



**Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)**

ACCREDITED BY NAAC WITH 'A++' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date:24-04-24

CERTIFICATE

This is to certify that the project work titled “**E-Bike Motor Speed Controller**” submitted by

V. Nithish Kumar

1602-20-735-025


K. Sree Chaitanya

1602-20-735-047

J. Nitish Kumar


1602-20-735-026

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


Internal Guide
Ms. S. Jhansi Naga Laxmi
Associate Professor
E.C.E Department

27/04/24


External Examiner


Head of the Department
Dr. E. SREENIVASA RAO
Professor & HoD
E.C.E Department

**DEPARTMENT OF E.C.E.
VASAVI COLLEGE OF ENGINEERING
HYDERABAD-500031**



Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A++' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date:24-04-24

CERTIFICATE

This is to certify that the project work titled **“Home Automation Using FPGA”** submitted by


MD. Huzaifa

1602-20-735-019

A. Abhilash


1602-20-735-001

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


Internal Guide
Mr. MD. Hafizuddin
Assistant Professor
E.C.E Department


External Examiner

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Head of the Department
Dr. E. SREENIVASA RAO
Professor & HoD
E.C.E Department

PROF. R. HEAD
DEPARTMENT OF E.C.E.
VASAVI COLLEGE OF ENGINEERING
HYDERABAD-500031



**Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)**

ACCREDITED BY NAAC WITH 'A++' GRADE
IBRAHIMBAGH, HYDERABAD-500031

Date:22-04-24

CERTIFICATE

This is to certify that the project work titled “**Pothole detection Prototype system for Smart Campus**” submitted by

Sk. Tawfeeq riyaz	1602-20-735-043
G. Ravindra reddy	1602-20-735-037
D. Rajashekar reddy	1602-19-735-029

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree.

E. Sreenivasa Rao

Internal Guide

Head of the Department

Dr. E. SREENIVASA RAO
Professor & HoD
E.C.E Department

22/4/24
External Exam

2

ESR
Head of the Department
Dr. E. SREENIVASA RAO
Professor & HoD
E.C.E Department

**PROF. & HEAD
DEPARTMENT OF E.C.E.
VASAVI COLLEGE OF ENGINEERING
HYDERABAD-500 031**



**Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)**

ACCREDITED BY NAAC WITH 'A++' GRADE
IBRAHIMBAGH, HYDERABAD-500031

Date:24-04-24

CERTIFICATE

This is to certify that the project work titled **“Implementation of SPI protocol using STM32”**

submitted by

U. Hershini

1602-20-735-014


K.M. Vihasitha

1602-20-735-057

R. Pradan Sam

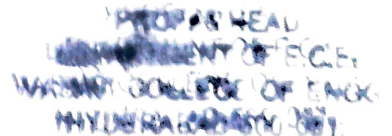
1602-20-735-029

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


Internal Guide **29.04.24**
Dr. N. Abid Ali Khan
Assistant Professor
E.C.E Department


External Examiner


Head of the Department
Dr. E. SREENIVASA RAO
Professor & HOD
E.C.E Department


PROF'S HEAD
DEPARTMENT OF E.C.E.
VASAVI COLLEGE OF ENG.
HYDERABAD-500031



Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A++' GRADE

IBRAHIMBAGH, HYDERABAD-500031

CERTIFICATE

This is to certify that the project work titled “**Smart Video Surveillance using YOLO Algorithm and OpenCV**” submitted by

Sri Charan Reddy Teegala

1602-20-735-049

Ramya Koneti

1602-20-735-034

Soumith Siddamshetti

1602-20-735-046

Students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree.


Internal Guide

Ms. Jhansi Naga Lakshmi S
Assistant Professor, ECE Dept.


Head of the Department

Dr. E. Sreenivasa Rao
Professor, ECE Dept.


External Examiner

PROF. A. HEAD
DEPARTMENT OF E.C.E.
VASAVI COLLEGE OF ENG.
IBRAHIMBAGH, HYDRABAD-500031



Department of Electronics and Communication Engineering

Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A++' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date: 26-04-2024

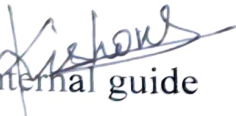
CERTIFICATE

This is to certify that the project work titled "A Real-Time Implementation of various Modulation Techniques on USRP" submitted by

PAYYAWAL PRANITH

1602-20-735-030

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


Internal guide

Dr. K. Krishna Kishore

Assistant Professor

E.C.E Department


Head of the Department

Dr. E. SREENIVASA RAO

Professor and HOD

E.C.E Department
PROF. & HEAD

DEPARTMENT OF E.C.E,
VASAVI COLLEGE OF ENGINEERING
HYDERABAD-500 031.


External Examiner



Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A++' GRADE
IBRAHIMBAGH, HYDERABAD-500031

Date:22-04-24

CERTIFICATE

This is to certify that the project work titled “**Multiband Slot Antenna For GPS/WIMAX/WLAN Systems**” submitted by

MD. Sohail **1602-20-735-020**

Batti Ranadheer Goud **1602-20-735-036**

Waghmarey Vaishnavi **1602-20-735-054**

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree

Internal Guide
Dr. DMK CHAITANYA
Associate Professor
E.C.E Department

External Examiner

Head of the Department
Dr. J. SREENIVASARAO
Professor & HoD
E.C.E Department
PROP. & HEAD
DEPARTMENT OF E.C.E.
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**Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)**

ACCREDITED BY NAAC WITH 'A++' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date: 26/04/2024

CERTIFICATE

This is to certify that the project work titled “**Design of economic automatic robot for cleaning and mopping application**” submitted by

Karthikeya Kotha

1602-20-735-015

Vaka Uday Sai

1602-20-735-053

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree

E. Sreenivasa Rao

Internal Guide

Head of the Department
Dr E. SREENIVASA RAO
Professor & HoD
E.C.E Department

26/4/24

External Examiner

E.S.R.

Head of the Department
Dr E. SREENIVASA RAO
Professor & HoD
E.C.E Department
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VASAVI COLLEGE OF ENGINEERING
HYDERABAD-500031.



Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A++' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date: 24-04-24

CERTIFICATE

This is to certify that the project work titled “**Design and Analysis of Error Correcting Codes using Verilog HDL**” submitted by

V N V SAI SAHIL

1602-20-735-040

of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree.

G. R. Padmini

Internal Guide
Ms. G. R. Padmini
Associate Professor
E.C.E Department

ESSR

Head of the Department
Dr. E. SREENIVASARAO
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DEPARTMENT OF E.C.E.
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External Examiner



Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A++' GRADE
IBRAHIMBAGH, HYDERABAD-500031

Date:25-04-2024

CERTIFICATE

This is to certify that the project work titled “**Soil Profiling and Precision Crop Recommendation with Machine Learning**” submitted by

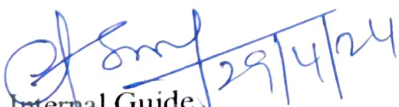
S SAICHARAN


1602-20-735-039


M SWAPARNIK

1602-20-735-052

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


Internal Guide
Mrs V. Aruna
Assistant Professor
E.C.E Department


External Examiner


Head of the Department
Dr. E. SREENIVASA RAO
Professor & HoD
E.C.E Department
PROP. HEAD
DEPARTMENT OF E.C.E.
VASAVI COLLEGE OF ENG.
HYDERABAD-500031.



Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A++' GRADE
IBRAHIMBAGH, HYDERABAD-500031

Date: 25-04-24

CERTIFICATE

This is to certify that the project work titled “**3D Object Detection for Autonomous driving using Deep Learning**” submitted by

Mohammed Azeeza	1602-20-735-021
Bhavanam Pavani	1602-20-735-028
P. Dhanushi	1602-20-735-012

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree.

Internal Guide
Mr. B. Uma Mahesh Babu
Assistant Professor
E.C.E Department

Head of the Department
Dr. F. SREENIVASA RAO
Professor & HoD
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External Examiner

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HYDERABAD-500 031.



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Vasavi College of Engineering (Autonomous)

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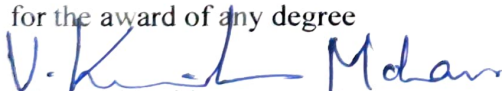
Date:29-04-24


CERTIFICATE

This is to certify that the project work titled “**Design of FPGA based position PI Servo Controller for a DC Motor with Dry Friction**” submitted by

N.Namratha Reddy	1602-20-735-022
S.Nandini	1602-20-735-023
B.Srilakshmi Shreya	1602-20-735-051

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


Internal Guide
Mr.V Krishna Mohan
Assistant Professor
E.C.E Department


Head of the Department
Dr.E.Sreenivas Rao
Professor & HoD
E.C.E Department

PROF. & HEAD
DEPARTMENT OF E.C.E.
VASAVI COLLEGE OF ENGINEERING
IBRAHIMBAGH, HYDERABAD-500031


External Examiner



Department of Electronics and Communication Engineering

Vasavi College of Engineering (Autonomous)


ACCREDITED BY NAAC WITH 'A++' GRADE


IBRAHIMBAGH, HYDERABAD-500031

Date: 21-04-2024

CERTIFICATE

This is to certify that the project work entitled "A High-Capacity Reversible Data Hiding in Encrypted image" submitted by P.Kushlu (1602-20-735-017), B.Vinay Kumar(1602-20-735-058), R.Ramya Reddy(1602-20-735-035) students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree.


Internal guide
Ms R. Leelavathi
Assistant Professor
E.C.E Department


Head of the Department
Dr. E. SREENIVASA RAO
Professor and HOD
E.C.E Department
PROF. IN CHARGE
DEPARTMENT OF E.C.E.
VASAVI COLLEGE OF ENGG
HYDERABAD-500 031.


External Examiner



**Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)**

ACCREDITED BY NAAC WITH 'A++' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date:21-04-24

CERTIFICATE

This is to certify that the project work titled “**Implementation of Multistage Op-Amp using 90nm and 45nm Technology**” submitted by

B. Sanjana

1602-20-735-302

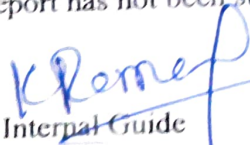
B. Arthi Priya

1602-20-735-007


M. Ashwethana


1602-20-735-008

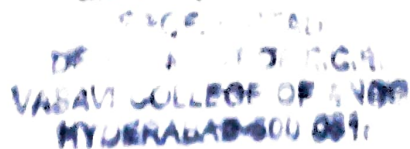
students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


Internal Guide

Mr. KESAGANI RAMAKRISHNA
Assistant Professor
E.C.E Department


External Examiner


Head of the Department
Dr. E. SREENIVASA RAO
Professor & HoD
E.C.E Department


VASAVI COLLEGE OF ENGINEERING
HYDERABAD-500 031



**Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)**

ACCREDITED BY NAAC WITH 'A++' GRADE
IBRAHIMBAGH, HYDERABAD-500031

Date:10-04-24

CERTIFICATE

This is to certify that the project work titled “**Energy efficient Task offloading in MEC Systems**” submitted by


K.Raja

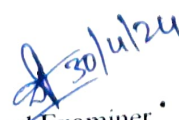
1602-20-735-032


G.Santhosh Reddy

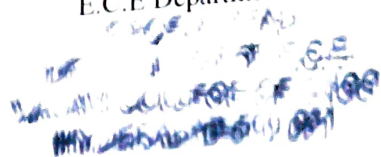
1602-20-735-041

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


Internal Guide
Dr. Ch. Vijaya Durga
Assistant Professor
E.C.E Department


External Examiner


Head of the Department
Dr. E. SREENIVASA RAO
Professor & HoD
E.C.E Department





**Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)**

ACCREDITED BY NAAC WITH 'A++' GRADE
IBRAHIMBAGH, HYDERABAD-500031

CERTIFICATE

This is to certify that the project work titled “**Channel estimation for RIS-assisted wireless communication system**” submitted by

Mudumbai Venkata Srivatsav

1602-20-735-056

Surigi Yashwanth Goud

1602-20-735-060

Rala Shashank Yadav

1602-20-735-044

Students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree.

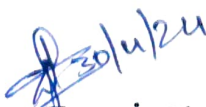

Internal Guide

Mr. M. Ramanjaneyulu,
Assistant Professor, ECE Dept.


Head of the Department

Dr. E. Sreenivasa Rao
Professor, ECE Dept.

**PROF. & HEAD
DEPARTMENT OF E.C.E.
VASAVI COLLEGE OF ENGG.
HYDERABAD-500 031.**


External Examiner



Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A++' GRADE
IBRAHIMBAGH, HYDERABAD-500031

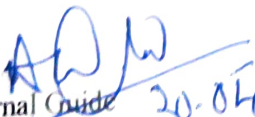
Date : 24-04-2024

CERTIFICATE


This is to certify that the project work titled “**Design of Voice Controlled Drone with Unlimited Control Range**” submitted by

Ms. M.K.S. Shivani	1602-20-735-045
Mr. Anwesh Poodari	1602-20-735-005
Mr. Pirangi Chandu	1602-20-735-011

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


Internal Guide **20-04-24**
Dr. N. Abid Ali Khan
Assistant Professor
E.C.E Department


External Examiner


Head of the Department
Dr. E.SREENIVASA RAO
Professor & HoD
E.C.E Department

PROF. & HEAD
DEPARTMENT OF E.C.E.
VASAVI COLLEGE OF ENGINEERING
HYDERABAD-500031



**Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)**

ACCREDITED BY NAAC WITH 'A++' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date:22-04-24

CERTIFICATE

This is to certify that the project work titled “**Design of a low power 10T SRAM Cell with Extended Static Noise Margins to implement an 8 x 8 SRAM Array**” submitted by

N. Santhoshi Reddy

1602-20-735-042

Hamza Hassan

1602-20-735-013

D. Ram Ruthwik

1602-20-735-033

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree

G.R. Padmini

Internal Guide

Ms. G.R.Padmini

Associate Professor

E.C.E Department

[Signature]
External Examiner

ESR
Head of the Department
Dr. E. SREENIVAS ARAO
Professor & HoD
E.C.E Department

PROF & HEAD
DEPARTMENT OF E.C.E.
VASAVI COLLEGE OF E.C.E.
HYDERABAD-500031



Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A++' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date:25-04-24

CERTIFICATE

This is to certify that the project work titled “**Design and Implementation of Software Defined Spectrum Monitoring Receiver**” submitted by

P. Varsha Reddy 1602-20-735-301

Y.S.S. Harshith 1602-20-735-050

Y.Krrishna Vamshy 1602-20-735-016

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree



Internal Guide
Mrs K.R. Deepthi
Assistant Professor
E.C.E Department


30/4/24

External Examiner



Head of the Department
Dr E SREENIVASA RAO
Professor & HoD
E.C.E Department

PROF. & HEAD
OF DEPARTMENT OF E.C.E.
VASAVI COLLEGE OF ENGINEERING
HYDERABAD-500031



Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)

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IBRAHIMBAGH, HYDERABAD-500031


Date: 30/04/2024

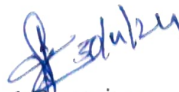
CERTIFICATE


This is to certify that the project work titled “**Implantable Antennas for Bio-Medical Applications**” submitted by

A.Sneha	1602-20-735-306
S.Abhinav	1602-20-735-002
N.Vinay	1602-20-735-303
N.Pavan	1602-20-735-027

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


Internal Guide
Dr. AOUTHU SRILAKSHMI
Associate Professor
E.C.E Department


External Examiner


Head of the Department
Dr. E. SREENIVASARAO
Professor & HoD
E.C.E Department


DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
VASAVI COLLEGE OF ENGINEERING
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Vasavi College of Engineering (Autonomous)**

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IBRAHIMBAGH, HYDERABAD-500031

Date:25-04-24

CERTIFICATE


This is to certify that the project work titled “**FPGA Implementation of 32 Bit Complex Floating-point Multiplier**” submitted by

Yasaswini Lakshmi Pavani K 1602-20-735-059


Anji Reddy Rikkala 1602-20-735-004

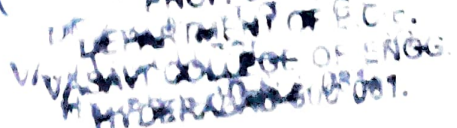
J Venkata Sree Vyshnavi 1602-20-735-055

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2020-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


Internal Guide
Ms. G.R. PADMINI
Associate Professor
E.C.E Department


External Examiner


Head of the Department
Dr. E. SREENIVASA RAO
Professor & HoD
E.C.E Department


Vasavi College of Engineering
IBRAHIMBAGH, HYDERABAD-500031



Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A++' GRADE
IBRAHIMBAGH, HYDERABAD-500031

Date: 30-04-2024

CERTIFICATE

This is to certify that the project work titled "**Design of Multi Band Microstrip Patch Antenna Operating at C, X and Ku Bands**" submitted by

Katta Bhavigna	1602-20-735-305
Nagubandi Lakshmi Mounika	1602-20-735-018
Sugyam Sreehas	1602-20-735-048

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree

Internal Guide
Dr. Sri Lakshmi Aouthu
Associate Professor
E.C.E Department

External Examiner

ESP
Head of the Department
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PROF. & HEAD
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Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A++' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date:26-04-2024

CERTIFICATE

This is to certify that the project work titled “**Design and Analysis of Bhupura Antenna**” submitted by

Tharuni Naini	1602-20-735-304
V. Preethi Sudha	1602-20-735-031
G. Aravind Krishna	1602-20-735-006

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree

Internal Guide
Dr. AOUTHU SRI LAKSHMI
Associate Professor
E.C.E Department

External Examiner

Head of the Department
Dr. L. SREENIVASA RAO
Professor & HoD
E.C.E Department

PROF. & HEAD
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VASAVI COLLEGE OF ENGINEERING
HYDERABAD-500031.



Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A++' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date: 27-04-2024

CERTIFICATE


This is to certify that the project work titled “Design of dual band Yagi-Uda antenna for data link in small drones” submitted by


Ayesha Afreen	1602-20-735-003
K. Balram	1602-20-735-009
D. Bhargav	1602-20-735-010


students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


External Guide

Mr. Ezharul Ansari
SE-E(DLRL)
E.C.E Department


Internal Guide
Dr. SriLakshmi Aouthu
Associate Professor
E.C.E Department


Sri. P. Bhargav
Assistant Professor
E.C.E Department


Head of the Department
Dr E. SREENIVASA RAO
Professor & HoD

DEPARTMENT OF E.C.E.
VASAVI COLLEGE OF ENGG.
HYDERABAD-500031.


External Examiner



Department of Electronics and Communication Engineering

Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A++' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date: 26-04-2024

CERTIFICATE

This is to certify that the project work titled "Design of FPGA based motor control" submitted by

PUWARA RITHIKA PRIYA

1602-20-735-038

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree

V. Krishna Mohan
Internal guide

V. Krishna Mohan
Assistant Professor
E.C.E Department

[Signature]
External Examiner

[Signature]
Head of the Department

Dr. E. SREENIVASA RAO
Professor and HOD

E.C.E Department
PROF. & HEAD
DEPARTMENT OF E.C.E.
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HYDERABAD-500 031.

Department of Electronics and Communication Engineering

Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A+' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date:27-04-2024

CERTIFICATE

This is to certify that the project work titled "Implementation of SIP protocol on Raspberry Pi 5 " submitted by

D.NITHIN

1602-20-735-024

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree



Internal Guide

Dr.D.M.K Chaitanya
Associate Professor

E.C.E Department



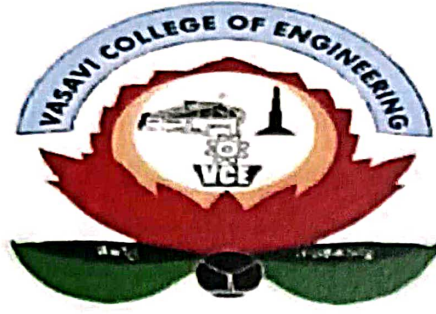
Head of department

Dr.E.Sreenivas Rao
Professor and HOD

E.C.E Department

PROF. & HEAD
DEPARTMENT OF E.C.E.
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HYDERABAD-500 031.


External Examiner



Department of Electronics and Communication Engineering

Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A+' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date:

CERTIFICATE

This is to certify that the project work titled " **Leveraging machine Learning models for Multiclass plant Disease detection with data augmentation using Cycle GAN** " submitted by

VATHYAM KRISHNA TEJA

1602-20-735-077

KALLEM RAKESH VARMA

1602-20-735-092

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the Bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


Internal Guide

Dr.V.KRISHNA MOHAN

Assistant Professor

E.C.E Department



Head of Department

Dr .E. SREENIVASA RAO

Professor and HOD

E.C.E Department



External Examiner



**Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)**

**ACCREDITED BY NAAC WITH 'A++' GRADE
IBRAHIMBAGH, HYDERABAD-500031**

Date:

CERTIFICATE

This is to certify that the project work titled “**CARNATIC MUSIC CLASSIFICATION AND GENERATION USING MACHINE LEARNING AND DEEP LEARNING**” submitted by

A.Anudeep	1602-20-735-067
CH.Manoj	1602-20-735-082
K.Sanju	1602-20-735-098

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project seminar report has not been submitted to any other university or institute for the award of any degree

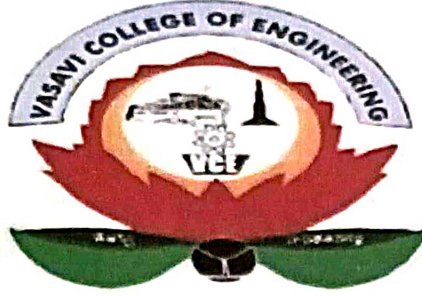

Internal Guide

Mr.B.Uma Mahesh Babu
Assistant Professor
E.C.E Department


Head of the Department

Dr . E.SREENIVASA RAO
Professor and HOD
E.C.E Department


External Examiner



Department of Electronics and Communication Engineering

Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A++' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date:

CERTIFICATE

This is to certify that the project work titled "Brain Tumor Detection Using Deep Learning" submitted by

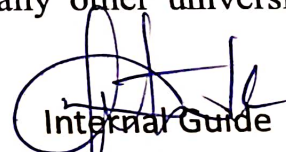
MANIYAN PILLAI SREE LAKSHMI **1602-20-735-102**

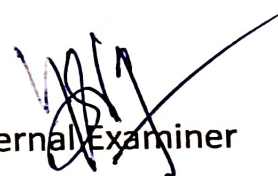
ANISH WOORADI **1602-20-735-064**

TOTAKURA SIVA SAI SANKALP **1602-20-735-101**

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the Bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree.

Head of Department
Dr. E. SREENIVASA RAO
Professor and HOD
E.C.E Department


Internal Guide
Dr. K. DEEPTI
Associate Professor
E.C.E Department


External Examiner



Department of Electronics and Communication Engineering

Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A+' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date:27-03-2024

CERTIFICATE

This is to certify that the project work titled " **IoT Based Battery Management and Monitoring System**" submitted by

M.VENKATA NIHITH 1602-20-735-119

R. ANJAN KUMAR 1602-20-735-312

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree.

SUPERVISOR


Dr. K. KRISHNA KISHORE

Associate Professor

E.C.E Department

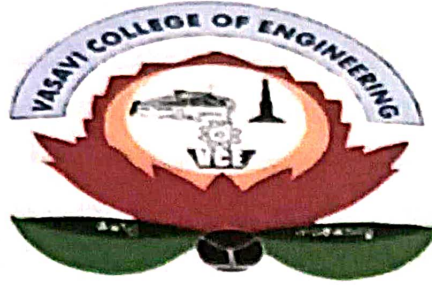

Head of the Department

Dr . SREENIVASA RAO

Professor and HOD

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External Examiner



Department of Electronics and Communication Engineering

Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A++' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date:

CERTIFICATE

This is to certify that the project work titled "Channel Estimation in optical OFDM system" submitted by

MARTHI CHARAN REDDY

1602-20-735-070

BOKKA CHANDANA

1602-20-735-308

G NIKHIL

1602-20-735-087

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree

SUPERVISOR


Dr. CH. VIJAYA DURGA
Assistant Professor

E.C.E Department


Head of the Department

Dr. E. SREENIVASA RAO
Professor and HOD

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External Examiner



Department of Electronics and Communication Engineering

Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A+' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date:

CERTIFICATE

This is to certify that the project work titled " **Real Time AXI interconnect for Heterogeneous SoCs** " submitted by

MAMIDALA SANJANA

1602-20-735-097

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree.

SUPERVISOR

Mr.K. SRIKANTH

Asst Professor

E.C.E Department


Head of the Department

Dr. E. SREENIVASA RAO

Professor and HOD

E.C.E Department


External Examiner



Department of Electronics and Communication Engineering

Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A+' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date: 01/05/2024

CERTIFICATE

This is to certify that the project work titled **Implementation of Gain Enhanced Folded Cascode Op-amp using 180nm CMOS Technology** " submitted by

CHEERALA SAI KIRAN 1602-20-735-095

KODIPELLI SAI PRNAY 1602-20-735-096

GUNDAPPAGARI VARSHA 1602-20-735-117

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree.

SUPERVISOR

Mr. K. Rama Krishna Reddy

Assistant Professor

E.C.E Department

Head of the Department

Dr. E. SREENIVASA RAO

Professor and HOD

E.C.E Department

External Examiner



Department of Electronics and Communication Engineering

Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A+' GRADE

IBRAHIMBAGH, HYDERABAD-500031


Date:03-05-2024

CERTIFICATE

This is to certify that the project work titled " Video Captioning using Deep Learning"
submitted by

ABDUL MUQTADIR ALI ADEEB	1602-20-735-061
GUDIPELLY GEETHIKA SAI KUMARI	1602-20-735-072
NALLA GANESH	1602-20-735-309

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


Internal Guide

B.UMA MAHESH BABU

Assistant Professor

E.C.E Department

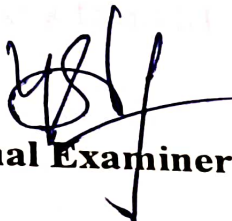


Head of the Department

Dr.E.SREENIVASA RAO

Professor and HOD

E.C.E Department


External Examiner



Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)
ACCREDITED BY NAAC WITH 'A+' GRADE
IBRAHIMBAGH, HYDERABAD-500031


Date: 29/04/2024


CERTIFICATE

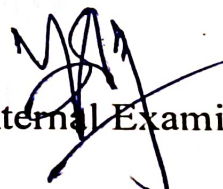
This is to certify that the project work titled " Lung Tumor Characterization using Deep Learning" submitted by

M.ADARSH REDDY	1602-20-735-063
D.VIKRAM REDDY	1602-20-735-120
N.NESHWANTH	1602-20-735-310

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree.


SUPERVISOR
MR MAHMAD HAFIZUDDIN
Assistant Professor
E.C.E Department


HEAD OF THE DEPARTMENT
DR.E. SREENIVASA RAO
Professor and HOD
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External Examiner



**Department of Electronics and Communication
Engineering Vasavi College of Engineering (Autonomous)**

**ACCREDITED BY NAAC WITH 'A++' GRADE
IBRAHIMBAGH, HYDERABAD-500031**

Date:

CERTIFICATE

This is to certify that the project work titled “FPGA Implementation Of 256-Bit Key AES Algorithm with Key Schedule and Sub Bytes Block Optimization” submitted by

Y.G.PRABHAS

1602-20-735-071

L.TRIPURA

1602-20-735-114

P.SUSHANTH

1602-20-735-109

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project seminar report has not been submitted to any other university or institute for the award of any degree.

Internal Guide
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External Examiner

Head of the Department
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Professor and HOD
E.C.E Department



Department of Electronics and Communication Engineering

Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A+' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date: 01/05/2024

CERTIFICATE

This is to certify that the project work titled " **Implementation of D Flip Flop using 18nm FinFET CMOS Technology**" submitted by

CH. KEERTHANA 1602-20-735-076

P. SAI KARTHIK REDDY 1602-20-735-094


students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


Internal Guide

K. RAMAKRISHNA REDDY


Assistant Professor

E.C.E Department


Head of the Department
Dr. E. SREENIVASA RAO

Professor and HOD

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External Examiner



**Department of Electronics and Communication
Engineering Vasavi College of Engineering (Autonomous)**

**ACCREDITED BY NAAC WITH 'A++' GRADE
IBRAHIMBAGH, HYDERABAD-500031**

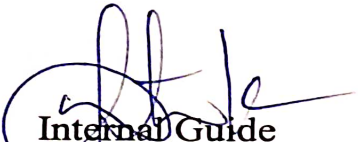
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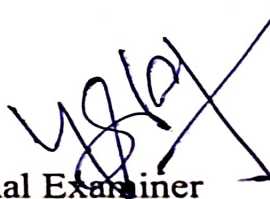
CERTIFICATE


This is to certify that the project work titled “Improved Metastability of True Single-Phase Clock D-Flipflops With Applications in Vernier Time-to-Digital Converters” submitted by

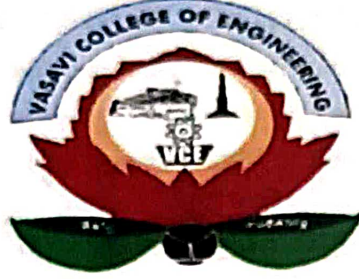
G.MANIKANTA	1602-20-735-081
K.BHARATH	1602-20-735-069
P.NAVEEN	1602-20-735-085

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project seminar report has not been submitted to any other university or institute for the award of any degree.


Internal Guide
Dr. K. Deepthi
Associate Professor
E.C.E Department


External Examiner


Head of the Department
Dr. E.SREENIVASA RAO
Professor and HOD
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Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)
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IBRAHIMBAGH, HYDERABAD-500031

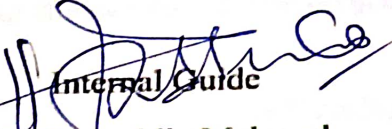
Date: 29/04/24


CERTIFICATE


This is to certify that the project work titled " Oil spill detection using Image Segmentation and Convolutional Neural Network" submitted by

ANJANA SHROFF	1602-20-735-066
NAMBULA NAVYA	1602-20-735-086
MD.SHADAB PASHA	1602-20-735-311

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


Internal Guide
Mr. Hafizuddin Mahmud
Assistant Professor
Department of ECE


External Examiner


Head of the Department
Dr. E. Sreenivasa Rao
Professor and HOD
Department of ECE



Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)
ACCREDITED BY NAAC WITH 'A+' GRADE
IBRAHIMBAGH, HYDERABAD-500031

Date:

CERTIFICATE

This is to certify that the project work titled "Investigations on deep belief network architecture using cycle Gan for knee osteoarthritis prediction: Data Deployment" submitted by

K. ANISHKA REDDY	1602-20-735-065
MAITHRI J	1602-20-735-080
SINGARAJU SREYA	1602-20-735-104

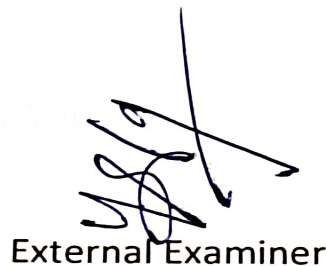
Students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the Bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


Internal Guide

DR. K. DEEPTI

Associate Professor

E.C.E Department

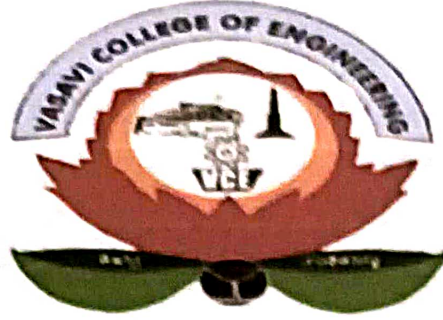

External Examiner


Head of the Department

DR. E. SRINIVAS RAO

Professor and HOD

E.C.E Department



Department of Electronics and Communication Engineering

Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A+' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date: 04/05/2024

CERTIFICATE

This is to certify that the project work titled " **Image Segmentation using Vision Transformers**" submitted by

GUMMALLA SUDEEKSHA REDDY 1602-20-735-106

BATTU SWARAG REDDY 1602-20-735-110

VEERABOMMA VAMSHI KRISHNA 1602-20-735-116

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


SUPERVISOR

B.UMA MAHESH BABU

Assistant Professor

E.C.E Department


Head of the Department

Dr.E. SREENIVASA RAO

Professor and HOD

E.C.E Department


External Examiner



**Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)**

ACCREDITED BY NAAC WITH 'A++' GRADE
IBRAHIMBAGH, HYDERABAD-500031

Date:

CERTIFICATE

This is to certify that the project work titled **“DEVELOPMENT OF TWO-WAY UHF COMMUNICATION SYSTEMS USING USRP: A SOFTWARE DEFINED APPROACH”** submitted by

I ABHIRAM

1602-20-735-062

J GOWTHAM

1602-20-735-111

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project seminar report has not been submitted to any other university or institute for the award of any degree

Internal Guide

Dr. K Krishna Kishore
Associate Professor
E.C.E Department

External Examiner

Head of the Department

Dr. E. SREENIVASA RAO
Professor and HOD
E.C.E Department

A Smart Air Pollution Monitoring and Detection System

A dissertation submitted in partial fulfilment of the academic requirement for the award of
the degree of

BACHELOR OF ENGINEERING

In

ELECTRONICS AND COMMUNICATION ENGINEERING

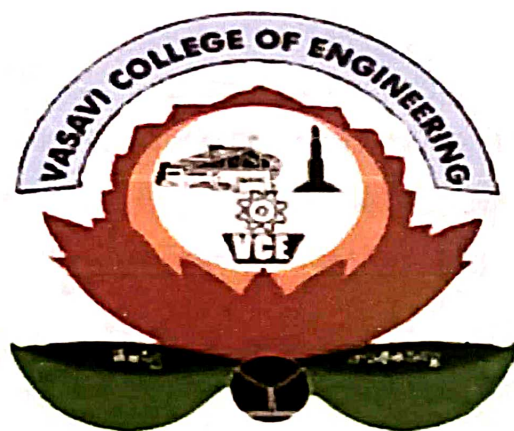
By

T MOHIT KRISHNA CHAITANYA GOUD	1602-20-735-083
K NOMITHA	1602-20-735-088
K N S PRANATHI	1602-20-735-090

Under the guidance of

Dr. E. SREENIVASA RAO

Professor and HOD, E.C.E



Department of Electronics and Communication Engineering

Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A+' GRADE

IBRAHIMBAGH, HYDERABAD-500031

2020-2024

**TUBERCULOSIS DETECTION IN CHEST X-RAYS USING
DEEP LEARNING ALGORITHMS WITH SEGMENTATION
AND DATA AUGMENTATION TECHNIQUES**

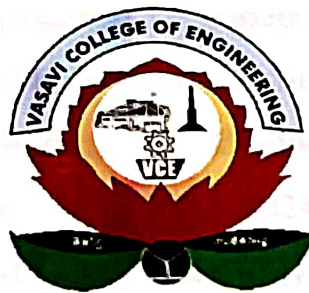
A project seminar report submitted in partial fulfillment of the academic
requirement for the award of the degree of
BACHELOR OF ENGINEERING

In
ELECTRONICS AND COMMUNICATION ENGINEERING

By

J. SUHARTHI	1602-20-735-107
D.SUJITHA	1602-20-735-108
A. VARUN MITHRA	1602-20-735-118

Under the guidance of
Mrs.K.R. DEEPTHI
Assistant professor, E.C.E



Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A++' GRADE
IBRAHIMBAGH, HYDERABAD-500031

2020-2024

**Design and Optimization of compact F-shaped triple band
slot antenna for wireless applications**

A dissertation submitted in partial fulfillment of the academic
requirement for the award of the degree of

BACHELOR OF ENGINEERING
In
ELECTRONICS AND COMMUNICATION ENGINEERING

By

Martha Lokesh

1602-20-735-078

P. Srujana

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Uma Mahesh

1602-20-735-115

Under the guidance of

Dr. D.M.K.

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IBRAHIMBAGH, HYDERABAD

2020-2024

Human Action Detection Using Deep Learning

A dissertation submitted in partial fulfillment of the academic requirement for the award of the degree of

BACHELOR OF ENGINEERING

In

ELECTRONICS AND COMMUNICATION ENGINEERING

By

ITHA PRATHYUSHA

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KARUKONDA SHIVA PRASAD

1602-20-735-099

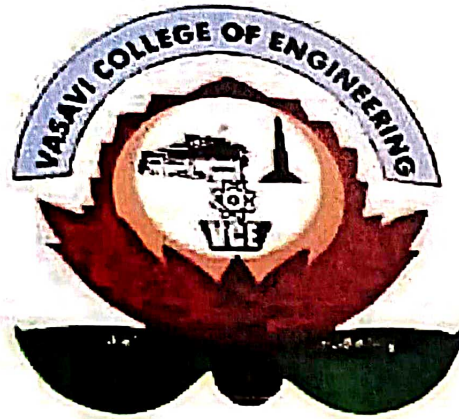
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2020-2024

Early Stage Detection of Malnutrition in Infants Using Machine Learning

A dissertation submitted in partial fulfillment of the academic requirement for
the award of the degree of

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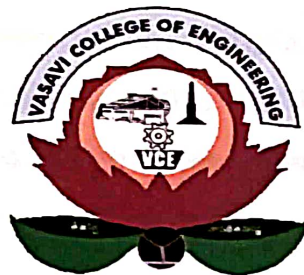
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2020-2024

INTEGRATION SYSTEM FOR AUTOMATED ROOT FILESYSTEM GENERATION (ISAR)

A dissertation submitted in partial fulfillment of the academic requirement
for the award of the degree of

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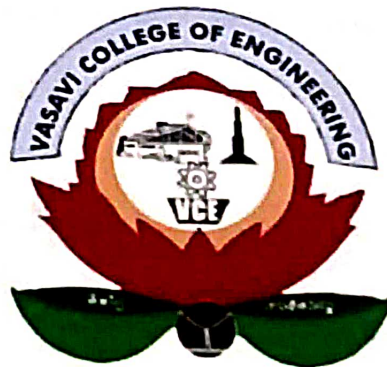
By

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2020-2024

PROJECT REPORT

On

“Smart Automation System”

Under the Supervision of

K. Ramakrishna Reddy

Submitted to

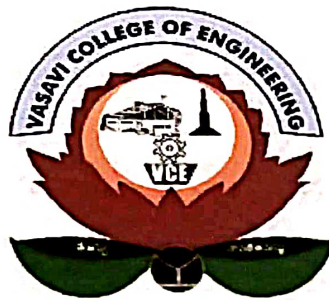
A project submitted to **Vasavi College of Engineering** in partial fulfillment of the requirement for the award of Degree of **Bachelor of Engineering**.

Submitted by

ADUSUMILLI TARUN

1602-20-735-112

(2020-2024)



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Abstract

This project proposes the development of an innovative module designed to enhance the operational capabilities of a demo satellite (DEMOSAT) through remote power control, and comprehensive and predictive environmental monitoring. The module integrates seamlessly with the Blynk IoT platform, enabling remote power supply management via a user-friendly mobile application. Leveraging Blynk's intuitive interface, DEMOSAT operations can efficiently control and monitor the power system from any location, optimizing operational flexibility and resource utilization.

In addition to power management, the module incorporates high-precision sensors to measure temperature, humidity, and atmospheric pressure surrounding the DEMOSAT environment. These environmental parameters are crucial for assessing the satellite's operational conditions and ensuring optimal performance using an IP 65 (all weather proof) enclosure. Real-time data acquisition and transmission enable continuous monitoring of environmental conditions, providing valuable insights into the DEMOSAT operational environment.

By combining remote power management and environmental monitoring capabilities, this integrated module offers a holistic solution for satellite operations. It empowers operators with greater control over DEMOSAT systems while facilitating proactive decision-making based on real-time environmental data. Ultimately, this project aims to advance the capabilities of demo satellites, paving the way for enhanced performance and reliability in future missions.

ABSTRACT

The project titled "Development of a Communication Model Using USRP with Different Modulation Schemes" aims to design and implement an innovative communication model leveraging Software defined Radio devices. The primary focus is on exploring and incorporating various modulation schemes to enhance communication efficiency and flexibility. The project involves the utilization of USRP, a versatile software-defined radio platform, to establish a communication system capable of adapting to different modulation techniques. By experimenting with diverse modulation schemes, the project seeks to evaluate their impact on communication performance, including factors such as data rate, signal quality, and robustness.

The outcomes of this project hold significant potential for optimizing communication systems in terms of adaptability and reliability, with implications for a wide range of applications, from wireless networks to different devices. The utilization of USRP as a software-defined radio platform offers unparalleled versatility, enabling researchers to experiment with a wide range of modulation schemes without the need for dedicated hardware setups. This flexibility allows for rapid prototyping and iteration, facilitating the exploration of diverse communication techniques in a controlled environment.

ABSTRACT

The project "Implementation of SIP Protocol on Raspberry Pi 5" aims to focus the capabilities of Raspberry Pi 5 to enable Voice over Internet Protocol (VoIP) communication using the Session Initiation Protocol (SIP). This project addresses the growing need for cost-effective and scalable solutions for voice communication in various applications, including home automation, telecommunication, and Internet of Things (IoT) devices. By implementing SIP on Raspberry Pi 5, users can establish audio calls over IP networks, facilitating real-time communication with reduced infrastructure requirements. The project involves configuring the Raspberry Pi 5 as a SIP client or server, integrating SIP libraries, and optimizing performance to ensure reliable and efficient voice communication. Through this project, the aim is to provide a practical and accessible solution for implementing VoIP capabilities on Raspberry Pi 5, thereby expanding its utility in diverse applications.

The implementation of SIP on Raspberry Pi involves several key components and challenges. Firstly, the project entails developing or adapting SIP software stacks compatible with the ARM architecture of Raspberry Pi, ensuring efficient resource utilization and optimal performance. Secondly, the project involves configuring Raspberry Pi as a SIP client, SIP server, or both, depending on the intended application scenario. This includes handling SIP registration, call setup, media negotiation, and session management.

ABSTRACT

Field-Programmable Gate Arrays (FPGAs) have emerged as versatile platforms for implementing advanced control algorithms in motor control applications. This abstract presents an overview of FPGA-based motor control employing Field-Oriented Control (FOC) technique, a widely adopted method for achieving high-performance motor control in various types of motors.

The FOC technique is renowned for its ability to achieve precise control of motor drives, enabling high efficiency, torque accuracy, and dynamic performance. By decomposing the stator currents into orthogonal components, FOC ensures independent control of torque and flux, leading to superior motor operation across various speed and load conditions.

Key components of FPGA-based FOC implementation include space vector modulation, current control loops, and rotor position estimation algorithms. Leveraging the parallel processing capability of FPGAs, these components are efficiently executed in real-time, enabling fast response to dynamic motor conditions.

Moreover, FPGA-based implementations offer advantages such as low latency, high computational throughput, and adaptability to changing control algorithms or motor parameters. These features make FPGA platforms well-suited for demanding motor control applications in industrial automation, electric vehicles, robotics, and renewable energy systems.

This study highlights the significance of FPGA-based motor control with FOC technique for enhancing the performance and efficiency of motor drives across diverse applications, paving the way for advanced motor control solutions in modern electric drives and power systems.



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This is to certify that the project work titled "A Robust Model for Fake Face Detection Using Deep Learning And Image Processing" submitted by

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PAKANATI RAM KUMAR	1602-20-735-147

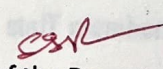
students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


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External Examiner



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This is to certify that the project work titled "Investigations on deep belief network architecture using cycle Gan for knee osteoarthritis prediction: Data Deployment" submitted by

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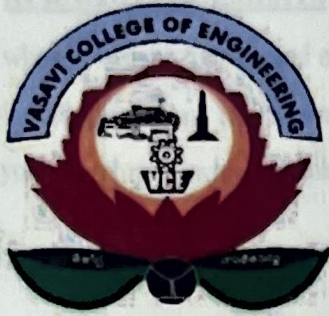


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Department of Electronics and Communication Engineering

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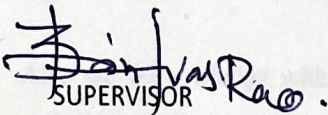
This is to certify that the project work titled "**Multimodal Biometric Recognition System using Deep Learning**" submitted by

GATTIKOPPULA SHRIYA 1602-20-735-162

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GOLLA NAVANEETH SATHISH 1602-20-735-141

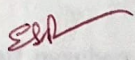
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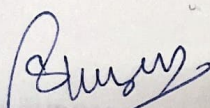
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This is to certify that the project work titled **“Improved Metastability of True Single-Phase Clock D-Flipflops With Applications in Vernier Time-to-Digital Converters”** submitted by

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K.BHARATH	1602-20-735-069
P.NAVEEN	1602-20-735-085

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Internal Guide
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Associate Professor
E.C.E Department


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Department of Electronics and Communication Engineering

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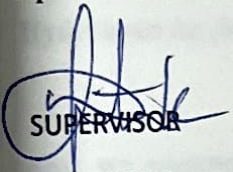
Date:

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This is to certify that the project work titled "Comparative analysis of deep learning techniques for detection of objects on roads for autonomous vehicles" submitted by

MUPPA SRAVYA	1602-20-735-164
MIRYALA VAMSHI	1602-20-735-175
SYED ADNAN HASHMI	1602-20-735-170

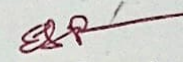
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SUPERVISOR

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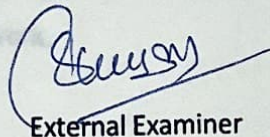
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This is to certify that the project work titled "**Multimodal Biometric Recognition System using Deep Learning**" submitted by

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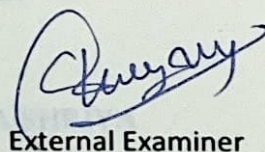
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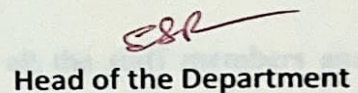

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This is to certify that the project work titled "Brain Tumor Detection Using Deep Learning" submitted by

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TOTAKURA SIVA SAI SANKALP	1602-20-735-101

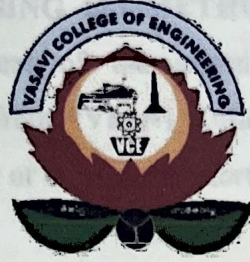
students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the Bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree.

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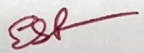


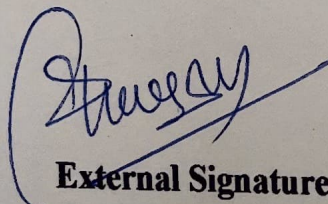
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This is to certify that the dissertation work entitled **EXTRACTION OF RADAR SIGNAL PARAMETERS USING I/Q METHOD** was carried out by **KUSURU VENKAT PRANAV** bearing 1602-20-735-178 in partial fulfilment of the requirements for the degree of Bachelor of Engineering in Electronics and Communication Engineering of the Vasavi college of Engineering, Hyderabad, during the academic year 2023-2024, is abonafile record of work carried out under our guidance and supervision.

The results embodied in this report have not been submitted to any other University or Institution for the award of any degree or diploma.


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Department of Electronics and Communication Engineering

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This is to certify that the project work titled "A DEEP LEARNING MODEL FOR

PREDICTING KNEE OSTEOARTHRITIS" submitted by

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This is to certify that the project work titled " IoT based water contamination monitoring system using Raspberry Pi" submitted by

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T. VISHWAS RAO	1602-20-735-180

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SUPERVISOR

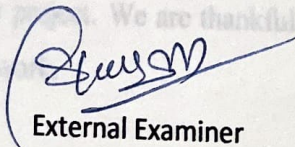
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This is to certify that the project work titled " **A Robust Machine Learning Model for Identification of Counterfeit Products** " submitted by

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S. A. Deepthi
Dr. S. ARUNA DEEPTHA

Assistant Professor

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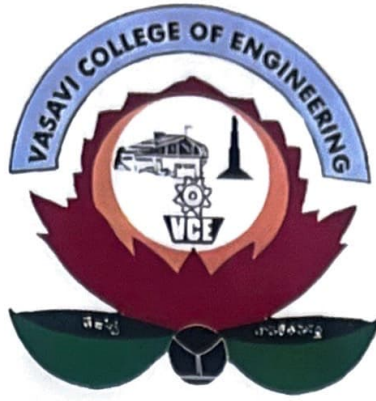
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This is to certify that the project work titled " **Deep Learning approach to Plant Disease Detection** " submitted by

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MOHAMMED SAMEER 1602-20-735-140

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Date: 04/05/2024

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This is to certify that the project work titled "Cardiovascular Disease Detection Using Image Processing and Machine Learning" submitted by

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Asst. Professor

E.C.E Department

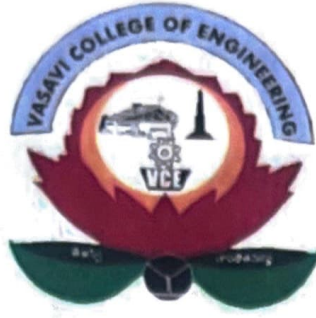
Head of the Department

S.R.
Dr.E. SREENIVASA RAO

Professor and HOD

E.C.E Department

Arjun
External Examiner



Department of Electronics and Communication Engineering

Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A+' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date: 03/05/2024

CERTIFICATE

This is to certify that the project work titled “**Animal Image Identification and Classification using Deep Neural Networks Techniques**” submitted by

GALI SRI CHANDANA	1602-20-735-165
RAMAGIRI SANJANA	1602-20-735-157
BITLA VAISHNAV	1602-20-735-173

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree.

Supervisor

S. A. Deepthi
Dr.S. ARUNA DEEPTHI

Assistant Professor

E.C.E Department

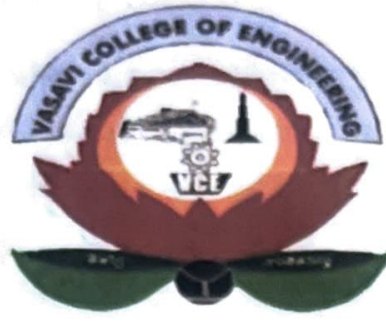
SR
Head of the Department

Dr.E.SREENIVASA RAO

Professor and HOD

E.C.E Department

[Signature]
External Examiner



Department of Electronics and Communication Engineering

Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A++' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date:

CERTIFICATE

This is to certify that the project work titled " **A Robust Model for Fake Face Detection Using Deep Learning And Image Processing**" submitted by

SINGAM SATHVIKA	1602-20-735-159
IENAPARTHI SAI LAXMI HRUDAY	1602-20-735-154
PAKANATI RAM KUMAR	1602-20-735-147

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


SUPERVISOR

B. UMA MAHESH BABU
Assistant Professor
E.C.E Department


External Examiner


Head of the Department

Dr.E. SREENIVASA RAO
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E.C.E Department



Department of Electronics and Communication Engineering

Vasavi College of Engineering (Autonomous)

ACCREDITED BY NAAC WITH 'A+' GRADE

IBRAHIMBAGH, HYDERABAD-500031

Date:

CERTIFICATE

This is to certify that the project work titled "**Multimodal Biometric Recognition System using Deep Learning**" submitted by

GATTIKOPPULA SHRIYA 1602-20-735-162

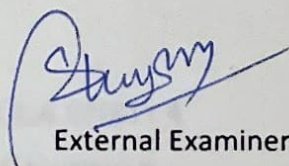
MUNJA CHAKRADHAR 1602-20-735-127

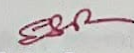
GOLLA NAVANEETH SATHISH 1602-20-735-141

students of Electronics and Communication Engineering Department, Vasavi College of Engineering in partial fulfilment of the requirement for the award of the degree of Bachelor of Engineering in Electronics and Communication Engineering is a record of the bonafide work carried out by them during the academic year 2023-2024. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree


SUPERVISOR

Mr. B. SRINIVAS RAO
Assistant Professor
E.C.E Department


External Examiner


Head of the Department
Dr.E. SREENIVASA RAO
Professor and HOD
E.C.E Department

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING (ES & VLSID)**

VASAVI COLLEGE OF ENGINEERING



CERTIFICATE

This is to certify that the project work entitled "DESIGN & SIMULATION OF AN OPTIMIZED CMOS FULL ADDER USING A HYBRID TECHNIQUE AND LECTOR TECHNIQUE" Submitted by UTPALA ABHIJIT CHANDRA bearing hall ticket number 1602-22-744-001 in the partial fulfillment of the requirements for the award of the degree in **Master of Engineering with Embedded Systems and VLSI Design (ES & VLSID)** as a specialization in Vasavi College of Engineering, Osmania University, Hyderabad is a record of the Bonafide work carried out by him during academic year 2023-2024.



Signature of Internal Guide

**Dr. N. SIVA SANKAR
REDDY**

Associate Professor
Dept. of ECE

Vasavi College of Engineering,
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Signature of M.E Coordinator

**Dr. N. SIVA SANKAR
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Signature of HOD

Dr. E. SREENIVASA RAO

Prof, Head of the Dept.
Dept. of ECE

Vasavi College of Engineering,
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**Signature of the
External Examiner**