

Department of Electronics and Communication Engineering


6th Semester Miniproject Final Review with demo Time Slot (Even Sem 2022)

Sl.No.	Name	USN	Miniproject Title	Guide Name & Designation
B 1	1 PREETI KULKARNI	1SG19EC067	Locker Security System Using Keypad and RFID	Dr. H C Sateesh Kumar Professor & Head
	2 SUCHARITHA M G	1SG19EC100		
	3 SUSHMA M M	1SG19EC104		
	4 VAISHNAVI U S	1SG19EC110		
B 2	1 SUMANA M	1SG19EC101	16 Bit RISC Processor using Verilog HDL	Dr. A M Nagaraja Professor
	2 V VARSHINI	1SG19EC109		
	3 VANDHANAS	1SG19EC111		
	4 VARSHA M	1SG19EC112		
B 3	1 AMITOJE SINGH	1SG19EC005	Adaptive Noise Cancellation using Improved LMS	Prof. Agalya P Associate Professor
	2 JEEVAN T V	1SG19EC042		
	3 MOHAMMED MAAZ HAMEED	1SG19EC054		
	4 NITIKA KUMARI	1SG19EC058		
B 4	1 ANUSHA C	1SG19EC008	Hybrid technique for voice Recognition, Encryption and Analysis using MATLAB	Prof. Manasa M G Assistant Professor
	2 BRUNDA G P	1SG19EC018		
	3 BRUNDA P	1SG19EC019		
	4 MONICA VALENTINA M	1SG19EC056		
B 5	1 RAHUL N	1SG19EC072	Common Source Amplifier Design using CADENCE tool (180nm)	Prof. Shilpa V Assistant Professor
	2 SANJAY K	1SG19EC086		
	3 SUMANTH C GOWDA	1SG19EC102		
	4 VIJAYAKUMAR S N	1SG19EC113		



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Sl.No.	Name	USN	Miniproject Title	Guide Name & Designation
B 6	1 DEEPIKA P	1SG19EC025	Using Convolutional Neural Network for Character Verification on IC Components of PCB	Prof. Shobha S Associate Professor
	2 HARSHITHA N	1SG19EC038		
	3 NANDITHA G	1SG20EC405		
	4 SHILPA S	1SG20EC411		
B 7	1 BHUVANA K S	1SG19EC016	Vedic Multiplier using Verilog HDL	Prof. Kalavathi S Assistant Professor
	2 DIPTHIN	1SG19EC029		
	3 GAGANA KUMARIN	1SG19EC031		
	4 NIRUPAMA G	1SG19EC057		
B 8	1 BHAVANA N	1SG19EC013	Traffic Light Controller using Verilog HDL	Dr. Sudha M S Assistant Professor
	2 BHAVANA P S	1SG19EC014		
	3 BINDHU H C	1SG19EC017		
	4 KOKILA A S	1SG19EC045		
B 9	1 PRASHANTH K B	1SG19EC062	Design of Operational Amplifier with 180nm Technology	Prof. Shilpa V Assistant Professor
	2 PRAVEEN A	1SG19EC064		
	3 RUTHVIK GOWDA H	1SG19EC081		
	4 SANKEERTH M	1SG19EC087		
B 10	1 DARSHAN PATEL	1SG19EC024	TIA Noise Less RF	Prof. Suma V Shetty Assistant Professor
	2 MANJUNATHA M	1SG19EC051		
	3 P K SHRIRAM	1SG19EC059		
	4 PAVAN K S	1SG19EC060		


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Sl.No.	Name	USN	Miniproject Title	Guide Name & Designation
B 11	1 PRATHIK R GOWDA	1SG19EC063	Automatic Hand Sanitizer Dispenser	Prof. Ravishankara M N Associate Professor
	2 PREETAM HEGDE	1SG19EC066		
	3 R KISHORE	1SG19EC070		
	4 RAHUL N	1SG19EC073		
B 12	1 SNEHARANI U	1SG19EC097	Design of Horn Antenna	Prof. J R Girish Assistant Professor
	2 SUSHMA B O	1SG19EC103		
	3 THANUSHREE G	1SG19EC108		
	4 YAMUNA A C	1SG19EC118		
B 13	1 ANANYA P	1SG19EC006	Irrigation System CNN	Dr. Prakash Jadhav Associate Professor
	2 DINESH B	1SG19EC028		
	3 HITAIISHI S	1SG19EC040		
	4 SHIVANI V	1SG19EC092		
B 14	1 ABHISHEK VIDYADHAR SHET	1SG19EC002	Design of Encoding and Decoding of Hamming Code Based on VHDL	Prof. Agalya P Associate Professor
	2 ANUSHKA S	1SG19EC009		
	3 MANYA UPADHYAY	1SG19EC053		
	4 MOHAMMED MOULANA	1SG19EC055		
B 15	1 BHOOMIKA N	1SG19EC015	Multisim-Based Digital Clock Design	Prof. Kalavathi S Assistant Professor
	2 INCHARA V	1SG19EC041		
	3 KOKILA SURESH P	1SG19EC046		
	4 LATHA T S	1SG19EC049		



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Sl.No.	Name	USN	Miniproject Title	Guide Name & Designation
B 16	1 RAKESH L	1SG19EC076	Design of Differential Amplifier using 180nm Digital CMOS Technology	Prof. Suma V Shetty Assistant Professor
	2 RANJITH S G	1SG19EC077		
	3 SAGAR A	1SG19EC083		
	4 SAI GANESH C S	1SG19EC084		
B 17	1 NIKHIL S S	1SG20EC406	Analysis and Design of Micro-strip Patch Antenna for Radar Communication	Prof. J R Girish Assistant Professor
	2 PRAVEEN B	1SG20EC407		
	3 SACHIN M J	1SG20EC409		
	4 SANDEEP O	1SG20EC410		
B 18	1 ANIL KUMAR YADAV P	1SG19EC007	Automatic Fracture Detection in X-ray Images	Prof. Shobha S Associate Professor
	2 AVINASH HM	1SG19EC011		
	3 BHARGAV A	1SG19EC012		
	4 KISHAN C S	1SG19EC044		
B 19	1 RACHANA M	1SG19EC071	CMOS Operational Transconductance Amplifier	Prof. Veena N Assistant Professor
	2 TARANUM BANU	1SG19EC107		
	3 VINUTHA H V	1SG19EC115		
	4 VINUTHA M J	1SG19EC116		
B 20	1 POORNIMA S	1SG19EC061	Design and implementation of a Bluetooth Based MCU and GSM for Wetness Detection	Prof. J R Girish Assistant Professor
	2 SINDHU S	1SG19EC095		
	3 VISMAYA B V	1SG19EC117		
	4 YASHASWINI S	1SG19EC120		



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Sl.No.	Name	USN	Miniproject Title	Guide Name & Designation
B 21	1 RAVIKIRAN	1SG19EC078	Plant Leaf Disease Using Convolutional Neural Network (MATLAB)	Prof. Padmavathi C Assistant Professor
	2 REVAYYA KABBURMATH	1SG19EC079		
	3 VIKRAM PARASANAGAUDRA	1SG19EC114		
	4 -----	-----		
B 22	1 RAHULKUMAR YADAV	1SG19EC074	IOT Based Home Automation Using Android Application (microcontroller based work)	Prof. Prathibha P Assistant Professor
	2 RAJAPU RISHIKESH	1SG19EC075		
	3 ROHITH D G	1SG19EC080		
	4 SHIVAM SHIVA	1SG19EC091		
B 23	1 AKSHAY KUMAR H P	1SG19EC004	A Novel Op-Amp Based Oscillator for Wireless Communication	Prof. Shobha H Assistant Professor
	2 DHANUSH G M	1SG19EC026		
	3 DHANUSH V	1SG19EC027		
	4 KUSHAL BHARADWAJ B A	1SG19EC048		
B 24	1 GOWTHAM S MAGAR	1SG20EC400	Speech and Emotion Recognition using MATLAB	Prof. Padmavathi C Assistant Professor
	2 HARSHITH V	1SG20EC401		
	3 LAKSHMISHA J P	1SG20EC403		
	4 SUHAS S	1SG20EC412		
B 25	1 PRAVEEN B R	1SG19EC065	Liver Cancer Detection using Image Processing	Prof. Prathibha P Assistant Professor
	2 SANGEETH M	1SG19EC085		
	3 SWAROOP S	1SG19EC105		
	4 HONNESH BABU P N	1SG20EC402		

