



## SAPTHAGIRI COLLEGE OF ENGINEERING

(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE-New Delhi)  
(Accredited by NAAC with "A" Grade and Accredited by NBA for CSE, ECE, EEE, ISE and ME)  
(ISO 9001:2015 & ISO 14001:2015 Certified Institute)

### Department of Civil Engineering

#### Project Batch List Academic Year 2022-23

Sl. NO	Batch No	Name of the student	USN	Project Title
1	Batch 1	Darshan R	ISG19CV009	Translucent concrete
2		Guru Prakash	ISG19CV013	
3		Keerthi k m	ISG19CV017	
4		Punith klumar S	ISG19CV029	
6	Batch 2	Amrutha D	ISG19CV003	Implementation od rejuvenators on used bitumen to determine the properties of bitumen
7		Keerthana B	ISG19CV016	
8		Moksha Lakshmi	ISG19CV022	
9		Thanushree	ISG19CV037	
10	Batch 3	Bhuvan S	ISG19CV006	Comparative study of quality concrete by partially replacement of cement with silica fume, metakolin by using recycled aggragtes
11		Kiran H N	ISG19CV018	
12		Mahadev prasad R	ISG19CV020	
13		Yashas H	ISG19CV042	
14	Batch 4	Punith K P	ISG19CV028	Comparision of concrete mix design
16		Roopesh Yadav	ISG19CV034	
17		Syed hasseb	ISG19CV036	
18		Ujwal patel	ISG19CV038	
19	Batch 5	Pruthvi raj	ISG19CV026	Assessment of geo technical properties of bio polymer based soil
21		Yogesh gowda	ISG19CV043	
22		Srinivas A C	ISG20CV406	
23		Yogesh murthy	ISG20CV408	
24	Batch 6	Mayur K	ISG18CV030	Stabilization of expansive soil using sugarcane bagasse ash and wheat husk
25		Sharath patil	ISG18CV048	
26		Shamanth K C	ISG19CV035	
27		Waqas ahmmed sheikh	ISG19CV044	
28	Batch 7	Abhishek S N	ISG19CV001	A case study on NH 48 yedehalli traffic analysis using data from sky
29		athish sanjay naik	ISG19CV005	
30		Darshan S	ISG19CV010	
31		Diwakar	ISG19CV011	
32	Batch 8	Monisha G	ISG19CV023	Prediction of top stroey displacement of RC frame using artificial neural network
33		Neha murthy	ISG19CV025	
35		Pruthvi bhat	ISG19CV027	
36		Dileep kumar M U	ISG20CV402	
37	Batch 9	Hemanth gowda	ISG19CV015	Experimental investigation of partial replacement of mud by cement and GGBS for the production of interlocking blocks
38		Rohith vijay	ISG19CV033	
39		Prashan gowda N C	ISG19CV045	
40		Anand S	ISG20CV0401	
41	Batch 10	Anil kumar B V	ISG19CV004	An ivestigation on mechanical properties of concrete blended with GGBS and macro synthetic fibre
42		Chandana c	ISG19CV008	
43		Gopal kumar	ISG19CV012	
44		Shivprasad	ISG18CV049	
45	Batch 11	Girish M	ISG18CV020	Application of nano particles in
46		N Pruthvi raj	ISG19CV024	
47		Rushab	ISG19CV032	

Principal

48		Vishwas	ISG19CV040	concrete and its ecological impact
49	Batch12	Harish kumar B	ISG19CV014	Studies on traffic and pavement condition on the selected stretch
50		Reshma M L	ISG19CV031	
51		Veenashri	ISG19CV039	
52		Yashas G	ISG19CV041	
53	Batch 13	Krishna kant sahu	ISG19CV019	Data management in construction industry using AI
54		M D nazarullah fahaz	ISG19CV021	
55		Kausar parveen	ISG20CV403	
56	Batch 14	Abhishek D	ISG20CV400	Strengthening of existing building using retrofitting technique
57		Varun B M	ISG20CV407	
58		Santhosh G B	ISG20CV405	
59		Naveen K B	ISG20CV404	

  
 Principal  
**Sapthagiri College of Engineering**  
 14/5, Chikkasandra, Hesaraghatta Main Road  
 Bengaluru - 560 057

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**"JNANA SANGAMA", BELAGAVI-590018**



**A**

**PROJECT REPORT ON**  
**"TRANSLUCENT CONCRETE"**

*Submitted in partial fulfillment for the award of the degree of*

**BACHELOR OF ENGINEERING**  
**In**  
**CIVIL ENGINEERING**

**Submitted By**

**DARSHAN R**

**USN: 1SG19CV009**

**GURU PRAKASH AGNI**

**USN: 1SG19CV013**

**KEERTHI KM**

**USN: 1SG19CV017**

**PUNITH KUMAR S**

**USN: 1SG19CV029**

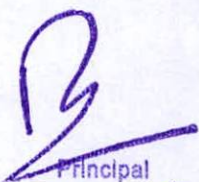
**UNDER THE GUIDANCE OF**

**MR. SANTHOSH R**

**Asst. Professor**

**DEPT OF CIVIL ENGINEERING**



  
Principal

**Sapthagiri College of Engineering**  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bengaluru - 560 057

**DEPARTMENT OF CIVIL ENGINEERING**

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& ISO 9001:2015 and 1400:2015 Certified Institute)

