



SRI SRINIVASA EDUCATIONAL AND CHARITABLE TRUST®
SAPTHAGIRI COLLEGE OF ENGINEERING
(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE, New Delhi)




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

Electronics and Communication Engineering

| Batch | USN | NAME | PROJECT TITLE |
|-------|------------|------------------|--|
| 1 | 1SG18EC079 | R. DIVYA | Generation of power to a vehicle using solar energy or its own kinetic energy |
| | 1SG18EC077 | PREKSHA PRAKASH | |
| | 1SG18EC095 | SHILPA. A | |
| | 1SG18EC088 | SAMREEN KAUSAR | |
| 2 | 1SG18EC063 | NITHIN RS | A real time Pot hole detection and clearance robot |
| | 1SG18EC111 | VANDANA G | |
| | 1SG18EC108 | ULLAS HP | |
| | 1SG18EC117 | VINAY HS | |
| 3 | 1SG18EC010 | ARCHANA.D | A blind stick navigator with Braille system and obstacle detection for visually and hearing impaired persons |
| | 1SG18EC002 | AISHWARYA KATARE | |
| | 1SG18EC007 | APOORVA YJ | |
| 4 | 1SG18EC030 | DUSHYANTH H Y | Human Image Captioning using Deep Learning |
| | 1SG18EC046 | KIRAN KUMAR D | |
| | 1SG18EC080 | RAKSHITH GS | |
| | 1SG18EC026 | DEVANKIT | |
| | 1SG18EC023 | DEEPA B | |


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|----|------------|------------------------|---|
| 5 | 1SG18EC037 | HARSHITHA V | Driver dormant Monitoring system to alert fatal accidents using image processing |
| | 1SG18EC049 | LAVANYA N | |
| | 1SG18EC058 | MEGHA S | |
| 6 | 1SG18EC098 | SHRADDHA VARIJAKSHA | Crowd Management in Public Transport |
| | 1SG18EC096 | SHILPASHREE S R | |
| | 1SG18EC068 | POOJA G D | |
| | 1SG18EC112 | VARSHINI R | |
| 7 | 1SG18EC003 | AKARSH B A | Implementation of Abstractive Summarization & translation using deep learning technique |
| | 1SG18EC024 | DEEPAK K | |
| | 1SG18EC051 | L VISHNU VARDHAN REDDY | |
| | 1SG18EC038 | HEMANTH H M | |
| 8 | 1SG18EC001 | ABHISHEK R | Design & Development of IC sorting and dispensing system |
| | 1SG18EC012 | ASHWIN K | |
| | 1SG18EC015 | BHARATH K | |
| | 1SG18EC039 | HEMANTH K | |
| 9 | 1SG18EC090 | SELVA KUMAR B | Flood and earthquake detection and alert using IOT technology |
| | 1SG18EC091 | SHARATH K V | |
| | 1SG18EC116 | VIKAS B S | |
| | 1SG18EC101 | SOURAV KUMAR SINGH | |
| 10 | 1SG18EC028 | DIVAKAR V | Automatic floor cleaning Robot using Arduino and Ultrasonic Sensor |
| | 1SG18EC032 | GANGADHAR GM | |
| | 1SG18EC034 | GIREESHA K | |
| | 1SG18EC043 | TEJA K R | |



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|----|------------|------------------|--|
| 11 | 1SG18EC045 | KHUSHI SINGH | Multipurpose agriculture robot |
| | 1SG18EC048 | LAVANYA B | |
| | 1SG18EC054 | M AKSHAY KAMATH | |
| | 1SG18EC044 | K SHREYAS | |
| 12 | 1SG18EC042 | JAYANTH R S | Design and analysis of different SRAM cell Topologies using CMOS and FinFET Technologies |
| | 1SG18EC036 | HARE KRISHNA | |
| | 1SG18EC047 | KUMAR G | |
| | 1SG18EC062 | NIKHIL UMAPATI | |
| 13 | 1SG18EC071 | PRAJWAL P | Smart Cradle system |
| | 1SG18EC074 | PRATEEK. J. H | |
| | 1SG18EC105 | TARUN KUMAR G | |
| | 1SG18EC120 | VISHAL N | |
| 14 | 1SG18EC093 | SHASHANK DR | Forest monitoring system |
| | 1SG18EC092 | SHARATH KUMAR BG | |
| | 1SG18EC005 | ANAND V | |
| | 1SG18EC035 | HAMSITHA B | |
| 15 | 1SG18EC053 | LIKHITHA G | Design of 5G base band filter decimator unit |
| | 1SG18EC059 | MONISHA R | |
| | 1SG18EC009 | ARATHI M | |
| | 1SG17EC117 | HARSHA RL | |
| 16 | 1SG18EC065 | NITHISH R | an intelligent packing system for E- commerce |
| | 1SG18EC067 | PAVAN KUMAR G V | |
| | 1SG18EC107 | UJWAL S | |




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|----|------------|-----------------------|---|
| 17 | 1SG18EC008 | APURVA M SHET | FPGA Implementation of EXUDATE detection in FUNDUS Images |
| | 1SG18EC020 | CHANDANA V | |
| | 1SG18EC025 | DEEPIKA U M | |
| | 1SG18EC031 | G.MEGHASHREE | |
| 18 | 1SG18EC027 | DHANUSHREE L | VLSI Implementation for low power high speed DAC |
| | 1SG18EC050 | LAVANYA R | |
| | 1SG18EC066 | PARVATHY R | |
| | 1SG18EC041 | JAYANTH K HOLALKERI | |
| 19 | 1SG18EC055 | MANASA DEV G J | Design & Performance analysis of 8*8 NOC for high traffic & streaming application |
| | 1SG18EC060 | NAGESH R SHANBHAG | |
| | 1SG18EC056 | MANOJ MAHADEV BIRADAR | |
| | 1SG18EC110 | VAISHNAVI P B | |
| 20 | 1SG18EC069 | POOJITHA S B | FPGA Implementation of high speed lowenergy RNS based reconfigurable FIR filer |
| | 1SG18EC099 | SHREYA S | |
| | 1SG18EC109 | UME E SAFA | |
| | 1SG18EC061 | NIKHIL M KUMAR | |
| 21 | 1SG18EC094 | SHASHANK S | Android controlled wild life observation robot |
| | 1SG19EC414 | RAKSHITH D | |
| | 1SG19EC405 | DEEPAK N | |
| | 1SG19EC409 | IMDAD HUSSAIN | |
| 22 | 1SG19EC412 | NAVEEN H R | Virtual doctor obstacle detection |
| | 1SG19EC418 | YASHWANTH KUMAR M | |
| | 1SG18EC057 | MEDA. ABHIRAM SAI | |
| | | | |