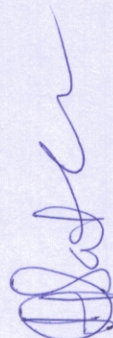



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Sl.No.	Name	USN	Miniproject Title	Guide Name & Designation
B 26	1 DIVYA SHREE G K	1SG19EC030	Health Monitoring System using STM32 Platform	Prof. Madhu H M Assistant Professor
	2 GOURI PRIYA R	1SG19EC033		
	3 HARSHITHA H G	1SG19EC037		
	4 KAVANA T R	1SG19EC043		
B 27	1 ADARSHA GOWDA K R	1SG19EC003	Study and Simulation of Five Story Elevator Using VHDL	Prof. Ravishankara M N Associate Professor
	2 CHANDRASHEKAR Y M	1SG19EC022		
	3 GIRISH REDDY S	1SG19EC032		
	4 HARISH GOWDA T R	1SG19EC034		
B 28	1 CHANDAN D	1SG19EC020	Precision Agriculture System Using Hardware Description Language to Design an ASIC	Prof. Veena N Assistant Professor
	2 HARSHAN GOWDA K H	1SG19EC035		
	3 HEMANTH KUMAR L	1SG19EC039		
	4 MANOJ H	1SG19EC052		
B 29	1 SHIVAM KUMAR O	1SG19EC089	Low Power, Low-Noise Edge-Race Comparator for SAR ADCs	Prof. Manasa M G Assistant Professor
	2 SHIVAM KUMAR SHARMA	1SG19EC090		
	3 SM FARAZ HUSSAIN	1SG19EC096		
	4 SRINIVAS N KAUSHIK	1SG19EC098		
B 30	1 CHANDRIKA D	1SG19EC023	An Academic Approach to FPGA Design Based on a Distance Meter Circuit	Prof. Shobha H Assistant Professor
	2 MEGHANA H P	1SG20EC404		
	3 PUSHPALATHA K R	1SG20EC408		
	4 -----	-----		


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B 31	1 S RAVEESH KOTI	1SG19EC082	Fire Detection System Using MATLAB	Dr. Sudha M S Assistant Professor
	2 SHASHANK R	1SG19EC088		
	3 SHREYAS G RAJ	1SG19EC093		
	4 SUBHASH BS	1SG19EC099		
B 32	1 PURUSHOTHAM R	1SG19EC069	Fingerprint Recognition system using MATLAB	Prof. Madhu H M Assistant Professor
	2 SHUBHAM PATHAK	1SG19EC094		
	3 TAPAN	1SG19EC106		
	4 -----	-----		
B 33	1 KOUSHIK V	1SG19EC047	Synthesis of Synchronous Gray Code Counters by Combining Mentor Graphics HDL designer & Xilinx VIVADO FPGA flow	Dr. Prakash Jadhav Associate Professor
	2 MANISH SHAH R	1SG19EC050		
	3 -----	-----		
	4 -----	-----		


 Head of the Department
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 Road, Bengaluru - 560 088

(9)

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Mini project Report

on

“Locker security system using Keypad and RFID”

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

1.Preeti Kulkarni[1SG19EC067]

2. Sucharitha M G[1SG19EC100]

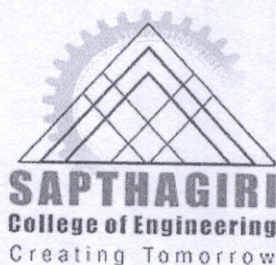
3.Sushma M M[1SG19EC104]

4. Vaishnavi U S[1SG19EC110]

Under the guidance of

Dr. H C Sateesh Kumar

Professor & Head



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
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SAPTHAGIRI COLLEGE OF ENGINEERING

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2019-2023

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14/5, Chikkasandra, Hesaraghatta, Main Road, Bengaluru-560057, Karnataka, India.



Certified that the project work entitled **LOCKER SECURITY SYSTEM USING KEYPAD AND RFID** carried out by

- | | |
|--------------------------------------|-------------------------------------|
| 1. Miss Preeti Kulkarni [1SG19EC067] | 2. Miss Sucharitha M G [1SG19EC100] |
| 3. Miss Sushma M M [1SG19EC104] | 4. Miss Vaishnavi U S [1SG19EC110] |

Are bonafide students of **Sapthagiri College of Engineering Bengaluru**, in partial fulfillment for the award of degree of 6th semester **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2019-2023. It is certified that all corrections/suggestions indicated have been incorporated in the report and the project report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the said degree.

Dr. H C Sateesh Kumar

Guide and Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bengaluru - 560 057

External Viva

Name of the examiners:

1. Dr. A. M. Nagaraja
2. J. R. GIRISH

Dr. H Ramakrishna

Principal

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

Signature with date:

(2)

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report

on

**“16-bit RISC PROCESSOR DESIGN USING VERILOG
HDL”**

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

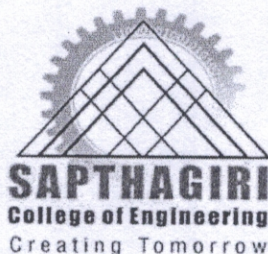
Submitted by

- | | |
|----------------------------|----------------------------|
| 1. Sumana M [1SG19EC101] | 2. V Varshini [1SG19EC109] |
| 3. Vandhana S [1SG19EC111] | 4. Varsha M [1SG19EC112] |

Under the guidance of

Dr. A M Nagaraja

Professor



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Certified that the project work entitled "16-BIT RISC PROCESSOR DESIGN

USING VERILOG HDL" carried out by

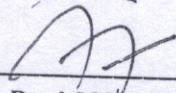
1. Miss Sumana M [1SG19EC101]

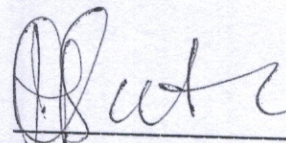
2. Miss V Varshini [1SG19EC109]

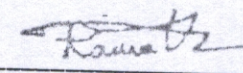
3. Miss Vandhana S [1SG19EC111]

4. Miss Varsha M [1SG19EC112]

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Dr. A M Nagaraja
Professor


Dr. H C Sateesh Kumar
Head of the Department


Dr. H Ramakrishna
Principal

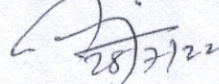
Head of the Department
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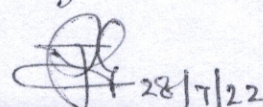
Name of the examiners:

1. Dr. A.M. Nagaraja
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

Signature with date:



2. J. R. GIRISH

 28/7/22

(3)

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report

on

"ADAPTIVE NOISE CANCELLATION USING LMS"

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

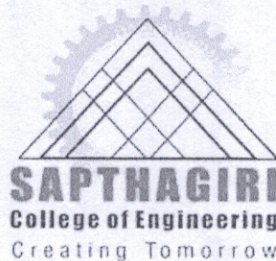
Submitted by

- | | | | |
|-------------------------|--------------|------------------|--------------|
| 1. AMITOJE SINGH | [1SG19EC005] | 2. JEEVAN T.V | [1SG19EC042] |
| 3. MOHAMMED MAAZ HAMEED | [1SG19EC054] | 4. NITIKA KUMARI | [1SG19EC058] |

Under the guidance of

Prof. Agalya P.

Associate Professor



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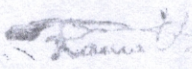
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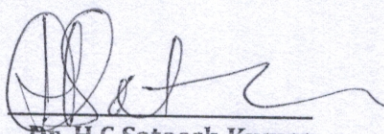
Certified that the project work entitled **ADAPTIVE NOISE CANCELLATION USING LMS** carried out by

1. Mr. Amitoje Singh [1SG19EC005] 2. Mr. Jeevan TV [1SG19EC042]
3. Mr. Mohammed Maaz Hameed [1SG19EC054] 4. Ms. Nitika Kumari [1SG19EC058]

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Prof. Agalya P
Associate Professor


Dr. H Ramakrishna
Principal


Dr. H C Sateesh Kumar
Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalor - 560 057.

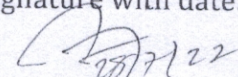
External Viva

Name of the examiners: **Sapthagiri College of Engineering**
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Bengaluru - 560 057

1. Dr. A.M. Nagam

2. J.R. GIRISH

Signature with date:

 28/7/22

 28/7/22

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report
on

**“The Speech Recognition using MATLAB and Cross
Correlation Technique”**

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

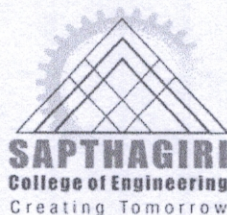
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in
ELECTRONICS & COMMUNICATION ENGINEERING
Submitted by

1. Anusha C [1SG19EC008]
3. Brunda P [1SG19EC019]

2. Brunda G P [1SG19EC018]
4. Monica Valentina M [1SG19EC056]

Under the guidance of

Prof. Manasa M G
Assistant Professor



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2019-2023

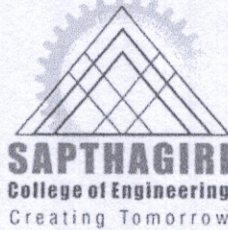
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14/5, Chikkasandra, Hesaraghatta, Main Road, Bengaluru-560057, Karnataka, India.



CERTIFICATE

Certified that the project work entitled "The Speech Recognition Using MATLAB and Cross Correlation" carried out by

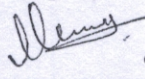
1. Anusha C [1SG19EC008]

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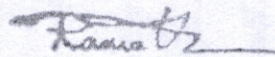
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22/07/22

Name & signature
of the Guide



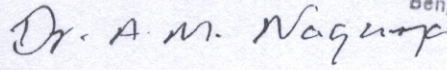
Dr. H Ramakrishna

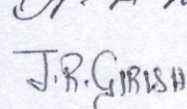
Principal
Principal

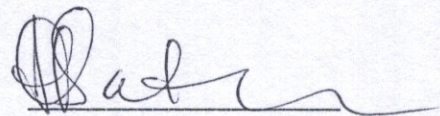
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

External Viva

Name of the examiners:

1. 

2. 



Dr. H C Sateesh Kumar

Head of the Department

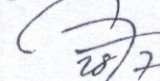
Head of the Department

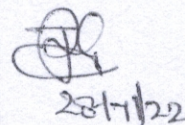
Electronics & Communication

Sapthagiri College of Engineering

Bangalore - 560 057.

Signature with date:


28/7


28/7/22

(5)

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report
on

“Design of Common Source Amplifier Using Cadence Tool (180nm Technology)”

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

1. Rahul N [1SG19EC072]

2. Sanjay K [1SG19EC086]

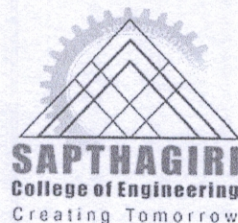
3. Sumanth C Gowda [1SG19EC102]

4. Vijayakumar S N [1SG19EC113]

Under the guidance of

Prof. Shilpa V

Assistant Professor



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

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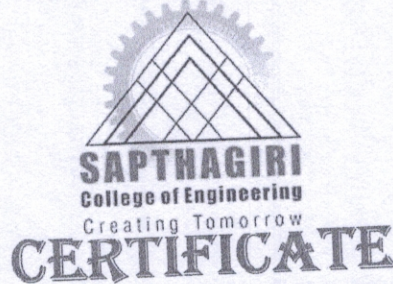
2019-2023

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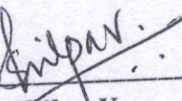


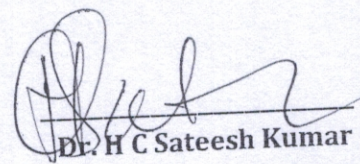
Certified that the project work entitled "**Design of Common Source Amplifier**

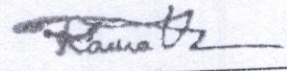
Using Cadence Tool (180nm Technology)" carried out by

- | | |
|-------------------------------------|-------------------------------------|
| 1. Mr. Rahul N [1SG19EC072] | 2. Mr. Sanjay K [1SG19EC086] |
| 3. Mr. Sumanth C Gowda [1SG19EC102] | 4. Mr. Vijayakumar S N [1SG19EC113] |

Are bonafide students of **Sapthagiri College of Engineering Bengaluru**, in partial fulfillment for the award of degree of 6th semester **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2019-2023. It is certified that all corrections/suggestions indicated have been incorporated in the report and the project report has been approved as it satisfies the academic requirements in respect of miniproject work prescribed for the said degree.


Shilpa V
Asst.Prof


Dr. H C Sateesh Kumar
Head of the Department


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

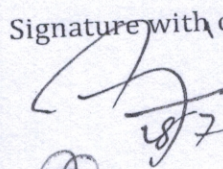
Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bengaluru - 560 057

External Viva

Name of the examiners:

1. Dr. A M. Neelima
2. J. R. GIRISH

Signature with date:


28/1/22

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report
on

“A Character recognition on IC components of PCB”

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

1. Deepika P[1SG19EC025]

3. Nanditha G[1SG20EC405]

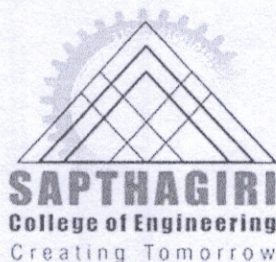
2. Harshitha N[1SG19EC038]

4. Shilpa S[1SG20EC411]

Under the guidance of

Prof. Shobha S

Associate Professor



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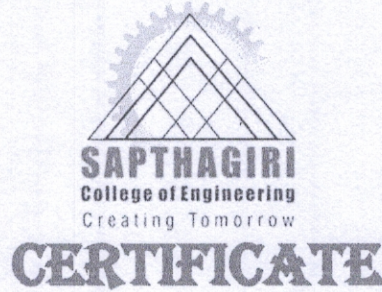
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2021-2022

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14/5, Chikkasandra, Hesaraghatta, Main Road, Bengaluru-560057, Karnataka, India.



Certified that the project work entitled "A Character recognition on IC components of PCB" carried out by

- | | |
|---------------------------------|----------------------------------|
| 1. Miss Deepika P [1SG19EC025] | 2. Miss Harshitha N [1SG19EC038] |
| 3. Miss Nanditha G [1SG20EC405] | 4. Miss Shilpa S [1SG20EC411] |

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Name & signature
of the Guide

Dr. H C Sateesh Kumar
Head of the Department

Dr. H Ramakrishna

Principal
Principal

External Viva

Name of the examiners:

1. Dr. A. M. Naganya
2. J. R. GIRISH

Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road

Signature with date:

7

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report
on

**"DESIGN AND IMPLEMENTATION OF 64 BIT VEDIC
MULTIPLIER"**

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

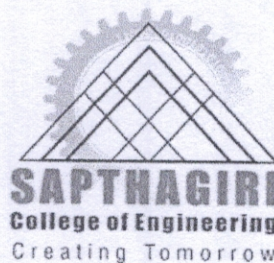
Submitted by

- | | | | |
|--------------------|--------------|---------------|--------------|
| 1. BHUVANA K S | [ISG19EC016] | 2. DIPTHI N | [ISG19EC029] |
| 3. GAGANA KUMARI N | [ISG19EC031] | 4. NIRUPAMA G | [ISG19EC057] |

Under the guidance of

Prof. Kalavathi S

Assistant Professor



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

SAPTHAGIRI COLLEGE OF ENGINEERING

(Affiliated to VTU, Belagavi, and Recognized by AICTE, New Delhi)

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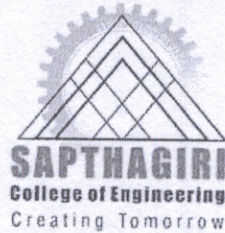
(ISO 9001-2015 and 14001-2015 Certified Institute)

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2019-2023

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14/5, Chikkasandra, Hesaraghatta, Main Road, Bengaluru-560057, Karnataka, India.



CERTIFICATE

#####

Certified that the project work entitled Design and Implementation of 64 bit Vedic Multiplier carried out by

- | | | | |
|------------------------|--------------|-------------------|--------------|
| 1. Ms. BHUVANA K S | [1SG19EC016] | 2. Ms. DIPTHI N | [1SG19EC029] |
| 3. Ms. GAGANA KUMARI N | [1SG19EC031] | 4. Ms. NIRUPAMA G | [1SG19EC057] |

Are bonafide students of **Sapthagiri College of Engineering Bengaluru**, in partial fulfillment for the award of degree of 6th semester **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2019-2023. It is certified that all corrections/suggestions indicated have been incorporated in the report and the project report has been approved as it satisfies the academic requirements in respect of miniproject work prescribed for the said degree.

Kelavalti.S.

Name & signature
of the Guide

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

External Viva

Name of the examiners:

1. Dr. A.M. Nagaraj
2. J.R. GIRISH

Dr. H C Sateesh Kumar
Head of the Department

Head of the Department

Electronics & Communication
Sapthagiri College of Engineering
Bangalore - 560 057

Signature with date:

28/7/22

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report

on

“TRAFFIC MANAGEMENT SYSTEM USING VERILOG HDL”

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

1. BHAVANA N [1SG19EC013]

2. BHAVANA P S [1SG19EC014]

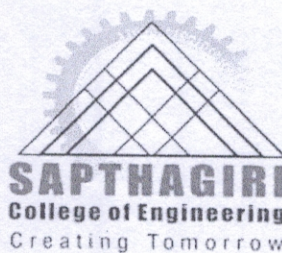
3. BINDHU H C [1SG19EC017]

4. KOKILA A S [1SG19EC045]

Under the guidance of

Dr Sudha M.S

Assistant Professor



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

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2019-2023

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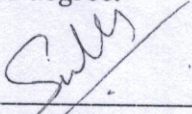


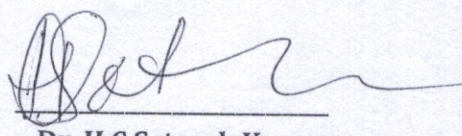
CERTIFICATE

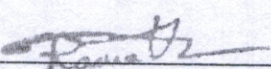
Certified that the project work entitled "TRAFFIC MANAGEMENT SYSTEM USING VERILOG HDL" carried out by

- | | |
|----------------------------------|----------------------------------|
| 1. Miss. BHAVANA N [1SG19EC013] | 2. Miss. BHAVAN P S [1SG19EC014] |
| 3. Miss. BINDHU H C [1SG19EC017] | 4. Miss. KOKILA AS [1SG19EC045] |

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Dr. Sudha M S
Guide


Dr. H C Sateesh Kumar
Head of the Department


Dr. H Ramakrishna

Principal

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore - 560 057.

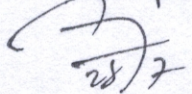

External Viva

Name of the examiners:

1. Dr. A. M. Nagaraja
2. J. R. GIRISH

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

Signature with date:


28/7

28/7/22

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report
on

"Design of Operational Amplifier With 180nm technology"

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

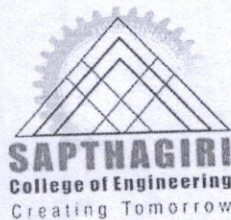
Submitted by

1. Prashanth KB [1SG19EC062]
3. Ruthvik Gowda H [1SG19EC081]

2. Praveen A [1SG19EC064]
4. Sankeerth M [1SG19EC087]

Under the guidance of

Prof. Shilpa V
Assistant Professor



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
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14/5, Chikkasandra, Hesaraghatta, Main Road, Bengaluru-560057, Karnataka, India.



CERTIFICATE

#####

Certified that the project work entitled "**Design of Operational Amplifier with 180nm Technology**" carried out by

- | | |
|-----------------------------------|-------------------------------|
| 1. Mr.Prashanth KB [1SG19EC062] | 2. Mr. Praveen A [1SG19EC064] |
| 3. Mr.Ruthvik Gowda H[1SG19EC081] | 4.Mr.SankeerthM[1SG19EC087] |

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Shilpa V
Assistant.Prof

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

Dr. H C Sateesh Kumar
Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore - 560 057

External Viva

Name of the examiners:

1. Dr. A. M. Nagaraja
2. J. R. GIRISH

Signature with date:

28/1/22

10

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report

on

“Single Stage Transimpedance Amplifier”

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

1. Darshan Patel [1SG19EC024]
3. Manjunatha.M [1SG19EC051]

2. Pavan K.S [1SG19EC060]
4. P.K.Shriram [1SG19EC059]

Under the guidance of

Prof. Suma. V. Shetty

Assistant Professor



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

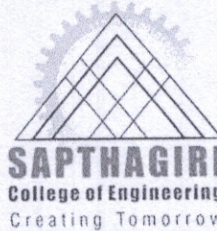
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(ISO 9001-2015 and 14001-2015 Certified Institute)
14/5, Chikkasandra, Hesaraghatta, Main Road, Bengaluru-560057, Karnataka, India.



CERTIFICATE

Certified that the project work entitled **Single stage Transimpedance amplifier** carried out by,

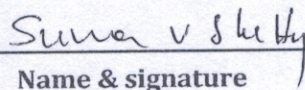
1. Mr. Darshan Patel [1SG19EC024]

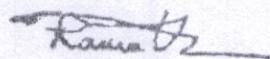
2. Mr. Pavan K.S [1SG19EC060]

3. Mr. Manjunath.M [1SG19EC051]

4. Mr. P.K.Shriram [1SG19EC059]

Are bona fide students of **Sapthagiri College of Engineering Bengaluru**, in partial fulfillment for the award of degree of 6th semester **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2019-2023. It is certified that all corrections/suggestions indicated have been incorporated in the report and the project report has been approved as it satisfies the academic requirements in respect of miniproject work prescribed for the said degree.


Name & signature
of the Guide

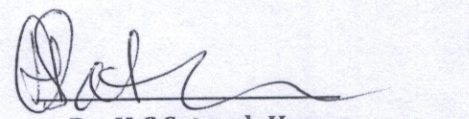


Dr. H Ramakrishna

Principal

Principal

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


Dr. H C Sateesh Kumar
Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bengaluru - 560 057

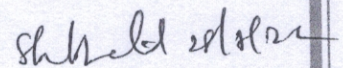
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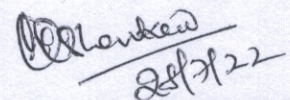
Name of the examiners:

1. **SHRUTHI HUGAR**

2. **RAVI SHANKARA. M. IN**

Signature with date:




28/7/22

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report

on

“ROOM SANITIZER”

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

1. Prathik R Gowda [1SG19EC063]

2. Preetam Hegde [1SG19EC066]

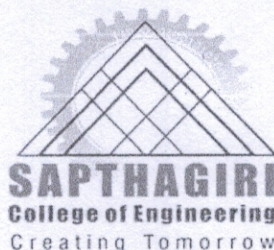
3. R Kishore [1SG19EC070]

4. Rahul N [1SG19EC073]

Under the guidance of

Prof. Ravi Shankara M N

Associate Professor



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

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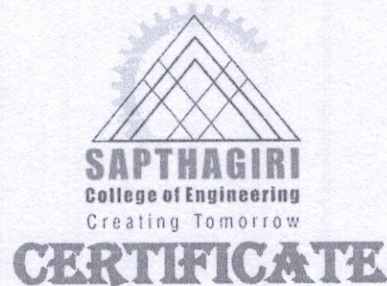
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2019-2023

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(ISO 9001-2015 and 14001-2015 Certified Institute)
14/5, Chikkasandra, Hesaraghatta, Main Road, Bengaluru-560057, Karnataka, India.



Certified that the project work entitled **ROOM SANITIZER** carried out by

- | | |
|-------------------------------------|-----------------------------------|
| 1. Mr. Prathik R Gowda [1SG19EC063] | 2. Mr. Preetam Hegde [1SG19EC066] |
| 3. Mr. R Kishore [1SG19EC070] | 4. Mr. Rahul N [1SG19EC073] |

Are the bonafide students of **Sapthagiri College of Engineering Bengaluru**, in partial fulfillment for the award of degree of 6th semester **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2019-2023. It is certified that all corrections/suggestions indicated have been incorporated in the report and the project report has been approved as it satisfies the academic requirements in respect of miniproject work prescribed for the said degree.

Name & signature
of the Guide

RAVISHANKARA M.N.

Dr. H Ramakrishna
Principal
Principal

External Viva

Name of the examiners: Sapthagiri College of Engineering

1. SHOBHA HUZAR

2. RAVI SHANKARA M.N.

Dr. H C Sateesh Kumar
Head of the Department

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore - 560 057

Signature with date:

Shubha 28/8/22

28/07/22

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report
on

“DESIGN OF HORN ANTENNA”

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

1. Sneharani U [1SG19EC097]
3. Thanushree G [1SG19EC108]

2. Sushma B O [1SG19EC103]
4. Yamuna A C [1SG19EC118]

Under the guidance of

Prof. Girish J R
Assistant Professor



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
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2019-2023

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14/5, Chikkasandra, Hesaraghatta, Main Road, Bengaluru-560057, Karnataka, India.



CERTIFICATE

Certified that the project work entitled "DESIGN OF HORN ANTENNA"

carried out by

1. Miss Sneharani U [1SG19EC097]

2. Miss Sushma B O [1SG19EC103]

3. Miss Thanushree G [1SG19EC108]

4. Miss Yamuna A C [1SG19EC118]

Are bonafide students of **Sapthagiri College of Engineering Bengaluru**, in partial fulfillment for the award of degree of 6th semester **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2019-2023. It is certified that all corrections/suggestions indicated have been incorporated in the report and the project report has been approved as it satisfies the academic requirements in respect of miniproject work prescribed for the said degree.

Prof. Girish J R
Assistant professor, Guide

Dr. H C Sateesh Kumar

Head of the Department
Head of the Department

Electronics & Communication
Sapthagiri College of Engineering
Bangalore - 560 057.

Dr. H Ramakrishna

Principal
Principal

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

External Viva

Name of the examiners:

1. **SHOBHA HUGAR**

2. **RAVI SHANKARA M N**

Signature with date:

28/7/22

13

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report
on

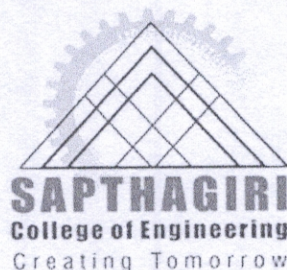
“Modern irrigation system using CNN and MATLAB”
Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING
in
ELECTRONICS & COMMUNICATION ENGINEERING
Submitted by

1. ANANYA P[1SG19EC006]
3. HITAIISHI S[1SG19EC040]

2. DINESH B[1SG19EC028]
4. SHIVANI V[1SG19EC092]

Under the guidance of
Dr. PRAKASH JADHAV
ASSOCIATE PROFESSOR



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

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2019-2023

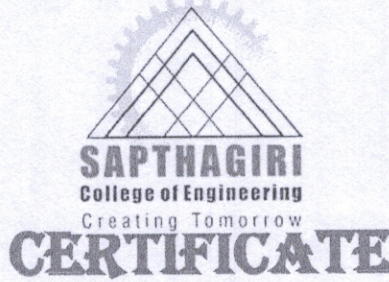
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14/5, Chikkasandra, Hesaraghatta, Main Road, Bengaluru-560057, Karnataka, India.



Certified that the project work entitled MODERN IRRIGATION SYSTEM USING

CNN AND MATLAB carried out by

1. Miss ANANYA P [1SG19EC006]

2. Mr. DINESH B[1SG19EC028]

3. Mr. HITAIISHI S[1SG19EC040]

4. Miss SHIVANI V[SG19EC092]

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Name & signature
of the Guide

Dr. H C Sateesh Kumar
Head of the Department

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

External Viva

Name of the examiners:

1. SHOBHA HDGAR

2. RAVI SHANKARA. M.N.

Signature with date:

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report
on

"Implementation of Hamming code using Verilog HDL "

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

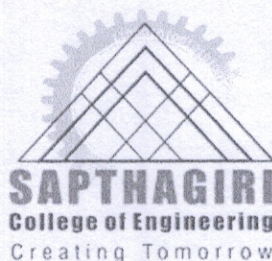
Submitted by

- | | |
|--|-------------------------------|
| 1. ABHISHEK VIDYADHAR SHET[1SG19EC002] | 2. ANUSHKA S[1SG19EC009] |
| 3. MOHAMMED MOULANA [1SG19EC055] | 4. MANYA UPADHYAY[1SG19EC053] |

Under the guidance of

Prof. Agalya P.

Assistant Professor



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2019-2023

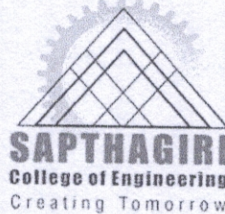
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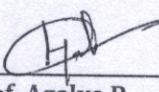


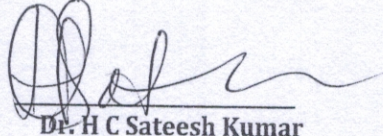
CERTIFICATE

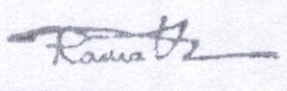
Certified that the project work entitled **Implementation of Hamming code using Verilog HDL** carried out by

1. ABHISHEK VIDYADHAR SHET[1SG19EC002] 2. ANUSHKA S[1SG19EC009]
3. MOHAMMED MOULANA [1SG19EC055] 4. MANYA UPADHYAY[1SG19EC053]

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Prof. Agalya P.
Guide


Dr. H C Sateesh Kumar
Head of the Department


Dr. H Ramakrishna

Principal

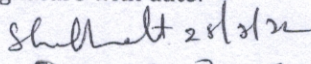
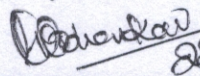
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

External Viva

Name of the examiners:

1. SHOBHA HUGAR
2. RAVI SHANKARA. M.N

Signature with date:

 28/12/22
 28/12/22

15

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report

on

“Multisim-Based Digital Clock Design”

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

1. Bhoomika N [1SG19EC015]

2. Inchara V [1SG19EC041]

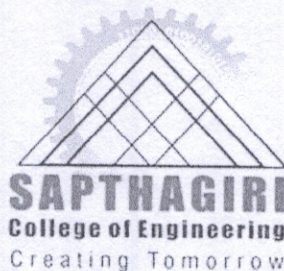
3. Kokila Suresh P[1SG19EC046]

4. Latha T S[1SG19EC049]

Under the guidance of

Prof. Kalavathi S

Assistant Professor



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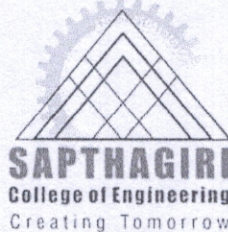
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CERTIFICATE

[illegible]

1. Miss Bhoomika N [1SG19EC041]

2. Miss Inchara V [1SG19EC041]

3. Miss Kokila Suresh P[1SG19EC046]

4. Miss Latha T S [1SG19EC049]

KALAVATHI, S.

Name & signature
of the Guide

[Signature]

Dr. H C Sateesh Kumar
Head of the Department

~~Rama~~ Rama

Dr. H Ramakrishna

Sapthagiri College of Engineering
14/5, Chikkasandra, Hosur
Principals

External Viva

Name of the examiners:

1. SHOBHA HINDAR

2. RAVI SHANKARA. M. N

Signature with date:

Shubh Wale

Richard

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report

on

“Design of Differential Amplifier using 180nm CMOS Technology”

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

1. Rakesh L [1SG19EC076]

2. Ranjith S G [1SG19EC077]

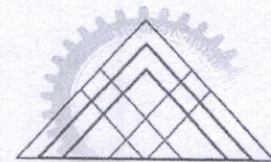
3. Sagar A [1SG19EC083]

4. Sai Ganesh C S [1SG19EC084]

Under the guidance of

Prof. Suma V Shetty

Assistant Professor[Dept. Of ECE]



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2019-2023

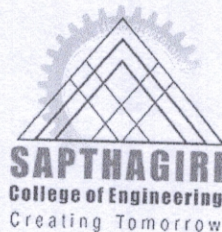
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CERTIFICATE

Certified that the project work entitled **Design of Differential Amplifier using 180nm CMOS Technology** carried out by

1. Mr. Rakesh L [1SG19EC076]

2. Mr. Ranjith S G [1SG19EC077]

3. Mr. Sagar A [1SG19EC083]

4. Mr. Sai Ganesh C S [1SG19EC084]

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Suma V Shetty

Suma V Shetty
Assistant Professor

Ramakrishna

Dr. H Ramakrishna

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

Dr. H C Sateesh Kumar

Dr. H C Sateesh Kumar
Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bengaluru - 560 057

External Viva

Name of the examiners:

1. SHOBHA HEGAR

2. RAVI SHANKARA M.N

ii

Signature with date:

Shubha 28/7/22

Ravi Shankara

28/7/22

(17)

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report

on

"ANALYSIS AND DESIGN OF MICROSTRIP PATCH ANTENNA USED FOR RADAR COMMUNICATION"

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

1. NIKHIL S S [1SG20EC406]

2. PRAVEEN B [1SG20EC407]

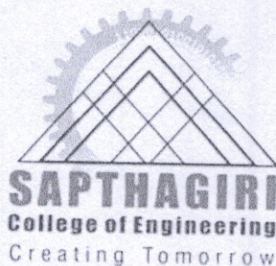
3. SACHIN M J [1SG20EC409]

4. SANDEEP O [1SG20EC410]

Under the guidance of

Prof. J R GIRISH

Assistant Professor



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2019-2023

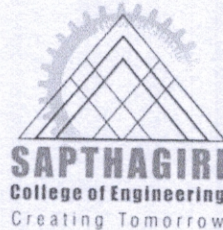
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14/5, Chikkasandra, Hesaraghatta, Main Road, Bengaluru-560057, Karnataka, India.



CERTIFICATE

Certified that the project work entitled Analysis and design of microstrip patch antenna used for radar communication carried out by

1. Mr. NIKHIL S S [1SG20EC406]

2. Mr. PRAVEEN B [1SG20EC407]

3. Mr. SACHI M J [1SG20EC409]

4. Mr. SANDEEP O [1SG20EC410]

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Name & signature
of the Guide

J.R. GIRISH

Dr. H Ramakrishna

Principal
Principal

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

External Viva

Name of the examiners:

1. SHOBHA HWAR

2. RAVI SHANKARA M.N.

Dr. H C Sateesh Kumar

Head of the Department
Head of the Department

Electronics & Communication
Sapthagiri College of Engineering
Bangalore - 560 057

Signature with date:

Shubh. 28/7/22

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report
on

"AUTOMATIC FRACTURE DETECTION IN X-RAY IMAGES"

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

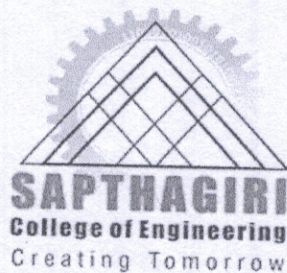
1. ANIL KUMAR YADAV P [1SG19EC007]
3. BHARGAV A [1SG19EC012]

2. AVINASH H M [1SG19EC011]
4. KISHAN C S [1SG19EC044]

Under the guidance of

Prof. SHOBHA S

Associate Prof



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2021-2022

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14/5, Chikkasandra, Hesaraghatta, Main Road, Bengaluru-560057, Karnataka, India.