**14/5, Chikkasandra, Hesaraghatta Main road**

**2022-23**

VISVESVARAYA TECHNOLOGICAL UNIVERSITY  
"JNANA SANGAMA", BELAGAVI-590018



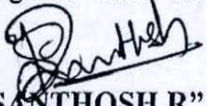
SAPTHAGIRI COLLEGE OF ENGINEERING  
BENGALURU - 560057

DEPARTMENT OF CIVIL ENGINEERING

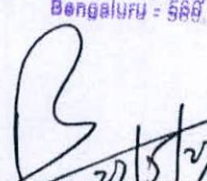


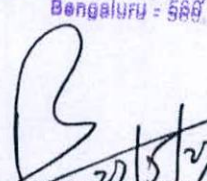
CERTIFICATE

It is Certified that the project work entitled with "TRANSLUCENT CONCRETE" is a bonafide work carried out by team associates DARSHAN R (1SG19CV009), GURU PRAKASH AGNI (1SG19CV013), KEERTHI KM (1SG19CV017), PUNITH KUMAR S (1SG19CV029) in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belagavi, during the year 2022-2023. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree 7<sup>th</sup> and 8<sup>th</sup> semesters.

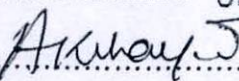
  
"MR.SANTHOSH R"  
Asst. professor  
Department of Civil Engineering  
S.C.E, Bengaluru.

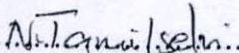
  
Principal  
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Bengaluru - 560 057

  
"DR. RAJESHWARI"  
H.O.D  
Department of Civil Engineering  
S.C.E, Bengaluru.  
HOD, Dept. of Civil Engg.  
S.C.E, Bangalore-560 057.

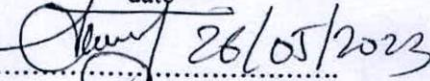
  
"DR.H. RAMAKRISHNA"  
Principal  
S.C.E, Bengaluru  
Principal

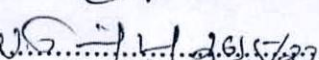
Name of examiner Sapthagiri College of Engineering  
Chikkasandra, Hesaraghatta Road  
Bangalore- 560 057

1).....

2).....

Signature of the Examiner with  
date

1.  26/05/2023

2.  26/5/23

# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"JNANA SANGAMA", BELAGAVI-590018"



**PROJECT CARRIED OUT ON  
"IMPLEMENTATION OF REJUVENATORS ON  
USED BITUMEN TO DETERMINE THE PROPERTIES OF BITUMEN"**

**Submitted in partial fulfillment for the award of the degree of  
BACHELOR OF ENGINEERING**

**IN  
CIVIL ENGINEERING**

**Submitted By:**

**AMRUTHA D**

**USN: 1SG19CV003**

**KEERTHANA B**

**USN: 1SG19CV016**

**MOKSHA LAKSHMI B R**

**USN: 1SG19CV022**

**THANUSHREE V**

**USN: 1SG19CV037**

**Under the Guidance of:**

**Prof. BHAVYA C H**

**Asst. Professor**



**SAPTHAGIRI COLLEGE OF ENGINEERING DEPARTMENT**

**(Affiliated to VTU, Belagavi & Approved by AICTE, New Delhi)**

**(Accredited by NAAC with 'A' Grade) & ISO 9001:2015 and 1400:2015 Certified Institute)**

**#14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore - 560057**

**2022-23**

  
**Principal,**  
**Sapthagiri College of Engineering**  
**14/5, Chikkasandra, Hesaraghatta Main Road**  
**Bengaluru - 560 057**

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**"JNANA SANGAMA", BELAGAVI-590018**



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#14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore - 560057

**DEPARTMENT OF CIVIL ENGINEERING**

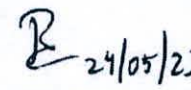


**CERTIFICATE**

It is Certified that the project work phase entitled with "IMPLEMENTATION ON REJUVENATORS ON USED BITUMEN TO DETERMINE THE PROPERTIES OF BITUMEN" is bonafide work carried out by team associates AMRUTHA D (1SG19CV003), KEERTHANA B (1SG19CV016), MOKSHA LAKSHMI B R (1SG19CV022), THANUSHREE V (1SG19CV037) in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belagavi, during the year 2022-2023. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree 7<sup>th</sup> and 8<sup>th</sup> semesters


  
**Prof. BHAVYA CH**

Asst. professor  
Department of Civil Engineering  
S.C.E, Bengaluru

  
**Dr. RAJESHWARI R**  
H.O.D

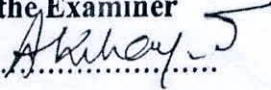
Department of Civil Engineering  
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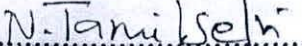
**HOD, Dept. of Civil Engg**  
**S.C.E, Bangalore-560 057**

  
**Dr. H RAMAKRISHNA**  
Principal  
S.C.E, Bangalore

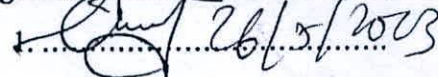
Sapthagiri College of Engineering  
Chikkasandra, Hesaraghatta Road  
Bangalore - 560 057

Name of the Examiner

1. 

2. 

