

**SRI SIVANI COLLEGE OF ENGINEERING**  
**DEPARTMENT OF CIVIL ENGINEERING**

**CERTIFICATE**



This to certify that the project report entitled "BEHAVIOUR OF RCC BUILDING FRAME ON PLANE AND SLOPED GROUND" that is being submitted by B. Kavya (17W61A0105), L. Naveen kumar (18W65A0114), K. Mahesh (18W65A0109), P. Naresh (18W65A0119), M. Bhushana rao (17W61A0107), in partial fulfilment award of B. Tech in Sri Sivani College of Engineering, Chilakapalem, affiliated to the Jawaharlal Nehru Technological University, Kakinada.

Signature of the Guide

**Mr. G.Sudharam**  
Assistant Professor  
Department of CE

Signature of the HOD

**Mr. S.V.N Sunil Kumar**  
Assistant Professor  
Department of CE

Signature of External Examiner

..

# SRI SIVANI COLLEGE OF ENGINEERING

## DEPARTMENT OF CIVIL ENGINEERING

### CERTIFICATE



This to certify that the project report entitled "UTILIZATION OF GLASS FIBRE ON FLY-ASH BASED CONCRETE" that is being submitted by V.PRADEEP (17W61A0122),A.RAMARAJU(18W65A0101),G.ANILKUMAR(17W61A0110),K.RAJKUMAR (18W65A0111),CHILMANIKANTA(18W65A0106) in partial fulfilment award of B.Tech in Sri Sivani College of Engineering, chilakapalem affiliated to the Jawaharlal Nehru Technological University, Kakinada

*N. Bhaskara Rao*

Signature of the Guide

**Mr.N.Bhaskara Rao**

Assistant professor

Department of CE

*S.V.N. Sunil Kumar*

signature of the HOD

**Mr. S.V.N Sunil Kumar**

Assistant Professor

Department of CE

*[Signature]*

SIGNATURE OF EXTERNAL EXAMINER

# SRI SIVANI COLLEGE OF ENGINEERING

## DEPARTMENT OF CIVIL ENGINEERING

### CERTIFICATE



This to certify that the project report entitled "COMPARISION ON BEHAVIOUR OF SELF SUPPORTED ANGLE AND PIPE SECTIONED TELECOMMUNICATION TOWERS" that is being submitted by B. Sai kumar (17W61A0104), T. Vamsi krishna (18W65A0121), G. Nagamani (17W61A0111), S.R. Sai mahesh (17W61A0121), R. Srikanth reddy (17W61A0118), in partial fulfilment award of B. Tech in Sri Sivani College of Engineering, Chilakapalem, affiliated to the Jawaharlal Nehru Technological University, Kakinada.

  
Signature of the Guide

**Mr. CH.Lokesh**  
Assistant Professor  
Department of CE

  
Signature of the HOD

**Mr. S.V.N Sunil Kumar**  
Assistant Professor  
Department of CE

  
Signature of External Examiner

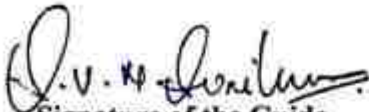
# SRI SIVANI COLLEGE OF ENGINEERING

## DEPARTMENT OF CIVIL ENGINEERING

### CERTIFICATE



This to certify that the project report entitled "**SOLID WASTE CHARACTERIZATION & ITS IMPACT ON GROUND WATER IN THE VICINITY OF DUMP YARD**" that is being submitted by **Y. Vineeth kumar (18W65A0126), K. Suresh (17W61A0112), P. Mohana rao (17W61A0117), B. Dhanunjaya (17W61A0108) and B. Sanjeev (17W61A0103)** in partial fulfilment award of B. Tech in Sri Sivani College of Engineering, Chilakapalem, affiliated to the Jawaharlal Nehru Technological University, Kakinada.

  
Signature of the Guide

**Mr. S.V.N Sunil Kumar**  
Assistant Professor  
Department of CE

  
Signature of the HOD

**Mr. S.V.N Sunil Kumar**  
Assistant Professor  
Department of CE

  
Signature of External Examiner

# SRI SIVANI COLLEGE OF ENGINEERING

## DEPARTMENTEN OF CIVIL ENGINEERING

### CERTIFICATE



This to certify that the project report entitled "ANALYSIS OF DRAINAGE WATER ENTERING RIVER NAGAVALI" that is being submitted by A. PRAVALLIKA(17W61A0102),M.SANTOSH(17W61A0116),T.VENKATESH(18W65A0123), A.BHARGAVANAIDU(17W61A0101),K. SHIVA KUMAR(18W65A0110) in partial fulfilment award of B.Tech in Sri Sivani College of Engineering, chilakapalem affiliated to the Jawaharlal Nehru Technological University, Kakinada.

  
Signature of the Guide

**Mr. S.V.N Sunil Kumar**

Assistant professor

Department of CE

  
signature of the HOD

**Mr. S.V.N Sunil Kumar**

Assistant Professor

Department of CE



SIGNATURE OF EXTERNAL EXAMINER

# SRI SIVANI COLLEGE OF ENGINEERING

(Affiliated to JNTU-KAKINADA)

DEPARTMENT OF ELECTRICAL AND ELECTRONICS  
ENGINEERING



## CERTIFICATE

This is to certify that the main project work entitled "SMART GLOVES FOR PHYSICALLY IMPAIRED PERSONS" is the original work done by S. BHAGYA LAKSHMI (18W65A0230), I. V. NEERAJA (17W61A0203), M. SAI TEJA (18W65A0221), P. PUSHPA LATHA (18W65A0228) of final year B. TECH and has been carried out under my guidance and supervision. This work is submitted to the "Department of Electrical and Electronics Engineering" in partial fulfillment for the award of Bachelor of Technology Degree in Electrical and Electronics Engineering during 2017-2021.

  
Project Guide

Mr. ASISH KUMAR PANIGRAHI  
Assistant Professor,  
Dept. of EEE.

  
05/08/21  
Head of the Department  
Electrical & Electronics Engineering  
Sri Sivani College of Engineering  
Chilakapalem In., Srikalahasti, Andhra Pradesh - 522402  
N. NAGASRINIVAS  
Assistant Professor,

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**SRI SIVANI COLLEGE OF ENGINEERING**



**CERTIFICATE**

This is to certify that the major project report entitled "ACCIDENT DETECTION SYSTEM USING GSM AND GPS" being submitted by by K.SOWMYA (18W65A0215), T.BHASKARARAO (18W65A0233), K.SAI LAXMI (18W65A02013), P.NARESH (17W61A0208) in partial fulfilment for the award of the Degree of Bachelor of Technology in Electrical and Electronics Engineering is a record of bonafide work done by them under my supervision during the academic year 2018-2021.

