



# SRI BHARATHI

ENGINEERING COLLEGE FOR WOMEN

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

[www.sbec.edu.in](http://www.sbec.edu.in)

## 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**



**Criteria 2**

**Teaching-Learning and Evaluation**

**350**

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

**2021-2022**

**PROBLEM SOLVING  
CIVIL ENGINEERING**

<b>Activity</b>	<b>Number of Students Attended</b>	<b>Page No.</b>
<b>Tutorial</b>	<b>16</b>	<b>3</b>
<b>Mini Project</b>	<b>04</b>	<b>8</b>
<b>TOTAL STUDENTS ATTENDED</b>	<b>20</b>	<b>-</b>



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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

**Criteria 2**

**Teaching-Learning and Evaluation**

**350**

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

**2021-2022**

**CIVIL ENGINEERING**

**PROBLEM SOLVING**

**TUTORIAL**



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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

## DEPARTMENT OF CIVIL ENGINEERING

### Problem Solving Methodology

List of Students III year Civil-Problem Solving Method

Academic Year (2021-2022)

S.No	Register No	Name	Year/Sem	Name of the learning method
1	912619103001	Ajitha T	III/V	<b>Problem Solving Method- Tutorial CE 8591/ Foundation Engineering</b>
2	912619103002	Aruljenifar C		
3	912619103003	Divya V		
4	912619103004	Mangaiyarkarasi G		
5	912619103005	Muthulakshmi S		
6	912619103006	Praveena S		
7	912619103007	Priyadharshini K		
8	912619103009	Ragavi V		
9	912619103301	Lilly John.J		
10	912619103302	Bhuvani.S		

Name and Signature of the Faculty Incharge

P. Dennis Flora, AP/CIVIL

**Dr. S. THILAGAVATHI M.E., Ph.D.,**  
PRINCIPAL  
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Kaikkurichi - 622 303, Pudukkottai Dt.

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## DEPARTMENT OF CIVIL ENGINEERING

### Tutorial Answer sheet

Name of the Student : *Lilly John . J*

AU Register Number: *912619103301*

Tutorial – 01		Date of Issue:	26.07.2021	Marks	10
Course code	CE8591	Course Title	Foundation Engineering		
Year	III	Semester	V	Date of Submission:	27.07.2021

Q.No	Questions	CO
1.	An R.C. Column footing 2.26 m in square shape is to rest 1.5 m below level ground level is on cohesive soil. The unit weight is $17.6 \text{ kN/m}^3$ . What is the safe load if cohesion is $30 \text{ kN/m}^3$ Factor of safety 2.4? Angle of internal friction $33^\circ$ by IS code.	C304.1
2.	A square footing located at a depth of 1.5 m below the ground surface in Cohesionless soil carries a column load of 1280 kN. The soil is submerged having an effective unit weight of $11.5 \text{ kN/m}^3$ and an angle of shearing resistance of $30^\circ$ . Show and find the size of the footing for $F_s = 3$ by Terzaghi's theory of general shear failure.	C304.1
3.	In a plate bearing test on pure clayey soil failure occurred at a load of 12.2 tonnes. The size of the plate was 45 cm x 45 cm and the test was one at a depth of 1.0 m below ground level. Calculate the ultimate bearing capacity for a 1.5 m wide continuous wall footing with its base at a depth of 2m below ground level. The unit wt. of clay may be taken as $1.9 \text{ gm/ c.c.}$	C304.1

### Mark Allocation

Rubrics	Marks Allocated	Marks obtained
Problem solving approach	6	03
Correction of answer	2	01
Timely submission	2	0
Total marks	10	04

*P. D. J.*  
Name and Signature of the Faculty Incharge

*P. Dennis Flora, A.P.C.E.*

*R. J.*

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## DEPARTMENT OF CIVIL ENGINEERING

### Problem Solving Methodology

List of Students II year Civil-Problem Solving Method


Academic Year (2021-2022)

S.No	Register No	Name	Year/Sem	Name of the learning method
1	912620103001	Aswini T	II/IV	Problem Solving Method- Tutorial CE 8403/ Applied Hydraulic Engineering
2	912620103002	Geetha M		
3	912620103003	Keerthi S		
4	912620103004	Subathra S		
5	912620103301	Bhavani S		
6	912620103302	Megala V		

Name and Signature of the Faculty Incharge

{A. SIVAYOGARAJ}.

