



# 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)**

**2020-2021**

**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>11</b>	<b>8</b>
<b>TOTAL STUDENTS ATTENDED</b>	<b>27</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)**

**2020-2021**

**CIVIL ENGINEERING**

**PROBLEM SOLVING**

**TUTORIAL**



# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

## DEPARTMENT OF CIVIL ENGINEERING

### Problem Solving Methodology

List of Students II year Civil-Problem Solving Method

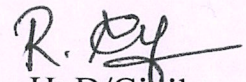
Academic Year (2020-2021)

S.No	Register No	Name	Year/Sem	Name of the learning method
1	912619103001	Ajitha T	II/IV	Problem Solving Method- Tutorial CE 8402/ Strength of materials-II
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	912619103010	Rajathi T		
10	912619103301	Lilly John J		
11	912619103302	Bhuvani S		

Name and Signature of the Faculty Incharge

G. GAYATHRI, AP/CIVIL

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

  
HoD/Civil  
SRI BHARATHI ENGINEERING  
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KAIKKURICHI,



**SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN**  
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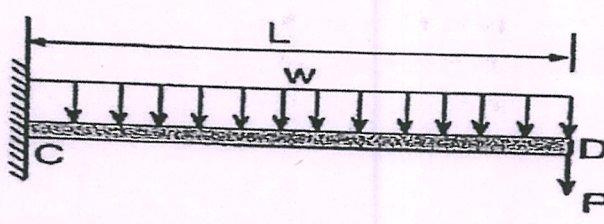
DEPARTMENT OF CIVIL ENGINEERING

**Tutorial Answer sheet**

Name of the Student : *Ragavi.V*

AU Register Number: *912619103009*

Tutorial – 02			Date of Issue:	25.02.2021	Marks	10
Course code	CE8402	Course Title	Strength of materials II			
Year	II	Semester	IV	Date of Submission:	27.02.2021	

Q.No	Questions	CO
1.	Using the method of virtual work, examine the deflection at the free end of the cantilever beam carrying uniformly distributed load 25 kN/m throughout the length of 12m. Take $E = 2 \times 10^5 \text{ MPa}$ , $I = 825 \times 10^7 \text{ mm}^4$ .	C212.1
2.	A 1 m long bar of rectangular cross section $50 \times 80 \text{ mm}$ is subjected to an axial load of 1.2 kN. Write the maximum stress and strain energy developed in the bar if the load applied is (a) gradual (b) sudden (c) falls through a height of 25 mm. Take $E = 205 \text{ GPa}$	C212.1
3.	Determine the deflection at the point D as shown below using following data $L = 3\text{m}$ , $w = 6 \text{ kN/m}$ , $P = 6 \text{ kN}$ and $EI = 5 \text{ MN/m}^2$ . 	C212.1

**Mark Allocation**

Rubrics	Marks Allocated	Marks obtained
Problem solving approach	6	4
Correction of answer	2	1
Timely submission	2	1
Total marks	10	6

*G. Gayathri*  
 Name and Signature of the Faculty Incharge  
**[G. GAYATHRI]**

**Dr. S. THILAGAVATHI M.E., Ph.D.,** HOD/CIVIL  
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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

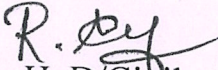
Academic Year (2020-2021)

S.No	Register No	Name	Year/Sem	Name of the learning method
1	912618103003	Maheshwari V	III/VI	<b>Problem Solving Method-</b> Tutorial CE 8601/ Design of Steel Structural Elements
2	912618103005	Meenachi K		
3	912618103008	Sathya M		
4	912618103009	Srividhya S		
5	912618103010	Umamaheswari K		

Name and Signature of the Faculty Incharge

G. GRAYATHRI, AP / CIVIL

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

**Tutorial Answer sheet**

Name of the Student : *Dhesika parathi D*

AU Register Number: *912617103002*

Tutorial – 01			Date of Issue:	02.03.2021	Marks	10
Course code	CE8601	Course Title	Design of Steel Structural Elements			
Year	III	Semester	VI	Date of Submission:	05.03.2021	

Q.No	Questions	CO
1.	Determine the design axial load on the column section ISHB 250, given that the height of column is 2.8 m & it is pin-ended & braced along minor axis. $f_y = 250\text{N/mm}^2$ , $f_u = 410\text{N/mm}^2$ , $E = 2 \times 10^5 \text{ N/mm}^2$ .	C310.1
2.	i) A column of a building is subjected to the following working (service) loads: Dead load (DL) = 48kN and Live load (LL) = 24kN Determine the factored design load. ii) The loads on a floor beam of a commercial building are as below, Roof loads: Dead load = 6kN/m <sup>2</sup> Live load = 4kN/m <sup>2</sup> Roof finish = 1.5kN/m <sup>2</sup> Determine the design load for limit state of strength and limit state of serviceability.	C310.1
3.	(i) Enumerate with example of the various method of fabrication used in steel structures. ii) A tie bar 50mm x 80 mm is to carry a load of 80 kN. A specimen of the same quality steel of cross-sectional area 250 mm <sup>2</sup> was tested in the laboratory. The maximum load carried by the specimen was 125kN. Find the ultimate strength and factor of safety.	C310.1

**Mark Allocation**

Rubrics	Marks Allocated	Marks obtained
Problem solving approach	6	4
Correction of answer	2	1
Timely submission	2	1
Total marks	10	6

Name and Signature of the Faculty Incharge

*G. Gayathri*  
G. GAYATHRI

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

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*R. Raj*  
R. Raj  
HOD/Civil