*M. Saisudha*  
PROJECT GUIDE

**MISS. M. SAI SUDHA**

Assistant Professor,  
Department of E.E.E,  
Sri Sivani College of Engineering,  
Srikakulam.

*N. Naga Srinivas*  
HEAD OF THE DEPARTMENT

**Mr. N.NAGA SRINIVAS**

Assistant Professor  
Department of E.E.E,  
Sri Sivani College of Engineering,  
Srikakulam.  
Head of the Department  
Electrical & Electronics Engineering  
Sri Sivani College of Engineering  
Chilakapalem Jn., Srikakulam-532422

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING  
SRI SIVANI COLLEGE OF ENGINEERING




**CERTIFICATE**

This is to certify that the major project report entitled "ACCIDENT DETECTION SYSTEM USING GSM AND GPS" being submitted by by K. RAMESH (18W65A0211) S.KOUSHIK (18W65A02336), K. PAVAN KUMAR (18W65A0217), P. SANTOSH KUMAR (17W61A0207), K.SOWMYA (18W65A0215), T.BHASKARARAO (18W65A0233), K.SAI LAXMI (18W65A02013), P.NARESH (17W61A0208 in partial fulfilment for the award of the Degree of Bachelor of Technology in Electrical and Electronics Engineering is a record of bonafide work done by them under my supervision during the academic year 2018-2021.

  
PROJECT GUIDE

Mr. M. CHANDRA SEKHAR  
MISS. M. SAI SUDHA

Assistant Professor,  
Department of E.E.E,  
Sri Sivani College of Engineering,  
Srikakulam.

  
HEAD OF THE DEPARTMENT  
Head of the Department  
Electrical & Electronics Engineering  
Mr. N. NAGA SRINIVAS  
Chidambaram Jn., Srikakulam-532402

Assistant Professor  
Department of E.E.E,  
Sri Sivani College of Engineering,  
Srikakulam.



**SRI SIVANI COLLEGE OF ENGINEERING**

(Affiliated to JNTU-KAKINADA)

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**



**CERTIFICATE**

This is to certify that the main project work entitled **"TWO DEGREE OF FREEDOM TILT INTEGRAL DERIVATIVE CONTROLLER BASED FIREFLY OPTIMIZATION FOR AUTOMATIC GENERATION CONTROL OF RESTRUCTURED POWER SYSTEM"** is being submitted by **S. SREE LAKSHMI (18W65A0232), P.CHANDANA (18W65A0203), K. RAJESH (18W65A0216) and B. MOHAN RAO (18W65A0235)**. This work Submitted to Department of Electrical & Electronics Engineering in partial fulfillment of the requirements for the award of Degree of Bachelor of Technology during the academic year 2020-2021.

  
Project Guide

**Dr. G.T.CHANDRA SEKHAR**  
Associate Professor

  
Head of the Department

**Sri. N. NAGA SRINIVAS**  
Assistant Professor



# SRI SIVANI COLLEGE OF ENGINEERING

(Affiliated to JNTU-KAKINADA)

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**



## CERTIFICATE

This is to certify that the main project work entitled "INTEGRATED MULTI – INPUT DC-DC CONVERTER WITH REDUCED SWITCHES" is being submitted by G. DIVYA (18W65A0207), G. VINEETHA (17W61A0202), P. KIRAN (17W61A0206) and P. PRAKASH (18W65A0225). This work Submitted to Department of Electrical & Electronics Engineering in partial fulfillment of the requirements for the award of Degree of Bachelor of Technology during the academic year 2020-2021.

  
Project Guide

**Dr. G.T. CHANDRA SEKHAR**

Associate Professor

  
-6/08/21

**Head of the Department**

**Sri. N. NAGA SRINIVAS**

Assistant Professor

Head of the Department  
Electrical & Electronics Engineering  
Sri Sivani College of Engineering  
Chitakapalem Ju., Sriakulam-532402

**SRI SIVANI COLLEGE OF ENGINEERING**  
**DEPARTMENT OF MECHANICAL ENGINEERING**



**CERTIFICATE**

This is to certify that the project work entitled "EFFECT OF FRICTION STIR PROCESSING WITH B4C PARTICLES ON MECHANICAL PROPERTIES OF AA6061" is the bonafide work G.ANIL (18W65A0315), CH. UDAY SHANKAR (18W65A0308), A. NARENDRA (18W65A0301) and M. CHANDU BABU (17W61A0315) of IV B.Tech in Mechanical Engineering, Sri Sivani college of Engineering, Affiliated to Jawaharlal Technological University Kakinada during the year 2018-2019 in partial fulfillment of the requirement for the Award of the Bachelor of Technology in Mechanical Engineering.

  
Project guide

**Mr.R.PAVAN KUMAR**  
Asst.Professor

  
HOD

**Mr.R. PAVAN KUMAR**  
Asst.Professor  
Head of The Department  
Mechanical Engineering  
Sri Sivani College of Engineering  
Chilakapalem Jr., Srikakulam,

**SRI SIVANI COLLEGE OF ENGINEERING  
DEPARTMENT OF MECHANICAL ENGINEERING**



**CERTIFICATE**

This is to certify that the project work entitled "FLUENT ANALYSIS OF EXHAUST MANIFOLD WITH DIFFERENT FLOW RATE" is the bonafide work S. SAICHANDRA (18W65A0350), K. CHAITANYA SAI (18W65A0362), G. SANDEEP KUMAR (18W65A0363) and of IV B.Tech in Mechanical Engineering, Sri Sivani college of Engineering, Affiliated to Jawaharlal Technological University Kakinada during the year 2020-2021 in partial fulfillment of the requirement for the Award of the Bachelor of Technology in Mechanical Engineering.

Project guide

**Dr. J. BALA BHASKARA RAO**  
Professor

HOD

**Mr. R. PAVAN KUMAR**  
Asst. Professor  
Head of The Department  
Mechanical Engineering  
Sri Sivani College of Engineering  
Chilakapalem Jr., Srikakulam

SRI SIVANI COLLEGE OF ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING



**CERTIFICATE**

This is to certify that the project work entitled "DESIGN AND ANALYSIS OF WIND TURBINE BLADE BY USING POLYMER NANO COMPOSITE MATERIALS " is the bonafide work D.SAI KIRAN(18W65A0310),S.MANOJKUMAR(17W61A0325),G.RAVI KUMAR(17W61A0320),N.BHAGIRADHI BEHARA(17W61A0304) of IV B.Tech in Mechanical Engineering, Sri Sivani college of Engineering, Affiliated to Jawaharlal Technological University Kakinada during the year 2020-2021 in partial fulfillment of the requirement for the Award of the Bachelor of Technology in Mechanical Engineering .