Signature of the Examiner with date

 26/5/2023

Principal

Sapthagiri College of Engineering  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bengaluru - 560 057

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**BELAGAVI-560018**



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'A' Grade) & ISO 9001:2015 and 1400:2015 Certified Institute)  
#14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore – 560057



**A**

**PROJECT REPORT ON**

**“Comparative Study on Quality of Concrete by Partially  
Replacement of Cement with Silica fume, Metakaolin by using  
Recycled Aggregate”**

**Submitted in partial fulfillment for the award of the degree of  
BACHELOR OF ENGINEERING  
IN  
CIVIL ENGINEERING**

**SUBMITTED BY**

<b>BHUVAN S</b>	<b>1SG19CV006</b>
<b>KIRAN H N</b>	<b>1SG19CV018</b>
<b>MAHADEV PRASAD R</b>	<b>1SG19CV020</b>
<b>YASHAS S</b>	<b>1SG19CV042</b>

**UNDER THE GUIDENCE OF:**

**Prof PRIYANKA A**

**Asst Professor**

**DEPT OF CIVIL ENGINEERING  
SCE, BANGALORE**

  
Principal  
Sapthagiri College of Engineering  
14/5, Chikkasandra, Hesaraghatta Main Road  
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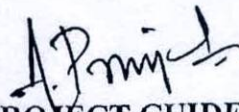
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**BELAGAVI-560018**

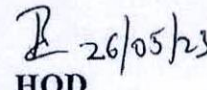


**SAPTHAGIRI COLLEGE OF ENGINEERING**  
**BENGALORE -560057**  
**DEPARTMENT OF CIVIL ENGINEERING**

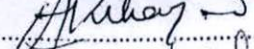
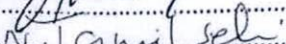


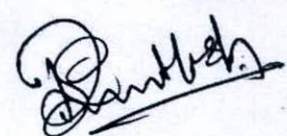
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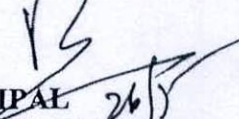
  
**PROJECT GUIDE**  
**PRIYANKA A**  
Asst Professor  
Dept of Civil Engineering  
S.C.E, Bangalore

  
**HOD**  
**DR. R RAJESHWARI**  
Dept. of Civil Engineering  
S.C.E, Bangalore  
**HOD, Dept. of Civil Engg.**  
**S.C.E, Bangalore-560 057**

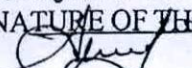

NAME OF THE EXAMINER

- 1) 
- 2) 

  
**PROJECT CO-ORDINATOR**  
**SANTHOSH R**  
Asst Professor  
Dept of Civil Engineering  
S.C.E, Bangalore

  
**PRINCIPAL**  
**Dr. H. RAMAKRISHNA**  
Dept of Civil Engineering  
Sapthagiri College of Engineering  
Chikkasandra, Hesaraghatta Road  
Bangalore- 560 057

SIGNATURE OF THE EXAMINER

- 1) 
- 2) 

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**BELAGAVI-590018, KARNATAKA.**



**A PROJECT REPORT**

**On**

**“COMPARISON OF CONCRETE MIX DESIGN”**

*Submitted in Partial Fulfilments for the Award of the Degree of*

**BACHELOR OF ENGINEERING**

**IN**

**CIVIL ENGINEERING**

**Submitted By:**

<b>PUNITH K P</b>	<b>1SG19CV028</b>
<b>ROOPESH YADAV V</b>	<b>1SG19CV034</b>
<b>SYED HASEEB</b>	<b>1SG19CV036</b>
<b>UJWAL B PATEL</b>	<b>1SG19CV038</b>

**Under the Guidance of**

**Santhosh R**

**Asst. Professor**

**Dept. of Civil Engineering**




**Department of Civil Engineering**  
**SAPTHAGIRI COLLEGE OF ENGINEERING**

**(Affiliated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New Delhi.)**

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**14/5, Chikkasandra, Hesarghatta Main Road Bengaluru**  
**- 560057.**

**2022-2023**

  
**Principal**  
**Sapthagiri College of Engineering**  
**14/5, Chikkasandra, Hesarghatta Main Road**  
**Bengaluru - 560 057**

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Bengaluru-560057

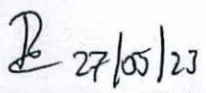
## Department of Civil Engineering




### Certificate

Certified that the Project Work entitled "COMPARISION OF CONCRETE MIX DESIGN" carried out by PUNITH K P (1SG19CV028), ROOPESH YADAV V (1SG19CV034), SYED HASEEB (1SG19CV036), UJWAL B PATEL (1SG19CV038), bonafide student of Sapthagiri College of Engineering, in partial fulfilment for the award of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belagavi during the academic year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of Project Work Phase II (18CVP83) prescribed for the said degree.

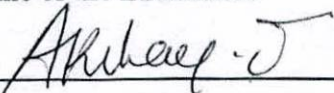
  
Signature of the Guide  
Santhosh R  
Asst. Professor

  
Signature of the HOD  
Dr. Rajeshwari R  
Professor & Head  
HOD, Dept. of Civil Engg.  
S.C.E, Bangalore-560 057

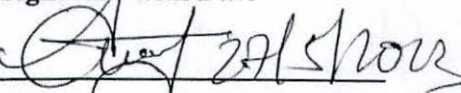

  
Signature of the Principal  
Dr. H Ramakrishna  
Principal  
Sapthagiri College of Engineering  
Chikkasandra, Hesaraghatta Road  
Bangalore-560 057

#### EXTERNAL EXAMINATION:

Name of the Examiners

1. 
2. MONICA M.S.

Signature with Date

  
  
27.05.23

  
Principal  
Sapthagiri College of Engineering  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bengaluru - 560 057

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**BELAGAVI-590018, KARNATAKA.**



**A PROJECT REPORT**

**On**

**“ASSESSMENT OF GEOTECHNICAL PROPERTIES OF  
BIO-POLYMER BASED SOIL”**

*Submitted in Partial Fulfilments for the Award of the Degree of*  
**BACHELOR OF ENGINEERING**

**IN**

**CIVIL ENGINEERING**

**Submitted By:**

<b>PRUTHVI RAJ R</b>	<b>1SG19CV026</b>
<b>YOGESH GOWDA S</b>	<b>1SG19CV043</b>
<b>SRINIVAS GOWDA C</b>	<b>1SG20CV406</b>
<b>YOGESH MURTHY H M</b>	<b>1SG20CV408</b>

**Under the Guidance of**

**Santhosh R & Kavya H.P**

**Asst. Professor**

**Dept. of Civil Engineering**



*Principal*  
**Sapthagiri College of Engineering**  
14/5, Chikkasandra, Hesarghatta Main Road  
Bengaluru - 560 057

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**2022-2023**

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Bengaluru-560057

## Department of Civil Engineering



### Certificate

Certified that the Project Work entitled "ASSESSMENT OF GEOTECHNICAL PROPERTIES OF BIO-POLYMER BASED SOIL" carried out by PRUTHVI RAJ R (1SG19CV026), YOGESH GOWDA S (1SD19CV043), SRINIVAS GOWDA C (1SG20CV406), YOGESH MURTHY H M (1SG20CV408), bonafide student of Sapthagiri College of Engineering, in partial fulfilment for the award of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belagavi during the academic year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of Project Work Phase II (18CVP83) prescribed for the said degree.

Signature of the Guide  
Santhosh R & Kavya H.P  
Asst. Professor

Signature of the HOD  
Dr. Rajeshwari R.  
HOD, Dept. of Civil Engg.  
Professor & Head  
S.C.E, Bangalore-560 057

Signature of the Principal  
Dr. H Ramakrishna  
Principal  
Principal

Sapthagiri College of Engineering  
Chikkasandra, Hesaraghatta Road  
Bangalore- 560 057

#### EXTERNAL EXAMINATION:

Name of the Examiners

1.

2. MONICA M. S.

Signature with Date

27.05.2023

Sapthagiri College of Engineering  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bangaluru - 560 057

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
"JNANA SANGAMA", MACHHE, BELAGAVI - 590018, KARNATAKA



2022-2023

Project Report on

**"STABILIZATION OF EXPANSIVE SOIL USING  
SUGARCANE BAGASSE ASH AND WHEAT HUSK  
ASH"**

Submitted in partial fulfillment of the requirement for the award of degree

**BACHELOR OF ENGINEERING  
IN  
CIVIL ENGINEERING**

Submitted by:

MAYUR K	1SG18CV030
SHARATH C PATIL	1SG18CV048
SHAMANTH K C	1SG19CV035
WAQAS AHMAD SHEIKH	1SG19CV044

Under the guidance of:

**VANISHREE. S**  
Assistant Professor  
Dept. Of Civil Engineering  
S.C.E, BENGALURU



*Principal*  
Sapthagiri College of Engineering  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bengaluru - 560 057

**DEPARTMENT OF CIVIL ENGINEERING  
SAPTHAGIRI COLLEGE OF ENGINEERING**  
(Affiliated to Visvesvaraya Technological University, Belagavi)  
Chikkasandra, Hesaraghatta Main Road, Bengaluru - 5600057  
KARNATAKA

# SAPTHAGIRI COLLEGE OF ENGINEERING

(An ISO 9001:2015 & 14001:2015 Certified Institution)

Chikkasandra, Hesaraghatta Main Road

Bengaluru- 560057



## DEPARTMENT OF CIVIL ENGINEERING

### CERTIFICATE

Certified that a project report on entitled "STABILIZATION OF EXPANSIVE SOIL USING SUGARCANE BAGASSE ASH AND WHEAT HUSK ASH" has been successfully carried out by MAYUR K (1SG18CV030), SHARATH C PATIL (1SG18CV048), SHAMANTH K C (1SG19CV035), WAQAS AHMAD SHEIKH (1SG19CV044), students of Sapthagiri College of Engineering, Bengaluru -560057, in partial fulfillment of project for the award of Bachelor of Engineering in Civil Engineering of the Visvesvaraya Technological University, Jnana Sangama, Belagavi - 590018 during the academic year 2022-2023. It is certified that all corrections and suggestions indicated for internal assessment have been incorporated in the report deposited in the Department library. The report has been approved as it satisfies the academic requirement in respect of project on current topic prescribed for B.E Degree.