  
**Dr. S. THILAGAVATHI M.E., Ph.D.,**  
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## DEPARTMENT OF CIVIL ENGINEERING

### Tutorial Answer sheet

Name of the Student : *Subathra . S*

AU Register Number: *912620102004*

Tutorial – 01		Date of Issue:	24.03.2022	Marks	10
Course code	CE8403	Course Title	Applied hydraulic Engineering.		
Year	II	Semester	IV	Date of Submission:	26.03.2022

Q.No	Questions	CO
1.	The specific energy for a 3 m wide channel is 8 Nm/N. What is the maximum possible discharge in the channel? Show that in a rectangular channel, maximum discharge occurs when the flow is critical for a given value of specific energy.	C311.1
2.	A 8 m wide channel conveys 15 cumecs of water at a depth of 1.2 m. Determine Specific energy of the flowing water, Critical depth, Critical velocity, Minimum Specific energy, Froude number and also state whether the flow is sub critical or super critical.	C311.1
3.	Derive the expressions for the most economical depths of flow in terms of the diameter of the channel of circular cross-section: For maximum velocity and For maximum discharge.	C311.1

### Mark Allocation

Rubrics	Marks Allocated	Marks obtained
Problem solving approach	6	<i>03</i>
Correction of answer	2	<i>01</i>
Timely submission	2	<i>01</i>
Total marks	10	<i>05</i>

Name and Signature of the Faculty Incharge

*A. Siva*  
*P.A. SIVAYOGARAJI*

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

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**COLLEGE FOR WOMEN**  
Kaikkurichi - 622 303, Pudukkottai Dt.

*R. Jay*  
**HoD/Civil**

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**2021-2022**

**CIVIL ENGINEERING**

**PROBLEM SOLVING**

**MINI PROJECT**





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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

## DEPARTMENT OF CIVIL ENGINEERING

### Problem Solving Methodology

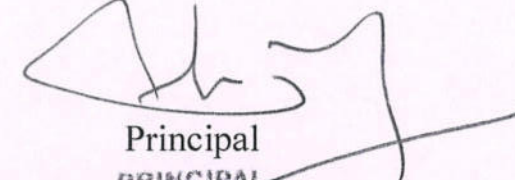
#### IV Year/VII Semester Mini Project Batch List (2021-2022)

Batch No	Register Number	Students Name	Project Title	Guide Name
1	912618103005	Meenachi.K	Planning and Designing of Bank Building	MS.G.GAYATHRI AP/CIVIL
	912618103008	Sathya.M		
	912618103009	Srividhya.S		
	912618103010	Umamaheswari.K		

  
Project CoOrdinator

  
**Dr. S.THILAGAVATHI M.E., Ph.D.,**  
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Principal  
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KAIKKURICHI - 622 303,  
PUDUKKOTTAI DISTRICT



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## DEPARTMENT OF CIVIL ENGINEERING

### Problem Solving Methodology

List of Students IV year Civil-Problem Solving Method

Academic Year (2021-2022)

Batch No	Register No	Name	Year/Sem	Topic	Name of the learning method
1	912618103005	Meenachi.K	IV/VII	Planning and Designing of Bank Building	Problem Solving Method- Mini Project
	912618103008	Sathya.M			
	912618103009	Srividhya.S			
	912618103010	Umamaheswari.K			

  
**Dr. S.THILAGAVATHI M.E., Ph.D.,**  
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**COLLEGE FOR WOMEN**  
**Kaikkurichi - 622 303, Pudukkottai Dt.**

  
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**KAIKKURICHI,**  
**PUDUKKOTTAI - 622 303**





PLANNING AND DESIGNING OF BANK BUILDING

A PROJECT REPORT

*Submitted by*

K.MEENACHI	912618103005
M.SATHYA	912618103008
S.SRIVIDHYA	912618103009
K.UMAMAHESWARI	912618103010

*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

JANUARY-2022

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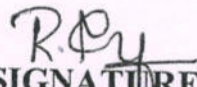
**Dr. S.THILAGAVATHI M.E., Ph.D.,**  
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COLLEGE FOR WOMEN  
Kalkkurichi - 622 303, Pudukkottai Dt.



**ANNA UNIVERSITY: CHENNAI 600 025**

**BONAFIDE CERTIFICATE**

Certified that this project report “**PLANNING AND DESIGNING OF BANK BUILDING**” is the bonafide work of **MEENACHI.K (912618103005), SATHYA.M (912618103008), SRIVIDHYA.S (912618103009)** and **UMAMAHESWARI.K (912618103010)** who carried out the project work under my supervision.

  
SIGNATURE

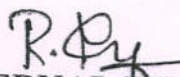
**Ms.R.MANJU, M.E.,**  
**HEAD OF THE DEPARTMENT,**  
Department of civil Engineering  
Sri Bharathi Engineering  
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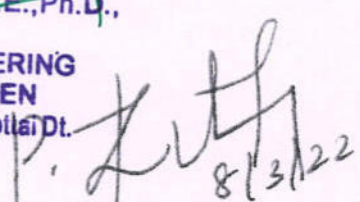
  
SIGNATURE

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

Submitted for the project viva – voice examination held on.. 8.13/22

  
**Dr. S.THILAGAVATHI M.E., Ph.D.,**  
PRINCIPAL  
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Kaikkurchi - 622 303, Pudukkottai Dt.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER