	60	80
	CE8351	11	11	11	11	75	15	15	81	7	8	81
	CE8361	1								60	60	82
	CE8391	10	11	12	12	75	12	12	80	8	10	80
	CE8392	9	11	9	10	78	15	15	81	8	9	81
	HS8381									30	30	83
	MA8353	14	16	14	15	75	15	16	80	12	13	81
12617103008 PRIYADHARSHINI S	CE8301	11	11	10	12	94	8	11	80	11	11	88
	CE8302	13	13	8	12	75	8	12	82	10	10	86
	CE8311									60	60	83
	CE8351	11	11	8	11	71	14	15	81	8	8	88
	CE8361									55	60	91
	CE8391	11	11	11	12	88	12	12	81	10	10	85
	CE8392	11	11	8	10	85	14	15	82	9	9	85
	HS8381									30	30	85
	MA8353	16	16	12	15	76	14	16	83	13	13	85
912617103009 RAJESWARI J	CE8301	11	11	11	12	96	10	11	88	11	11	90
	CE8302	12	13	11	12	95	12	12	95	9	10	96
	CE8311										60	90
	CE8351	10	11	10	11	89	15	15	92	7	8	95
	CE8361									60	- 60	94
	CE8391	10	11	12	12	91	12	12	86	9	10	91
	CE8392	11	11	10	10	93	15	15	85	8	9	93
	HS8381									30	30	90
	MA8353	14	16	15	15	98	15	16	96	12	13	97
12617103010 SIVAPRIYA S	CE8301	11	11	12	12	75	11	11	81	11	11	87
	CE8302	13	13	12	12	75	12	12	81	10	10	83
	CE8311									60	60	83
	CE8351		11	11	11	73	15	15	80	8	8	88
	CE8361									60	60	84
	CE8391	11	11	12	12	80	12	12	80	10	10	83
	CE8392	11	11	10	10	85	15	15	87	9	9	85
	HS8381									30	30	82
	MA8353	16	16	15	15	73	16	16	85	13	13	88
2617103701 LAKSHMI A	CE8301	1	1	10	12	76		11	80	10		83
	CE8302	1	1	10	12	75	12	12	81	9	10	84
	CE8311		.2							60	60	83
	CE8351	1	1	10	11	74	15	15	82			85
	CE8361									60	60	81
	CE8391	1	1	11	12	75	12	12	83	9	10	80
	CE8392	1	1	9		78						
										U	3	86
	HS8381									26	30	88

Dr. S.THILAGAVATHI M.E. Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING **COLLEGE FOR WOMEN** Kaikkurchi - 622 303, Pudukkottai Dt.



CE/EII

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN (Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF CIVIL ENGINEERING Experiential learning(Project,In-Plant Training,Industrial visit,Local visit)

2018-2019 (LABORATORY COURSES-III Year)

CE05	SOIL MECHANICS LABORATORY	LTPC
		0042
OBJI	ECTIVES:	
•	At the end of the course student attains adequate knowledge in assessing both Engineering behaviour of soils through laboratory testing procedures.	Physical and
LIS	T OF EXPERIMENTS :	
1. a. b. c. d. e.	DETERMINATION OF INDEX PROPERTIES Special gravity of soil solids Grain size distribution – Sieve analysis Grain size distribution Hydrometer analysis Liquid limit and Plastic limit tests Shrinkage limit and Differential free swell tests	22
2. a. b.	DETERMINATION OF INSITU DENSITY AND COMPACTION CHARACTERISTICS Field density Test (Sand replacement method) Determination of moisture – density relationship using standard Proctor compa	8
3. a. b. c. d. e.	DETERMINATION OF ENGINEERING PROPERTIES Permeability determination (constant head and falling head methods) One dimensional consolidation test (Determination of co-efficient of consolida Direct shear test in cohesion-less soil Unconfined compression test in cohesive soil Laboratory vane Shear test in cohesive soil	30
f. g.	Tri-axial compression test in cohesion-less soil (Demonstration only) California Bearing Ratio Test	
		: 60 PERIODS
REF	ERENCES:	
	"Soil Engineering Laboratory Instruction Manual" published by Engineering C operative Society, Anna University, Chennai, 1996.Saibaba Reddy, E. Ramasast "Measurement of Engineering Properties of Soils" New	ollege Co- tri, K.

2.age International (P) Limited Publishers, New Delhi, 2002.

3.Lambe T.W., "Soil Testing for Engineers", John Wiley and Sons, New York, 1990.

Dr. S.THILAGAVATHI M.E., Ph.D.,

PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai DL



SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN (Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF CIVIL ENGINEERING Experiential learning(Project,In-Plant Training,Industrial visit,Local visit)

LIST OF EQUIPMENT FOR A BATCH OF 30 STUDENTS

SI.No.	Description of Equipment	Quantity		
1.	Sieves	2 sets		
2.	Hydrometer	2 sets		
3.	Liquid and plastic limit apparatus	2 sets		
4.	Shinkage limit apparatus	3 sets		
5.	Proctor compaction apparatus	2 sets		
6.	UTM of minimum of 20KN capacity	1		
7.	Direct shear apparatus	1		
8.	Thermeometer	2		
9.	Field density measuring device	2		
10.	Triaxial shear apparatus	1		
11.	Three gang consolidation test device	1		

Batch List

S.NO	Reg No	Name of the student	Batch	Laboratory Course	Year/Branch		
	912616103001	Aarthi.G					
	912616103002	Ananthi.S					
	912616103003	Anusiya.C					
	912616103004	Kanimozhi.P		1	• *		
	912616103005	Lavanya.K		CE6511- SOIL	II/CIVIL		
1	912616103006	Masilamani.M					
1	912616103007	Menaka.R		MECHANICS			
	912616103008	Praveena.M		LABORATORY			
	912616103301	Gowsika N		II			
	912616103302	Kaliswari M	11				
	912616103303 Maheswari M	1					
	912616103304 Sarathapritha						

Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt. HOD / CIVIL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, PUDUKKOTTAI - 622 303

HoD/Civil

Internal Marks Report : 9126 - SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

College Code / Name

Branch Code / Name

Semester: 05

University : AUC

: 103 - B.E. Civil Engineering

Regulation : 2013

S.No	Register Number	Name	CE6501	CE6502	CE6503	CE6504	CE6505	CE6506	CE6511	CE6512	GE6674
1	912616103001	AARTHI G	16	16	17	17	17	17	18	17	17
2	912616103002	ANANTHI S	16	16	16 .	17	17	16	16	16	
3	912616103003	ANUSIYA C	17	16	16	17	16	16	16		17
4	912616103004	KANIMOZHI P	17	16	17	17	17	10		17	17
5	912616103005	LAVANYA K	17	17	17	18	17	17	18	18	17
6	912616103006	MASILAMANI M	16	16	16	17	16		17	19	18
7	912616103007	MENAKA R	18	18	19	19		16	16	17	16
8	912616103008	PRAVEENA M	17	17	18		18	18	19	19	18
9	912616103301	GOWSIKA N	17	17		18	17	17	18	19	17
10	912616103302	KALISWARI M			17	17	17	17	17	18	17
	912616103303	MAHESWARIM	17	18	19	19	19	18	19	19	17
-			17	17	18	18	17	17	18	19	17
12	912616103304	SARATHAPRITHA S	18	17	18	18	18	17	18	19	17

Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.