Signature of the Project Guide  
Vanishree. S  
Assistant Professor  
Dept. of Civil Engineering  
S.C.E, Bengaluru

Signature of the H O D  
Dr. Rajeshwari. R  
Professor and Head  
HOD, Dept. of Civil Engg.  
S.C.E, Bangalore-560 057

Signature of the Principal  
Dr. H. Ramakrishna  
Principal  
S.C.E, Dept. of Engineering  
Sapthagiri College  
Chikkasandra, Hesaraghatta  
Bangalore-560 057

### External Viva

Name of the Examiners

1 .....  
2 ..... MONICA - M.S.

  
Sapthagiri College of Engineering  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bengaluru - 560 057

Signature with date

  
27-05-23

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**BELAGAVI-560018**



**SAPTHAGIRI COLLEGE OF ENGINEERING**



**DEPARTMENT OF CIVIL ENGINEERING**

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NAAC with 'A' Grade) & ISO 9001:2015 and 1400:2015 Certified Institute)  
#14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore – 560057

**A PROJECT REPORT**

**“A CASE STUDY ON NH-48 YEDEHALLI TRAFFIC ANALYSIS  
USING DATA FROM SKY”**

Submitted in partial fulfillment for the award of the degree of  
**BACHELOR OF ENGINEERING**  
IN  
**CIVIL ENGINEERING**

**SUBMITTED BY**

ABHISHEK S N	1SG19CV001
ATHISH SANJAY NAYAKA	1SG19CV005
DARSHAN S	1SG19CV010
DIVAKAR N G	1SG19CV011

**UNDER THE GUIDENCE OF:**  
**Prof. VINODKRISHNA M SAVADI**

**Asst Professor**  
**Dept of Civil Engineering**  
**SCE, Bangalore.**

  
**Principal**  
**Sapthagiri College of Engineering**  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bangalore - 560 057

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**BELAGAVI-560018**

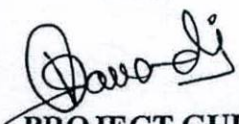



**SAPTHAGIRI COLLEGE OF ENGINEERING**  
**BENGALORE -560057**  
**DEPARTMENT OF CIVIL ENGINEERING**

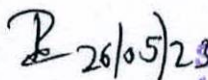


**CERTIFICATE**

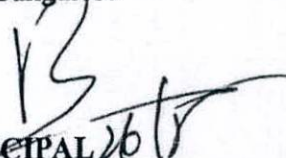
It is Certified that the project work entitled with "A CASE STUDY ON NH-48 YEDEHALLI TRAFFIC ANALYSIS USING DATA FROM SKY" is a bonafide work carried out by team associates ABHISHEK S N (1SG19CV001), ATHISH SANJAY NAYAKA (1SG19CV005), DARSHAN S (1SG19CV010), DIVAKAR N G (1SG19CV011) in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belagavi, during the year 2022-2023. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree 7<sup>th</sup> and 8<sup>th</sup> semesters.

  
**PROJECT GUIDE**  
**Prof. VINODKRISHNA M SAVADI**  
Asst Professor  
Dept of Civil Engineering  
S.C.E, Bangalore

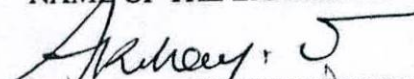
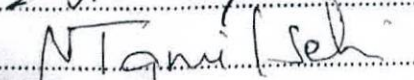
  
**PROJECT CO-ORDINATOR**  
**Prof. SANTHOSH R**  
Asst Professor  
Dept of Civil Engineering  
S.C.E, Bangalore

  
**HOD**  
**DR. R RAJESHWARI**  
HOD, Dept. of Civil Engg.  
S.C.E, Bangalore-560 057

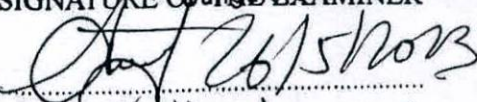
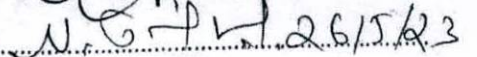
  
**Principal**  
**Sapthagiri College of Engineering**  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bangalore - 560 057

  
**PRINCIPAL**  
**Dr. H. RAMAKRISHNA**  
S.C.E, Bangalore  
Sapthagiri College of Engineering  
Chikkasandra, Hesaraghatta Road  
Bangalore - 560 057

**NAME OF THE EXAMINER**

- 1)   
2) 

**SIGNATURE OF THE EXAMINER**

- 1)   
2) 

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**“JNANA SANGAMA”, BELGAVI-590018**



**SAPTHAGIRI COLLEGE OF ENGINEERING**

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ISO 9001:2015 and 1400:2015 Certified Institute)

#14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore – 560057

**DEPARTMENT OF CIVIL ENGINEERING**



**A PROJECT REPORT ON**

**“PREDICTION OF TOP STOREY DISPLACEMENT OF RC FRAME  
USING ARTIFICIAL NEURAL NETWORK”**

**Submitted in partial fulfillment for the award of the degree of  
BACHELOR OF ENGINEERING IN CIVIL ENGINEERING  
SUBMITTED BY**

**MONISHA G                      1SG19CV023**  
**NEHA MURTHY G   1SG19CV025**  
**PRUTHVI S BHAT   1SG19CV027**  
**DILIPKUMAR M U   1SG20CV402**