CERTIFICATE

#####

Certified that the project work entitled Automatic Fracture Detection in X-ray Images carried out by

1. Mr. ANIL KUMAR YADAV P [ISG19EC007] 2. Mr. AVINASH H M [ISG19EC011]
3. Mr. BHARGAV A [ISG19EC012] 4. Mr. KISHAN C S [ISG19EC044]

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Prof. SHOBHA S
Associate Prof

Dr. H C Sateesh Kumar
Head of the Department

Dr. H Ramakrishna
Principal

External Viva

Sapthagiri College of Engineering
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Bengaluru - 560 057

Name of the examiners:

1. SHOBHA HUGAR
2. RAVI SHANKARA M.N

Signature with date:

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report

on

“Design of CMOS OTA using 180nm technology”

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

1. RACHANA.M [1SG19EC071]

2. TARANUM BANU [1SG19EC107]

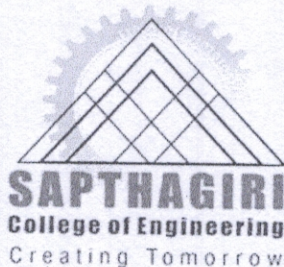
3. VINUTHA. H.V [1SG19EC115]

4. VINUTHA. M.J [1SG19EC116]

Under the guidance of

Prof. Veena.N

Assistant professor



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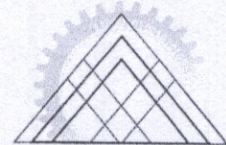
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Creating Tomorrow

CERTIFICATE

Certified that the project work entitled **Design of CMOS OTA using 180nm technology** carried out by

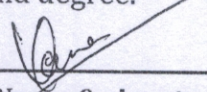
1. RACHANA.M [ISG19EC071]

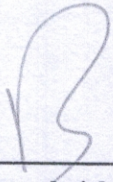
2. TARANUM BANU [ISG19EC107]

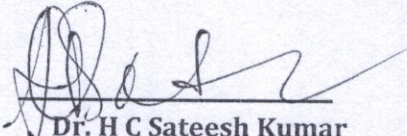
3. VINUTHA. H.V [ISG19EC115]

4. VINUTHA. M.J [ISG19EC116]

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Name & signature
of the Guide


Dr. H Ramakrishna
Principal


Dr. H C Sateesh Kumar
Head of the Department
Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore - 560 057.

External Viva


Name of the examiners:

1. Dr. A.M. Nagayya

2. J.R. GIRISH

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

Signature with date:


29/11/22

(ii)

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report
on

**“Design and Implementation of Bluetooth based MCU
for Wetness Detection”**

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

1. POORNIMA S [1SG19EC061]
3. VISMAYA B V [1SG19EC117]

2. SINDHU S [1SG19EC095]
4. YASHASWINI S[1SG19EC120]

Under the guidance of

Prof. GIRISH J R
ASSISTANT PROFESSOR



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

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2019-2023

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14/5, Chikkasandra, Hesaraghatta, Main Road, Bengaluru-560057, Karnataka, India.



CERTIFICATE

#####

Certified that the project work entitled "Design and Implementation of Bluetooth based MCU for Wetness Detection" carried out by

1. Ms. POORNIMA S [1SG19EC061]
2. Ms. SINDHU S [1SG19EC095]
3. Ms. VISMAYA B V [1SG19EC117]
4. Ms. YASHASWINI S [1SG19EC120]

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GIRISH J R

Asst.Prof
Guide

Dr. H C Sateesh Kumar

Head of the Department

Electronics & Communication
Sapthagiri College of Engineering
Bangalore - 560 057.

Dr. H Ramakrishna

Principal

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

External Viva

Name of the examiners:

1. *Dr. A M. Nagesh*
2. *J. R. GIRISH*

Signature with date:

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report

on

“Plant Leaf Disease Detection Using Matlab”

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

1. Ravikiran [1SG19EC078]

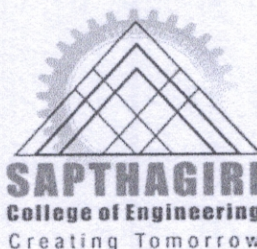
2. RevayyaKabburamath [1SG19EC079]

3. Vikram Parasanagoudra [1SG19EC114]

Under the guidance of

Prof. Padmavathi C

Assistant Professor



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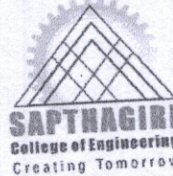
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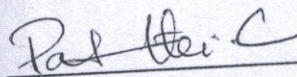


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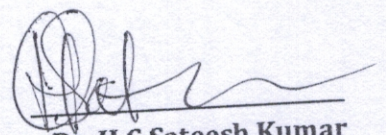
Certified that the project work entitled **Plant Leaf Disease Detection Using Matlab.** carried out by

1. Mr Ravikran [ISG19EC078]
2. Mr Revayya Kabburmata [ISG19EC079]
3. Mr Vikram Parasanagoudra [ISG19EC114]

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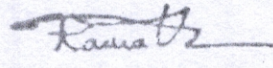
Name & signature
of the Guide



Dr. H C Sateesh Kumar

Head of the Department

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore - 560 057


Dr. H Ramakrishna

Principal

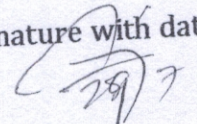
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

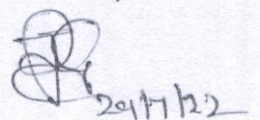
External Viva

Name of the examiners:

1. Dr. A. M. Nagara
2. J. R. GIRISH

Signature with date:




29/11/22

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report

on

**“HOME AUTOMATION USING 8051
MICROCONTROLLER”**

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

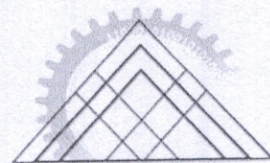
Submitted by

- | | |
|----------------------------------|----------------------------------|
| 1. RAJAPU RISHIKESH [1SG19EC075] | 2. RAHUL KUMAR YADAV[1SG19EC074] |
| 3. ROHITH D.G [1SG19EC080] | 4. SHIVAM SHIVA[1SG19EC091] |

Under the guidance of

Prof. Prathibha P.

Assistant Professor



SAPTHAGIRI
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Creating Tomorrow

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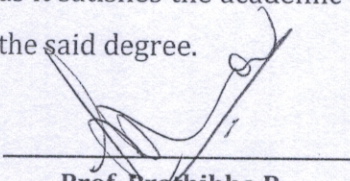


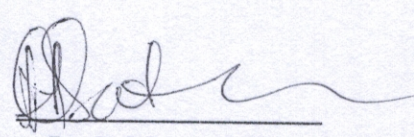
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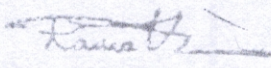
Certified that the project work entitled **HOME AUTOMATION USING 8051 MICROCONTROLLER** carried out by

1. Mr. RAJAPU RISHIKESH [1SG19EC075] 2. Mr. RAHUL KUMAR YADAV[1SG19EC074]
3. Mr. ROHITH D.G [1SG19EC080] 4. Mr. SHIVAM SHIVA [1SG19EC091]

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Prof. Prathibha P.
Guide

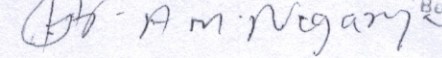
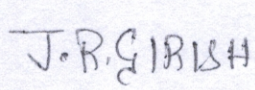

Dr. H C Sateesh Kumar
Head of the Department


Dr. H Ramakrishna
Principal

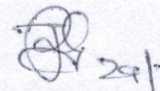
Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore - 560 057.

External Viva

Name of the examiners:

1. 
2. 

Signature with date:


29/7/22

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report

on

**“A NOVEL OP-AMP BASED LC OSCILLATOR FOR LOW
 FREQUENCY APPLICATIONS”**

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

- | | |
|---------------------------------|-------------------------------------|
| 1. Akshay Kumar HP [1SG19EC004] | 2. Dhanush GM [1SG19EC026] |
| 3. Dhanush V [1SG19EC027] | 4. Kushal Bharadwaj BA [1SG19EC048] |

Under the guidance of
Prof. Shobha Hugar
 Assistant Professor



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14/5, Chikkasandra, Hesaraghatta, Main Road, Bengaluru-560057, Karnataka, India.



