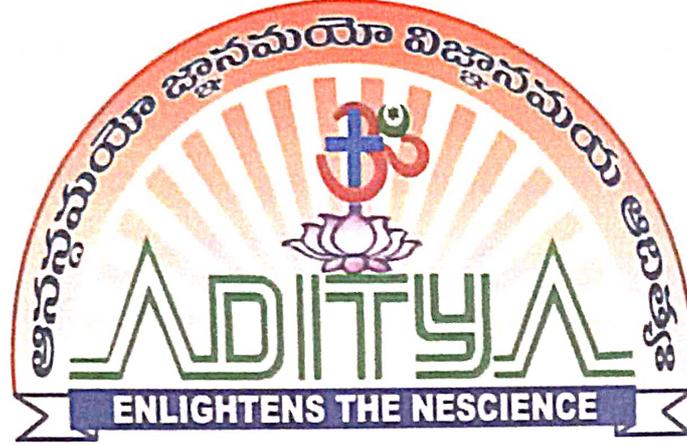


**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**



This is to certify that the project report entitled “**LOW COST GROUND STATION USING RTL-SDR DONGLE**” is being submitted by **V. Harsha Kumar (19P31A0459)**, **S. Ramya (19P31A0454)**, **CH. Venkata Sai (19P31A0408)**, and been carried out in the partial fulfilment of the requirement for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem** affiliated to **JNTUK, Kakinada** is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.



**Project Guide**

**Dr. N. V. Lalitha, M. Tech., Ph. D.,**

**Associate Professor**

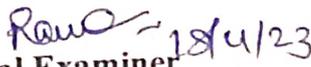
**Dept. of ECE**

**Head of the Department**  
**Dept. of ECE**  
**Aditya College of**  
**Engineering & Technology**  
**SURAMPALEM 533 437**  
**Head of the Department**

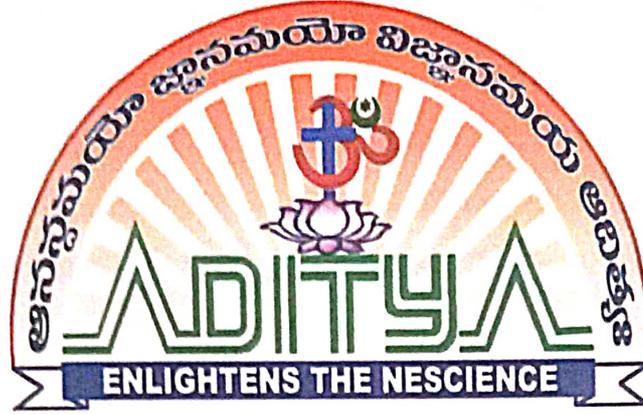
**Dr. R.V.V.KRISHNA, M. Tech., Ph.D.,**

**Professor & HOD**

**Dept. of ECE**

  
**External Examiner** 18/4/23

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**



This is to certify that the project report entitled “**DESIGN OF HOME AUTOMATION USING MQTT BROKER TECHNIQUE**” is being submitted by **G V R S Amrutha (19P31A0417), M. Hrushitha(19P31A0435),M.Eswari(19P31A0434), P.Mahalakshmi Rao(19P31A0445)** had been carried out in the partial fulfillment of the requirement for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem** affiliated to **JNTUK, Kakinada** is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

  
18/4/23

**Project Guide**

**Dr. T. S. Karthik, M.Tech, Ph. D**

**Professor**

**Dept. Of ECE**



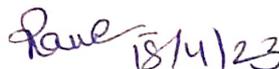
**Head Of Department**

**Dr. K. V. V. Krishna, M.Tech, Ph. D**

**Professor & HOD**

**Dept. Of ECE**

**Head of the Department**  
**Dept. of ECE**  
**Aditya College of**  
**Engineering & Technology**  
**SURAMPALEM-533 437**

  
18/4/23

**EXTERNAL EXAMINER**

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**



This is to certify that the project report entitled “**LOW COST AND EFFICIENT DISH CLEANER WITH IOT**” is being submitted by **Kudapa Devipriyanka (20P35A0401)**, **Karella Murali (19P31A0423)**, **Bhimanadam Janakiram (19P31A0407)**, **Allada Hemanth (19P31A0404)** and been carried out in the partial fulfilment of the requirement for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem** affiliated to **JNTUK, Kakinada** is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

**Project Guide**

Dr. R.V.V. KRISHNA, M. Tech., Ph.D.,

Professor & HOD

Dept. of ECE

**Head of the Department**

Dr. R.V.V. KRISHNA, M. Tech., Ph.D.,

Professor & HOD

Dept. of ECE

18/11/23  
**External Examiner**

**Head of the Department**  
**Dept. of ECE**  
**Aditya College of**  
**Engineering & Technology**  
**SURAMPALAM-533 437**

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**



This is to certify that the project report entitled “LOW COST AND EFFICIENT DISH CLEANER WITH IOT” is being submitted by S. Pavan Kumar (19P31A0455), Khudavan shaik (19P31A0425), N.Ganesh Chaitanya (19P31A0439), S.Shiva Rama Krishna (19P31A0453) and been carried out in the partial fulfilment of the requirement for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem** affiliated to **JNTUK, Kakinada** is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

*G.A.Arun*  
**Project Guide**

Dr. G.A.Arun Kumar, M. Tech., Ph. D.,  
Associate Professor  
Dept. of ECE

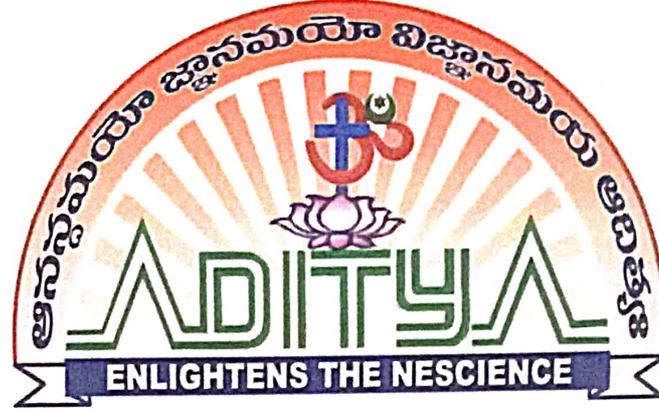
*R.V.V.Krishna*  
**Head of the Department**

Dr. R.V.V.KRISHNA, M. Tech., Ph.D.,  
Professor & HOD  
Dept. of ECE

Head of the Department  
Dept. of ECE  
Aditya College of  
Engineering & Technology  
SURAMPALAM-533 437

*Pavan*  
18/4/23  
External Examiner

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND**  
**COMMUNICATION ENGINEERING**



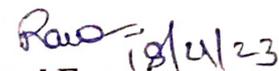
This is to certify that the project report entitled “IOT – BASED BABY MONITORING SYSTEM” is being submitted by S. Lakshmi Sahithi(19P31A0448), V. Anuradha(19P31A0458), J. Sai Vinod(19P31A0420), Ch. Umesh Kumar(19P31A0410) and been carried out in the partial fulfilment of the requirement for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem** affiliated to **JNTUK, Kakinada** is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

  
**Project Guide**

Ms. P. SWARNALATHA, M. Tech.  
Assistant Professor  
Department of ECE

  
**Head of the Department**

Dr. R.V.V. KRISHNA, Ph.D.,  
Head of the Department,  
Professor & HOD of ECE  
Department of ECE,  
Aditya College of  
Engineering & Technology  
SURAMPALAM-533 437

  
18/11/23  
External Examiner

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NAAC (A+) and NBA

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING**



**CERTIFICATE**

This is to certify that the project work entitled "**Brain Disease Classification and Brain age estimation using CNN**", is a bonafide work carried out by **Musamalla Mamatha (19P31A0436)**, **Sajja Sri Harshitha(19P31A0449)**, **Raparathi Ashanjani (19P31A0446)**, **Kadamati V V S Durga Vara Prasad(20P35A0404)**, in partial fulfillment of the requirements for the award of the degree of **BACHELOR OF TECHNOLOGY in ELECTRONICS AND COMMUNICATION ENGINEERING** from **Aditya College of Engineering and Technology**, Surampalem, during the academic year 2022-2023.

This project work has not been submitted in full or part to any other University or educational institute for the award of any degree or diploma.

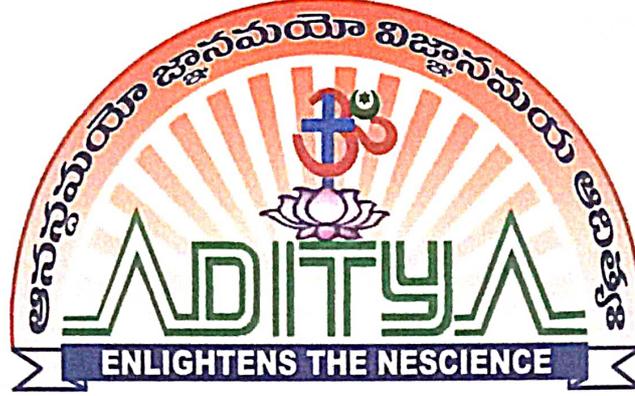
  
**PROJECT SUPERVISOR**  
Dr.N.V.Lalitha, M.Tech, Ph.D.  
Associate Professor

  
**HEAD OF THE DEPARTMENT**  
Dr. R. V. Vijaya Krishna, M.Tech., Ph.D.  
Professor

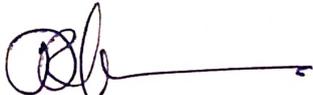
Head of the Department  
Dept.of ECE  
Aditya College of  
Engineering & Technology  
SURAMPALAM-533 437

  
**EXTERNAL EXAMINER**

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**



This is to certify that the project report entitled “**DETECTION OF GLAUCOMA WITH CDR USING IMAGE SEGMENTATION METHODS**” is being submitted by **S.Chandrika(19P31A0447), A.Sai Kiriti (19P31A0401), Ch.S.K.L.Srinivas(20P35A0409),K.Manikanta Sandeep (19P31A0424)** and been carried out in the partial fulfilment of the requirement for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem** affiliated to **JNTUK, Kakinada** is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

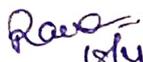
  
**Project Guide**

**P.RAMESH KUMAR, M.Tech(Ph.D)**  
Associate Professor  
Dept. of ECE

  
**Head of the Department**

**Dr. R.V.V.KRISHNA, M.Tech., Ph.D.,**  
Professor & HOD  
Dept. of ECE

Head of the Department  
Dept. of ECE  
**Aditya College of**  
**Engineering & Technology**  
SURAMPALEM-533 437

  
18/4/23  
**External Examiner**

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**



This is to certify that the project report entitled “**Risk factor identification and prediction of treatment planning for covid-19 patients based on CTSS Scores using machine learning techniques**” is being submitted by **D. Sita Mahalakshmi (19P31A0414), S. Naga Eswara Reddy (19P31A0452), G. Navya Vasavi (19P31A0418), D. Karthik (19P31A0412)** has been carried out in the partial fulfilment of the requirement for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem** affiliated to **JNTUK, Kakinada** is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

  
**Project Guide**

Mrs. A. Rama Vasantha, M.Tech., (Ph.D)  
Associate Professor  
Dept. of ECE

  
**Head of the Department**

Dr. R. V. V. KRISHNA, M. Tech, Ph.D.  
Professor & HOD  
Dept. of ECE

  
EXTERNAL EXAMINER

Head of the Department  
Dept. of ECE  
Aditya College of  
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COLLEGE OF ENGINEERING & TECHNOLOGY

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Ph: 99591 76665  
Email: office@acef.ac.in  
Website: www.acef.ac.in

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



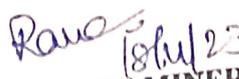
### CERTIFICATE

This is to certify that the project work entitled, "**Stock Market prediction compliance based on AL and ML**", is a bonafide work carried out by **Yarlagadda Sri Vidhya(19P31A0460)**, **Kale Bhaskara Srinivas (19P31A0421)**, **Gonthina Ramya Sanju Sree (19P31A0419)**, **Chappa Rajesh (19P31A0419)**, in partial fulfillment of the requirements for the award of the degree of **BACHELOR OF TECHNOLOGY** in **ELECTRONICS AND COMMUNICATION ENGINEERING** from **Aditya College of Engineering and Technology**, Surampalem, during the academic year 2022-2023.