**UNDER THE GUIDANCE OF:**

**Dr. R. RAJESHWARI**

**HOD Dept. of Civil Engineering  
S.C.E, Bengaluru**

  
**Principal**  
**Sapthagiri College of Engineering**  
**14/5, Chikkasandra, Hesaraghatta Main Road**  
**Bengaluru - 560 057**

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**"JNANA SANGAMA", BELGAVI-590018**



**SAPTHAGIRI COLLEGE OF ENGINEERING**  
#14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore – 560057  
**DEPARTMENT OF CIVIL ENGINEERING**



**CERTIFICATE**

It is Certified that the Project report entitled with "PREDICTION OF TOP STOREY DISPLACEMENT OF RC FRAME USING ARTIFICIAL NEURAL NETWORK" is a bonafide work carried out by **MONISHA G (1SG19CV023)**, **NEHA MURTHY G (1SG19CV025)**, **PRUTHVI S BHAT (1SG19CV027)**, **DILIPKUMAR M U (1SG20CV402)** in partial fulfilment of the requirement for the award of the degree of **Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belagavi, during the year 2022-2023**. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The Project report has been approved as it satisfies the academic requirements in respect of academic Project prescribed for the Bachelor of Engineering Degree in Civil engineering.

**Prof. SANTHOSH R**  
**CO-ORDINATOR**  
Asst Professor  
Dept. of Civil Engineering, S.C.E,  
Bengaluru

  
27/05/23

**Dr. R. RAJESHWARI**  
**PROFESSOR & HOD, GUIDE**  
Dept. of Civil Engineering,  
S.C.E, Bengaluru

**Dr. H. RAMAKRISHNA**  
**PRINCIPAL**  
S.C.E, Bengaluru

Examiner:

1:

2: **MONICA M.S**

27.05.2023

Principal  
**Sapthagiri College of Engineering**  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bengaluru - 560 057

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**"JNANA SANGAMA", BELAGAVI-590018**



**A**

**PROJECT REPORT ON**  
**"EXPERIMENTAL INVESTIGATION ON PARTIAL**  
**REPLACEMENT OF MUD BY CEMENT AND GGBS FOR THE**  
**PRODUCTION OF INTERLOCKING AND PLASTERING**  
**FREE MUD BLOCKS"**

*Submitted in partial fulfillment for the award of the degree of*

**BACHELOR OF ENGINEERING**

**In**

**CIVIL ENGINEERING**

**Submitted By**

**HEMANTH GOWDA P**

**ROHITH V**

**PRASHANTH GOWDA N C**

**ANAND S**

**USN: 1SG19CV015**

**USN: 1SG19CV033**

**USN: 1SG19CV045**

**USN: 1SG20CV401**

**UNDER THE GUIDANCE OF**

**MRS NANDINI IV**

**Asst. Professor**

**DEPT OF CIVIL ENGINEERING**



  
Principal

**Sapthagiri College of Engineering**  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bengaluru - 560 057

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**2022-23**

VISVESVARAYA TECHNOLOGICAL UNIVERSITY  
"JNANA SANGAMA", BELAGAVI-590018



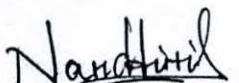
SAPTHAGIRI COLLEGE OF ENGINEERING  
BENGALURU – 560057

DEPARTMENT OF CIVIL ENGINEERING

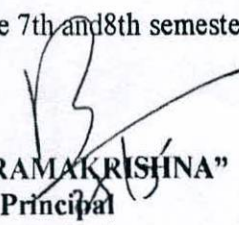


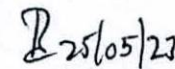
CERTIFICATE

It is Certified that the project work entitled with "EXPERIMENTAL INVESTIGATION ON PARTIAL REPLACEMENT OF MUD BY CEMENT AND GGBS FOR THE PRODUCTION OF INTERLOCKING AND PLASTERING FREE MUD BLOCKS" is a bonafide work carried out by team associates PRASHANTH GOWDA NC (1SG19CV045), HEMANTH GOWDA P (1SG19CV015), ANAND S (1SG20CV401), ROHITH V (1SG19CV033) in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belagavi, during the year 2022-2023. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree 7th and 8th semesters.

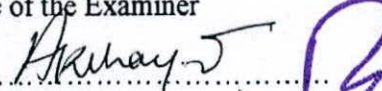
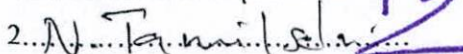
  
"MRs NANDINI IV"  
Asst. professor

Department of Civil Engineering  
S.C.E, Bengaluru.

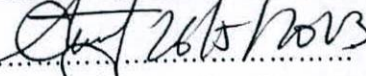
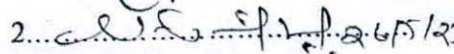
  
"DR.H.RAMAKRISHNA"  
Principal  
Sapthagiri College of Engineering  
Chikkasandra, Hesaraghatta Road,  
Bangalore-560 057

  
"Dr. RAJESHWARI"  
H.O.D  
HOD, Dept. of Civil Engg.  
S.C.E, Bangalore-560 057  
S.C.E, Bengaluru.

Name of the Examiner

1.   
2. 

Signature of the Examiner with date

1.   
2. 

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**"JNANA SANGAMA", BELAGAVI-590018**



**A PROJECT REPORT (18CVP83)**  
**ON**  
**"AN INVESTIGATION ON MECHANICAL PROPERTIES OF**  
**CONCRETE BLENDED WITH GGBS AND MACRO**  
**SYNTHETIC FIBER"**

*Submitted in partial fulfillment for the award of the degree of*

**BACHELOR OF ENGINEERING**

**In**

**CIVIL ENGINEERING**

**Submitted By:**

**ANIL KUMAR B V**  
**CHANDANA C**  
**GOPAL KUMAR P**  
**SHIVAPRASAD V**

**1SG19CV004**  
**1SG19CV008**  
**1SG19CV012**  
**1SG18CV049**

**Under the Guidance Of:**  
**Dr. RAJESHWARI R**  
**Prof. & Head of the Department**



  
**Principal**  
**Sapthagiri College of Engineering**  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bengaluru - 560 057

**DEPARTMENT OF CIVIL ENGINEERING**  
**SAPTHAGIRI COLLEGE OF ENGINEERING**

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#14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore – 560057

DEPARTMENT OF CIVIL ENGINEERING



CERTIFICATE

It is Certified that the project work phase 2 entitled with "AN INVESTIGATION ON MECHANICAL PROPERTIES OF CONCRETE BLENDED WITH GGBS AND MACRO SYNTHETIC FIBER" is a bonafide work carried out by team associates ANIL KUMAR BV (1SG19CV004), CHANDANA C (1SG19CV008), GOPAL KUMAR P (1SG19CV012), SHIVAPRASAD V (1SG18CV049) in partial fulfillment of requirement for award of the degree of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belagavi, during the year 2022-2023. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree 7<sup>th</sup> and 8<sup>th</sup> semesters.

Dr. RAJESHWARI R  
Head of Department

HOD, Dept of Civil Engg.  
S.C.E, Bangalore-560 057

Name of the Examiner

1. Anurag J
2. N. Tamil Selvi

Dr. H RAMAKRISHNA  
Principal

S.C.E, Bengaluru  
Principal

Sapthagiri College of Engineering  
Chikkasandra, Hesaraghatta Road,  
Bengaluru - 560 057  
Signature of the Examiner  
with date

1. 26/5/2023
2. 26/5/2023

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**BELAGAVI, KARNATAKA**



**PROJECT WORK PHASE-2 REPORT**

on

**“APPLICATION OF NANO PARTICLES IN CONCRETE  
AND ITS ECOLOGICAL IMPACT”**

*A report submitted in the partial fulfillment of the requirements for the award of the degree of*

*Bachelor of Engineering  
in  
Civil Engineering*

*Submitted by*

<b>GIRISH M</b>	<b>(1SG18CV020)</b>
<b>N PREETHI RAJ</b>	<b>(1SG19CV024)</b>
<b>RISHAB</b>	<b>(1SG19CV032)</b>
<b>VISHWAS R</b>	<b>(1SG19CV040)</b>

*Under the guidance of*

**Dr. RAJESHWARI R**  
**HOD**  
**Dept. of Civil, SCE**



*Principal*  
**Sapthagiri College of Engineering**  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bengaluru - 560 057

**DEPARTMENT OF CIVIL ENGINEERING**  
**SAPTHAGIRI COLLEGE OF ENGINEERING**

**Bengaluru-57**

**2022-23**

VISVESVARAYA TECHNOLOGICAL UNIVERSITY "JNANA  
SANGAMA", BELAGAVI-590018



SAPTHAGIRI COLLEGE OF ENGINEERING  
BENGALURU - 560057

DEPARTMENT OF CIVIL ENGINEERING



CERTIFICATE

It is certified that the Project Work Phase-2 (18CVP83) entitled "APPLICATION OF NANO PARTICLES IN CONCRETE AND ITS ECOLOGICAL IMPACT" carried out by GIRISH M(1SG18CV020), N PREETHI RAJ(1SG19CV024), RISHAB (1SG19CV032), VISHWAS R(1SG19CV040) bonafide students of 8<sup>th</sup> semester, Department of Civil Engineering was carried out at our college Sapthagiri College Of Engineering, Bengaluru in partial fulfilment of the award of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belagavi, during the year 2022-2023. It is certified that all corrections / suggestion indicated for Final Assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of Project work Phase-2 prescribed for the Bachelor of Engineering Degree in Civil engineering.

Dr. H RAMAKRISHNA

Principal

S.C.E, Bengaluru.

Sapthagiri College of Engineering

Chikkasandra, Hesarghatta Road

Bangalore-560057

External examiner 1.....

External examiner 2....

Dr. RAJESHWARI R

HOD

Department of Civil Engineering

S.C.E, Bengaluru

26/5/23

26/5/23

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**BELAGAVI-560018**



**SAPTHAGIRI COLLEGE OF ENGINEERING**  
**DEPARTMENT OF CIVIL ENGINEERING**

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NAAC with 'A' Grade) & ISO 9001:2015 and 1400:2015 Certified Institute)  
#14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore – 560057



**A PROJECT REPORT**

**"STUDIES ON TRAFFIC AND PAVEMENT CONDITION ON THE  
SELECTED STRETCH  
HESARAGHATTA MAIN ROAD"**

**Submitted in partial fulfillment for the award of the degree of  
BACHELOR OF ENGINEERING IN CIVIL ENGINEERING**

**SUBMITTED BY**

<b>HARISH KUMAR B</b>	<b>1SG19CV014</b>
<b>RESHMA M L</b>	<b>1SG19CV031</b>
<b>VEENASHRI</b>	<b>1SG19CV039</b>
<b>YASHAS G</b>	<b>1SG19CV041</b>

**UNDER THE GUIDANCE OF:**

**Prof. AKSHAY J**  
Asst Professor  
Dept of Civil Engineering  
SCE, Bangalore

**Principal**  
**Sapthagiri College of Engineering**  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bangalore - 560 057

VISVESVARAYA TECHNOLOGICAL UNIVERSITY  
"JNANA SANGAMA", BELAGAVI-590018




SAPTHAGIRI COLLEGE OF ENGINEERING  
BANGALURU-560057  
DEPARTMENT OF CIVIL ENGINEERING

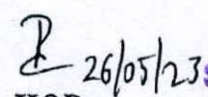


CERTIFICATE

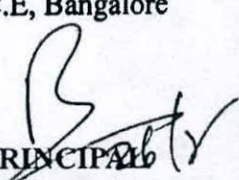
It is Certified that the project work entitled with "STUDIES ON TRAFFIC AND PAVEMENT CONDITION ON THE SELECTED STRETCH HESARAGHATTA MAIN ROAD" is a bonafide work carried out by team associates HARISH KUMAR B (1SG19CV014), RESHMA M L (1SG19CV031), VEENASHRI (1SG19CV039), YASHAS G(1SG19CV041) in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belagavi, during the year 2022-2023. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree 7<sup>th</sup> and 8<sup>th</sup> semesters.

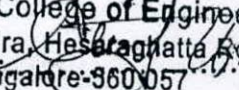
  
PROJECT GUIDE  
Prof. AKSHAY J  
Asst Professor  
Dept of Civil Engineering  
S.C.E, Bangalore

  
PROJECT CO-ORDINATOR  
Prof. SANTHOSH R  
Asst Professor  
Dept of Civil Engineering  
S.C.E, Bangalore

  
HOD  
DR. R RAJESHWARI  
HOD of Civil Engineering  
S.C.E, Bangalore-560 057

  
Principal  
Sapthagiri College of Engineering  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bangalore - 560 057

  
PRINCIPAL  
Dr. H. RAMAKRISHNA  
S.C.E, Bangalore  
Principal

Sapthagiri College of Engineering  
Chikkasandra, Hesaraghatta Road  
Bangalore-560 057  
Signature: 

External examiner 1: 

External examiner 2: N. Tamil Selvi, A.S. J. H. Signature: .....

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**BELAGAVI-590018, KARNATAKA.**



**A PROJECT REPORT**

On

**“DATA MANAGEMENT IN CONSTRUCTION INDUSTRY  
USING AI”**

*Submitted in Partial Fulfilments for the Award of the Degree of*

**BACHELOR OF ENGINEERING**

**IN**

**CIVIL ENGINEERING**

**Submitted By:**

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**1SG20CV403**

**Under the Guidance of**

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**Department of Civil Engineering**  
**SAPTHAGIRI COLLEGE OF ENGINEERING**

**(Affiliated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New Delhi.)**

**ISO 9001-2015 & 14001-2015 Certified, Accredited by NAAC with 'A' Grade**

**14/5, Chikkasandra, Hesarghatta Main Road Bengaluru**

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**2022-2023**

# SAPTHAGIRI COLLEGE OF ENGINEERING

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Bengaluru-560057

## Department of Civil Engineering



### Certificate


Certified that the Project Work entitled "DATA MANAGEMENT IN CONSTRUCTION INDUSTRY USING AI" carried out by MD NASRULLAH FAIZ (1SG19CV021), KAUSAR PARVEEN (1SG20CV403), KRISHNA KANT SAHU (1SG19CV019), bonafide student of Sapthagiri College of Engineering, in partial fulfilment for the award of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belagavi during the academic year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of Project Work Phase-II (18CVP83) prescribed for the said degree.

Signature of Coordinator  
Prof. Santosh R  
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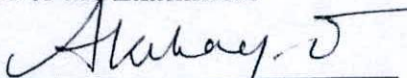
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Signature of the Principal  
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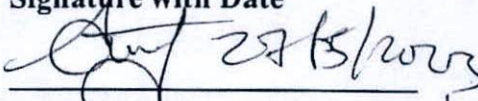
EXTERNAL EXAMINATION:   
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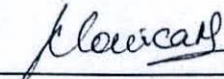
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Signature with Date

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**SAPTHAGIRI COLLEGE OF ENGINEERING  
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**A  
PROJECT REPORT ON  
“STRENGTHENING OF EXISTING BUILDING USING  
RETROFITTING TECHNIQUE”**

**Submitted in partial fulfillment for the award of the degree of  
BACHELOR OF ENGINEERING  
IN  
CIVIL ENGINEERING**

**SUBMITTED BY**

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**CERTIFICATE**

It is Certified that the project work entitled with "STRENGTHENING OF EXISTING BUILDING USING RETROFITTING TECHNIQUE" is a bonafide work carried out by team associates ABHISHEK D (1SG20CV400), VARUN B M (1SG20CV407), SANTHOSHA G B (1SG20CV405), NAVEEN K B (1SG20CV404) in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belgavi, during the year 2022-2023. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree 7<sup>th</sup> and 8<sup>th</sup> semesters.

**PROJECT GUIDE**

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