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**Teaching-Learning and Evaluation**

**350**

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

**2020-2021**

**CIVIL ENGINEERING**

**PROBLEM SOLVING**

**MINI PROJECT**





# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

## DEPARTMENT OF CIVIL ENGINEERING

### Problem Solving Methodology

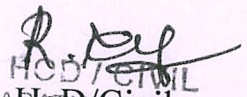
List of Students IV year Civil-Problem Solving Method

Academic Year (2020-2021)

Batch No	Register No	Name	Year/Sem	Topic	Name of the learning method
1	912617103001	Chandrika.C	IV/VII	Analysis And Design Of Secretariat Building	Problem Solving Method- Mini Project
	912617103002	Dhesikaparthi.D			
	912617103003	Karthika.K			
	912617103005	Monika.K			
2	912617103004	Kasthuri.K	IV/VII	Planning And Designing Of Commercial Building	
	912617103008	Priyadharshini.S			
	912617103010	Sivapriya.S			
	912617103701	Lakshmi.A			
3	912617103006	Muthumeena.P	IV/VII	Analysis And Design Of Civil Block	
	912617103007	Pothumpen.A			
	912617103009	Rajeswari.J			

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

SRI BHARATHI ENGINEERING  
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Kaikkurichi - 622 303, Pudukkottai Dt.

  
HOD/CIVIL  
SRI BHARATHI ENGINEERING  
COLLEGE FOR WOMEN



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**DEPARTMENT OF CIVIL ENGINEERING**  
**Problem Solving Methodology**

**IV Year/VII Semester Mini Project Batch List (2020-2021)**

Batch No	Register Number	Students Name	Project Title	Guide Name
1	912617103001	Chandrika.C	Analysis And Design Of Secretariat Building	Ms.G.GAYATHRI AP/CIVIL
	912617103002	Dhesikaparthi.D		
	912617103003	Karthika.K		
	912617103005	Monika.K		
2	912617103004	Kasthuri.K	Planning And Designing Of Commercial Building	Mrs.R.PADMA RANI AP/CIVIL
	912617103008	Priyadharshini.S		
	912617103010	Sivapriya.S		
	912617103701	Lakshmi.A		
3	912617103006	Muthumeena.P	Analysis And Design Of Civil Block	Mrs.P.DENNIS FLORA AP/CIVIL
	912617103007	Pothumpen.A		
	912617103009	Rajeswari.J		

Project Coordinator

HOD / CIVIL  
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PUDUKKOTTAI - 622 303

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PUDUKKOTTAI DISTRICT

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



# ANALYSIS AND DESIGN OF SECRETARIAT BUILDING

## A PROJECT REPORT

*Submitted by*

C.CHANDRIKA	912617103001
D.DHESIKAPARTHI	912617103002
K.KARTHIKA	912617103003
K.MONIKA	912617103005

*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

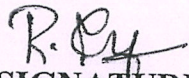
MARCH -2021

**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 "ANALYSIS AND DESIGN OF SECRETARIAT BUILDING" is the bonafide work of CHANDRIKA.C (912617103001), DESIKAPARTHI.D (912617103002), KARTHIKA.K (912617103003) and MONIKA.K (912617103005) who carried out the project work under my supervision.

  
SIGNATURE

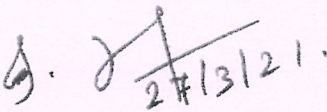
Ms.R.MANJU, M.E.,  
HEAD OF THE DEPARTMENT,  
Department of civil Engineering  
Sri Bharathi Engineering  
College for Women,  
Kaikkurichi,  
Pudukkottai - 622 303.

  
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. 27/3/21

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

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



PLANNING AND DESIGN OF COMMERCIAL  
BUILDING

DESIGN PROJECT REPORT

*Submitted by*

KASTHURI.K	912617103004
PRIYADHARSHINI.S	912617103008
SIVAPRIYA.S	912617103010
LAKSHMI.A	912617103701

*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 - 2021

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

**ANNA UNIVERSITY: CHENNAI 600 025**

**BONAFIDE CERTIFICATE**

Certified that this project report “**PLANNING AND DESIGNING OF COMMERCIAL BUILDING**” is the bonafide work of **KASTHURI.K (912617103004)**, **PRIYADHARSHINI.S (912617103008)**, **SIVAPRIYA.S (912617103010)** and **LAKSHMI.A (912617103701)**, 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  
College for Women,  
Kaikkurichi,  
Pudukkottai - 622 303.

  
SIGNATURE

**Mrs.R.PADMARANI, M.E.,**  
**SUPERVISOR,**  
Department of civil Engineering  
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Kaikkurichi,  
Pudukkottai – 622 303.

Submitted for the project viva – voice examination held on...*27.03.2021*...

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

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



**EXPERIMENTAL INVESTIGATION ON CONCRETE BY  
PARTIAL REPLACEMENT OF DOLOMITE POWDER AS  
CEMENT**

**A PROJECT REPORT**

*Submitted by*

MUTHUMEENA.P	912617103006
POTHUMPEN.A	912617103007
RAJESWARI.J	912617103009

*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**

**MARCH -2021**

**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 "ANALYSIS AND DESIGN OF CIVIL BLOCK" is the bonafide work of MUTHUMEENA.P (912617103006), POTHUMPEN.A (912617103007) and RAJESWARI.J (912617103009) 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  
College for Women,  
Kaikkurichi,  
Pudukkottai - 622 303.

  
SIGNATURE

Mrs.P.DENNIS FLORA, 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... 27/03/21

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

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