This project work has not been submitted in full or part to any other University or educational institute for the award of any degree or diploma.

  
**PROJECT SUPERVISOR**  
Mr.S.Durga Prasad,M.Tech.  
Assistant Professor

  
**HEAD OF THE DEPARTMENT**  
Dr. R. V. Vijaya Krishna,M.Tech., Ph.D.  
Professor

  
**EXTERNAL EXAMINER**

Head of the Department  
Dept. of ECE  
**Aditya College of  
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Ph:99591 76665, Email: office@acet.ac.in, acet.ac.in

## Department of Electronics and Communication Engineering



### CERTIFICATE

This is to certify that the project report entitled "AUTOMATIC WASTE SEGREGATION SYSTEM USING IOT" is being submitted P. Sri manikanta (20P35A0402) K. Siva Parvathi (19P31A0429) K. Durga Satyanarayana (19P31A0427) Syed Lal Ajmeer (20P35A0408) U. Sharon Raj (20P35A0407) by has been carried out in the partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem affiliated to JNTUK, Kakinada is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

**Project Guide**

Dr. R. V. V. KRISHNA, M. Tech, Ph.D.  
Professor & HOD  
Dept. of ECE

**Head of the Department**

Dr. R. V. V. KRISHNA, M. Tech, Ph.D.  
Professor & HOD  
Dept. of ECE

Head of the Department  
Dept. of ECE  
Aditya College of  
Engineering & Technology  
SURAMPALAM-533 437

18/4/23

EXTERNAL EXAMINER

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**



This is to certify that the project report entitled “REAL-TIME DROWSINESS IDENTIFICATION BASED ON EYE STATE ANALYSIS” is being submitted by Y.N.S.Ch.Sai Lakshmi (19P31A0462), O.Ganga Sri (19P31A0440), D.Mahesh Kumar (20P35A0403), U.Nagesh (20P35A0405), S.Pavan Kumar (19P31A0451) and been carried out in the partial fulfilment of the requirement for the award of Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem affiliated to JNTUK, Kakinada is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.



**Project Guide**

Ms. V.Preethi, M. Tech  
Assistant Professor  
Dept. of ECE



**Head of the Department**

Dr. R.V.V.KRISHNA, M. Tech., Ph.D.

Professor & HOD

Dept. of ECE

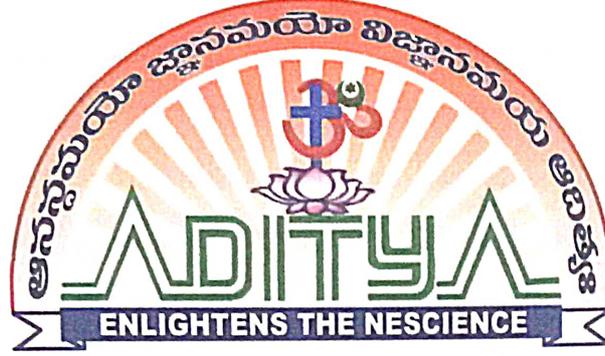
Head of the Department  
Dept. of ECE  
Aditya College of  
Engineering & Technology  
SURAMPALAM-533 437



18/4/23  
External Examiner

# CERTIFICATE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



This is to certify that the project report entitled “**AN ENERGY EFFICIENCY ROUTING PROTOCOLS FOR IOT ENABLED WSNs**” is being submitted to **A. Lalitha (19P31A0403)**, **S. Hemanth (19P31A0450)**, **K. Venkata Aakash (19P31A428)**, **K. V. S. Koushik (19P31A0422)** has been carried out in the partial fulfillment of the requirement for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology**, Surampalem affiliated to **JNTUK, Kakinada** is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

**Project Guide**  
Mr. G. Sattibabu, M. Tech, (Ph.D.)  
Assistant Professor  
Dept. of ECE

**Head of the Department**  
Dr. R. V. V. KRISHNA, M. Tech, Ph.D.  
Professor & HOD  
Dept. of ECE

Head of the Department  
Dept. of ECE  
Aditya College of  
Engineering & Technology  
SURAMPALAM-533 437

*Rave*  
18/4/23  
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# ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

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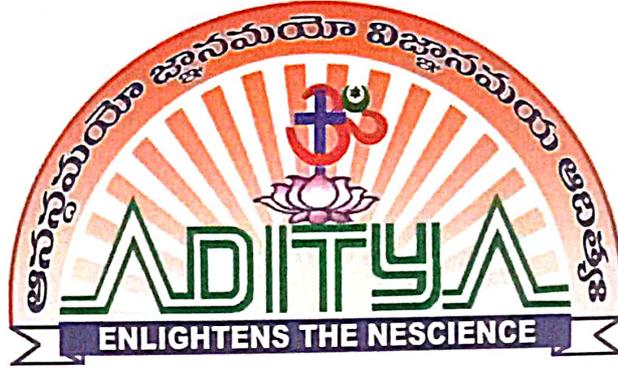
Accredited by NBA, Accredited by NAAC(A+) with CGPA of 3.4

Recognized by UGC under section 2(f) and 12(B) of UGC Act 1956

Aditya Nagar, ADB Road, Surampalem, Gandepalli Mandal, East Godavari - 533437, AP

Ph:99591 76665, Email: office@acet.ac.in, acet.ac.in

## Department of Electronics and Communication Engineering



### CERTIFICATE

This is to certify that the project report entitled “Hough Transform Based Lane detection Algorithm for Advanced Driver Assistance Systems (ADAS)” is being submitted by N.S.K.Sukanya(19P31A0438), K.Krishna Priya(19P31A0426), B. Sarvani(20P35A0406), P. Krishna Vamsi(19P31A0444) has been carried out in the partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem affiliated to JNTUK, Kakinada is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022- 2023.

  
Project Guide

Mrs. M. D. L. Bhavani., M. Tech, (Ph.D)  
Assistant Professor  
Dept. of ECE

  
Head of the Department  
Dr. R. V. V. KRISHNA, M.Tech, Ph.D.  
Professor & HOD  
Dept. of ECE  
Head of the Department  
Dept. of ECE  
Aditya College of  
Engineering & Technology  
SURAMPALAM-533 437

  
18/4/23  
EXTERNAL EXAMINER

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**



This is to certify that the project report entitled “IOT – BASED COMPACT ECG MONITORING SYSTEM FOR SMART HEALTHCARE” is being submitted by T. Vijaya Lakshmi Durga (19P31A0457), D. Bhavana Sandhya (19P31A0457), K. Pavan Kumar (19P31A0431), P.V.V.Santosh Reddy (19P31A0441) and been carried out in the partial fulfilment of the requirement for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem** affiliated to **JNTUK, Kakinada** is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

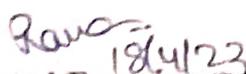
  
**Project Guide**

**Mr. K. JAYARAM KUMAR, M. Tech., (Ph. D)**  
Assistant Professor  
Department of ECE

  
**Head of the Department**

**Dr. R.V.V.KRISHNA, M. Tech., Ph.D.,**  
Professor & HOD  
Department of ECE

**Head of the Department**  
**Dept. of ECE**  
**Aditya College of**  
**Engineering & Technology**  
**SURAMPALAM-533 437**

  
**External Examiner**

## CERTIFICATE

### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



This is to certify that technical project report titled

### “Multi Modal Image Fusion Techniques to Detect Brain Tumor”

Being Submitted by

P. Vinitha

19P31A0443

D. Manikanta Raju

19P31A0411

Y. Siva Satya Narayana

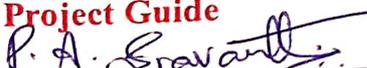
19P31A0461

K. Phani Harshitha

19P31A0430

In the partial fulfilment of the requirements for the award of the degree of Bachelor of Technology in Electronics And Communication Engineering from Aditya College of Engineering and Technology, Surampalem-affiliated to JNTU Kakinada. It is a record of bonafide work carried out by her/his under the esteemed guidance and supervision of Ms. P. A. Sravanthi during the academic year 2022-2023.

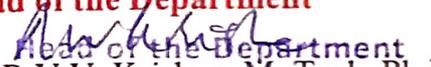
#### Project Guide

  
Ms. P. A. Sravanthi M. E, (Ph.D).

Assistant Professor

Dept. of ECE

#### Head of the Department

  
Dr. R.V.V. Krishna Murthy, Ph.D.  
Dept. of ECE

Aditya College of  
Engineering & Technology  
Dept. of ECE  
SURAMPALAM-533 437

  
18/4/23  
EXTERNAL EXAMINER

# ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

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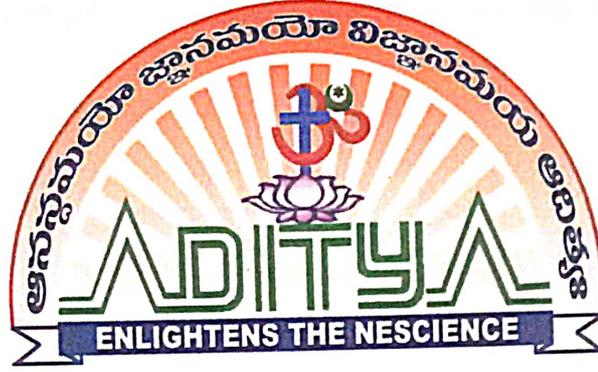
Accredited by NBA, Accredited by NAAC(A+) with CGPA of 3.4

Recognized by UGC under section 2(f) and 12(B) of UGC Act 1956

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Ph:99591 76665, Email: office@acet.ac.in, acet.ac.in

## Department of Electronics and Communication Engineering



### CERTIFICATE

This is to certify that the project report entitled "IOT BASED COLLEGE BUS MONITORING SYSTEM" is being submitted by S. Rajitha (19P31A0456), B.Shivaramakrishna (19P31A0406), A. Sreeya(19P31A0405), K. N. S. V. S. Sai Nikesh(19P31A0437) has been carried out in the partial fulfillment of the requirement for the award of Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem affiliated to JNTUK, Kakinada is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

**Project Guide**

Mrs. K. Kalyani, M. Tech, (Ph. D)

Assistant Professor

Dept. of ECE

**Head of the Department**

Dr. R. V. V. KRISHNA MURTHY, M. Tech, Ph. D  
Dept. of ECE

Professor & HOD  
Aditya College of  
Engineering & Technology  
Dept. of ECE  
SURAMPALAM-533 437

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Ph: 99591 76665

Email: office@acet.ac.in

Website: www.acet.ac.in

## Department of Electronics and Communication Engineering



### CERTIFICATE

This is to certify that the project report entitled “MONITOR AND CONTROL OF GREENHOUSE EFFECT USING MULTIPLE SENSORS USING IOT” is being submitted by **Kanuri Likhitha (19P31A0490)**, **Gunnam Ramadevi (19P31A0485)**, **Pallela Jayakrishna (20P35A0412)**, **Navvudu Saisudheer (19P31A04A1)** has been carried out in the partial fulfilment of the requirement for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem** affiliated to **JNTUK, Kakinada** is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.



**Project Guide**

**Mr. S. DURGA PRASAD, M. Tech**

**Assistant Professor**

**Dept. of ECE**



**Head of the Department**

**Dr. R. V. V. KRISHNA, M. Tech, Ph.D.**

**Professor & HOD**

**Dept. of ECE**

**EXTERNAL EXAMINER**

**Head of the Department**  
**Dept. of ECE**  
**Aditya College of**  
**Engineering & Technology**  
**SURAMPALAM-533 437**

# ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

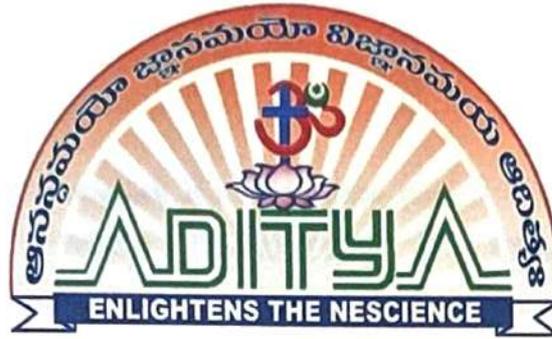
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Aditya Nagar, ADB Road, Surampalem, Gandepalli Mandal, East Godavari - 533437, AP

## Department of Electronics and Communication Engineering



## CERTIFICATE

This is to certify that the project report entitled “WEED DETECTION IN CROPS BY IMAGE PROCESSING” is being submitted by **Pandrinki Hari Varun Kumar (19P31A04A4), Karri Anu (19P31A0491), Nakka Rajesh (19P31A04A0), Bevara Naga Sai Durga (19P31A0473), Kuthani Indrani (19P31A0496)** has been carried out in the partial fulfillment of the requirement for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem** affiliated to **JNTUK, Kakinada** is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

**Project Guide**

Mrs. K. Kalyani, M.Tech, (Ph.D)

Assistant Professor

Dept. of ECE

**Head of the Department**

Dr. R. V. V. KRISHNA, M.Tech, Ph.D

Professor & HOD

Head of the Department  
Dept. of ECE

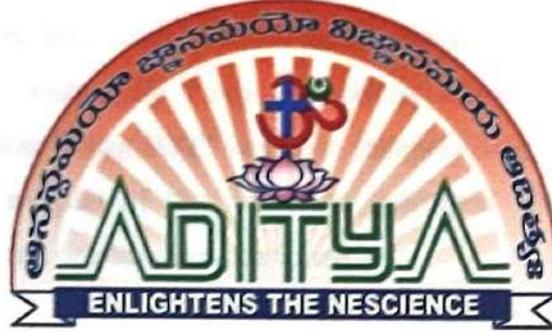
Aditya College of  
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SURAMPALAM-533 437

**EXTERNAL EXAMINER**

# ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

(Permanently Affiliated to JNTUK, Approved by AICTE)

Department of Electronics and Communication Engineering



## CERTIFICATE

This is to certify that the project report entitled “Automatic Crop Protection From Heavy Rainfall and Preserving Rain Water Using IOT” is being submitted by S.S. N.Chandu(19P31A04B9),Ch.SaiKumar(19P31A0478),K.SugunaKumari(20P35A 0416), K.S.L Pranesh(19P31A0489), V. Prasad(19P31A04C3)has been carried out in the partial fulfilment of the requirement for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem** affiliated to JNTUK, Kakinada is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2019-2023.

**Project Guide**  
Ms. P.SWARNALATHA, M.Tech  
Assistant Professor  
Dept. of ECE

**Head of the Department**  
Dr. R. V. V. KRISHNA, M. Tech, Ph.D.  
Professor & HOD  
Dept. of ECE

Head of the Department  
Dept. of ECE  
Aditya College of  
Engineering & Technology  
SURAMPALAM-533 437

EXTERNAL EXAMINER

# ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

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## Department of Electronics and Communication Engineering

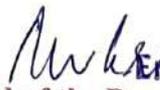


### CERTIFICATE

This is to certify that the project report entitled “CANCER CELL DETECTION IN BLOOD SAMPLES USING IMAGE PROCESSING TECHNIQUES” is being submitted by **Burra Trilokanadh (19P31A0477)**, **Arava Sai Kishore (19P31A0469)**, **Puppala Yashwanth Kumar (19P31A04B2)**, **Nunna Chandra Veera Sai Sudheer (19P31A04A2)**, has been carried out in the partial fulfillment of the requirement for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem** affiliated to **JNTUK, Kakinada** is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.



**Project Guide**  
**Mr. P. Ramesh Kumar, M.Tech(Ph.D)**  
Associate Professor  
Dept. of ECE

Head of the Department  
Dept. of ECE  
Aditya College of  
Engineering & Technology  
SURAMPALEM-533 437  
  
**Dr. R. V. V. KRISHNA, M.Tech, Ph.D**  
Professor & HOD  
Dept. of ECE

EXTERNAL EXAMINER

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Ph:99591 76665, Email: office@acet.ac.in, acet.ac.in

## Department of Electronics and Communication Engineering



### CERTIFICATE

This is to certify that the project report entitled "VEDIC SQUARE CALCULATOR DESIGN USING QUANTUM DOT CELLULAR AUTOMATA (QCA)" is being submitted by K. S. S. Supraja (19P31A0495), G. Sravanthi (19P31A0481), P. L. Deepika (19P31A04A5), P. Satyanarayana (20P35A0414). It has been carried out in the partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem affiliated to JNTUK, Kakinada is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

  
Project Guide

Dr. G.A. Arun Kumar, M. Tech., Ph. D  
Associate Professor  
Dept. of ECE

  
Head of the Department

Dr. R. V. Vijaya Krishna, M. Tech, Ph.D.  
Professor & HOD  
Dept. of ECE

Head of the Department  
Dept. of ECE

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SURAMPALAM-533 437

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Aditya Nagar, ADB Road, Surampalem, Gandepalli Mandal, East Godavari - 533437, AP

## Department of Electronics and Communication Engineering



### CERTIFICATE

This is to certify that the project report entitled "A NEURAL NETWORK FOR LICENSE PLATE DETECTION AND RECOGNITION" is being submitted by Bhavya Sri Nimmalapudi (19P31A0474), Kalapu Raghavendra Sai Kiran (19P31A0488), Beeraka Gowri Manikanta Varaprasad (19P31A0471), Patamasetti Balaji (19P31A04A6) has been carried out in the partial fulfillment of the requirement for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem** affiliated to **JNTUK, Kakinada** is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

**Project Guide**

Ms. P. A. SRAVANTHI, M.E., (Ph.D)

Assistant Professor

Dept. of ECE

**Head of the Department**

Dr. R. V. V. KRISHNA,

Professor & HOD

Dept. of ECE

Head of the Department  
Dept. of ECE  
Aditya College of  
Engineering & Technol  
SURAMPALEM-533437

EXTERNAL EXAMINER

# ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

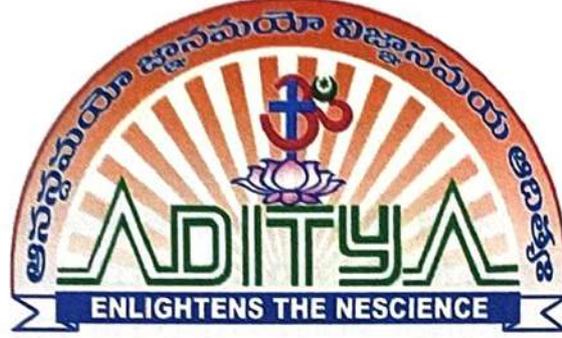
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Aditya Nagar, ADB Road, Surampalem, Gandepalli Mandal, East Godavari - 533437, AP

Department of Electronics and Communication Engineering



## CERTIFICATE

This is to certify that the project report entitled "A DIGITAL AUDIO WATERMARKING SCHEME BASED ON SINGULAR VALUE DECOMPOSITION" is being submitted by **Kakara Srilakshmi (19P31A0487), Koppireddy Sravani (19P31A0494), Marni Varsha Chandu Sri (19P31A0498), Sanipini Divya (19P31A04B8)** has been carried out in the partial fulfillment of the requirement for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem** affiliated to **JNTUK, Kakinada** is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

**Project Guide**

Mrs. M. D. L. Bhavani, M. Tech, (Ph.D)

Assistant Professor

Dept. of ECE

**Head of the Department**

Dr. R. V. V. KRISHNA, M. Tech, Ph.D

Professor & HOD

Aditya College of Engineering & Technology

Dept. of ECE SURAMPALEM-533 437

**EXTERNAL EXAMINER**

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Department of Electronics and Communication Engineering



## CERTIFICATE

This is to certify that the project report entitled "AUTOMATED LUNG TUMOR SEGMENTATION USING MODIFIED RANDOM WALK ALGORITHM" is being submitted by Patrayani Srividya(19P31A04B0), Maddala Srihari (20P35A0415), Garapati Priyanka Sahithi (19P31A0482), Karri Mohan Mani Eswar (19P31A0492) has been carried out in the partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology Surampalem affiliated to JNTUK, Kakinada is a record of bonfire work carried out by them under my guidance and supervision during the academic period 2022-2023.

  
**Project Guide**  
Mrs. A . Rama Vasantha, M.Tech,(Ph.D)  
Associate Professor  
Dept.of ECE

Head of the Department  
Dept. of ECE  
Aditya College of  
Engineering & Technology  
Surampalem, 533437  
Dr.R.V.V.KRISHNA M.Tech, Ph.D.  
Professor & HOD  
Dept. of ECE

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## Department of Electronics and Communication Engineering



### CERTIFICATE

This is to certify that the project report entitled “SKIN CANCER (MELANOMA) SEGMENTATION USING CONVOLUTIONAL NEURAL NETWORKS” is being submitted by Pepakayala Divyasree (19P31A04B1) , Goli Umamaheswari (19P31A0484) , Kotha Lakshmi Sowmya (20P35A0413) , Vallapudasu Jahnvi Devi (19P31A04C2) has been carried out in the partial fulfillment of the requirement for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem** affiliated to **JNTUK, Kakinada** is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

**Project Guide**

Dr. R. V. V. KRISHNA, M. Tech, Ph.D

Professor & HOD

Dept. of ECE

Head of the Department

Dept. of ECE

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SURAMPALAM-533437  
EXTERNAL EXAMINER

**Head of the Department**

Dr. R. V. V. KRISHNA, M. Tech, Ph.D

Professor & HOD

Dept. of ECE

Head of the Department  
Dept. of ECE

Aditya College of  
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Department of Electronics and Communication Engineering



## CERTIFICATE

This is to certify that the project report entitled "IDENTIFICATION OF CURRENCY BY IMAGE PROCESSING TECHNIQUES AND ARTIFICIAL INTELLIGENCE" is being submitted by V.J.S.Sushma (19P31A04C1), A.N.S.S.L.Sahithi(19P31A0467), M.Sandeep Kumar (19P31A0499), A.Srikanth (19P31A0468) has been carried out in the partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem affiliated to JNTUK, Kakinada is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

**Project Guide**

Ms. V.Preethi, M.Tech

Assistant Professor

Dept. of ECE

**Head of the Department**

Dr. R. V. Vijaya Krishna, M. Tech, Ph.D.

Professor & HOD

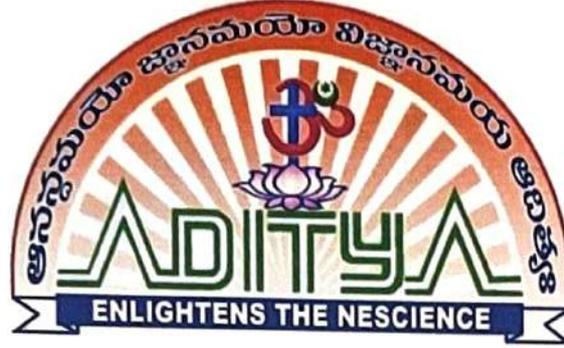
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Ph:99591 76665, Email: office@acet.ac.in, acet.ac.in

Department of Electronics and Communication Engineering



## CERTIFICATE

This is to certify that the project report entitled "SIGN LANGUAGE COMMUNICATION WITH DUMB PEOPLE USING RASPBERRY PI" is being submitted by Kesireddy Charan Raj (20P35A0411), Beeraka Sai Jyothika (19P31A0472), Vasamsetti Navya Sree (19P31A04C5), Prathipati Hari Krishna (19P31A04A9) has been carried out in the partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem affiliated to JNTUK, Kakinada is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

  
Project Guide

Mr. K. Jayaram Kumar, M.Tech(Ph.D)  
Assistant Professor  
Department of ECE

  
Head of the Department  
Dept. of ECE  
Aditya

Dr. R. V. V. KRISHNA, M. Tech., Ph.D  
Professor & HOD  
Department of ECE

EXTERNAL EXAMINER

# ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

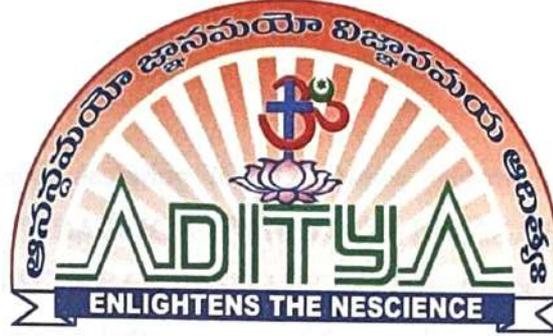
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## Department of Electronics and Communication Engineering



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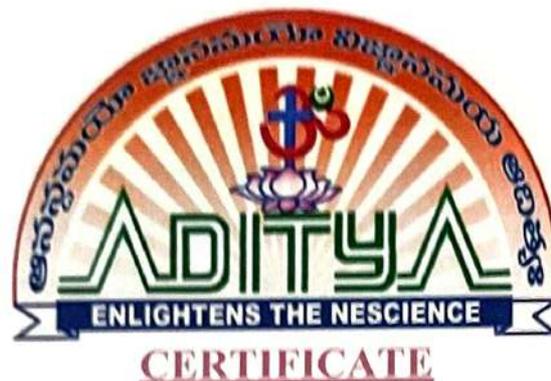
This is to certify that the project report entitled “TRAFFIC CONGESTION DETECTION USING ACTIVE RFID UNDER THINGSPEAK IN SMART CITIES” is being submitted by Inuganti Sri Sai Bhanu Tejaswini (19P31A0486) , Bonda Rajesh Babu (19P31A0476), Adduri Vismitha (19P31A0466), Dangeti Adithya (19P31A0479) has been carried out in the partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem affiliated to JNTUK, Kakinada is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

**Project Guide**  
Dr.T.S.KARTHIK, M.Tech,Ph.D  
Professor  
Dept. of ECE

**Head of the Department**  
Dr. R. V. V. KRISHNA, M. Tech,Ph.D  
Professor & HOD  
Dept. of ECE

Head of the Department  
Dept. of ECE  
Aditya College of  
Engineering & Technology  
SURAMPALAM-533 437

EXTERNAL EXAMINER



This is to certify that the project report entitled “**DIAGNOSIS OF POMEGRANATE PLANT DISEASES USING NEURAL NETWORK**” is being submitted by P.S.D. Sita Mahalakshmi (19P31A04B4), G. Naga Satish (20P35A0417), B. Krupa Venkata Kumar (19P31A0475), M.S. Surya Bhavani (19P31A0497), R.S. Ajay Babu (19P31A04B6) has been carried out in the partial fulfilment of the requirement for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem** affiliated to **JNTUK, Kakinada** is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

*G.A.K.*  
**Project Guide**

Dr. G. A. Arun Kumar M. Tech, Ph. D

Associate Professor

Dept. of ECE

*R.V.K.*  
**Head of the Department**

Dr. R. V. KRISHNA M. Tech, Ph.D.

Professor  
**Engineering & Technology**  
SURAMPALAM-533 437

Dept. of ECE

**EXTERNAL EXAMINER**

# ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

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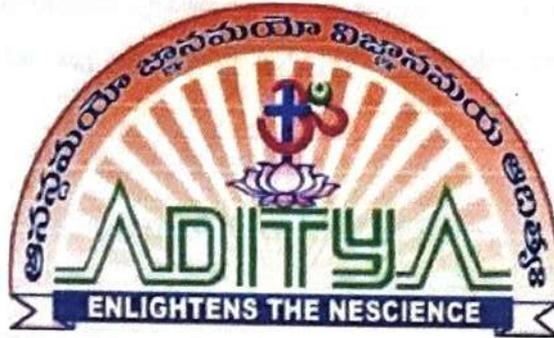
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## Department of Electronics and Communication Engineering



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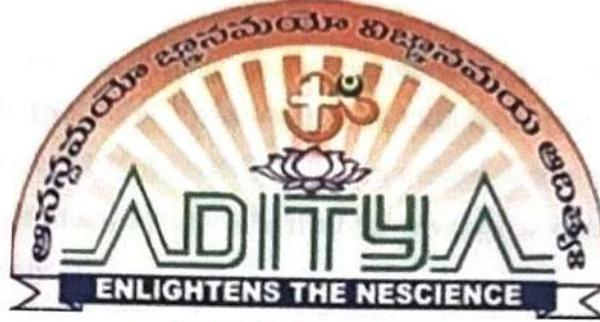
This is to certify that the project report entitled "FLOOD DETECTION AND ALERTING SYSTEM USING MACHINE LEARNING" is being submitted by Pydi Bhanu Naga Saisree(19P31A04B3), K. Manikanta Reddy(20P35A0410), G. Ram Chand(19P31A0483), A. Jaya Krishna Srinivas(19P31A0465) has been carried out in the partial fulfillment of the requirement for the award of the degree of **Bachelor of Technology** in **Electronics and Communication Engineering**, Aditya College of Engineering & Technology, Surampalem affiliated to JNTUK, Kakinada is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023.

Head of the Department  
Dept. of ECE  
Aditya College of  
Engineering & Technology  
SURAMPALEM-533 437  
**Project Guide**  
Dr. N. V. Lalitha, Ph.D.  
Associate Professor  
Dept. of ECE

Head of the Department  
Dept. of ECE  
Aditya College of  
Engineering & Technology  
SURAMPALEM-533 437  
Dr. N. V. Krishna, M. Tech, Ph.D.  
Professor & HOD  
Dept. of ECE

EXTERNAL EXAMINER

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**



**CERTIFICATE**

This is to certify that the project report entitled "AN INNOVATIVE MEDICINE PILL DISPENSER USING BUBBLE SORTING METHOD FOR HEALTH CARE APPLICATIONS" is being submitted by R. Kusuma Sri Aruna (19P31A04B5), Varun Thakur (19P31A04C4), P. N. M. Gangadhar (19P31A04A7), A. Durga Devi (19P31A0470), T. Varsha Deepika (19P31A04C0) has been carried out in the partial fulfilment of the requirement for the award of the degree of Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem affiliated to JNTUK, Kakinada is a record of bonafide work carried out by them under my guidance and supervision during the academic period 2022-2023

  
**Project Guide**

Dr . T. S. Karthik M. Tech, Ph. D  
Professor  
Dept. of ECE

  
**Head of the Department**

Dr. R. V. V. KRISHNA, M. Tech, Ph. D  
Professor & HOD  
Dept. of ECE

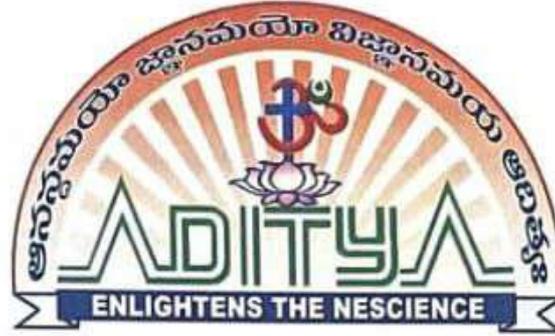
Head of the Department  
Dept. of ECE  
Aditya College of  
Engineering & Technology  
SURAMPALAM-533 437

**EXTERNAL EXAMINAR**

# ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

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Mandal, East Godavari – 533437, AP

## Department of Electronics and Communication Engineering



## CERTIFICATE

This is to certify that the project report entitled “AN EFFICIENT HEALTH CLOUD SERVICE PROVIDER MAPPING SCHEME FOR WIRELESS BODY AREA NETWORKS” is being submitted by Kona Sai Nikhil (19P31A0493), Sanikommu Keerthi Reddy (19P31A04B7), Pathala Saisrinivas (19P31A04A8), Yellapu Jnaneswararao (19P31A04C6) has been carried out in the partial fulfilment of the requirement for the award of the degree of Bachelor of Technology in Electronics and Communication Engineering, Aditya College of Engineering & Technology, Surampalem affiliated to JNTUK, Kakinada is a record of Bonafede work carried out by them under my guidance and supervision during the academic period 20222023.

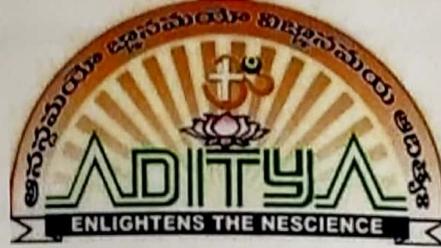
Project Guide  
Mr. G. SATTIBABU, MTech. (Ph.D.)  
Assistant Professor  
Dept. of ECE

Head of the Department  
Dr. R. V. V. KRISHNA, M. Tech, Ph.D.  
Professor & HOD  
Dept. of ECE  
Head of the Department  
Dept. of ECE  
Aditya College of  
Engineering & Technology  
SURAMPALAM-533 437

EXTERNAL EXAMINER

## CERTIFICATE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING

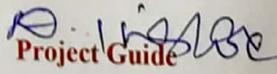


This is to certify that technical project Part-II report titled  
**"IMAGE STEGANOGRAPHY USING SPATIAL DOMAIN TECHNIQUES  
AND ADVANCED ENCRYPTION STANDARD (AES) ALGORITHM"**

Being submitted by

P.Madhulatha	(19P31A04H8)
G.Srikanth	(19P31A04E9)
P.Manikanta	(19P31A04H4)
N.Rakesh varma	(19P31A04H3)

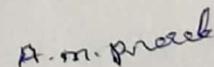
In the partial fulfilment of the requirements for the award of Degree of Bachelor of Technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by a team under the esteemed guidance and supervision of **Dr .D. Kishore** for the academic year 2022-2023.

  
Project Guide

**Dr. D. Kishore, M.Tech, Ph.D**  
Professor & HOD  
Department of ECE

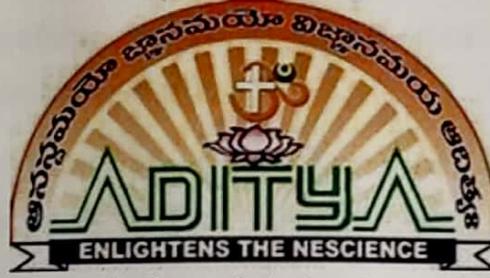
  
Head of the Department

**Dr. D. Kishore, M.Tech, Ph.D**  
Professor & HOD  
Department of ECE

  
External Examiner

## CERTIFICATE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



This is to certify that technical project part-II report titled

**“ DESIGN OF HIGH EFFICIENT OPTIMIZED 4- BIT PARALLEL ADDER USING QCA TECHNOLOGY”**

**Being submitted by**

**B. Swathi**

**19P31A04D3**

**V. Jahnavi**

**19P31A04I7**

**K.N.S.L. Deepika**

**19P31A04F6**

**S. Koushik**

**19P31A04I2**

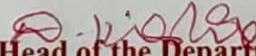
In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by her/his under the esteemed guidance and supervision of **Mr. Jaldy Surendranadh** during the academic year 2022-2023.

**Project Guide**

Mr.Jaldy Surendranadh, M.Tech

Assistant Professor

E.C.E Department

  
**Head of the Department**

Dr.D.Kishore, M.Tech, Ph.D.;

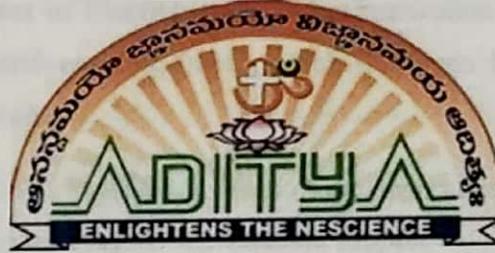
Professor

E.C.E Department

External Examiner

# CERTIFICATE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING



This is to certify that technical project part-II report titled

**“An Optimized Eight Bit Binary to Gray Code Converter  
using Quantum-dot Cellular Automata”**

Being submitted by

Manyala Bhavanidevi

19P31A04G5

Kadiyam Vivek

19P31A04F3

Adapa Naga Praveen

20P35A0418

Kadiyapu Venkata Sai Abhishek

19P31A04F4

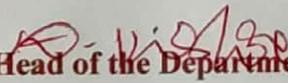
In the partial fulfilment of the requirements for the award of Degree of Bachelor of Technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by her/his under the esteemed guidance and supervision of **Mr. T. Anjaiah** for the academic year 2022-2023.

  
Project Guide

Mr T. Anjaiah M.Tech, (Ph.D).

Associate Professor

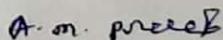
E.C.E Department

  
Head of the Department

Dr. D. Kishore, M.Tech, Ph.D

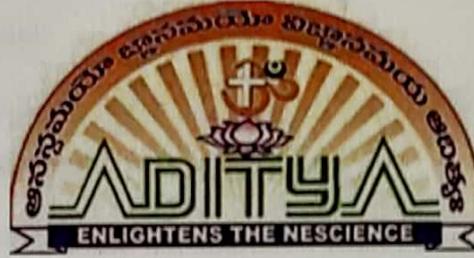
Professor

E.C.E Department

  
External Examiner

# CERTIFICATE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING



This is to certify that technical project part-II report titled  
**“AUTOMATIC LAYER CHICKEN POULTRY FARM  
EMPLOYING IOT”**

Being submitted by

Ch. SriSri	19P31A04D7
T. Krishna Neelima	19P31A04I6
S. Sona Satya Sai Gangotri	19P31A04I3
N. Teja Sri	19P31A04H0

In the partial fulfilment of the requirements for the award of Degree of Bachelor of Technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by her/his under the esteemed guidance and supervision of **Mr. Muthilingam Dharmapuri** for the academic year 2022-2023.

  
**Project Guide**

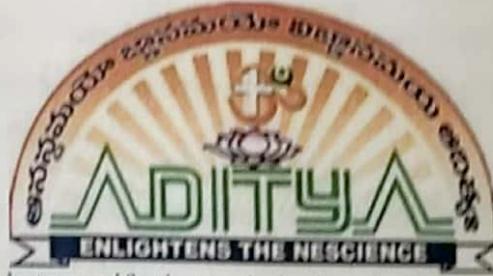
**Mr. Muthilingam Dharmapuri**  
Associate Professor  
E.C.E Department

  
**Head of the Department**

**Dr. D. Kishore, M.Tech, Ph.D**  
Professor  
E.C.E Department

**External Examiner**

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**



This is to certify that technical project part-I report titled

**“COVID-19 DETECTION USING A DEEP LEARNING  
MODEL BASED ON CHEST X-RAYS”**

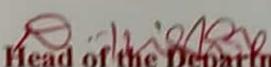
**Being submitted by**

K. Divya Sri	19P31A04G0
N. Vijay	19P31A04H2
E. Lova Vishnu	19P31A04E3
B. Sai Eswar	19P31A04D2

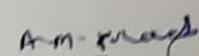
In the partial fulfillment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by her/his under the esteemed guidance and supervision of **Dr. V Vijaysri Bolisetty** during the academic year 2019-2023.

  
**Project Guide**

Dr. V Vijaysri Bolisetty  
Associate Professor  
E.C.E Department

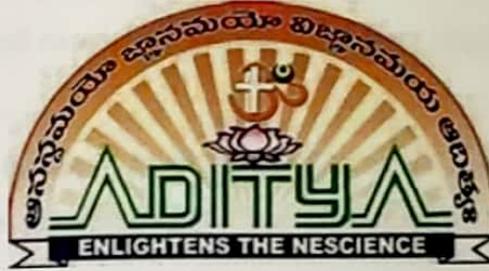
  
**Head of the Department**

Dr. D. Kishore, M.Tech , Ph.D  
Associate Professor  
E.C.E Department

  
**External Examiner**

**CERTIFICATE**

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**



This is to certify that technical project part-II report titled

**“BIOMETRIC ENABLED WEB BASED FALSE PROOF  
PLACEMENT ANALYSIS AND TRACKING  
SYSTEM”**

**Being submitted by**

G. Lavanya

19P31A04E4

M.T.S.V.M. Usha Devi

19P31A04G4

M.V.S. Saketh

20P35A0419

K. Sivaram

19P31A04G1

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by her/his under the esteemed guidance and supervision of Mr. **I. Ramesh Raja** during the academic year 2022-2023.

**Project Guide**

*I. R. Raja*  
Mr. I. Ramesh Raja M.E(Ph.D)  
Associate Professor  
E.C.E Department

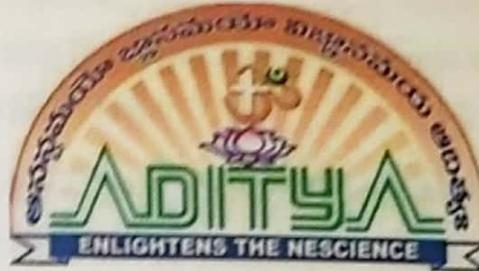
**Head of the Department**

*D. Kishore*  
Dr. D. Kishore, M.Tech ,Ph.D  
Professor  
E.C.E Department

*A. m. prasad*  
**EXTERNAL**

# CERTIFICATE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING



This is to certify that technical project Part-II report titled

**"AN IOT-POWERED REAL-TIME STREET LIGHTING SYSTEM FOR THE  
ADITYA CAMPUS"**

Being submitted by

P.Manikanta	(19P31A04H5)
P.Veera babu	(19P31A04H6)
G.Dileep Kumar	(19P31A04E7)
J.Pradeep	(20P35A0424)

In the partial fulfilment of the requirements for the award of Degree of Bachelor of Technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by a team under the esteemed guidance and supervision of **Mr. V.V. Srinivas Raaparti** for the academic year 2022-2023.

**Project Guide**

**Mr. V.V. Srinivas Raaparti, M.Tech**

Assistant Professor

Department of ECE

**Head of the Department**

**Dr. D. Kishore, M.Tech, Ph.D**

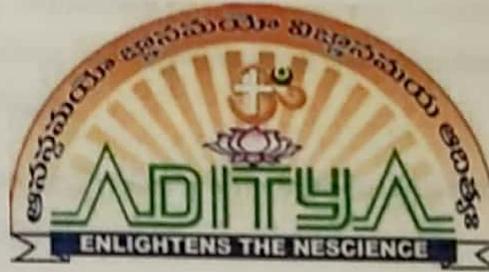
Professor & HOD

Department of ECE

**External Examiner**

# CERTIFICATE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



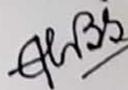
*This is to certify that technical project part-II report titled*

**“SMART SENSOR ENABLED FOR SURVEILLANCE FOR  
HIGH END SECURITY”**

**Being submitted by**

<b>K. Anusha Devi</b>	<b>19P31A04F9</b>
<b>G.V.K.S. Jnanesh</b>	<b>19P31A04E6</b>
<b>N.S.S.L. Lalitha</b>	<b>20P35A0420</b>
<b>S. Likitha Jyothi</b>	<b>19P31A04I5</b>

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by her/his under the esteemed guidance and supervision of **Dr. A. B. Siddique** during the academic year 2022-2023.

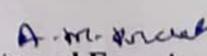
  
**Project Guide**

Dr. Abu Bakar Siddique, M.Tech, Ph.D.  
Assistant Professor  
E.C.E Department

  
**Head of the Department**

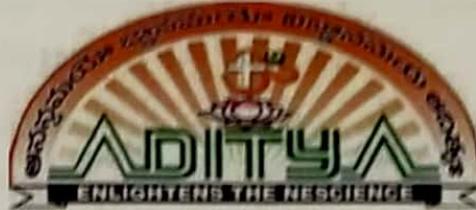
Dr. D. Kishore, M.Tech, Ph.D.  
Associate Professor & HOD  
E.C.E Department

ii

  
**External Examiner**

# CERTIFICATE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING



This is to certify that technical project part-II report titled  
**"DESIGN OF GYROSCOPE CONTROL 6-6 STEWART  
PLATFORM"**

Being submitted by

V.DEVI AISHWARYA	19P31A04J0
V.GANESH	19P31A04I8
CH.DEEPTHI	19P31A04D9
G. TARUN TEJA	19P31A04F0

In the partial fulfilment of the requirements for the award of Degree of Bachelor of Technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by her under the esteemed guidance and supervision of **Dr. R. Anil Kumar** for the academic year 2022-2023.

**Project Guide**

*Air*  
Dr. R. Anil Kumar, M.Tech, Ph.D

Associate Professor

E.C.E Department

*D. Kishore*  
**Head of the Department**

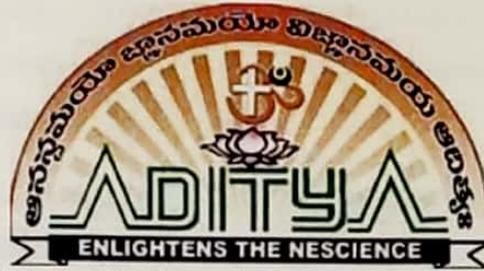
Dr. D. Kishore, M.Tech, Ph.D

Associate Professor

E.C.E Department

*A. m. g. reed*  
External Examiner

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**



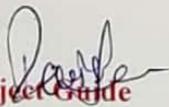
This is to certify that technical project part-II report titled

**“ENHANCED GAIN AND REDUCED SIDELOBES FOR 5G  
BROADCAST APPLICATIONS USING SUBMILLI METERWAVE  
PATCH ANTENNA”**

**Being submitted by**

<b>G.NANDINI</b>	<b>19P31A04E8</b>
<b>P.LAKSHMI SATYA</b>	<b>19P31A04H7</b>
<b>M.G SANKAR REDDY</b>	<b>19P31A04G6</b>
<b>B.G S S RAMPRASAD</b>	<b>19P31A04D6</b>

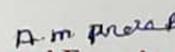
In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in  
ELECTRONICS AND COMMUNICATION ENGINEERING. It is a record of bonafide work carried  
out by her/his under the esteemed guidance and supervision of Mrs.**Rajitha Kudipudi** during the academic year  
2022-2023.

  
**Project Guide**

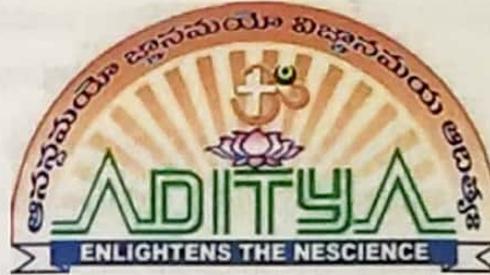
Mrs.Rajitha Kudipudi,M.Tech  
AssistantProfessor  
E.C.E Department

  
**Head of the Department**

Dr. D. Kishore, M.Tech.,Ph.D  
Professor  
E.C.E Department

  
**External Examiner**

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**



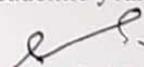
This is to certify that technical project part-II report titled

**“SIGN LANGUAGE DETECTION USING  
CNN”**

**Being submitted by**

<b>K. SREE RAMYA</b>	<b>19P31A04G2</b>
<b>A.SRINIVAS</b>	<b>19P31A04C9</b>
<b>B.ESWAR SAI SAMPATH</b>	<b>19P31A04D4</b>
<b>G.DIWAKAR</b>	<b>19P31A04E5</b>

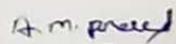
In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by her/his under the esteemed guidance and supervision of Ms. Sneha M Joseph during the academic year 2022-2023.

  
**Project Guide**

Ms. Sneha M Joseph, M.Tech, (Ph.D)  
Assistant Professor  
E.C.E Department

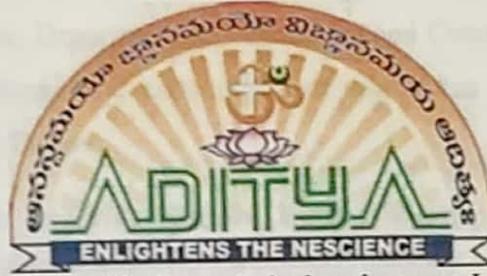
  
**Head of the Department**

Dr. D. Kishore, M.Tech, Ph.D  
Professor  
E.C.E Department

  
**External Examiner**

## CERTIFICATE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



This is to certify that technical project part-I report titled

**“ESP32 CAM BASED CONTACT LESS DOOR BELL SECURITY SYSTEM USING IOT”**

Being submitted by

N.Sirisha

19P31A04G9

P.Rajesh Kumar

19P31A04H9

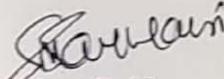
E.Sandhya

19P31A04E2

A.Chandra Sekhar

19P31A04D0

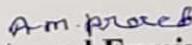
In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It Is a record of bonafide work carried out by her/his under the esteemed guidance and supervision of Mrs.S.S.V.Kiranmayi during the academic year 2022-2023.

  
Project Guide

Mrs .S.S.V.Kiranmayi, M.Tech  
Assistant Professor  
E.C.E Department

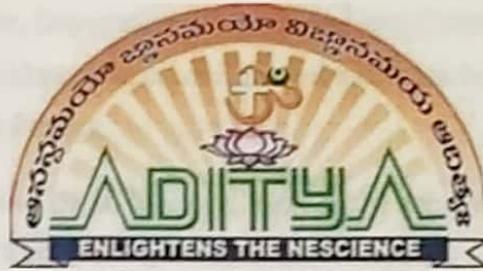
  
Head of the Department

Dr. D. Kishore, M.Tech ,Ph.D  
Professor  
E.C.E Department

  
External Examiner

## CERTIFICATE

### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



This is to certify that technical project part-II report titled

### DISTINGUISHING COMPUTER GENERATED IMAGES FROM NATURAL IMAGES USING CONVOLUTIONAL NEURAL NETWORK

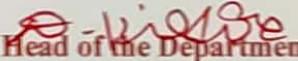
Being submitted by

R. Raha Mounika	19P31A04I0
K. Hemanth Kumar	19P31A04F2
S. Jagadeesh Kumar	19P31A04I4
B. Naresh	19P31A04D5

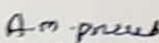
In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It Is a record of bonafide work carried out by her/his under the esteemed guidance and supervision of **Ms. M. Sowjanya** during the academic year 2022-2023.

  
Project Guide

Ms. M. Sowjanya, M. Tech  
Assistant Professor  
E.C.E Department

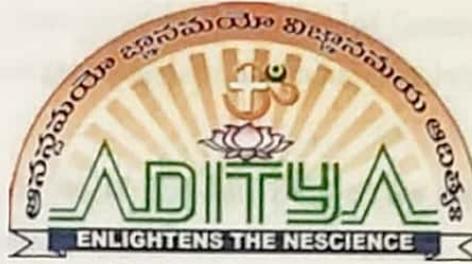
  
Head of the Department

Dr. D. Kishore, M. Tech, Ph. D  
Professor  
E.C.E Department

  
External Examiner

## CERTIFICATE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



This is to certify that technical project part-II report titled

### IOT BASED SMART ASSISTANCE GLOVES FOR PARALYZED PEOPLE

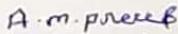
Being submitted by

G. SRAVYA	19P31A04F1
N.V.S.S.S. MOUNIKA	19P31A04H1
A. GREESHMA RAMYA SREE	20P35A0422
K. SAI LAKSHMI	19P31A04F5

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It Is a record of bonafide work carried out by her under the esteemed guidance and supervision of Mr.**K. PRAVEEN KUMAR** during the academic year 2022-2023.

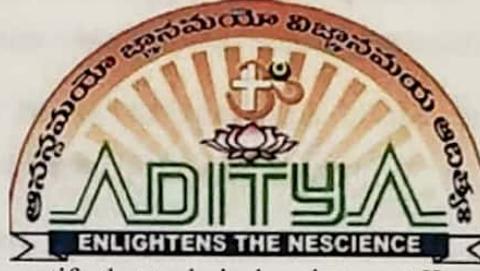
  
**Project Guide**  
Mr . K. PRAVEEN KUMAR , M.Tech  
Assistant Professor  
E.C.E Department

  
**Head of the Department**  
Dr. D. Kishore, M.Tech, Ph.D  
Professor  
E.C.E Department

  
External Examiner

## CERTIFICATE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



This is to certify that technical project part-II report titled

### **“HAND GESTURE CONTROL TRIANGULAR ROBOT USING OPEN CV”**

**Being submitted by**

<b>N Durga Surya Prakash</b>	<b>19P31A04G8</b>
<b>K Geetanjani reddy</b>	<b>20P35A0421</b>
<b>A. Jagadeesh</b>	<b>20P35A0425</b>
<b>R.C.V. Sairam</b>	<b>20P35A0426</b>

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by her/his under the esteemed guidance and supervision of **Ms.K.M.V.V.L.Manasa** during the academic year 2022-2023.

*K. Manasa*  
**Project Guide**

Ms.K.M.V.V.L.Manasa, M.Tech  
Assistant Professor  
E.C.E Department

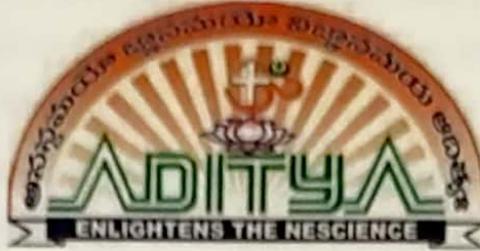
*D. Kishore*  
**Head of the Department**

Dr. D. Kishore, M.Tech, Ph.D  
Professor  
E.C.E Department

**External Examiner**

# CERTIFICATE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING

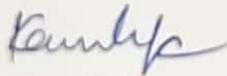


This is to certify that technical project part-II report titled  
**“WIRELESS RF BASED ROBOTIC ARM USING  
GESTURE CONTROL”**

Being submitted by

A.KONDABABU	19P31A04D1
D.RUDRA SAI TEJA REDDY	19P31A04E1
CH.MADHU NEHA	19P31A04D8
K.SIVA SURYANARAYANA	19P31A04F7

In the partial fulfilment of the requirements for the award of Degree of Bachelor of Technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by her under the esteemed guidance and supervision of **Ms. M.Kaivalya** for the academic year 2022-2023.



**Project Guide**

Ms . M.Kaivalya,M.Tech  
Associate Professor  
E.C.E Department



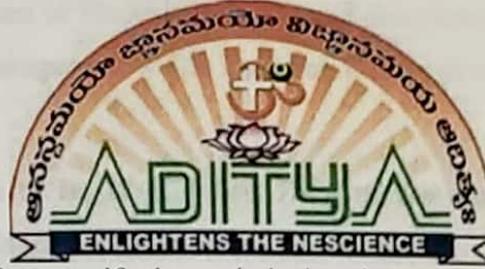
**Head of the Department**

Dr. D. Kishore,M.Tech,Ph.D  
Professor  
E.C.E Department

**External Examiner**

## CERTIFICATE

### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



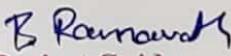
This is to certify that technical project part- II report titled

### **“IOT BASED SMART MIRROR WITH EVERYDAY UTILITIES”**

**Being submitted by**

<b>K.Chinmayee</b>	<b>19P31A04F8</b>
<b>M.Monika Devi</b>	<b>19P31A04G7</b>
<b>M.Roshini</b>	<b>19P31A04G3</b>
<b>P.V.Hari Charan</b>	<b>20P35A0423</b>

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by her/his under the esteemed guidance and supervision of **Mr.Balu ramavath** during the academic year 2022-2023.

  
**Project Guide**

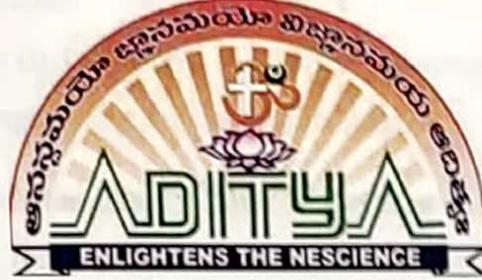
Mr.Balu Ramavath, M.Tech  
Assistant Professor  
E.C.E Department

  
**Head of the Department**

Dr. D. Kishore, M.Tech, Ph.D  
Professor  
E.C.E Department

**External Examiner**

CERTIFICATE  
DEPARTMENT OF  
ELECTRONICS AND COMMUNICATION ENGINEERING



This is to certify that technical project part-II report titled

**“PREDICTING THE TYPE OF SKIN CANCER USING LESION  
IMAGE DIAGNOSIS WITH CNN MODEL”**

Being submitted by

Bhamidipati Tejaswi

18P31A04C6

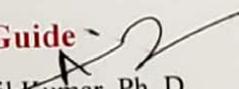
Bandaru Purna Chandu

18P31A04I7

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology  
in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It

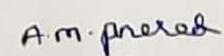
is a record of bonafied work carried out by her under the esteemed guidance and supervision of  
Mr. T.Anjaiah during the academic year 2022-2023.

**Project Guide**

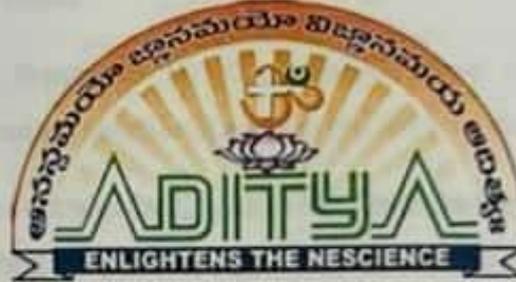
  
Dr. R. Anil Kumar, Ph. D  
Professor  
E.C.E Department

**Head of the Department**

  
Dr. D. Kishore, M.Tech, Ph.D  
Professor  
E.C.E Department

  
EXTERNAL EXAMINER

**CERTIFICATE**  
**DEPARTMENT OF**  
**ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**



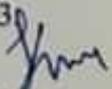
This is to certify that technical project part-II report titled

**IOT-POWERED VEHICLE ACCIDENT  
PREVENTION & VEHICLE SAFETY**

**Being submitted by**

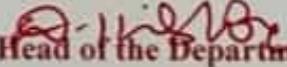
N.Vijaya Sai	19P31A04M8
P.Navya Sri	19P31A04N2
L.Bhavani	19P31A04L9
K.N.V. Dhanunjay	19P31A04L5

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by his under the esteemed guidance and supervision of Mr.Khajamohinoddin Mohammad during the academic year 2022-

2023  


**Project Guide**

Mr.K Mohammad, M.Tech  
Assistant Professor  
E.C.E Department

  
**Head of the Department**

Dr.D.Kishore, M.Tech, Ph.D  
Professor  
E.C.E Department

**CERTIFICATE  
DEPARTMENT OF  
ELECTRONICS AND COMMUNICATION ENGINEERING**



This is to certify that technical project part-II report titled

**VOICE CONTROLLED ROBOT CAR USING WiFi  
MODULE**

**Being submitted by**

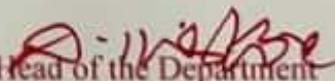
**B. AKHILANJANI  
T. VENKATA LAKSHMI  
G. INDIRA  
Y. KARTHIK**

**19P31A04J8  
19P31A04O8  
19P31A04L1  
19P31A04P1**

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafied work carried out by her under the esteemed guidance and supervision of Dr. V VijayaSri Bolisetty during the academic year 2022-2023.

  
Project Guide

Dr. V VijayaSri Bolisetty  
Associate Professor  
E.C.E Department

  
Head of the Department

Dr. D. Kishore, M.Tech ,Ph.D  
Professor  
E.C.E Department

**CERTIFICATE**  
**DEPARTMENT OF**  
**ELECTRONICS AND COMMUNICATION ENGINEERING**



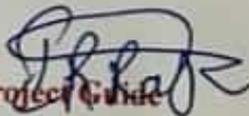
This is to certify that technical project part-II report titled

**“Student Attendance system using facial recognition with  
SMS Notification”**

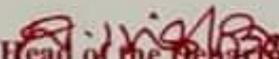
**Being submitted by**

<b>B. Sai Vindhya Vasini</b>	<b>19P31A04K1</b>
<b>T. Sriram</b>	<b>19P31A04O4</b>
<b>D.N. Satya Prakash</b>	<b>19P31A04K8</b>
<b>K. Yashwanth</b>	<b>19P31A04L7</b>

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It Is a record of bonafide work carried out by her/his under the esteemed guidance and supervision of **Mr. I. Ramesh Raja, M.E(Ph. D)** during the academic year 2022-2023.

  
Project Guide

Mr. I. Ramesh Raja, M.E(Ph.D)  
Associate Professor  
E.C.E Department

  
Head of the Department

Dr. D. Kishore, M.Tech, Ph.D  
Professor  
E.C.E Department

**External Examiner**

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**



This is to certify that technical project part-II report titled

**FAKE NEWS DETECTION USING MACHINE LEARNING**

Being submitted by

**D. Suresh**

**19P31A04K7**

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by his under the esteemed guidance and supervision of **Dr. D. Kishore professor & HOD** during the academic year 2022-2023.

  
Project Guide

Dr. D. Kishore, M.Tech, Ph D  
Professor & HOD  
E.C.E Department

  
Head of the Department

Dr. D. Kishore, M.Tech, Ph.D  
Professor  
E.C.E Department

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**



This is to certify that technical project part-II report titled

**A SMART ACCESS CONTROL FOR  
RESTRICTED BUILDINGS USING VEHICLE  
NUMBER PLATE RECOGNITION SYSTEM**

**Being submitted by**

<b>P. Madhu</b>	<b>19P31A04N8</b>
<b>P. Sai Lakshmi</b>	<b>20P35A0432</b>
<b>T. Lakshmi srisai</b>	<b>19P31A04O5</b>
<b>A. Kiran Kumar</b>	<b>19P31A04J3</b>

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It Is a record of bonafide work carried out by her/his under the esteemed guidance and supervision of **Ms. G.Jyothsna** during the academic year 2022-2023.

  
**Project Guide**

Ms. G.Jyothsna  
Assistant Professor  
E.C.E Department

  
**Head of the Department**

Dr. D. Kishore, M.Tech ,Ph.D  
Professor  
E.C.E Department

**Signature of the External**

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**



This is to certify that technical project part-II report titled  
**REAL TIME SMART ROOM IMPLEMENTATION BY**  
**USING IOT TECHNOLOGY**

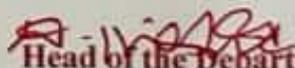
**Being submitted by**

<b>T. Indraja lakshmi</b>	<b>19P31A04O6</b>
<b>M. Manish babu</b>	<b>19P31A04M0</b>
<b>A. Mounika</b>	<b>19P31A04J4</b>
<b>M. Triveni mamatha</b>	<b>19P31A04M3</b>

In the partial fulfillment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by his under the esteemed guidance and supervision of **Mrs. Malisetty Alekhya** during the academic year 2022-2023.

  
**Project Guide**

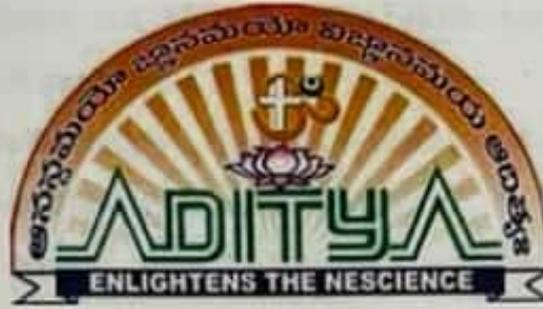
Mrs. Malisetty Alekhya, M.Tech,(Ph.D)  
Assistant Professor  
E.C.E Department.

  
**Head of the Department**

Dr. D. Kishore, M.Tech, Ph.D  
Professor  
E.C.E Department.

**Signature of the External Examiner**

**CERTIFICATE**  
**DEPARTMENT OF**  
**ELECTRONICS AND COMMUNICATION ENGINEERING**



This is to certify that technical project part-II report titled

**“ESP-NOW BASED MASTER AND SLAVE ROBOTIC  
MANIPULATOR”**

**Being submitted by**

**P.V.V.S. Varaprasad chowdary**  
**B. Murali krishna**  
**J. Hariharan**  
**P. Bhanu prasad**

**19P31A04N1**  
**19P31A04K2**  
**19P31A04L3**  
**19P31A04N6**

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafied work carried out by her under the esteemed guidance and supervision of Mrs.S.S.V. Kiranmayi during the academic year 2022-2023.

**Project Guide**  
Mrs.S.S.V. Kiranmayi  
Assistant Professor  
E.C.E Department

**Head of the Department**  
Dr. D. Kishore, M.Tech ,Ph.D  
Professor  
E.C.E Department

**External Examiner**

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**

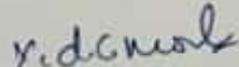


This is to certify that technical project part-II report titled  
**“MECANUM WHEEL BASED MOBILE PLATFORM USING  
PEER TO PEER COMMUNICATION ”**

**Being submitted by**

<b>B. Swathi</b>	<b>19P31A04K0</b>
<b>V. Nagababu</b>	<b>19P31A04O7</b>
<b>D.V.S. Sai Teja</b>	<b>19P31A04K6</b>
<b>N.V.V.S. Sai Kumar</b>	<b>19P31A04M7</b>

In the partial fulfillment of the requirements for the award of Degree of Bachelor of technology in ELECTRONICS AND COMMUNICATION ENGINEERING. It Is a record of bonafide work carried out by her/his under the esteemed guidance and supervision of Mr.Y.D.Chandra Mouli during the academic year 2022-2023.

  
**Project Guide**

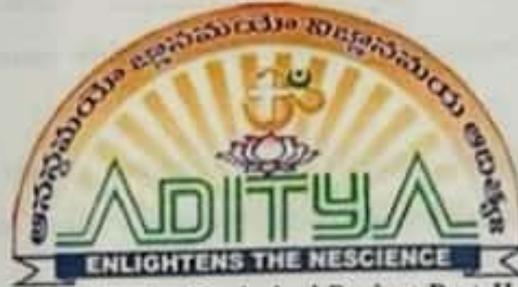
Mr.Y.D. Chandra Mouli, M. Tech(Ph. D)  
Assistant Professor  
E.C.E Department

  
**Head of the Department**

Dr. D. Kishore, M. Tech ,Ph.D  
Professor  
E.C.E Department

Sign of the External Examiner

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**



This is to Certify that Technical Project Part-II Report Titled

**“COAL MINE SAFETY USING IOT”**

**Being submitted by**

M.Surya Chandrika	19P31A04M4
C.Kalyani	19P35A04K5
A.Swathi	19P35A04J5
M.Sandeep	19P31A04M2

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by her under the esteemed guidance and supervision of Ms.Burri.Roja, during the academic year 2022-2023.

  
**Project Guide**  
Ms.Burri.Roja,M.Tech,  
Assistant Professor  
E.C.E Department

  
**Head of the Department**  
Dr.D.Kishore,M.Tech,Ph.D  
Professor  
E.C.E Department

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING



This is to certify that technical project part-II report titled  
**"DESIGN OF GYROSCOPE CONTROL 6-6 STEWART  
PLATFORM"**

Being submitted by

P. SATYA GOWRI	19P31A04N5
P. SURESH	19P31A04M9
A. SAI SAHITYA	19P31A04J6
CH. VENKATA RAMYA	19P31A04K4

In the partial fulfilment of the requirements for the award of Degree of Bachelor of Technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by her under the esteemed guidance and supervision of **Dr. A. B. Siddique** for the academic year 2022-2023.



**Project Guide**

**Dr. A. B. Siddique**

Assistant Professor

E.C.E Department

  
**Head of the Department**

**Dr. D. Kishore, M.Tech, Ph.D**

Associate Professor

E.C.E Department

**EXTERNAL EXAMINER**

# CERTIFICATE

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



This is to certify that technical project part-II report titled

### FRACTIONAL ORDER JACOBI FOURIER MOMENTS FOR IMAGE RECONSTRUCTION

Being submitted by

K. Pavani	19P31A04L6
Y.V.S. Chandra Sekhar	19P31A04P0
P.S.N. Devi Mounika	19P31A04N0
T. Srikanth	19P31A04O3

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by us under the esteemed guidance and supervision of Mr.Sanipini Venkata Kiran during the academic year 2022-2023.

Project Guide  
Mr.Sanipini Venkata Kiran  
Associate Professor  
E.C.E Department

Head of the Department  
Dr. D. Kishore, M.Tech, Ph.D.  
Professor & HOD  
E.C.E Department

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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**



This is to certify that technical project part-II report titled  
**MULTI BAND COMPACT MICROSTRIP PATCH ANTENNA FOR  
AIRBORNE AND SATELLITE APPLICATIONS**

Being submitted by

P.JYOTHI	19P31A04N4
R.KRISHNA	19P31A04N9
P.POORNIMA TRIPURA	19P31A04N7
K.DURGA PRASAD	19P31A04L4

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by his under the esteemed guidance and supervision of Mr.K.L.V.Prasad during the academic year 2022- 2023.

**Project Guide**

Mr .K.L.V.Prasad ,M.Tech.,(Ph.D.)

Sr.Assistant Professor

E.C.E Department

  
**Head of the Department**

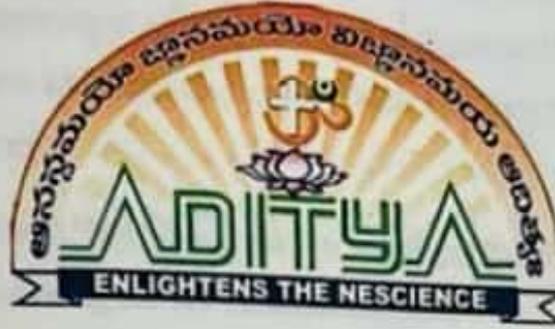
Dr. D. Kishore, M.Tech .,Ph.D

Professor

E.C.E Department

**Signature of the External Examiner**

CERTIFICATE  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING



This is to certify that technical project part-II report titled

**“IOT BASED ANDROID APPLICATION FOR VEHICLE  
PARKING SLOT DETECTION”**

**Being submitted by**

**G.Jaya Sree Vyshnavi**

**19P31A04L0**

**Y.Ramya Harika**

**19P31A04O9**

**B.Anusha**

**19P31A04J9**

**S.Ramesh**

**19P31A04O1**

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by her/his under the esteemed guidance and supervision of Mrs.Sneha M Joseph during the academic year 2022-2023.

  
**Project Guide**

**Mrs.Sneha M Joseph, M.Tech,(Ph.D)**  
Assistant Professor  
E.C.E Department

  
**Head of the Department**

**Dr. D. Kishore, M.Tech ,Ph.D**  
Professor  
E.C.E Department

**EXTERNAL EXAMINER**

## CERTIFICATE

### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



This is to certify that technical project part-II report titled

### **"IOT BASED MANHOLE DETECTION AND MONITORING SYSTEM"**

**Being submitted by**

<b>B. Pavani Lakshmi</b>	<b>19P31A04N3</b>
<b>M. Posi Lakshmi</b>	<b>19P31A04M6</b>
<b>B. Kasi Vishwanath</b>	<b>19P31A04K3</b>
<b>G. Manikanta</b>	<b>20P35A0434</b>

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by her/his under the esteemed guidance and supervision of **Mr. K. Venkata Ramana** during the academic year 2022-2023.

**Project Guide**

Mr .K. Venkata Ramana, M.Tech,(Ph.D)  
Assistant Professor  
E.C.E Department

**Head of the Department**

Dr. D. Kishore, M.Tech ,Ph.D  
Professor  
E.C. E Department

External examiner

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**



This is to certify that technical project part-II report titled

**“SMART MONITORING SYSTEM IN AQUACULTURE”**

**Being submitted by**

**M. Nagendra**

**19P31A04M5**

**A. Dhanumjaya**

**20P35A0427**

**Y. Srinu**

**19P31A04P2**

**G. Subash**

**19P31A04L2**

In the partial fulfilment of the requirements for the award of Degree of Bachelor of Technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafied work carried out by him under the esteemed guidance and supervision of Mr. T.Anjaiah during the academic year 2022-2023.

  
**Project Guide**  
Mr. T. Anjaiah  
Associate Professor  
E.C.E Department

  
**Head of the Department**  
Dr. D. Kishore, M.Tech, Ph.D  
Professor  
E.C.E Department

**Signature of the External**

**CERTIFICATE  
DEPARTMENT OF  
ELECTRONICS AND COMMUNICATION ENGINEERING**



This is to certify that technical project part-II report titled

**PLANT DISEASE DETECTION USING EFFICIENTNETV2 &  
CROP RECOMMENDATION USING RANDOM FOREST  
ALGORITHM**

**Being submitted by**

**S. Nivas Reddy  
V. Sai Naga Lakshmi  
M. Sai Rakesh  
S. Nagababu**

**19P31A0400  
20P35A0433  
20P35A0431  
19P31A0402**

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafied work carried out by his under the esteemed guidance and supervision of Dr. R. Anil Kumar during the academic year 2022-2023.

**Project Guide**

**Dr. R. Anil Kumar, M.Tech, Ph.D**

**Associate Professor**

**E.C.E Department**

  
**Head of the Department**

**Dr. D. Kishore, M.Tech ,Ph.D**

**Professor**

**E.C.E Department**

**Signature of the External**

**CERTIFICATE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**



This is to certify that technical project part-II report titled

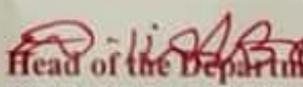
**CONTENT BASED IMAGE RETRIEVAL USING**  
**QUATERNION LEGENDRE FOURIER MOMENTS**

**Being submitted by**

K. Durga Satish	20P35A0430
D. Yaswanthi	19P31A04K9
M. Chandra Sekhar	19P31A04M1

In the partial fulfilment of the requirements for the award of Degree of Bachelor of technology in **ELECTRONICS AND COMMUNICATION ENGINEERING**. It is a record of bonafide work carried out by his under the esteemed guidance and supervision of Dr. D. Kishore during the academic year 2022 – 2023.

  
Project Guide  
Dr. D. Kishore, M.Tech. Ph.D  
Professor  
E.C.E Department

  
Head of the Department  
Dr. D. Kishore, M.Tech, Ph.D  
Professor  
E.C.E Department

Sign of the External