  
**Project guide**

V.RAMUDU  
Asst.Professor

  
**HOD**

Mr. R. PAVAN KUMAR  
Asst.Professor  
Head of The Department  
Mechanical Engineering  
Sri Sivani College of Engineering  
Chilakapalem Jn., Srikakulam

**SRI SIVANI COLLEGE OF ENGINEERING**

**DEPARTMENT OF MECHANICAL ENGINEERING**



**CERTIFICATE**

This is to certify that the project work entitled "HEAT TRANSFER ANALYSIS OF HELICAL COILED DOUBLE PIPE HEAT EXCHANGER BY USING CATIA AND ANSYS " is the bonafide work **K.SAI KIRAN (18W65A0321), L. NAGU (18W65A0323), S. CHANDRASEKHAR (18W65A0344), V. GEETHA LAKSHMI (18W65A0352)** of IV B.Tech in Mechanical Engineering, Sri Sivani college of Engineering, Affiliated to Jawaharlal Technological University Kakinada during the year 2020-2021 in partial fulfillment of the requirement for the Award of the Bachelor of Technology in Mechanical Engineering .

  
Project guide

**D r. J. BALA BHASKARA RAO**  
Professor

  
HOD

**Mr. R. PAVAN KUMAR**  
Asst. Professor  
Head of The Department  
Mechanical Engineering  
Sri Sivani College of Engineering  
Chilakapalem Jn., Srikakulam

SRI SIVANI COLLEGE OF ENGINEERING  
DEPARTMENT OF MECHANICAL ENGINEERING



**CERTIFICATE**

This is to certify that the project work entitled " **COMPARISON OF BIO-BRIQUETTES USING PALM BRANCHES WITH OTHER AGRO WASTES**" is the bonafide work of G.NAGA RAJU (18W65A0312), B.VINOD KUMAR (18W65A0303), L.JANARDHANA RAO (17W61A0312), M.GOPALA KRISHNA NAIDU (17W61A0313) of IV B.Tech in Mechanical Engineering, Sri Sivani college of Engineering, Affiliated to Jawaharlal Technological University Kakinada during the year 2020-2021 in partial fulfillment of the requirement for the Award of the Bachelor of Technology in Mechanical Engineering .

PROJECT GUIDE

MR.N.SURYA NARAYANA  
Asst.Professor.

Head of Department  
Mechanical Engineering  
Sri Sivani College of Engineering  
Chilakalapudi, Srikakulam  
Asst. Professor.

# SRI SIVANI COLLEGE OF ENGINEERING

(Affiliated to Jawaharlal Nehru Technological University Kakinada, Kakinada)

Accredited by N.A.A.C with 'B' grade

Chilakapalem Junction, Srikakulam-532410, Andhra Pradesh.



## CERTIFICATE

This is to certify that the project report entitled "**SPECKLE NOISE REDUCTION TECHNIQUE FOR SAR IMAGES USING STATISTICAL CHARACTERISTICS OF SPECKLE NOISE AND DISCRETE WAVELET TRANSFORM**" is submitted by the following students **D.TULASI (17W61A0408)**, **P.LALITHA (17W61A0425)**, **S.SAMEERA (17W61A0429)**, **K.UDAY KIRAN (17W61A0416)** in partial fulfilment of the requirements for the award of degree of Bachelor Of Technology in Electronics and Communication Engineering from **SRI SIVANI COLLEGE OF ENGINEERING**, Chilakapalem, Srikakulam, affiliated to the Jawaharlal Nehru Technological University Kakinada (JNTUK), during the academic year 2017-2021, is a bonafide work carried out by them under my guidance and supervision.

*B. Usharani*  
06/09/21  
**Project Guide**  
Mrs.B.USHARANI  
Assistant Professor  
Department of ECE

*R. Hari Prasad Rao*  
**Head of the Department**  
Mr R. HARI PRASADARAO  
Assistant Professor  
HEAD  
Dept. of Electronics & Communication  
Department of Engg.  
Sri Sivani College  
Chilakapalem Jn., Srikakulam.

**Signature of External**



# SRI SIVANI COLLEGE OF ENGINEERING

(Affiliated to Jawaharlal Nehru Technological University Kakinada, Kakinada) Accredited by

N.A.A.C with 'B' grade

Chilakapalem Junction, Srikakulam-532410, Andhra Pradesh.



## CERTIFICATE

This is to certify that the project report entitled “ **MEDICAL IMAGE FORGERY DETECTION SYSTEM FOR SMART HEALTHCARE** ” is submitted by the following students **S.HARIKA (17W61A0430)**, **K.SOWJANYA (17W61A0415)**, **M.SAI SRI RAMA HARSHA (16W61A0432)**, **M. SUNIL (17W61A0420)** in partial fulfilment of the requirements for the award of degree of Bachelor Of Technology in Electronics and Communication Engineering from SRI SIVANI COLLEGE OF ENGINEERING, Chilakapalem, Srikakulam, affiliated to the Jawaharlal Nehru Technological University Kakinada (JNTUK), during the academic year (2017-2021), is a bonafide work carried out by them under my guidance and supervision.

  
Project Guide

Mr R. HARI PRASADA RAO  
Assistant Professor  
Department of ECE

  
Head of the Department

Mr R. HARI PRASADA RAO  
Assistant Professor  
Department of ECE

Dept. of Electronics & Communication  
Sri Sivani College of Engg.  
Chilakapalem Jn., Srikakulam.

External Examiner

## **SRI SIVANI COLLEGE OF ENGINEERING**

(Affiliated to Jawaharlal Nehru Technological University Kakinada, Kakinada)

Accredited by N.A.A.C with 'B' grade

Chilakapalem Junction, Srikakulam-532410, Andhra Pradesh.



### **CERTIFICATE**

This is to certify that the project report entitled "**ENERGY HARVESTING AND TRANSMISSION USING SPACE SHIFT KEYING**" is submitted by the following students G. MURALI KRISHNA (18W65A0404), A. SUDARSANA KUMAR (17W61A0402), B. UPENDRA (17W61A0404), L. DEVI (17W61A0417) partial fulfilment of the requirements for the award of degree of Bachelor Of Technology in Electronics and Communication Engineering from **SRI SIVANI COLLEGE OF ENGINEERING**, Chilakapalem, Srikakulam. affiliated to the Jawaharlal Nehru Technological University Kakinada (JNTUK), during the academic year 2017-2021, is a bonafide work carried out by them under my guidance and supervision.

**Project Guide:**

**Mr. V. JEEVAN KUMAR**

Assistant Professor

Department of ECE

**Head of the Department:**

**Mr. R. HARI PRASAD RAO**

Assistant Professor

Department of ECE

HEAD

Dept. of Electronics & Comm.

Sri Sivani College of Engg.  
Chilakapalem Jn., Srikakulam.

**Signature of External**

# **SRI SIVANI COLLEGE OF ENGINEERING**

(Affiliated to Jawaharlal Nehru Technological University Kakinada, Kakinada)


Accredited by N.A.A.C with \_B' grade

Chilakapalem Junction, Srikakulam-532410, Andhra Pradesh.



## **CERTIFICATE**

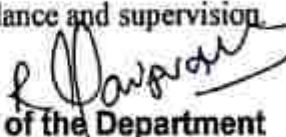
This is to certify that the project report entitled "**IMPLEMENTATION OF COVID EMERGENCY VENILATOR**" is submitted by the following students **E.TRIVENI DEVI(18W65A0402), T.PAVANI(17W61A0431), R.MEENAKSHI(17W61A0428), P.VENKATESH(17W61A0423)** in partial fulfilment of the requirements for the award of degree of Bachelor Of Technology in Electronics and Communication Engineering from **SRI SIVANI COLLEGE OF ENGINEERING**, Chilakapalem, Srikakulam, affiliated to the Jawaharlal Nehru Technological University Kakinada (JNTUK), during the academic year 2017-2021, is a bonafide work carried out by them under my guidance and supervision.

  
Project Guide

Mr.D.SHIVA

Assistant Professor

Department of ECE

  
Head of the Department

Mr.R.HARIPRASAD RAO

Assistant Professor

Department of ECE

— HEAD —  
Dept. of Electronics & Communication  
Sri Sivani College of Engg.  
Chilakapalem Jn., Srikakulam.

Signature of External

# SRI SIVANI COLLEGE OF ENGINEERING

(Affiliated to Jawaharlal Nehru Technological University Kakinada, Kakinada)

Accredited by N.A.A.C with 'B' grade

Chilakapalem Junction, Srikakulam-532410, Andhra Pradesh.



## CERTIFICATE

This is to certify that the project report entitled "**ANALYSIS OF BIOMETRIC AUTHENTICATION SYSTEM – SECURITY, ISSUES AND WORKING USING VISUAL CRYPTOGRAPHY**" is Submitted by following student

**P.DEVENDRA(17W61A0427), B.LAKSHMLURMILA(17W61A0407), K.GOWTHAMI(17W61A0414), G.NATARAJU(17W61A0411)** in partial fulfilment of the requirements for the award of degree of Bachelor Of Technology in Electronics and Communication Engineering from **SRI SIVANI COLLEGE OF ENGINEERING**, Chilakapalem, Srikakulam, affiliated to the Jawaharlal Nehru Technological University Kakinada (JNTUK), during the academic year 2017-2021 is a bonafide work carried out by them under my guidance and supervision.

KBR 10/08/21  
Project Guide

Mrs.K.B.RANI

Assistant Professor

Department of ECE

  
Head of the Department

Mr.R.HARIPRASAD RAO

Assistant Professor

Department of ECE

Dept. of Electronics & Communication  
Sri Sivani College of Engg.  
Chilakapalem Jn., Srikakulam.

Signature of External

Department of Electronics & Communication Engineering

**SRI SIVANI COLLEGE OF ENGINEERING**

Accredited to NAAC& NBA

(Approved by A.I.C.T.E., New Delhi & Affiliated to JNTU, Kakinada)

Chilakapalem Jn., Srikakulam – 532 402



**CERTIFICATE**

This is to certify that the project work entitled "COVID-19 DETECTION IN CT IMAGE BY USING CLUSTERING METHOD" is the original work done by P.MEENA KUMARI (17W61A0422),D.VIKAS(17W61A0409),A.RAMBABU(17W61A0401)&M.SUMANJALI (17W61A0418) of final year B. TECH and has been carried out under my guidance and supervision. This work is submitted to the "Department of Electronics & Communication Engineering" in partial fulfillment for the award of Bachelor of Technology Degree in Electronics & Communication Engineering during the academic year 2017-2021.

*K.Lavanya*  
Signature of the Supervisor

Date: 10-08-2021

Ms. K.LAVANYA  
Assistant Professor  
Department of ECE.

*R. Hari Prasad Reddy*  
Signature of the HOD

Date:

HEAD  
Dept. of Electronics & Communication  
Sri Sivani College of Engineering  
Chilakapalem Jn., Srikakulam.

Department of ECE.

**External Examiner**

# SRI SIVANI COLLEGE OF ENGINEERING


(Affiliated to Jawaharlal Nehru Technological University Kakinada, Kakinada)  
Accredited by N.A.A.C with 'B' grade

Chilakapalem Junction, Srikakulam-532410, Andhra Pradesh.



## CERTIFICATE

This is to certify that the project report entitled "**SMART PARKING SYSTEM USING INTERNET OF THINGS**" is submitted by the following students **V SIVANI( 17W61A0433 ) , B H.S.V.PRASAD (17W61A0412 ) , A KEERTHI (17W61A0403), P SANDHYA (18W65A0407)** , in partial fulfilment of the requirements for the award of degree of Bachelor Of Technology in Electronics and Communication Engineering from **SRI SIVANI COLLEGE OF ENGINEERING** Chilakapalem, Srikakulam, affiliated to the Jawaharlal Nehru Technological University Kakinada (JNTUK), during the academic year 2017-2021, is a bonafide work carried out by them under my guidance and supervision.

  
SIGNATURE OF THE SUPERVISOR  
Mr.K.VIJAYA KRISHNA M.Tech.,  
Assistant professor  
Department of ECE.

  
SIGNATURE OF THE HOD  
Sri R.HARI PRASAD RAO  
Assistant professor  
Department of ECE.  
HEAD  
Dept. of Electronics & Communication  
Sri Sivani College of Engg.  
Chilakapalem Jn., Srikakulam.

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**SRI SIVANI COLLEGE OF ENGINEERING**

(Approved by AICTE, New Delhi, Permanently Affiliated to JNTU-K, Kakinada, CC: W6,  
Accredited by NAAC 'A' Grade by AP Knowledge Mission, ISO 9001:2015 Certified campus)



**CERTIFICATE**

This is to certify that the project work entitled "Content Based Image Retrieval of Remote Sensing Images Using Deep Learning With Different Distance Measures" is the bonafide work of **B.Kartheekraj(17W61A0506)**, **B.Uttej(17W61A0502)**, **Y.Santhosh kumar (17W61A0561)**, **N.Sai kiran (17W61A0530)** of IV B.Tech in Computer Science and Engineering, Sri Sivani College of Engineering, affiliated to Jawaharlal Nehru Technological University Kakinada during the year 2020-2021 in partial fulfillment of the requirement for the award of the Bachelor of Technology in Computer Science and Engineering.

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

**Signature of the Guide**  
(Mr.S.Sudeer kumar, M.Tech)

Assistant professor

**Head of the Department**  
(Dr. M Jayanthi Rao, Ph.D)

Asso. professor

Head of the Department  
Computer Science and Engineering  
Sri Sivani College of Engineering  
Chilakapalem Jn., Srikakulam-532402

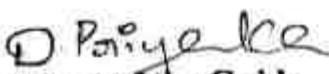
**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**SRI SIVANI COLLEGE OF ENGINEERING**

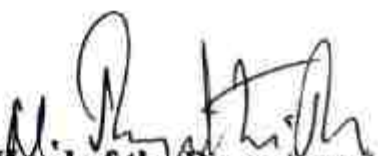
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Accredited by NAAC 'A' Grade by AP Knowledge Mission, ISO 9001:2015 Certified campus)



**CERTIFICATE**

This is to certify that the project work entitled "**Analyzing Of Parkinson's Disease. Using Machine Learning Techniques**" is the bonafide work of P.Bhavyasree(17W61A0539),K.Rajaswari(17W61A0524),Ch.Sudheer(17W61A0509), Ch.Nagaraj(18W65A0501) of IV B.Tech in **Computer Science and Engineering, Sri Sivani College of Engineering**, affiliated to Jawaharlal Technological University Kakinada during the year 2020-2021 in partial fulfillment of the requirement for the award of the Bachelor of Technology in Computer Science and Engineering .The results embodied in this project report have not been submitted to any other University or Institute for the award of any degree.

  
**Signature of the Guide**  
(Mrs. D. Priyanka, M. Tech)  
Assistant Professor

  
**Head of the Department**  
(Dr.M.Jayanti Rao, Ph.D.)  
Associate Professor

**Head of the Department**  
Computer Science and Engineering  
Sri Sivani College of Engineering  
Chitlakapalem Ja., Srikakulam-532402



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**SRI SIVANI COLLEGE OF ENGINEERING**

(Approved by AICTE, New Delhi, Permanently Affiliated to JNTU-K, Kakinada, CC: W6,


by AP Knowledge Mission, ISO 9001:2015 Certified campus)



**CERTIFICATE**

This is to certify that the project work entitled "**CURSOR MOVEMENT ON OBJECT MOTION BY HAND GESTURE**" is the bonafide work of **P. MADHURI (17W61A0534), D. ASWINI (17W61A0511), P. SRINIVASA RAO (17W61A0541), M. PUJITHA (17W61A0542)** of IV B.Tech in Computer Science and Engineering, Sri Sivani College of Engineering, affiliated to Jawaharlal Technological University Kakinada during the year 2020-2021 in partial fulfillment of the requirement for the award of the Bachelor of Technology in Computer Science and Engineering.

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

  
**Signature of the Guide**  
(Mr. Y. Jagadeesh Kumar, M.Tech)  
Assistant Professor

  
**Head of the Department**  
(Dr. M. Jayanthi Rao, Ph.D)  
Associate Professor  
Head of the Department  
Computer Science and Engineering  
Sri Sivani College of Engineering  
Chilakapalem Jn., Srikakulam-532402

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING SRI  
SIVANI COLLEGE OF ENGINEERING**

(Approved by AICTE, New Delhi, Permanently Affiliated to JNTU-K, Kakinada, CC: W6,


Accredited by NAAC 'A' Grade by AP Knowledge Mission, ISO 9001:2015 Certified campus)



**CERTIFICATE**

This is to certify that the project work entitled "**FINDING MISSING PERSON USING MACHINE LEARNING ALGORITHM**" is the bonafide work of G.Siva(17W61A0518),M.Yamuna(18W65A0503),Puja.Rawlo(17W61A0547), L.Anusha(17W61A0525) of IV B. Tech in **Computer Science and Engineering, Sri Sivani College of Engineering**, affiliated to Jawaharlal Technological University Kakinada during the year 2020-2021 in partial fulfillment of the requirement for the award of the Bachelor of Technology in Computer Science and Engineering.

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

  
**Signature of the Guide**  
(Dr.M.Jayanthi Rao, M.Tech ,Ph.D.)  
Associate Professor

  
**Head of the Department**  
(Dr.M.Jayanthi Rao, M.Tech, Ph.D)  
Associate Professor  
**Head of the Department**  
Computer Science and Engineering  
Sri Sivani College of Engineering  
Chilakapalem Jn., Srikakulam-532402

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**SRI SIVANI COLLEGE OF ENGINEERING**

(Approved by AICTE, New Delhi, Permanently Affiliated to JNTU-K, Kakinada, CC: W6,  
Accredited by NAAC 'A' Grade by AP Knowledge Mission, ISO 9001:2015 Certified campus)



**CERTIFICATE**

This is to certify that the project work entitled "**Fake News Detection Using Machine Learning**" is the bonafide work of **S.Keerthana (17W61A0552),G.Neha (17W61A0516),R.Vandana(17W61A0543),N.SaiMahendra (17W61A0529)** of IV B.Tech in **Computer Science and Engineering, Sri Sivani College of Engineering,** affiliated to **Jawaharlal Technological University Kakinada** during the year **2020-2021** in partial fulfillment of the requirement for the award of the Bachelor of Technology in **Computer Science and Engineering.**

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

**Signature of the Guide**

**Mr. K.Dileep Kumar, M.Tech**

**Assistant Professor**

**Head of the Department**

**Dr. M.Jayanthi Rao, Ph.D.**  
**As the Head of the Department**  
**Computer Science and Engineering**  
**Sri Sivani College of Engineering**  
**Chilakapalem Jn., Srikakulam-532402**



**SRI SIVANI COLLEGE OF ENGINEERING  
CHILAKAPALEM, SRIKAKULAM**

**CERTIFICATE**

This is to certify that the report entitled a study on "TRAINING AND DEVELOPMENT" With reference to "INDUS HOSPITAL, VISAKHAPATANAM" is a bonafied work done and Submitted by VOONNA TARUN ( Regd. No. 19W61E0053 ) with a duration of six weeks i.e., from 20<sup>th</sup> April 2020 to 30<sup>th</sup> May 2020 under my guidance in partial fulfillment of the requirement for the award "Master of Business Administration" in "SRI SIVANI COLLEGE OF ENGINEERING" which is affiliated to "JNTU Kakinada" is a record of bonafied work carried out by him under my guidance.

HEAD  
Department of Mgt Studies  
SriSivani  
CHILAKAPALEM  
~~CHILAKAPALEM~~

  
Project Guide

Mr.K.RAVI KUMAR, MBA, MHRM

Miss.J.Divya Jyothi,MBA

  
External Examiner



**SRI SIVANI COLLEGE OF ENGINEERING  
CHILAKAPALEM, SRIKAKULAM**

**CERTIFICATE**

This is to certify that the project work entitled *A Study On "COLLECTIVE BARGAINING"* with reference to *"RASHTRIYA ISPAT NIGAM LIMITED"* is a bonafied work done and submitted by **THANGI KANAKARAJU (Regd No.19W61E0052)**. In partial fulfillment of the requirements for the award of **"MASTER OF BUSINESS ADMINISTRATION"** in **"SRI SIVANI COLLEGE OF ENGINEERING"** which is affiliated to **"JNTU KAKINADA"** is a record of bonafied work carried out by him under my guidance.

  
HEAD  
of Mgt. Studie  
of Enge  
Srikulam  
**HOD**  
Mr. K. RAVI KUMAR, M.B.A, MHRM

  
**PROJECT GUIDE**  
Mrs. CH.KEERTHANA, M.B.A.

  
**EXTERNAL EXAMINER**




**SRI SIVANI COLLEGE OF ENGINEERING**

**CHILAKAPALEM, SRIKAKULAM**

**CERTIFICATE**

This is to certify that the project work entitled A Study on "JOB SATISFACTION" with reference to "NACL INDUSTRIES LIMITED" is a bonafied work done and submitted by, **SIGIREDDLSUNITHA REGD(NO.19W61E0048)** with duration of periods 6 weeks from 20-04-2020 to 30-05-2020. of In partial fulfillment of the requirements for the award of the degree of "MASTER OF BUSINESS ADMINISTRATION" in SRI SIVANI COLLEGE OF ENGINEERING is a record of bonafied work carried out by her under my guidance.

  
**HOD/HEAD**  
Department Of Mgt. Studie  
SriSivani College Of Enngg  
Chilakapalem, Srikakulam  
**Mr. K. RAVIKIRAN, M.B.A, MIRM**

  
**PROJECT GUIDE**

**Miss. J.DIVYJYOTHI, M.B.A**

  
**EXTERNAL EXAMINER**



**SRI SIVANI COLLEGE OF ENGINEERING**  
**CHILAKAPALEM, SRIKAKULAM**

**CERTIFICATE**

This is to certify that the project work entitled A Study On "ONLINE TRADING IN CAPITAL MARKET-NSE" is a bonafied work done and submitted by Mr MASTHAN SHEIK (Regd No19W61E0032) with a duration of 6weeks i.e., from 20<sup>th</sup> April 2020 to 30<sup>th</sup> May2020. In partial fulfillment of the requirements for the award of "MASTER OF BUSINESS ADMINISTRATION" in SRI SIVANI COLLEGE OF ENGINEERING is a record of bonafied work carried out by him under my guidance.

**HEAD**  
**Department of Mgt. Studie**  
**Department of Engg**  
**Sri Sivani College**  
**Srikakulam**  
**Mr. K.RAVI KUMAR, M.B.A, MHRM**

  
**PROJECT GUIDE**

**Dr.M.P.SURI GANESH**

  
**EXTERNAL EXAMINER**



**SRI SIVANI COLLEGE OF ENGINEERING**  
**CHILAKAPALEM, SRIKAKULAM**

**CERTIFICATE**

This is to certify that the project work entitled A Study on "TRAINING AND DEVELOPMENT" with reference to "SMART CIEM TECHNOLOGIES LIMITED PONNADA" is a bonafied work done and submitted by, SAHUKARI VINAY REGD NO.19W61E0047 with duration of periods 6 weeks from 20-04-2020 to 30- 05- 2020.of In partial fulfillment of the requirements for the award of the degree of "MASTER OF BUSINESS ADMINISTRATION" in SRI SIVANI COLLEGE OFENGINEERING is a record of bonafied work carried out by him under my guidance.

~~HEAD~~  
Department ~~of~~ ~~Study~~ ~~Stu~~  
SriSivani College Of Enyy  
Chilakapalem ,Srikakulam

**Mr. K. RAVI KUMAR,M.B.A,MHRM**

~~PROJECTGUIDE~~

**Mr. K. RAVI KUMAR, M.B.A,MHRM**

  
**EXTERNAL EXAMINER**



# SRI SIVANI COLLEGE OF ENGINEERING

(Affiliated to JNTU - KAKINADA)

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



## CERTIFICATE

This is to certify that the main project work entitled "Space Vector Modulation Based 31 Level Multi-Level Inverter for Nonlinear Loads" is being submitted by BARATAM HARITHA, (19W61D4303). This work Submitted to Department of Electrical & Electronics Engineering in partial fulfillment of the requirements for the award of Degree of Master of Technology during the academic year 2021.

Signature of the Guide

Date: 27/11/2021

Mr. N. Naga Srinivas

Assistant Professor

Department of E.E.E.

Signature of the HOD

Date: 27/11/2021

Mr. N. Naga Srinivas

Assistant Professor

Department of E.E.E.

**SRI SIVANI COLLEGE OF ENGINEERING**

(Accredited by NAAC, Affiliated to JNTU Kakinada),

Chilakapalem Jn., Srikakulam (A.P) - 532410

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**



**CERTIFICATE**

This is to certify that thesis entitled "Performance Analysis of Novel Cascaded Multilevel Inverter Topology" is being submitted by Mr. PAIDI BALARAJU, Regd No: 15W61D4307 in partial fulfillment of requirements for the award of the degree of Master of Technology in Power Electronics to the Department of Electrical and Electronics Engineering, Sri Sivani College of Engineering, Chilakapalem is a record of bonafide work carried out by his under my guidance and supervision. The results submitted in this thesis have been verified and are found to be satisfactory. The results embodied in this thesis have not been submitted to any other university for the award of the any other degree/diploma.

Signature of the Guide  
**Dr. G.T.CHANDRA SEKHAR**  
Assoc. Professor, Dept. of EEE

Signature of Head of the Department  
**Smt. A. SANTHI**  
Assoc. Professor, Dept. of EEE

Head of the Department  
Electrical & Electronics Engineering  
Sri Sivani College of Engineering  
Chilakapalem Jn., Srikakulam-532410

## SRI SIVANI COLLEGE OF ENGINEERING

(Accredited by NAAC, Affiliated to JNTU Kakinada), Chilakapalem in.,  
Srikakulam (A.P) - 532410 DEPARTMENT OF ELECTRICAL AND  
ELECTRONIS ENGINEERING




### CERTIFICATE

This is to certify that thesis entitled "Minimization of Power Quality Problems using Fuzzy logic Controller" is being submitted by Mr. T.SANTISWAROOP, Regd.No: 17W61D4312 in partial fulfillment of requirements for the award of the degree of Master of Technology in Power Electronics to the Department of Electrical and Electronics Engineering, Sri Sivani College of Engineering, Chilakapalem is a record of bonafide work carried out by him under my guidance and supervision. The results submitted in this thesis have been verified and are found to be satisfactory. The results embodied in this thesis have not been submitted to any other university for the award of the any other degree/diploma.

  
Signature of the Guide

B.SESHASAI

  
Signature of Head of the Department

Smt. A. SANTHI

Head of the Department  
Electrical & Electronics Engineering  
Sri Sivani College of Engineering  
Chilakapalem Jntu, Srikakulam-532402

**SRI SIVANI COLLEGE OF ENGINEERING**

(ISO 9001:2015 Certified, Affiliated to JNTU Kakinada).

Chilakapalem, Srikakulam (A.P) - 532410

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**



**CERTIFICATE**

This is to certify that thesis entitled "Impact of Unified Power Flow Controller plus Redox Flow Battery on Automatic Generation Control with a 2DOF-TID Controller" is being submitted by Ms. A. Padmini, Regd. No: 17W61D4302 in partial fulfillment of requirements for the award of the degree of Master of Technology in Power Electronics to the Department of Electrical and Electronics Engineering, Sri Sivani College of Engineering, Chilakapalem is a record of bonafide work carried out by her under my guidance and supervision. The results submitted in this thesis have been verified and are found to be satisfactory. The results embodied in this thesis have not been submitted to any other university for the award of the any other degree/diploma.

  
Signature of the Guide

**Dr. G.T.CHANDRA SEKHAR**

**Associate Professor**

  
Signature of Head of the Department

**Smt. A. SANTHI**

**Associate Professor**

Head of the Department  
Electrical & Electronics Engineering  
Sri Sivani College of Engineering  
Chilakapalem In., Srikakulam-532402

**SRI SIVANI COLLEGE OF ENGINEERING**  
(ISO 9001:2015 Certified, Affiliated to JNTU Kakinada).

Chilakapalem, Srikakulam (A.P) - 532410

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**




**CERTIFICATE**

This is to certify that thesis entitled "Design Analysis of Thyristor Controlled Series Capacitor for Load Frequency Control Problem" is being submitted by **PANDIRI SWARNALATHA**, Regd. No: 18W61D4312 in partial fulfilment of requirements for the award of the degree of Master of Technology in Power Electronics to the Department of Electrical and Electronics Engineering, Sri Sivani College of Engineering, Chilakapalem is a record of bonafide work carried out by her under my guidance and supervision. The results submitted in this thesis have been verified and are found to be satisfactory. The results embodied in this thesis have not been submitted to any other university for the award of the any other degree/diploma.

  
Signature of the Guide

**Dr. G.T.CHANDRA SEKHAR**  
Associate Professor

  
Signature of Head of the Department

**Smt. A. SANTHI**  
Associate Professor

Head of the Department  
Electrical & Electronics Engineering  
Sri Sivani College of Engineering  
Chilakapalem Jc, Srikakulam-532402

# SRI SIVANI COLLEGE OF ENGINEERING

(Accredited by NBA & NAAC)

(Approved by AICTE, Affiliation to JNTU-K)

CHILAKAPALEM Jn., SRIKAKULAM – 532402

Tel Fax: 08942231106

**Department of Electronics & Communication Engineering**



## CERTIFICATE

This is to certify that the major project report entitled "Implementation of Massive MIMO systems with Hybrid Space-Time Block Coded Spatial Modulation for 5G Communications" is being submitted by **ARIPAKA.PAVAN KUMAR** bearing (18W61D3801), in partial fulfillment of the requirement for the award of Master of Technology in Digital electronics and communication system to the Jawaharlal Nehru Technological University, Kakinada is a record of Bona fide work carried out by her under my/our guidance and supervision from 2018-2020.

The results presented in this thesis have been verified and are found to be satisfactory. The results embodied in this project have not been submitted to any other university for the award of any other degree or diploma.

  
**Project Guide**

**Mr. R. HARI PRASADA RAO, M.Tech**  
Assistant professor,  
Department of ECE.

  
**Head of the Department**

**Mr. R. HARI PRASADA RAO, M.Tech**  
Assistant professor,  
Head of the Dept., ECE

**HEAD**  
**Dept. of Electronics & Communication**  
**Sri Sivani College of Engg.**  
**Chilakapalem Jn., Srikakulam.**

**External Examiner**

# SRI SIVANI COLLEGE OF ENGINEERING

(Affiliated to Jawaharlal Nehru Technological University Kakinada, Kakinada)  
Chilakapalem Junction, Srikakulam-532410,

Andhra Pradesh.



## CERTIFICATE

This is to certify that the project report entitled "**IMAGE SPLICING FORGERY DETECTION BASED ON FUZZY LOGIC AND ARTIFICIAL NEURAL NETWORKS**" is submitted by **V.TEJASWINI (18W61D3806)**, in partial fulfilment of the requirements for the award of **Degree of Master Of Technology in Digital Electronics and Communication system** from **SRI SIVANI COLLEGE OF ENGINEERING**, Chilakapalem, Srikakulam, affiliated to the Jawaharlal Nehru Technological University Kakinada(JNTUK), during the academic year 2018-2020, is a Bona fide work carried out by student under my guidance and supervision.

**Project Guide**

Mr. N.P.V. Bhaskar Reddy, M. Tech

Associate professor,

Department of ECE.

**Head of the Department**

Sri D. Chiranjeevulu, M.Tech

Associate professor,

Department of ECE

**HEAD**

**Dept. of Electronics & Communication  
Sri Sivani College of Engg.  
Chilakapalem Jn., Srikakulam.**

**External Examiner**

# SRI SIVANI COLLEGE OF ENGINEERING

(Affiliated to Jawaharlal Nehru Technological University Kakinada,  
Kakinada) Chilakapalem Junction, Srikakulam-532410,

Andhra Pradesh.



## CERTIFICATE

This is to certify that the project report entitled "**A NOVEL DEEP LEARNING ALGORITHM FOR COPY MOVE FORGERY DETECTION IN DIGITAL IMAGES**" is submitted by **S.DHANA LAKSHMI (18W61D3805)**, in partial fulfilment of the requirements for the award of degree of **Master Of Technology in Digital Electronics and Communication Systems** from **SRI SIVANI COLLEGE OF ENGINEERING**, Chilakapalem, Srikakulam, affiliated to the **Jawaharlal Nehru Technological University Kakinada(JNTUK)**, during the academic year **2018-2020**, is a Bonafede work carried out by her under my guidance and supervision.

Project Guide

Mr. Allu Venkateswara Rao

Associate professor,

Department of ECE.

Head of the Department

Sri D. Chiranjeevulu,

Associate professor

Department of ECE

MEMO

Dept. of Electronics & Communication  
Sri Sivani College of Engg.  
Chilakapalem In., Srikakulam.



# SRI SIVANI COLLEGE OF ENGINEERING

(Accredited by NBA & NAAC)

(Approved by AICTE, Affiliation to JNTU-K)

CHILAKAPALEM, Jr., SRIKAKULAM - 532402

Tel Fax: 08942231106

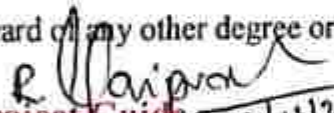
Department of Electronics & Communication Engineering



## CERTIFICATE

This is to certify that the major project report entitled "BLUETOOTH PROXIMITY BEACONS BASED NON-GPS REAL TIME PUBLIC BUS LOCATION TRACKING SYSTEM" is being submitted by **MATSA.AMALA** bearing **18W61D3803**, in partial fulfillment of the requirement for the award of Master of Technology in Digital electronics and communication system design to the Jawaharlal Nehru Technological University, Kakinada is a record of Bonafede work carried out by her under my/our guidance and supervision from 2018-2020.

The results presented in this thesis have been verified and are found to be satisfactory. The results embodied in this project have not been submitted to any other university for the award of any other degree or diploma.

  
**Project Guide** 18/12/2020  
**Mr. R. HARI PRASADA RAO., M Tech**  
Assistant professor,  
Department of ECE.

**HEAD**  
**Dept. of Electronics & Communication**  
**Sri Sivani College of Engg.**  
**Chilakapalem Jr., Srikakulam.**  
**Mr. D. CHIRANJEEVULU., M Tech**  
Associate professor,  
Head of the Dept., (ECE)

**External Examiner**

**SRI SIVANI COLLEGE OF ENGINEERING**  
**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**



**CERTIFICATE**

This is to certify that this project work entitled **EFFICIENT HEART DISEASE PREDICTION SYSTEM USING SEVERAL MACHINE LEARNING CLASSIFICATION ALGORITHMS** is the bonafide work carried out by **T.KAVYA (19W61D5812)** submitted in Partial fulfillment of the requirement for the Award of Degree of **Master of Technology** in Computer Science & Engineering, during the year 2019-2021.

  
Project Guide

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

**Associate Professor**  
**Head of the Department**  
Computer Science and Engineering  
Sri Sivani College of Engineering  
Nilikapalem In. Srikakulam

  
Head of The Department

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

**Associate Professor**  
**Head of the Department**  
Computer Science and Engineering  
Sri Sivani Col  
Nilikapalem

**DEPARTMENT OF COMPUTER SCIENCE ENGINEERING  
SRI SIVANI COLLEGE OF ENGINEERING**

(Approved by AICTE, Affiliated to JNTU-K, Accredited by NBA, NAAC & ISO 9001:2008 Certified)



**CERTIFICATE**

This is to certify that this project work entitled "A SPATIAL – TEMPORAL BASED NEXT FRAME PREDICTION AND UNSUPERVISED CLASSIFICATION OF VIDEO ANOMALIES IN REAL TIME ESTIMATION" is the bonafide work carried out by SWAPNAKUMARI SAHU (19W61D5811) submitted in Partial fulfillment of the requirement for the Award of Degree of **Master of Technology** in Computer Science & Engineering, during the year 2019-2021.

**Project Guide**  
**Dr.M.JayanthiRao, M.Tech, Ph.D**  
**Associate Professor**

**Head of The Department**  
**Dr.M.JayanthiRao, M.Tech, Ph.D**

**Head of the Department**  
Computer Science and Engineering,  
Sri Sivani Coll  
Tirukolur

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**  
**SRI SIVANI COLLEGE OF ENGINEERING**  
**(ACCREDITED BY NBA, NAAC APPROVED BY AICTE & AFFILIATED TO JNTU-K)**  
**(An ISO 9001:2008 Certified Organization)**



## **CERTIFICATE**

This is to certify that the project report titled "HOSPITALS QUALITY EVALUATION BY USING ML WITH DATA ANALYSIS" is being submitted by KIRANKUMAR SISTU, bearing HT NO:( 19W61D5806) in M.tech Computer Science & Engineering is a record bonafied work carried out by them. The results embodied in this project report have not been submitted by any other University for the award of any Degree.

  
Project Guide

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

**Associate Professor**  
**Head of the Department**  
Computer Science and Engineering  
Sri Sivani College of Engineering  
Chilakalapalem In. Srikakulam

  
Head of The Department

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

**Associate Professor**  
**Head of the Department**  
Computer Science and Engineering  
Sri Sivani College of Engineering  
Chilakalapalem In. Srikakulam

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING  
SRI SIVANI COLLEGE OF ENGINEERING  
(ACCREDITED BY NBA, NAAC APPROVED BY AICTE & AFFILIATED TO JNTU-K)  
(An ISO 9001:2008 Certified Organization)



## CERTIFICATE

This is to certify that the project report titled "PERFORMANCE EVALUATION OF CNN AND RNN ALGORITHMS FOR FACIAL EXPRESSION RECOGNITION" is being submitted by P. SIVACHAITANYA, bearing HT NO:(19W61D5810) in M.tech Computer Science & Engineering is a record bonafied work carried out by them. The results embodied in this project report have not been submitted by any other University for the award of any Degree.

Project Guide

Mr. SRINIVASA RAO KONNI, M.

Assistant Professor,

Project Guide

Dr. M. Jayanthi Rao, M.Tech, Ph.D

Associate Professor  
Head of the Department  
Computer Science and Engineering  
Sri Sivani College of Engineering  
Srikakulam Jn. Srikakulam

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING  
SRI SIVANI COLLEGE OF ENGINEERING  
(ACCREDITED BY NBA, NAAC APPROVED BY AICTE & AFFILIATED TO JNTU-K)  
(An ISO 9001:2008 Certified Organization)



## CERTIFICATE

This is to certify that the project report titled "DRIVER DROWSINESS DETECTION SYSTEM FOR PREVENTING ACCIDENTS USING VISUAL BEHAVIOUR AND MACHINE LEARNING ALGORITHMS" is being submitted by E.kartheek, bearing HT NO:(19W61D5803) in M.tech Computer Science & Engineering is a record bonafied work carried out by them. The results embodied in this project report have not been submitted by any other University for the award of any Degree.

Internal Guide

Mr. M.Murali Krishna, M.Tech  
Assistant Professor,  
CSE Department.

Head of the Department

Dr. M.Jayanthi Rao, M.Tech, Ph.D.

Professor,

Head of the Department  
CSE Department  
Computer Science and Engineering  
Sri Sivani College of Engineering  
Tulakapalem Jn. Srikakulam-532401