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|----|------------|-----------------|--|
| 23 | 1SG18EC122 | YOGESH YR | IOT based Hydroponics |
| | 1SG18EC103 | SUMA G | |
| | 1SG18EC115 | VIDYA KN | |
| 24 | 1SG19EC400 | AMULYA N D | Controlled environment for protection of crops |
| | 1SG19EC402 | BINDUSHREE M G | |
| | 1SG19EC403 | CHAITHANYA D R | |
| | 1SG19EC406 | DIVYA R | |
| 25 | 1SG18EC118 | VINAY P | Automatic solar powered grass cutter incorporated with alphabet printing and pesticide sprayer |
| | 1SG18EC119 | VINAY PRASAD M | |
| | 1SG18EC102 | SUJAN S | |
| | 1SG18EC104 | SWAGAT SHREYASH | |
| 26 | 1SG18EC083 | RESHMA S HEGDE | Design and Implementation of neural network on FPGA using verilog |
| | 1SG18EC097 | SHIVAKUMAR S | |
| | 1SG18EC113 | VARUN L | |
| | 1SG18EC086 | SAKSHI PAI B | |
| 27 | 1SG18EC014 | BHARATH K | Implementation of machine learning frame work for detecting cyber attack in online banking |
| | 1SG18EC021 | CHETAN B A | |
| | 1SG18EC022 | DARSHAN J | |
| | 1SG18EC040 | JASHWANTH V | |
| 28 | 1SG18EC016 | BHARGAVI TC | Metal Detector robotic vehicle operated by android application |
| | 1SG18EC013 | ASHWINI B N | |
| | 1SG18EC019 | CHANDANA C B | |
| | 1SG18EC011 | ARCHANA H K | |


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|----|------------|---------------------|---|
| 29 | 1SG18EC006 | ANANYA N YADAV | Smart mirror with innovative features |
| | 1SG18EC033 | GEETHA N P | |
| | 1SG18EC085 | SAIKRISHNA M | |
| 30 | 1SG18EC082 | RAKSHITHA S ACHARYA | IOT based smart water purification system |
| | 1SG18EC073 | PRAMODH N | |
| | 1SG18EC070 | BADIGER | |
| | 1SG18EC078 | PREMSAGAR B L | |
| 31 | 1SG18EC087 | SAMARTH K | Smart trolley automatic shopping billing |
| | 1SG18EC100 | SHREYAS S | |
| | 1SG18EC106 | THEJAS S | |
| | 1SG19EC401 | ASHA K R | |
| 32 | 1SG19EC411 | MEGHANA | Smart advertising systems in modern public transport |
| | 1SG19EC417 | THANUJA L | |
| | 1SG19EC410 | MANU K M | |
| 33 | 1SG19EC407 | DORESWAMY V B | Solar Pwered wheel chair with voice controller for physically challenged persons |
| | 1SG19EC413 | PRATHAP B R | |
| | 1SG19EC415 | RANGANATH M | |
| | 1SG19EC404 | DARSHAN GOWDA S | |
| 34 | 1SG19EC408 | HARSHA VARDHANA K V | Design and Implementation of images and video processing application using xilinx on FPGA |
| | 1SG18EC076 | PRAVEEN N | |
| | 1SG17EC065 | PRATEEK R | |
| 35 | 1SG17EC070 | RAKSHITHA G N | Navigation Assistance for Blind and Visually Impaired People |
| | 1SG18EC404 | DEEPAK G KRISHNAN | |



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| | 1SG18EC400 | ANURAG G | |
| 36 | 1SG16EC011 | ASHUTOSH TIWARI | Fire detection & extinguish using DIP |
| | 1SG17EC014 | ASHUTOSH YADAV | |
| | 1SG16EC058 | NANDAN N | |
| | 1SG17EC045 | KISHAN R | |
| | 1SG16EC087 | RANBIR KUMAR SINGH | |
| 37 | 1SG17EC059 | NIHARIKA RH | Solar Floor Cleaner |
| | 1SG15EC103 | SHUBHAM KUMAR | |
| | 1SG16EC128 | SPOORTHY | |
| | 1SG18EC412 | PUNYASHREE G | |
| | 1SG18EC409 | KARTHIK S ARKASALI | |
| 38 | 1SG18EC417 | YESHWANTH RAO B N | Indoor Plants Recommendation System to Improve Air Quality |
| | 1SG18EC414 | SUNITHA.MU | |
| | 1SG18EC413 | SANTHOSH G | |
| | 1SG18EC411 | MANOJ R | |
| | 1SG18EC415 | THEERTHAPRASAD T | |
| 39 | 1SG18EC402 | ASHA E | New generation voting machine for convenient system |
| | | | |
| 40 | 1SG17EC424 | VINAY R | Design and Implementation of Automated Security System for Industry and Campus |

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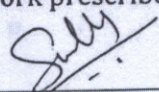


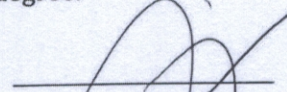
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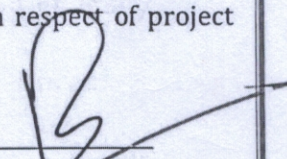
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| | |
|----------------|------------|
| Preksha | 1SG18EC077 |
| R Divya | 1SG18EC079 |
| Samreen Kausar | 1SG18EC088 |
| Shilpa A | 1SG18EC095 |

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.

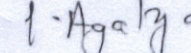
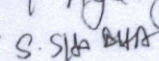

Dr. Sudha M S
Guide


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


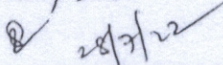

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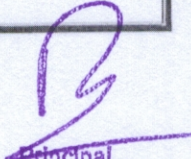
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Name of the examiners

1.  S. Agalya
2.  S. Sita

Signature with date

 15/7/22
 28/7/22


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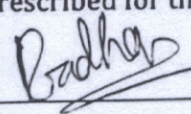


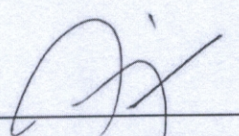
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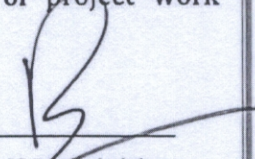
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| | |
|------------|------------|
| NITHIN R S | 1SG18EC062 |
| ULLAS H P | 1SG18EC108 |
| VANDANA G | 1SG18EC111 |
| VINAY | 1SG18EC117 |


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Dr. Prakash Jadhav
Associate Professor


Dr. H C Sateesh Kumar
Head of the Department
Electronics & Communication
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Bengaluru - 560 057
Signature with date
22/7/22


Dr. H Ramakrishna
Principal
Principal
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Name of the examiners
1 P Agaga
2 S Sudo


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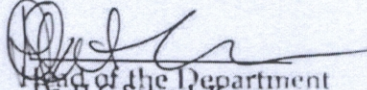


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|------------------|------------|
| Aishwarya Katare | 1SG18EC002 |
| Apoorva Y J | 1SG18EC007 |
| Archana D | 1SG18EC010 |

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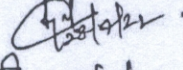
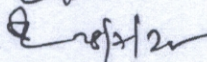

Head of the Department
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Sapthagiri College of Engineering
Bengaluru - 560 057

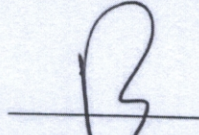
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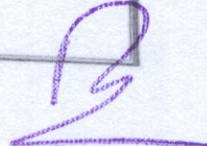
Name of the examiners

1. P. A. Ganga
2. S. K. D. A.

Signature with date


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| DEVANKIT | 1SG18EC026 |
| DUSHYANTH H Y | 1SG18EC030 |
| KIRAN KUMAR D | 1SG18EC046 |
| RAKSHITH G S | 1SG18EC080 |

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Dr. H C Sateesh Kumar

Head of the Department
Guide and Head of the Department
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External Viva

Name of the examiners

1. P. Agalya
2. SSVR

Signature with date

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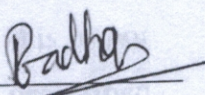


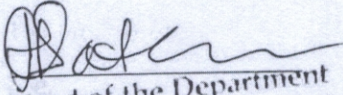
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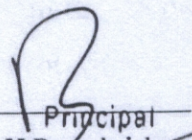
This is to certify that the project work entitled "**DRIVER DORMANT MONITORING SYSTEM TO AVERT FATAL ACCIDENTS USING IMAGE PROCESSING**" is a bonafide work carried out by

| | |
|-------------|------------|
| DEEPA B | 1SG18EC023 |
| HARSHITHA V | 1SG18EC037 |
| LAVANYA N | 1SG18EC049 |
| MEGHA S | 1SG18EC058 |

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Dr. Prakash Jadhav
Guide

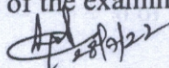
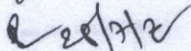

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1. P. Agalya
2. S. S. S. S.

Name of the examiners

Signature with date


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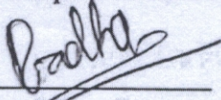


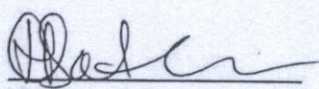
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| | |
|---------------------|------------|
| POOJA G D | 1SG18EC068 |
| SHILPASHREE S R | 1SG18EC096 |
| SHRADDHA VARIJAKSHA | 1SG18EC098 |
| VARSHINI R | 1SG18EC112 |

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Bangalore - 560 057

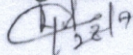
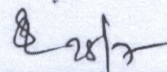

Dr. H Ramakrishna
Principal
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Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

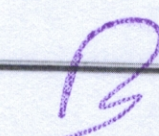
External Viva

Name of the examiners

1. P. Agalga
2. S. S. S. S.

Signature with date


22/12/21

28/12/21


Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
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Bengaluru-560057

Department of Electronics & Communication Engineering



CERTIFICATE

This is to certify that the project work entitled **Implementation of Abstractive Summarization** is a bonafide work carried out by

| | |
|------------------------|------------|
| Akarsh B A | 1SG18EC003 |
| Deepak K | 1SG18EC024 |
| Hemanth H M | 1SG18EC038 |
| L Vishnu Vardhan Reddy | 1SG18EC051 |

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.

Prof. Padmavathi C
Guide

Dr. H C Sateesh Kumar
Head of the Department

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

External Viva

Name of the examiners

1. P. Agalya
2. S. Sumanth

Signature with date

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

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Department of Electronics & Communication Engineering

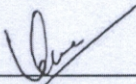


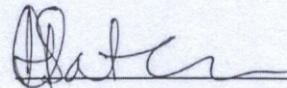
CERTIFICATE


This is to certify that the project work entitled "**Design and Development of IC Sorting, Testing and Dispensing System**" is a bonafide work carried out by

| | |
|------------|------------|
| Abhishek R | 1SG18EC001 |
| Ashwin K | 1SG18EC012 |
| Bharath K | 1SG18EC015 |
| Hemanth K | 1SG18EC039 |

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.


Prof. Veena N
Assistant Professor

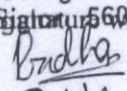

Dr. H C Sateesh Kumar
Head of the Department
Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bengaluru-560057

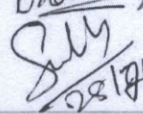

Dr. H Ramakrishna
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Principal
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Bangalore-560 057

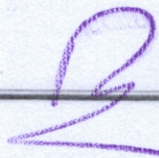
External Viva

Name of the examiners

1. Dr. Prakash Jadhav
2. Dr. Sudhakar M


Date 28/7/22


28/7/22


Principal
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Bengaluru-560057

Department of Electronics & Communication Engineering



CERTIFICATE

This is to certify that the project work entitled **Design of flood and earthquake detection system using IoT Technology** is a bonafide work carried out by

| | |
|--------------------|------------|
| Selva Kumar B | 1SG18EC090 |
| Sharath K V | 1SG18EC091 |
| Sourav Kumar Singh | 1SG18EC101 |
| Vikas B S | 1SG18EC116 |

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work phase 2 prescribed for the degree.

for

Prof. Kavitha R J
Guide

Dr. H C Sateesh Kumar

Dr. H C Sateesh Kumar
Head of the Department

Dr. H Ramakrishna

Dr. H Ramakrishna
Principal
Sapthagiri College of Engineering
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Bangalore-560 057

External Viva

Name of the examiners

1. Dr. Poakash Tachar
2. Dr. Sudha M.S

Sapthagiri College of Engineering

Electronics & Communication

Bangalore

Signature with date

28/7/22
28/7/22

Principal
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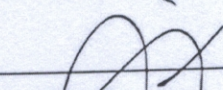


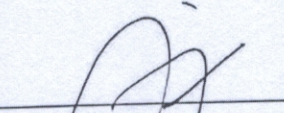
CERTIFICATE

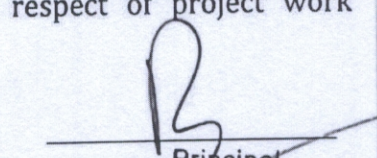
This is to certify that the project work entitled **Automatic and Manual Floor Cleaning Robot Using Arduino and Ultrasonic Sensor** is a bonafide work carried out by,

| | |
|---------------|------------|
| Divakar V | 1SG18EC028 |
| Gangadhar G M | 1SG18EC032 |
| Gireesha K | 1SG18EC034 |
| Teja K R | 1SG18EC043 |

in partial fulfillment for the degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.


Dr. A M Nagaraja
Professor (Guide)

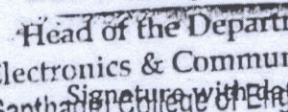

Dr. H C Sateesh Kumar
Head of the Department

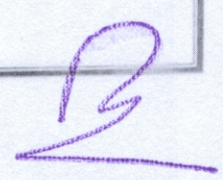

Dr. H Ramakrishna
Principal
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Bangalore-560 057

External Viva

Name of the examiners

1. Dr. Prakash Teelha
2. Dr. Sudhakar M-S


Dr. Prakash Teelha
Head of the Department
Electronics & Communication
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23/7/22


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Department of Electronics & Communication Engineering



CERTIFICATE

This is to certify that the project work entitled **Multipurpose Agricultural Robot** is a bonafide work carried out by

Khushi Singh

1SG18EC045

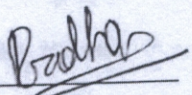
Lavanya B

1SG18EC048

M Akshay Kamath

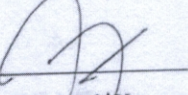
1SG18EC054

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021. This is to certify that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirements in respect of project work prescribed for the degree.



Dr. Prakash Jadhav

Associate Professor



Dr. H C Sateesh Kumar

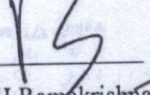
Head of the Department

Head of the Department

Electronics & Communication

Sapthagiri College of Engineering

Bangalore - 560 057



Dr. H Ramakrishna

Principal

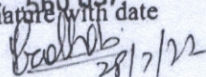
Principal

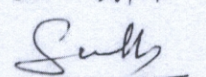
External Viva

Name of the examiners


1. Dr. Prakash Jadhav

2. Dr. Sudeep M.S


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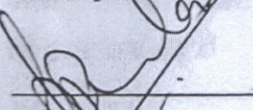


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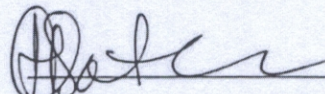
This is to certify that the project work entitled **Smart Cradle System** is a bonafide work carried out by

| | |
|----------------|------------|
| Nikhil Umapati | 1SG18EC062 |
| Prajwal P | 1SG18EC071 |
| Prateek J H | 1SG18EC074 |
| Tarun Kumar G | 1SG18EC105 |

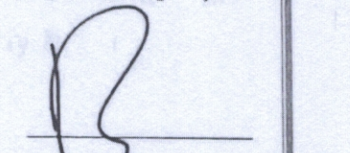
in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.


Prof. Prathibha P

Assistant Professor


Dr. H C Sateesh Kumar

Head of the Department
Head of the Department
Electronics & Communication
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Sapthagiri College of Engineering
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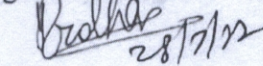

Dr. H Ramakrishna
Principal
Principal
Sapthagiri College of Engineering
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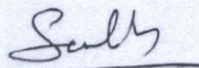
External Viva

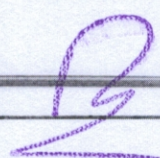
Name of the examiners

1. Dr. Prakash Tadkar
2. Dr. Sudha M-S

Bangalore-560 057.
Signature with date


28/7/22


28/7/22


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Bengaluru-560057

Department of Electronics & Communication Engineering



CERTIFICATE

This is to certify that the project work entitled "**An Intelligent Forest Monitoring System Based on IoT**" is a bonafide work carried out by

| | |
|-------------------|------------|
| Anand V | 1SG18EC005 |
| Sharath Kumar B G | 1SG18EC092 |
| Shashank D R | 1SG18EC093 |
| Vishal N | 1SG18EC120 |

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.

Shobha Hugar 12/7/22

Prof. Shobha Hugar

Guide

Dr. H C Sateesh Kumar

Dr. H C Sateesh Kumar

Head of the Department

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering

Dr. H Ramakrishna

Dr. H Ramakrishna

Principal

Sapthagiri College of Engineering
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External Viva

Name of the examiners

1. Dr. Poakesh Tadhe

2. Dr. Sudhakar M.S

Signature with date

Dr. Poakesh Tadhe 28/7/22

Dr. Sudhakar M.S 28/7/22

Dr. H Ramakrishna

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Department of Electronics & Communication Engineering

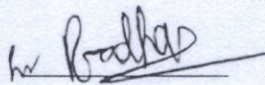


CERTIFICATE

This is to certify that the project work entitled "DESIGN AND IMPLEMENTATION OF AN EFFICIENT 5G BASEBAND DECIMATING FILTER" is a bonafide work carried out by

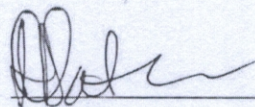
| | |
|------------|------------|
| Arathi M | 1SG18EC009 |
| Hamsitha B | 1SG18EC035 |
| Likhitha G | 1SG18EC053 |
| Monisha R | 1SG18EC059 |

in partial fulfillment for the award of degree of *Bachelor of Engineering in Electronics & Communication Engineering* of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.



Prof. Preethi T S

Guide



Dr. H C Sateesh Kumar

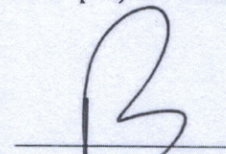
Head of the Department

Head of the Department

Electronics & Communication

Sapthagiri College of Engineering

Bangalore - 560 057



Dr. H Ramakrishna

Principal

Principal

Sapthagiri College of Engineering

Chikkasandra, Hesaraghatta Road,

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External Viva:

Name of the examiners

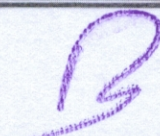
1. Dr. Poornima Tadhe
2. Dr. Sudhakar M. S

Signature with date

badha 28/7/22

Sunil

28/7/22


Principal
Sapthagiri College of Engineering
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Department of Electronics & Communication Engineering

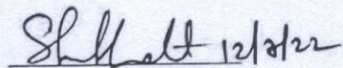


CERTIFICATE

This is to certify that the project work entitled **Intelligent Packaging System for E-commerce** is a bonafide work carried out by

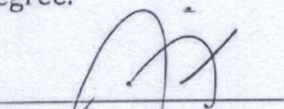
| | |
|----------------|------------|
| Nitish R | 1SG18EC065 |
| Harsha RL | 1SG17EC117 |
| Pavan Kumar GV | 1SG18EC067 |
| UJWAL S | 1SG18EC107 |

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Prof. Shobha Hugar

Assistant Professor

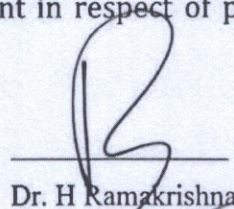


Dr. H C Sateesh Kumar

Head of the Department
Head of the Department

Electronics & Communication Engineering
Sapthagiri College of Engineering

Chikkasandra, Hesaraaghatta Road,
Bangalore-560 057



Dr. H Ramakrishna

Principal
Principal

External Viva

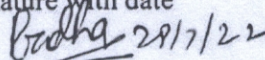
Name of the examiners

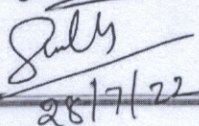
1 Dr. Prakash Tadhor

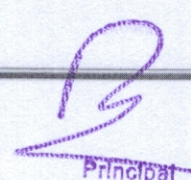
2 Dr. Sudha M.S

Bangalore-560 057

Signature with date

 28/7/22

 28/7/22


Principal
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Department of Electronics & Communication Engineering

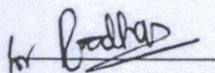


CERTIFICATE

This is to certify that the project work entitled **Design and Performance Analysis of NoC for Streaming Application** is a bonafide work carried out by

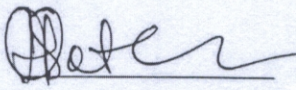
| | |
|-----------------------|------------|
| Jayanth K Holalkeri | 1SG18EC041 |
| Manasa Dev G J | 1SG18EC055 |
| Manoj Mahadev Biradar | 1SG18EC056 |
| Nagesh R Shanbhag | 1SG18EC060 |

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.

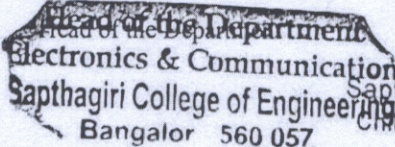


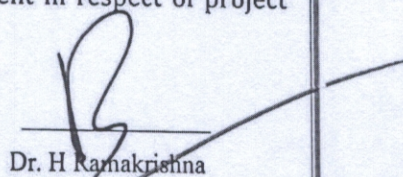
Prof. Preethi T S

Guide



Dr. H C Sateesh Kumar





Dr. H Ramakrishna

Principal

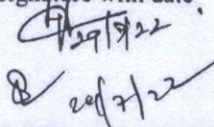
Principal

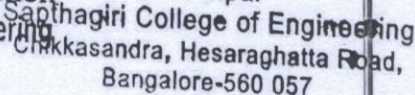
External Viva

Name of the examiners

1. P. Agalya
2. S. Subash

Signature with date





Principal

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

Sapthagiri College of Engineering,

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Bengaluru-560057

Department of Electronics & Communication Engineering

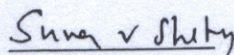


CERTIFICATE

This is to certify that the project work entitled **Implementation of High Speed RNS Based FIR Filter** is a bonafide work carried out by

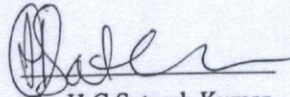
| | |
|---------------|------------|
| Poojitha S B | 1SG18EC069 |
| Shreya S | 1SG18EC099 |
| Ume e safa | 1SG18EC109 |
| Vaishnavi P B | 1SG18EC110 |

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.



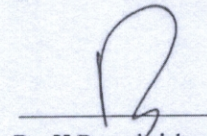
Prof. Suma V Shetty

Guide



Dr. H C Sateesh Kumar

Head of the Department



Dr. H Ramakrishna

Principal
Principal

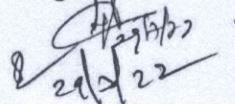
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

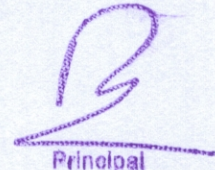
External Viva

Name of the examiners

1 P. Agalya
2. S. S. S. S. S.

Signature with date


21/2/22



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

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Department of Electronics & Communication Engineering



CERTIFICATE

This is to certify that the project work entitled **Android Controlled Wildlife Observation Robot** is a bonafide work carried out by

Nikhil M Kumar

1SG18EC061

Shashank S

1SG18EC094

Rakshith D

1SG19EC414

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.

Prof. Prayibha.P.

Assistant Professor

Dr. H C Sateesh Kumar

Head of the Department

Dr. H Ramakrishna

Principal

External Viva

Name of the examiners

1 P. Agalya

2. S. Sathya

Signature with date

28/7/22

28/7/22

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

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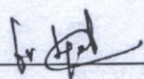


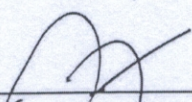
CERTIFICATE

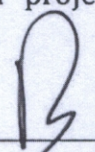
This is to certify that the project work entitled **Virtual Doctor Robot** is a bonafide work carried out by

| | |
|-------------------|------------|
| Deepak N | 1SG19EC405 |
| Imdad Hussain | 1SG19EC409 |
| Naveen H R | 1SG19EC412 |
| Yashwanth Kumar M | 1SG19EC418 |

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.


Prof. Madhu H M
Assistant Professor


Dr. H C Sateesh Kumar
Head of the Department

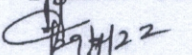
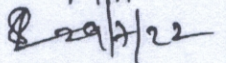

Dr. H Ramakrishna
Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

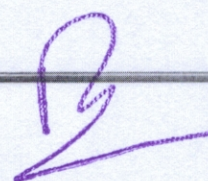
External Viva

Name of the examiners

1. P. Agalga
2. S. SHOBHA

Signature with date


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

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Department of Electronics & Communication Engineering

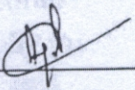


CERTIFICATE

This is to certify that the project work entitled **IoT Based Automated Hydroponic System** is a bonafide work carried out by

| | |
|------------------|------------|
| Meda.Abhiram Sai | 1SG18EC057 |
| Suma G | 1SG18EC103 |
| Vidya KN | 1SG18EC115 |
| Yogesh YR | 1SG18EC122 |

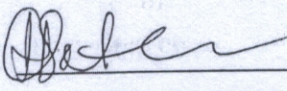
in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.


Prof. Agalya P
Guide

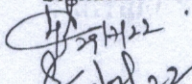
External Viva

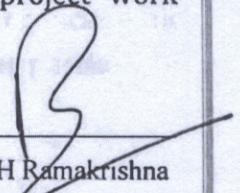
Name of the examiners

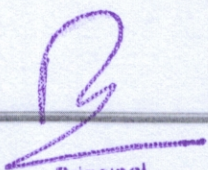
1. P. Agalya
2. S. SHR BHA


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

Signature with date


29/7/22


Dr. H Ramakrishna
Principal
Sapthagiri College of Engineering
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Principal
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Department of Electronics & Communication Engineering



CERTIFICATE

This is to certify that the project work entitled "**IOT Based Gas Leakage Detection and Automatic Gas Cylinder Booking System**" is a bonafide work carried out by

| | |
|----------------|------------|
| Amulya N D | 1SG19EC400 |
| Bindushree M G | 1SG19EC402 |
| Chaithanya D R | 1SG19EC403 |
| Divya R | 1SG19EC406 |

in partial fulfillment for the award of degree of *Bachelor of Engineering in Electronics & Communication Engineering* of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.

Suma V Shetty
Prof. Suma V Shetty
Guide

External Viva

Name of the examiners

1. f. Agalya
2. S. S. S. S. S.

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

Signature with date 057

29/3/22

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

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

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Department of Electronics & Communication Engineering

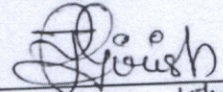


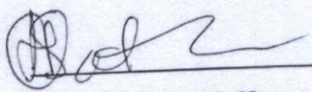
CERTIFICATE

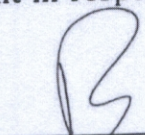
This is to certify that the project work entitled **Automatic Solar Powered Pesticide Sprayer and Grass Cutter Incorporated with Alphabet Printing** is a bonafide work carried out by

| | |
|-----------------|------------|
| Sujan S | 1SG18EC102 |
| Swagat Shreyash | 1SG18EC104 |
| Vinay P | 1SG18EC118 |
| Vinay Prasad M | 1SG18EC119 |

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.


Prof. J R Girish
15/7/22
Assistant professor

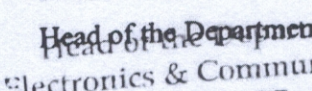

Dr. H C Sateesh Kumar
Head of the Department

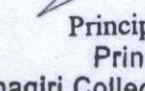

Dr. H Ramakrishna
Principal

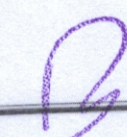
External Viva

Name of the examiners

1. P-Agalya
2. S-SUBRA


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


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


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

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Bengaluru-560057

Department of Electronics & Communication Engineering



CERTIFICATE

This is to certify that the project work entitled **Design and Implementation of Reconfigurable Neural Network** is a bonafide work carried out by

| | |
|----------------|------------|
| Reshma S Hegde | ISG18EC083 |
| Sakshi Pai B | ISG18EC086 |
| Shiva Kumar S | ISG18EC097 |
| Varun L | ISG18EC113 |

in partial fulfillment for the award of degree of *Bachelor of Engineering in Electronics & Communication Engineering* of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work phase 2 prescribed for the degree.

Prof. Agalya P
Guide

Dr. H C Sateesh Kumar

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

Dr. H Ramakrishna

Principal
Principal

External Viva

Name of the examiners

1. P. Agalya
2. S. S. Hegde

Signature with date

29/7/22

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

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

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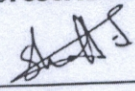


CERTIFICATE

This is to certify that the project work entitled **Network Intrusion and Cyber Attack Rates Detection using Machine Learning** is a bonafide work carried out by,

| | |
|-------------|------------|
| Bharath K | 1SG18EC014 |
| Chetan B A | 1SG18EC021 |
| Darshan J | 1SG18EC022 |
| Jashwanth V | 1SG18EC040 |

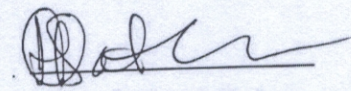
in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.


Prof. Shobha S
Guide

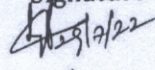
External Viva

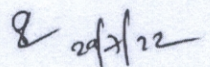
Name of the examiners

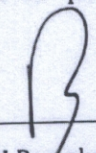
1. P. Agalya
2. S. Shobha


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

Signature with date


29/7/22


29/7/22


Dr. H Ramakrishna
Principal

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

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Department of Electronics & Communication Engineering



CERTIFICATE

This is to certify that the project work entitled **Metal Detector Robotic Vehicle** is a bonafide work carried out by

Ashwini B N

1SG18EC013

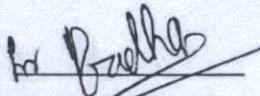
Bhargavi T C

1SG18EC016

Chandana C B

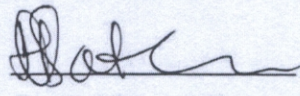
1SG18EC019

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.



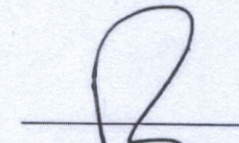
Prof. Madhu H M

Assistant Professor



Dr. H C Sateesh Kumar

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



Dr. H Ramakrishna

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

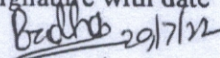
External Viva

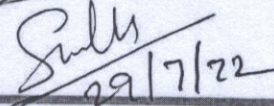
Name of the examiners

1 Dr. Prakash Tadha

2 Dr. Sudha M.S

Signature with date

 29/7/22

 29/7/22


Principal

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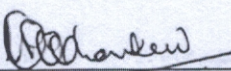


CERTIFICATE

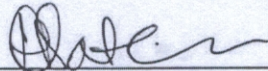
This is to certify that the project work entitled "**Smart Medical Mirror**" is a bonafide work carried out by

| | |
|----------------|------------|
| Ananya N Yadav | 1SG18EC006 |
| Archana H K | 1SG18EC011 |
| Geetha N P | 1SG18EC033 |

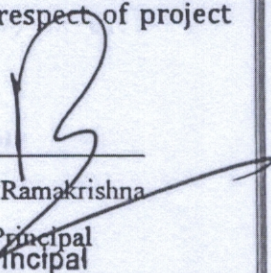
in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.



Prof. Ravi Shankara M N
Associate Professor



Dr. H C Sateesh Kumar
Head of the Department
Head of the Department



Dr. H Ramakrishna
Principal
Principal

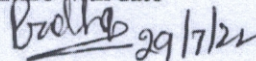
External Viva

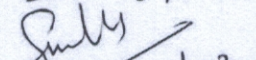
Name of the examiners

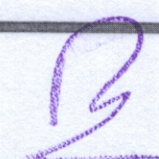
1. Dr. Prakash Tadhe
2. Dr. Sudha M.S

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

Signature with date

 29/7/22

 29/7/22


Principal
Sapthagiri College of Engineering
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Bengaluru-560057

Department of Electronics & Communication Engineering



CERTIFICATE

This is to certify that the work entitled "**IoT and sensor based water segregation system**" is a **good** work carried out by

| | |
|---------------------|------------|
| Prajwal J Badiger | 1SG18EC070 |
| Pramodh N | 1SG18EC073 |
| Rakshitha S Acharya | 1SG18EC082 |
| Saikrishna M | 1SG18EC085 |

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.

Prof. Ravi Shankara M N
Associate Professor

Dr. H C Sateesh Kumar

Dr. H Ramakrishna

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

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

External Viva

Name of the examiners

1. Dr. Prakash Tadkar
2. Dr. Sudhakar M.S

Signature with date

29/7/22

29/7/22

Principal
Sapthagiri College of Engineering
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Bangalore - 560 057

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Bengaluru-560057

Department of Electronics & Communication Engineering

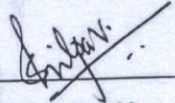


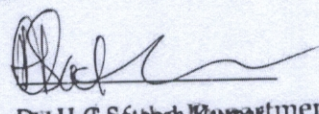
CERTIFICATE

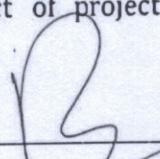
This is to certify that the project work entitled "IoT Based Smart Shopping Trolley" is a bonafide work carried out by

| | |
|----------------|------------|
| Premasagar B L | 1SG18EC078 |
| Samarth K | 1SG18EC087 |
| Shreyas S | 1SG18EC100 |
| Thejas S | 1SG18EC106 |

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Prof. Shilpa V
Assistant Professor


Dr. H C Suresh Kumar
Head of the Department
Sapthagiri College of Engineering
Bangalore - 560 057

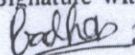

Dr. H Ramakrishna
Principal
Sapthagiri College of Engineering
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Bangalore-560 057

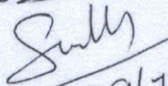
External Viva

Name of the examiners

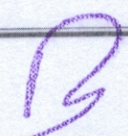
1. Dr. Prakash Tadha
2. Dr. Sudha M.S

Signature with date

 29/7/22

 29/7/22

Scanned with CamScanner


Principal
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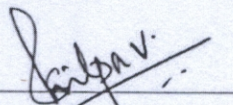


CERTIFICATE

This is to certify that the project work entitled "**Smart advertising system in modern public transport**" is a bonafide work carried out by

| | |
|-----------|------------|
| Asha K R | 1SG19EC401 |
| Meghana | 1SG19EC411 |
| Thanuja L | 1SG19EC417 |

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Bengaluru during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.

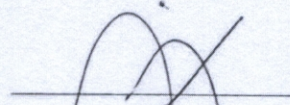

Prof. Shilpa V

Guide

External Viva


Name of the examiners

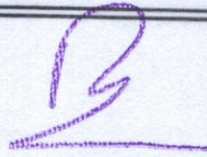
1. Dr. Prakash Jadhav
2. Dr. Sudha M.S


Dr. H C Sateesh Kumar

Head of the Department
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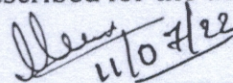


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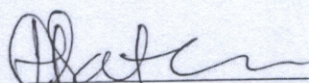
This is to certify that the project work entitled "**Solar Powered Wheelchair with Bluetooth Controller and IOT Cloud System for Physically Challenged Persons**" is a bonafide work carried out by

| | |
|---------------|------------|
| Doreswamy V B | 1SG19EC407 |
| Manu K M | 1SG19EC410 |
| Prathap B R | 1SG19EC413 |
| Ranganath M | 1SG19EC415 |

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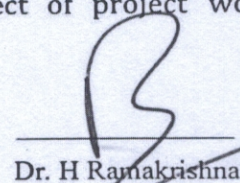

11/07/22

Prof. Manasa M G
Guide



Dr. H C Sateesh Kumar

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

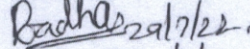
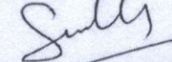

Dr. H Ramakrishna

Principal
Principal
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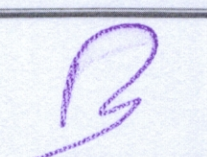
External Viva

Name of the examiners

Signature with date

1. Dr. Prakash Tadha  29/7/22
2. Dr. Sudha M. S  29/7/22

29/7/22


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Department of Electronics & Communication Engineering

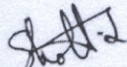


CERTIFICATE

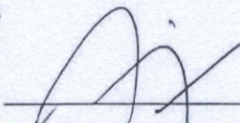
This is to certify that the project work entitled **Virtual Doctor Robot** is a bonafide work carried out by

| | |
|-------------------|------------|
| Praveen N | 1SG18EC076 |
| Darshan gowda S | 1SG19EC404 |
| Harshavardhana KV | 1SG19EC408 |

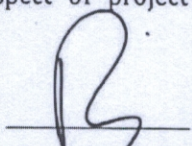
in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.


Prof. Shobha S

Guide


Dr. H C Sateesh Kumar

Head of the Department


Dr. H Ramakrishna

Principal

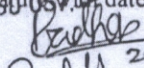
External Viva

Name of the examiners

1. Dr. Prakash Jadhav

2. Dr. Sudha M.S

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Department of Electronics & Communication Engineering



CERTIFICATE

This is to certify that the project work entitled **Navigation Assistance for Blind and Visually Impaired** is a bonafide work carried out by

ANURAG G [1SG18EC400]

DEEPAK G KRISHNAN [1SG18EC404]

PRATEEK R BILGI [1SG17EC065]

RAKSHITHA G N [1SG17EC070]

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work as prescribed for the degree.

Prof. Padmavathi .C

Guide

Dr. H C Sateesh Kumar

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering

Bangalore - 560 057.
Signature with date

Dr. H Ramakrishna

Principal

External Viva

Name of the examiners

1. P. Agalga
2. S. Shobha

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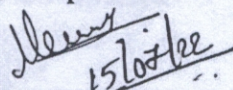


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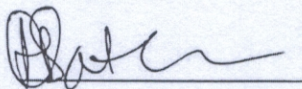
This is to certify that the project work entitled **Fire detection using Image processing** is a bonafide work carried out by

| | |
|-----------------|------------|
| Ashutosh Tiwari | 1SG16EC011 |
| Ashutosh Yadav | 1SG17EC014 |
| Kishan R | 1SG17EC045 |
| Nandan N | 1SG16EC058 |

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15/07/22

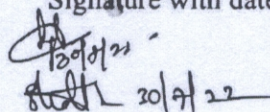
Prof. Manasa M G
Guide

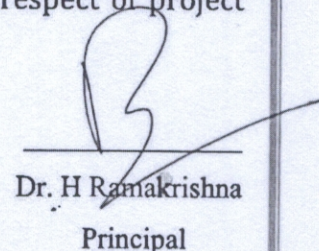


Dr. H C Sateesh Kumar

Head of the Department
Head of the Department
Electronics & Communication
Sapthagiri College of Engineering

Bangaluru - 560 057.
Signature with date


20/7/22


Dr. H Ramakrishna
Principal

External Viva

Name of the examiners

1. P. Agalya
2. S. S. K. A.



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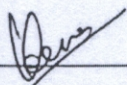
RANBIR KUMAR SINGH [1SG16EC087]

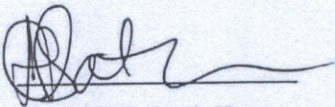
NIHARIKA R H [1SG17EC059]

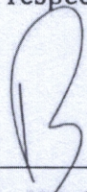
SHUBHAM KUMAR [1SG15EC103]

SPOORTHIM [1SG16EC128]

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.


Prof. Veena N
Project Guide


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

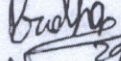


Dr. H Ramakrishna
Principal

External Viva

Name of the examiners

1. Dr. Poakash Jadhav
2. Dr. Sudha.M.S

Signature


29/7/22

29/7/22

with

date

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Department of Electronics & Communication Engineering



CERTIFICATE

This is to certify that the project work entitled **Indoor plants recommendation system to improve the air quality** is a bonafide work carried out by

| | |
|--------------------|------------|
| Karthik S Arkasali | 1SG18EC409 |
| Punyashree G | 1SG18EC412 |
| Sunitha M U | 1SG18EC414 |
| Yeshwanth Rao B.N | 1SG18EC417 |

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Kalavathi S.
Kalavathi S
Guide

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

Dr. H Ramakrishna
Principal

External Viva

Name of the examiners

1. Dr. Prakash Teelov
2. Dr. Sudha M.S

Sudha
30/7/22

signature with Date
Dr. H Ramakrishna 30/7/22

Dr. H Ramakrishna
Principal

Sapthagiri College of Engineering
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Department of Electronics & Communication Engineering



CERTIFICATE

This is to certify that the project work entitled **Smart Fuel Station** is a bonafide work carried out by

| | |
|------------------|--------------|
| ASHA E | [1SG18EC402] |
| MANOJ R | [1SG18EC411] |
| SANTHOSH G | [1SG18EC413] |
| THEERTHAPRASAD T | [1SG18EC415] |

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

Dr. H. Ramakrishna
Principal

Name of the examiners

1. Dr. Prakash Tadhev
2. Dr. Sudha M.S

Signature with date

Prakash 30/7/22
Sudha 30/7/22

Principal
Sapthagiri College of Engineering
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Department of Electronics & Communication Engineering



CERTIFICATE

This is to certify that the project work entitled **Design and Implementation of Automated security for Industry/Campus** is a bonafide work carried out by

VINAY R

[1SG17EC424]

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.

Kalavathi S.

Prof. Kalavathi S

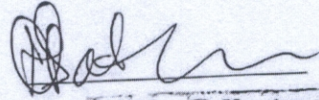
Guide

External Viva

Name of the examiners

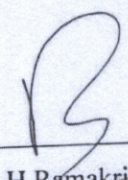
1. Dr. Prakash Jadhav

2. Dr. Sudha M.S

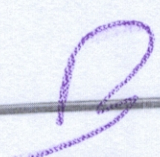

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore - 560 057

Signature with date

Prakash 29/7/22
Sudha
29/7/22


Dr. H Ramakrishna

Principal


Principal

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