CERTIFICATE

Certified that the project work entitled **A NOVEL OP-AMP BASED LC OSCILLATOR FOR LOW FREQUENCY APPLICATIONS** carried out by

1. Mr. Akshay Kumar HP [1SG19EC004] 2. Mr. Dhanush GM [1SG19EC026]
3. Mr. Dhanush V [1SG19EC027] 4. Mr. Kushal Bharadwaj [1SG19EC048]

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SHOBHA HULAR

Name & signature
of the Guide

Dr. H C Sateesh Kumar
Head of the Department

Dr. H Ramakrishna

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

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore - 560 057

External Viva

Name of the examiners:

1. Dr. A.M. Nagara
2. J. R. GIRISH

Signature with date:

29/11/22

2A

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report
on

“SPEECH AND EMOTION RECOGNITION USING MATLAB”

Submitted in partial fulfillment of the requirements for the award of degree of 6th
semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

1. GOWTHAM S MAGAR [1SG20EC400]

2. HARSHITH V [1SG20EC401]

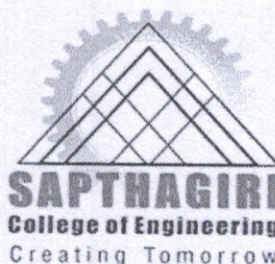
3. LAKSHMISHA J P [1SG20EC403]

4. SUHAS S [1SG20EC412]

Under the guidance of

Prof. Padmavathi C

Assistant Professor



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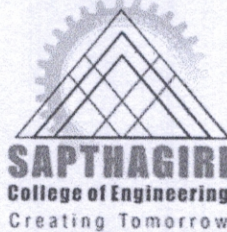
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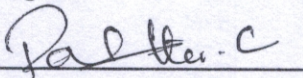
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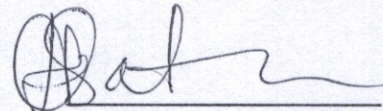
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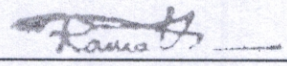
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3. LAKSHMISHA J P [ISG20EC403] 4. SUHAS S [ISG20EC412]

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of the Guide


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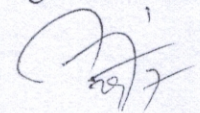
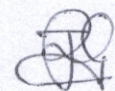
Head of the Department
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Sapthagiri College of Engineering
Bangalore - 560 057.

External Viva

Name of the examiners:

1. Dr. A. M. Narganj
2. J. R. GIRISH

Signature with date:



29/7/22

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report
on

“Liver tumor detection using MATLAB”

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

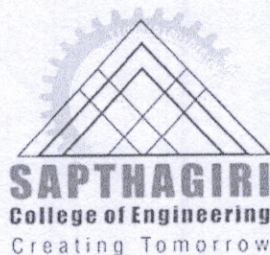
Submitted by

- | | |
|-----------------------------|----------------------------------|
| 1. Praveen B R [1SG19EC065] | 2. Sangeeth M[1SG19EC085] |
| 3. Swaroop S[1SG19EC105] | 4. Honnesh Babu P N [1SG20EC402] |

Under the guidance of

Prof. Prathibha P

Assistant Professor



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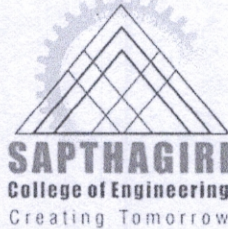
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CERTIFICATE

Certified that the project work entitled **"LIVER TUMOR DETECTION USING MATLAB"** carried out by

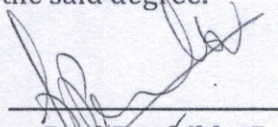
1. Mr. Praveen B R [1SG19EC065]

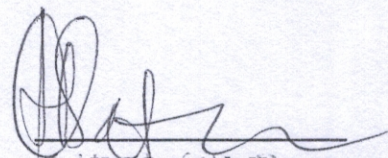
2. Mr. Sangeeth M [1SG19EC085]

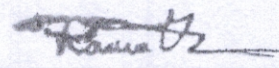
3. Mr. Swaroop S [1SG19EC105]

4. Mr. Honnesh Babu P N [1SG20EC402]

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Assistant Professor


Dr. H.C. Sateesh Kumar
Head of the Department
Sapthagiri College of Engineering
Bengaluru - 560 057


Dr. H Ramakrishna

Principal
Principal

External Viva

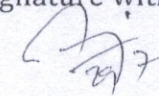
Name of the examiners: Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057


1. Dr. A.M. Nagaraja

2.

J.R.GIRISH

Signature with date:



 29/7/22

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report
on

"Health monitoring system"

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

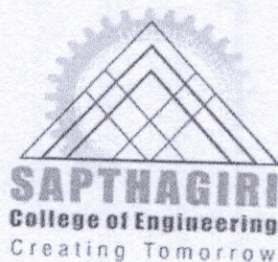
1.DIVYASHREE G K [ISG19EC030]
3.HARSHITHA H G [ISG19EC037]

2.GOURI PRIYA R [ISG19EC033]
4.KAVANA T R [ISG19EC043]

Under the guidance of

Dr. A M NAGARAJA

Professor



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14/5, Chikkasandra, Hesaraghatta, Main Road, Bengaluru-560057, Karnataka, India.



CERTIFICATE

Certified that the project work entitled **HEALTH MONITORING SYSTEM** carried out by

1. Miss. Divyashree G K [1SG19EC030]

2. Miss. Gouripriya R [1SG19EC033]

3. Miss. Harshitha H G [1SG19EC037]

4. Miss. Kavana T R [1SG19EC043]

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Dr. A M Nagaraja
Professor

Dr. H C Sateesh Kumar
Head of the Department

Dr. H Ramakrishna

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

External Viva

Name of the examiners:

1. Dr. A. M. Nagaraja

2. J. R. GIRISH

Signature with date:

29/11/22

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report

on

“STUDY AND SIMULATION OF FIVE-STORY ELEVATOR CONTROLLER USING VERILOG HDL”

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

- | | |
|----------------------------------|-----------------------------------|
| 1. Harishgowda T R [1SG19EC034] | 2. Girish reddy S [1SG19EC032] |
| 3. Adarsh gowda K R [1SG19EC003] | 4. Chandrashekar Y M [1SG19EC022] |

Under the guidance of

Prof. Ravishankara M N

Associate professor



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

SAPTHAGIRI COLLEGE OF ENGINEERING

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2019-2023

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14/5, Chikkasandra, Hesaraghatta, Main Road, Bengaluru-560057, Karnataka, India.



CERTIFICATE

Certified that the project work entitled **STUDY AND SIMULATION OF FIVE-STORY ELEVATOR CONTROLLER USING VERILOG HDL** carried out by

- | | |
|---------------------------------|-----------------------------------|
| 1. Harishgowda T R [1SG19EC034] | 2. Girish reddy S [1SG19EC032] |
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Prof. Ravishankara M N
Associate professor

Dr. H C Sateesh Kumar
Head of the Department

Dr. H Ramakrishna
Principal

External Viva

Name of the examiners:

1. *Dr. A. M. Nagaraj*

2. *J. R. GIRISH*

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

Signature with date:

J. R. GIRISH 29/7/22

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report
on

“PRECISION AGRICULTURE USING VERILOG HDL”

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

1.Chandan D [1SG19EC020]

2. Harshan Gowda K H [1SG19EC035]

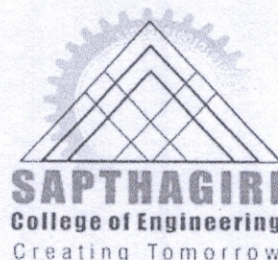
3.Hemanth Kumar L [1SG19EC039]

4. Manoj H [1SG19EC052]

Under the guidance of

Prof. VEENA.N

Associate professor



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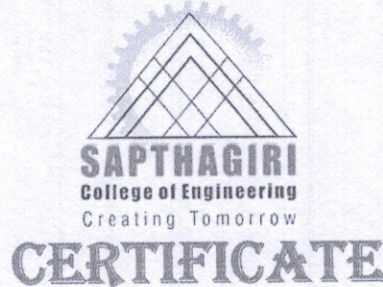
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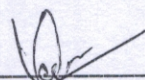
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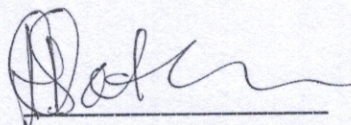
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- | | |
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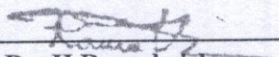
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Prof. Veena N
Assistant Professor



Dr. H C Sateesh Kumar
Head of the Department



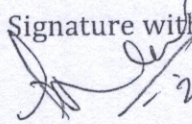
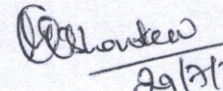
Dr. H Ramakrishna
Principal

External Viva

Name of the examiners:

1. Prathibha P.
2. RAVI SHANKARA M.N

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

Signature with date:
 29/7/22
 29/7/22

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report

on

“Low-Power, Low-Noise Edge-Race Comparator”

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

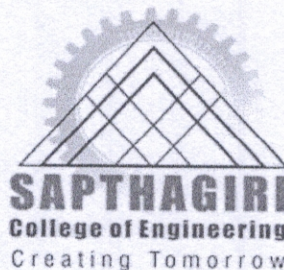
Submitted by

- | | |
|-----------------------------------|-------------------------------------|
| 1. Shivam Kumar O [1SG19EC089] | 2. Shivam Kumar Sharma [1SG19EC090] |
| 3. S M Faraz Hussain [1SG19EC096] | 4. Srinivas N Kaushik [1SG19EC098] |

Under the guidance of

Prof. Manasa M G

Assistant Professor



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
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2019-2023

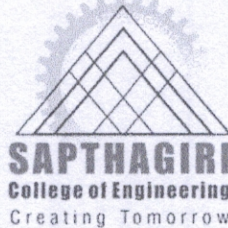
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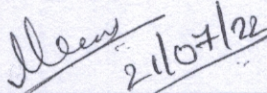


CERTIFICATE

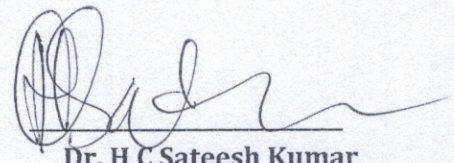
Certified that the project work entitled **Low-Power, Low-Noise Edge-Race Comparator** carried out by

1. Mr. Shivam Kumar O [1SG19EC089] 2. Mr. Shivam Kumar Sharma [1SG19EC090]
3. Mr. SM Faraz Hussain [1SG19EC096] 4. Mr. Srinivas N Kaushik [1SG19EC098]

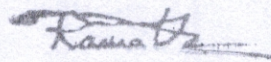
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21/07/22

Name & signature
of the Guide



Dr. H C Sateesh Kumar
Head of the Department



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

Head of the Department

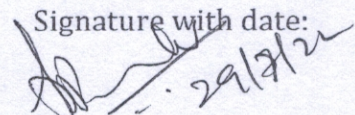
Electronics & Communication
Sapthagiri College of Engineering
Bengaluru - 560 057

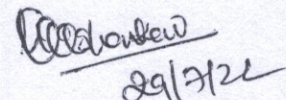
External Viva

Name of the examiners:

1. **Prathibha. P.**
2. **RAVI SHANKARA. M.N.**

Signature with date:


29/7/22


29/7/22

30

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report
on

"FPGA Design Based On Distance Meter Circuit"

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

1. CHANDRIKA.D[1SG19EC023]

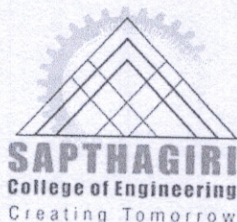
2. MEGHANA.H.P[1SG20EC404]

3. PUSHPALATHA.K.R[1SG20EC0408]

Under the guidance of

SHOBHA.HUGAR

Assistant professor



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14/5, Chikkasandra, Hesaraghatta, Main Road, Bengaluru-560057, Karnataka, India.



CERTIFICATE

Certified that the project work entitled '**FPGA Design Based On Distance**

Meter Circuit' carried out by

1. Miss CHANDRIKA.D [1SG19EC023]
2. Miss MEGHANA.H.P [1SG1920EC404]
3. Miss PUSHPALATHA.K.R [1SG20EC408]

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SHOBHA HUGAR

Name & signature
of the Guide

Dr. H C Sateesh Kumar
Head of the Department

Dr. H Ramakrishna
Principal

External Viva

Name of the examiners:

1. Prathibha P.
2. RAVI SHANKARA.M.N

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

Signature with date:

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report

on

“Fire Detection using CNN”

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

- | | |
|---------------------------------|-----------------------------|
| 1. S. Raveesh Koti [1SG19EC082] | 2. Shashank R [1SG19EC088] |
| 3. Shreyas G Raj [1SG19EC093] | 4. Subhash B S [1SG19EC099] |

Under the guidance of

Dr Sudha M.S

Assistant Professor



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14/5, Chikkasandra, Hesaraghatta, Main Road, Bengaluru-560057, Karnataka, India.



CERTIFICATE

Certified that the project work entitled "FIRE DETECTION USING CNN" carried out by

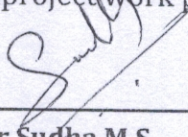
1. Mr.S.Raveesh Koti[1SG19EC082]

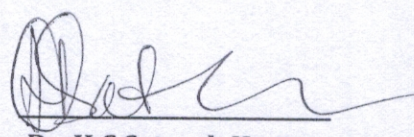
2. Mr. Shashank.R [1SG19EC088]

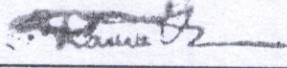
3. Mr.Shreyas G Raj [1SG19EC093]

4. Mr. Subhash B.S [1SG19EC099]

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Dr Sudha M.S
Guide


Dr. H C Sateesh Kumar
Head of the Department


Dr. H Ramakrishna
Principal

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bengaluru - 560 057.

External Viva

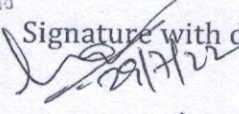
Name of the examiners:

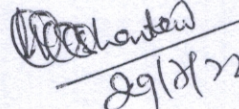
1. Prathibha
- 2.

RAVI SHANKARA . M . N

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

Signature with date:


29/8/22


29/8/22

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report

on

“FINGERPRINT RECOGNITION USING MATLAB”

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

1. Purshotam R [1SG19EC069]

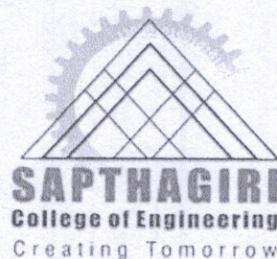
2. Shubham Pathak [1SG19EC094]

3. Tapan [1SG19EC106]

Under the guidance of

Dr. A.M. Nagaraja

Professor



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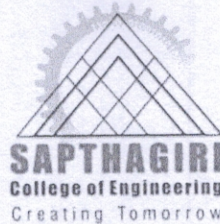
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2019-2023

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14/5, Chikkasandra, Hesaraghatta, Main Road, Bengaluru-560057, Karnataka, India.



CERTIFICATE

Certified that the project work entitled "FINGERPRINT RECOGNITION USING MATLAB"
carried out by

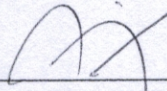
1. Purshotam R [ISG19EC069]


2. Shubham Pathak [ISG19EC094]

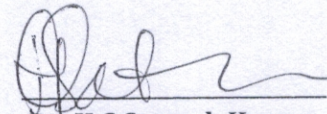
3. Tapan

[ISG19EC106]

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Dr. A.M. Nagaraja
Professor, Guide


Dr. H Ramakrishna
Principal


Dr. H C Sateesh Kumar
Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore - 560 057

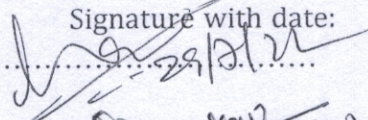
External Viva

Name of the examiners:

1. Prathibha P

2. RAVI SHANKARA. M.N

Signature with date:


29/12/22

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA, INDIA-590018.



A Miniproject Report

on

“SYNTHESIS OF GRAY CODE COUNTER USING XILINX VIVADO”

Submitted in partial fulfillment of the requirements for the award of degree of 6th semester

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

1. MANISH SHAH. R [1SG19EC050]

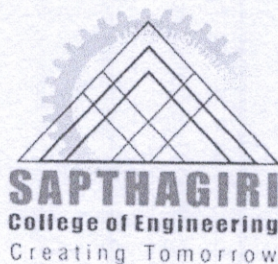
Under the guidance of

Prof. Girish J R

Assistant Professor

Dr. Prakash Jadav

Associate Professor



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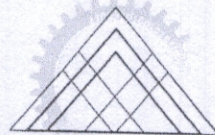
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Certified that the project work entitled 'SYNTHESIS OF GRAY CODE COUNTER USING XILINX VIVADO' carried out by **Mr. Manish Shah. R [1SG19EC050]**

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Dr. Prakash Jadav
Associate professor

Dr. H C Sateesh Kumar
Head of the Department

Dr. H Ramakrishna
Principal

External Viva

Name of the examiners:

1.

2.

Signature with date: