

**DETECTION OF LIVER CANCER USING IMAGE  
PROCESSING TECHNIQUES**

A

Main Project Report

Submitted in Partial fulfilment of the requirements for the Awards of the Degree  
of

**BACHELOR OF TECHNOLOGY**

IN

**ELECTRONICS AND COMMUNICATION ENGINEERING**

Submitted by

M.NARESH	19JE1A0451
A.HARIKA	19JE1A0421
P.AKANKANSHADIVYASRI	19JE1A0401
M.MERCY	19JE1A0445
N.GOPI	19JE1A0417

Under the esteemed Guidance of

**Mr. SK. FARMANULLA**, M.Tech

Asst. Professor, Dept. of ECE




**Department of Electronics and Communication Engineering**

**ESWAR COLLEGE OF ENGINEERING**

(Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada)

KESANUPALLI(V), NARASARAOPET, PALNADU(DIST), ANDHRAPRADESH

2019-2023

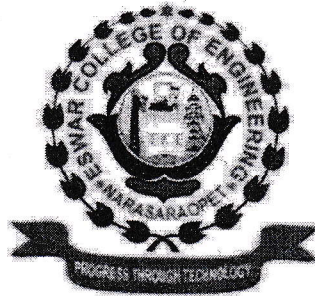
  
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**ESWAR COLLEGE OF ENGINEERING**  
NARASARAOPET-522 601, Guntur (D)



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KESANUPALLI(V),NARASARAOPET-522601, PALNADU(DIST)



## CERTIFICATE

This is certified that **M.NARESH,A.HARIKA,P.AKANKASHADIVYASRI, M.MERCY,N.GOPI** bearing the Regd No's:19JE1A0451,19JE1A0421,19JE1A0401, 19JE1A0445, 19JE1A0417 has carried out the main project work presented in this project report entitled "**DETECTION OF LIVER CANCER USING IAMGE PROCESSING TECHNIQUES**" for the award of **BACHELOR OF TECHNOLOGY** from **JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA** under supervision of **Mr. SK. FARMANULLA**, M.Tech. The project report embodies results of original work, and studies are carried out by the students themselves and the contents of the thesis do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.

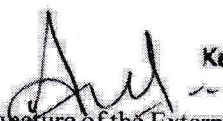
  
Signature of the supervisor

**Mr. SK. FARMANULLA**, M.Tech  
Project Supervisor  
Asst. Professor  
Department of ECE

  
Signature of the Head of the Department

**Dr. K. SANJEEVA RAO**, M.Tech, Ph.D  
Professor & Head of the Department  
Department of ECE,  
Eswar College of Engineering

**Department of ECE**  
**Eswar College of Engineering**  
Kesanupalli (V), Narasaraopet-522 549

  
Signature of the External Examiner

Date:

  
PRINCIPAL  
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**UNDER WATER IMAGE ENHANCEMENT VIA  
MINIMAL COLOR LOSS AND LOCALLY ADAPTIVE  
CONTRAST ENHANCEMENT**

A Project report Submitted  
In partial Fulfillment of the Requirements For the award  
of the Degree of

**BACHELOR OF TECHNOLOGY**

IN

**ELECTRONICS AND COMMUNICATION ENGINEERING**

Submitted by

CH. HEMAPRIYA	19JE1A0423
K.KAVYA	19JE1A0432
R.BHAGYA LAKSHMI	19JE1A0409
SK. GOUSYA DILKUSH	19JE1A0419

Under the esteemed Guidance of

**Mr.SK. MUNWAR ALI**, M. Tech, (Ph.D)  
Associate Professor, Department of ECE.



**Department of Electronics and Communication**

**Engineering, ESWAR COLLEGE OF ENGINEERING,**

(Approved by AICTE, New Delhi, Affiliated to JNTUK,

Kakinada) KESANUPALLI (V), NARASARAOPET,

PALNADU (DIST), ANDHRA PRADESH.

(2019-2023)

  
**PRINCIPAL**  
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NARASARAOPET-522 601, Guntur (DL)



# ESWAR COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada, AP)

KESANUPALLI (V), NARASARAOPET, PALNADU (DIST), ANDHRA PRADESH.



## CERTIFICATE

This is Certified that CH. HEMAPRIYA (Reg. No 19JE1A0423), K. KAVYA (Reg. No 19JE1A0432), R.BHAGYA LAKSHMI (Reg. No 19JE1A0409), SK.GOUSYA DILKUSH(Reg. No 19JE1A0419) are carried out the project work presented in this project entitled "UNDERWATER IMAGE ENHANCEMENT VIA MINIMAL COLOR LOSS AND LOCALLY ADAPTIVE CONTRAST ENHANCEMENT" for the award of Bachelor of Technology from JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINAD under supervision of Mr. SK. MUNWAR ALI, M.Tech,(Ph.D) The project embodies results of original work, and studies are carried out by the students our self and the contents of this project work do not submit for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.

  
Signature of the Supervisor

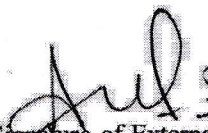
SK. MUNWAR ALI, M.Tech(Ph.D)  
Associate.Prof & Project Supervisor,  
Department, Department Of ECE,  
Eswar College of Engineering.

  
Signature of the Head of the department

Dr. K. SANJEEVA RAO, M.Tech(Ph.D)  
Professor & Head of the  
Department Of ECE,  
Eswar College of Engineering

**HOD**

**Department of ECE**  
**Eswar College of Engineering**  
**Kesanupalli (V), Narasaraopet-522 549**

  
Signature of External Examiner

Date:



**PRINCIPAL**  
**ESWAR COLLEGE OF ENGINEERING**  
NARASARAOPET-522 601, Guntur (Dt.)



# CLASS ATTENDANCE MANAGEMENT SYSTEM USING FACE RECOGNITION

A Project Report  
Submitted in Partial fulfilment of the requirements for the Awards of the Degree  
of

BACHELOR OF TECHNOLOGY  
IN  
ELECTRONICS AND COMMUNICATION ENGINEERING

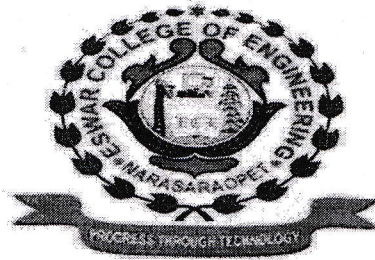
Submitted by

SHAIK ASIFA	19JE1A0406
BATTULA PRASANTHI	19JE1A0458
ATINA MAHESH BABU	19JE1A0442
NELLURI PRAVALLIKA	19JE1A0459
SHAIK MOHAMMAD KHALEETH	19JE1A0440

Under the esteemed Guidance of

Dr.K.SANJEEVA RAO,M.Tech,Ph.D

Head of the Dept of ECE



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**Department of Electronics and Communication Engineering,**

**ESWAR COLLEGE OF ENGINEERING,**

(Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada)

KESANUPALLI(V),NARASARAOPET, PALNADU(DIST),ANDHRAPRADESH

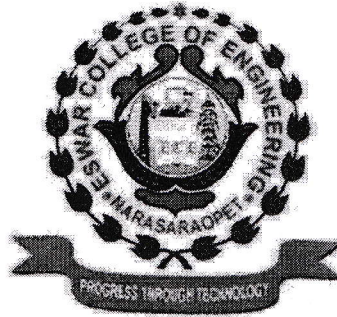
2019-2023



# ESWAR COLLEGE OF ENGINEERING


(Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada, AP)

KESANUPALLI(V),NARASARAOPET-522601, Palnadu Dist,



## CERTIFICATE


This is certified that **SHAIK ASIFA, BATTULA PRASANTHI, ATINA MAHESH BABU, NELLURI PRAVALLIKA, SHAIK MOHAMMAD KHALEETH** bearing the Regd No's: **19JE1A0406, 19JE1A0458, 19JE1A0442, 19JE1A0459, 19JE1A0440** has carried out the work presented in this project report entitled "**CLASS ATTENDANCE MANAGEMENT SYSTEM USING FACE RECOGNITION**" for the award of **BACHELOR OF TECHNOLOGY** from **JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA** under supervision of **Dr.K.SANJEEVA RAO, M.Tech, Ph.D.** The project report embodies results of original work, and studies are carried out by the student himself and the contents of the thesis do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.

  
Signature of the supervisor

**Dr. K. SANJEEVA RAO, M.Tech, Ph.D**  
Professor & Head of the Department  
Department of ECE

  
Signature of the Head of the Department

**Dr. K. SANJEEVA RAO, M.Tech, Ph.D**  
Professor & Head of the Department  
Department of ECE  
Department of ECE  
Eswar College of Engineering

  
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Signature of the External Examiner

Date:



**PRINCIPAL**  
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NARASARAOPET-522 601, Guntur (D1)



**REVERSIBLE DATA HIDING IN ENCRYPTED IMAGES  
WITH MULTIPLE DATA-HIDERS**

A Main Project Report

Submitted in Partial fulfillment of the requirements for the Award of the Degree  
of

**BACHELOR OF TECHNOLOGY**

IN

**ELECTRONICS AND COMMUNICATION ENGINEERING**

SUBMITTED BY

B.PRAVALLIKA	19JE1A0460
CH.MOUNIKA LAKSHMI	19JE1A0449
G.KASI REDDY	19JE1A0431
CH.PRAKASH REDDY	19JE1A0457
Y.G.L.NARASIMHA RAO	19JE1A0418

Under The Esteemed Guidance Of  
**V. MALLIKARJUNA RAO, M.Tech., (Ph.D)**

Professor, Department of ECE



Department of Electronics & Communication Engineering

**ESWAR COLLEGE OF ENGINEERING**

(Approved by AICTE & Affiliated to INTUK)

Kesanupalli (V), Narasaraopet (M), Palnadu (Dist),

2019-2023

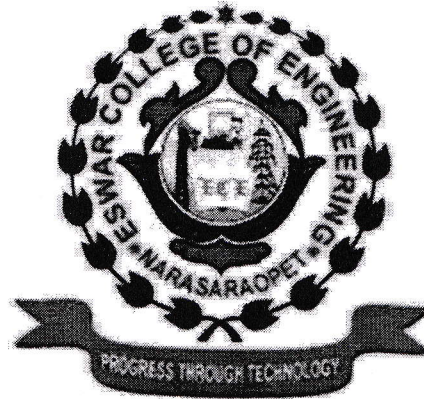
  
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# ESWAR COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada, AP)

KESANUPALLI(V),NARASARAOPET-522601, Palnadu Dist,



## CERTIFICATE

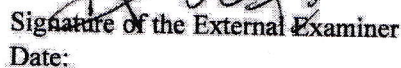
This is certified that **BATTU PRAVALLIKA, CHATTU MOUNIKA LAKSHMI, GUNTAKA KASI REDDY, CHILAKALA PRAKASH REDDY, YENIGANDLA GOPI LAKSHMI NARASIMHA RAO** bearing the Regd No's: **19JE1A0460, 19JE1A0449, 19JE1A0431, 19JE1A0457, 19JE1A0418** have carried out the project work presented in this project report entitled "**REVERSIBLE DATA HIDING IN ENCRYPTED IMAGES WITH MULTIPLE DATA HIDERS**" for the award of **BACHELOR OF TECHNOLOGY** from **JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA** during the academic year 2019-2023.

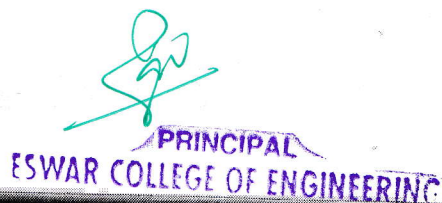
  
Signature of the supervisor

**V.MALLIKARJUNA RAO** M.Tech,(Ph.D)  
Project Supervisor  
Professor  
Department of ECE

  
Signature of the Head of the Department

**Dr. K. SANJEEVARAO** M.Tech,Ph.D  
Professor & Head of the Department  
Department of ECE **HOD**  
Eswar College of Engineering  
Department of ECE  
Eswar College of Engineering  
Kesanupalli (V), Narasaraopet-522 549

  
Signature of the External Examiner  
Date:

  
PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING



DESIGN AND ANALYSIS OF WALLACE TREE BASED  
MULTIPLIER USING APPROXIMATE FULL ADDER AND  
KOGGE STONE ADDER

A Main Project Report

Submitted in partial fulfillment of the requirements for the award of the Degree  
of

BACHELOR OF TECHNOLOGY  
IN  
ELECTRONICS AND COMMUNICATION ENGINEERING

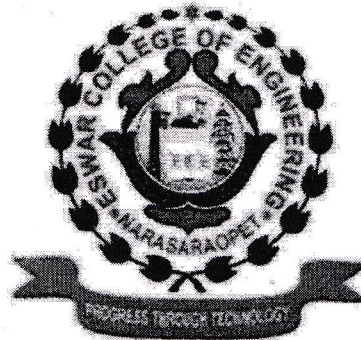
SUBMITTED BY


D.KALYAN	19JE1A0427
M.DEEPIKA	19JE1A0414
A.KAMESHWARAO	19JE1A0428
S.K.S.RAKESH	19JE1A0435
T.NARAYANA REDDY	19JE1A0450

Under the Esteemed Guidance of

V. MALLIKARJUNA RAO, M.Tech., (Ph.D.)

Professor, Department of ECE



  
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Department of Electronics & Communication Engineering

ESWAR COLLEGE OF ENGINEERING

(Approved by AICTE & Affiliated to JNTUK)

Kesanupalli (V), Narasaraopet (M), Palnadu (Dist),

2019-2023



# ESWAR COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada, AP)

KESANUPALLI(V),NARASARAOPET-522601, Palnadu Dist,



## CERTIFICATE


This is certified that D. KALYAN, M. DEEPIKA, A. KAMESHWARAO, S.K.S. RAKESH, T. HARAYANA REDDY bearing the Regd Nos: 19JE1A0427, 19JE1A0414, 19JE1A0428, 19JE1A0435, 19JE1A0450 have carried out the main project presented in this project report entitled "DESIGN AND ANALYSIS OF WALLACE TREE BASED MULTIPLIER USING APPROXIMATE FULL ADDER AND KOGGE STONE ADDER" for the award of BACHELOR OF TECHNOLOGY from JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA during the academic year 2019-2023.

  
Signature of the supervisor

MALLIKARJUNA RAO, M.Tech.(Ph.D)  
Project Supervisor  
Professor Department of ECE

  
Signature of the Head of the Department

Dr. K. SANJEEVA RAO, M.Tech., Ph.D  
Professor & Head of the Dept.  
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Eswar College of Engineering  
Kesanupalli (V), Narasaraopet-522 549

  
Signature of the External Examiner  
Date:

  
PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET-522 601, Guntur (Dt.).



**A ROBUST TEXT AUDIO STEGANOGRAPHY WITH  
IMPROVED CAPACITY**

A Project Report Submitted in Partial Fulfillment of the Requirements.  
For the Award of the Degree of

**BACHELOR OF TECHNOLOGY**

**IN**

**ELECTRONICS & COMMUNICATION ENGINEERING**

**SUBMITTED BY**

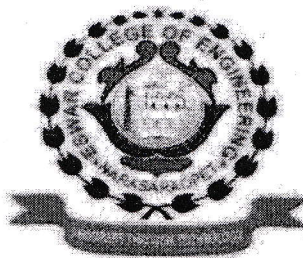
SHAIK NASEEMA	-	19JE1A0452
JANGILI MAHANTHI	-	19JE1A0441
BASTIPATI MALLIKARJUNA	-	19JE1A0443
SHAIK LATIF SAIDA	-	19JE1A0437
SHAIK MOHAMMAD RAFI	-	19JE1A0448

Under the esteemed guidance of

Mrs. SHAIK MONA M. Tech

Assistant Professor

Department of Electronics & Communication Engineering



**ESWAR COLLEGE OF ENGINEERING**

(Affiliated to Jawaharlal Nehru Technological University Kakinada, Kakinada)

Kesanupalli, Narasaraopet-522601, Palnadu Dt., A.P.

2019-2023

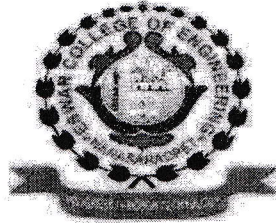


# ESWAR COLLEGE OF ENGINEERING

(Affiliated to Jawaharlal Nehru Technological University Kakinada, Kakinada)

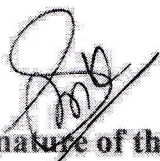
Kesanupalli, Narasaraopet-522601, Palnadu Dt., A.P.

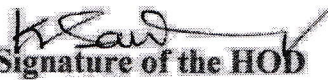
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING





## CERTIFICATE

This is to certify that the project work entitled "A ROBUST TEXT AUDIO STEGANOGRAPHY WITH IMPROVED CAPACITY" being submitted by SK NASEEMA (19JE1A0452), JANGILI MAHANTHI (19JE1A0441), BASTIPATI MALLIKARJUNA (19JE1A0443), SK LATTI SAIDA (19JE1A0437), SK MOHAMMAD RAFI (19JE1A0448) in partial fulfillment of the requirement for the award degree of Bachelor of Technology in Electronical & Communication Engineering to the Jawaharlal Nehru Technological University, Kakinada is a record of bonafied work carried out by him under my guidance and supervision. The results in this thesis have not been submitted to any other university or Institute for the award of any degree or diploma.

  
**Signature of the Guide**  
Mrs. SHAIK MONA, M.Tech  
Assistant Professor  
Department of ECE  
Eswar College Of Engineering

  
**Signature of the HOD**  
Dr. K. SANJEEVARAO, M.Tech, Ph.D.  
Professor & Head of the Department  
Department of ECE  
Eswar College Of Engineering  
Department of ECE  
Eswar College of Engineering  
Kesanupalli (V), Narasaraopet-522 549

  
**Signature of External Examiner**  
Date:

  
PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET-522 601, Guntur (DL)



**A STUDY ON VARIOUS TECHNIQUES FOR PLANT LEAF  
DISEASE DETECTION USING LEAF IMAGE**

A Main Project Report Submitted  
In Partial fulfillment of the requirements for the Awards of the  
Degree of  
BACHELOR OF TECHNOLOGY  
IN

ELECTRONICS AND COMMUNICATION ENGINEERING

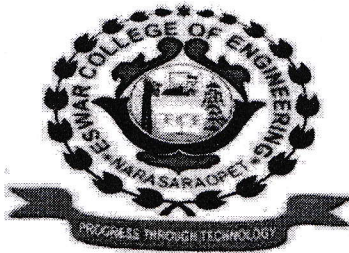
**SUBMITTED BY**

SK.ARIFA	19JE1A0404
M.NIKHILA	19JE1A0454
B.LAVANYA	19JE1A0438
B.JYOTHI	19JE1A0426
CH.CHANDRIKA	19JE1A0413

Under the esteemed Guidance of

**Mr.SK.FARMANULLA**, M.Tech

Asst.Professor, Dept.of ECE



**Department of Electronics and Communication Engineering**

**ESWAR COLLEGE OF ENGINEERING**

(Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada)

KESANUPALLI(V),NARASARAOPET,PALNADU(DIST),ANDHRARADESH

2019-2023

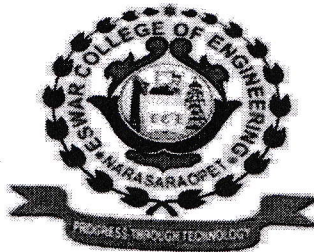
  
PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET-522 601, Guntur (Dt)



# ESWAR COLLEGE OF ENGINEERING

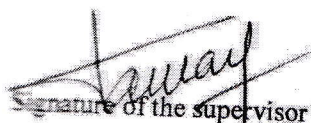
(Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada, AP)


KESANUPALLI(V), NARASARAOPET-522601, Guntur Dist,




## CERTIFICATE

This is certified that SK.ARIFA, M.NIKHILA, B.LAVANYA, B.JYOTHI, CH.CHANDRIKA bearing the RegdNo's: 19JE1A0404, 19JE1A0454, 19JE1A0438, 19JE1A0426, 19JE1A0413 has carried out the project work presented in this project report entitled "A STUDY ON VARIOUS TECHNIQUES FOR PLANT LEAF DISEASE DETECTION USING LEAF IMAGE" for the award of BACHELOR OF TECHNOLOGY from JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA under supervision of Mr.SK.FARMANULLA, M.Tech. The project report embodies results of original work, and studies are carried out by the student himself and the contents of the thesis do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.

  
Signature of the supervisor  
Mr. SK. FARMANULLA, M.Tech  
Project Supervisor  
Ass. Professor  
Department of ECE

  
Signature of the Head of the Department  
Dr. K. SANJEEVA RAO, M.Tech, Ph.D  
Professor & HOD of ECE  
Department of ECE,  
Eswar College of Engineering

  
Signature of the External Examiner.  
HOD  
Department of ECE  
Eswar College of Engineering  
Kesanupalli (V), Narasaraopet-522 549

Date:



PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET-522 601, Guntur (DL)



**A BRIEF REVIEW ON REVERSIBLE DATA HIDING IN  
ENCRYPTED VIDEO**

**A Main project report submitted  
In the partial fulfillment of the requirements for the award of the degree of**

**BACHELOR OF TECHNOLOGY**

**IN  
Electronics and Communication Engineering**

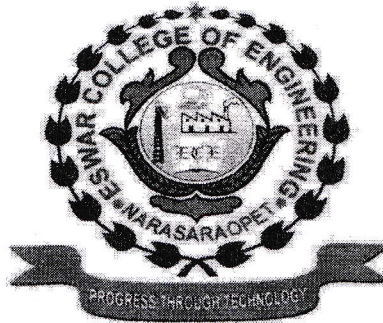
**by**

SHAIK.KARIMULLA	19JE1A0429
SHAIK.GHOUSE JILANI	19JE1A0416
VIDADALA P N VENKATESH	19JE1A0455
TAMATAM. GOVIND REDDY	19JE1A0420
TALLAPOGUHEMANTH ROY	19JE1A0424

**Under the esteemed Guidance of**

**Mrs.D.REKHA,M.TECH.,**

**Assistant Professor,  
Department OF ECE**



**Department of Electronics and Communication Engineering,  
Eswar College OF Engineering**

**(Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada)  
KESANUPALLI(V), NARASARAOPET, PALNADU(DIST), ANDHRA PRADESH  
(2019-2023)**

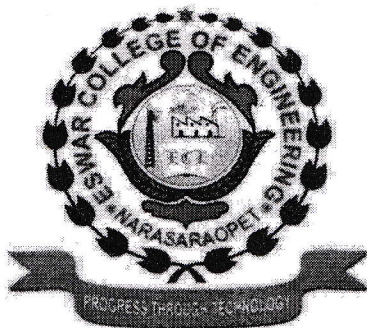
**ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET-522 501, GUNTUR DIST.**



# ESWAR COLLEGE OF ENGINEERING


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KESANUPALLI (V), NARASARAOPET-522549, Palnadu Dist, AP




## CERTIFICATE


This is certified that SHAIK KARIMULLA(19JE1A0429), SHAIK GHOUSE  
PLANN(19JE1A0416), VIDADALA P N VENKATESH(19JE1A0455), TAMATAM.GOVIND  
REDDY(19JE1A0420), TALLAPOGU HEMANTH ROY (19JE1A0424) have carried out the Main  
project work presented in this project entitled "A BRIEF REVIEW ON REVERSIBLE DATA  
HIDING IN ENCRYPTED VIDEO" for the award of Bachelor of Technology from  
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA under  
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University Institution.

  
Signature of the Supervisor.  
Mrs.D.REKHA, M.Tech  
Project Supervisor & Asst.Professor,  
Department Of ECE,  
Eswar College of Engineering.

  
Signature of the Head of the Department  
Dr.K.SANJEEVA RAO, Ph.D,M.Tech  
Head of the Department,  
Department Of ECE,  
Eswar College of Engineering.  
**HOD**

Department of ECE  
Eswar College of Engineering  
Kesanupalli (V), Narasaraopet-522 549

  
Signature of External Examiner  
Date:

  
PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET-522 601, Guntur (Dt.)



# IOT BASED SMART WASTE MANAGEMENT SYSTEM FOR SMART CITY

A

Main Project Report

Submitted in Partial fulfilment of the requirements for the Awards of the Degree of  
BACHELOR OF TECHNOLOGY

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

PAPANA MANISAI

19JE1A0444

DHARANIKOTA ASHOK KUMAR

19JE1A0405

SHAIK ASMA

19JE1A0407

SHAIK CHANDINI MUBEENA

19JE1A0412

DASARI KARTHIK

19JE1A0430

Under the esteemed Guidance of

Mrs. P. SAILAJA ,M.Tech

Asst. Professor, Dept. of ECE



**Department of Electronics and Communication Engineering,  
ESWAR COLLEGE OF ENGINEERING,**

(Approved by AICTE, New Delhi, Affiliated to JNTUK ,Kakinada)

KESANUPALLI(V),NARASARAOPET, PALNADU(DIST),ANDHRAPRADESH  
2019-2023

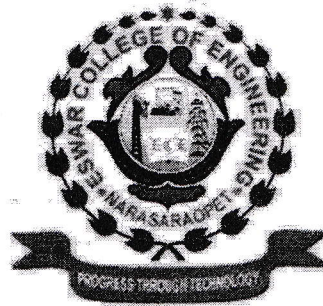
**PRINCIPAL**  
**ESWAR COLLEGE OF ENGINEERING**  
NARASARAOPET-522 601, Guntur (Dt)



# ESWAR COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada, AP)

KESANUPALLI(V),NARASARAOPET-522601, Palnadu Dist,



## CERTIFICATE

This is certified that PAPANA MANISAI, DHARANIKOTA ASHOK KUMAR, SHAIK ASMA, SHAIK CHANDINI MUBEENA, DASARI KARTHIK bearing the Regd No's: 19JE1A0444, 19JE1A0405, 19JE1A0407, 19JE1A0412, 19JE1A0430 has carried out the project work presented in this project report entitled "IOT BASED SMART WASTE MANAGEMENT SYSTEM FOR SMART CITY" for the award of BACHELOR OF TECHNOLOGY from JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA under supervision of Mrs. P. SAILAJA, M.Tech. The project report embodies results of original work, and studies are carried out by the student himself and the contents of the thesis do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.

*P. Sailaja*

Signature of the supervisor

Mrs. P. SAILAJA, M.Tech  
Project Supervisor  
Asst. Professor  
Department of ECE

*K. Sanjeeva Rao*  
Signature of the Head of the Department

Dr. K. SANJEEVA RAO, M.Tech, Ph.D  
Professor & Head of the Department  
Department of ECE,  
Eswar College of Engineering

**NOD**  
Department of ECE

Eswar College of Engineering  
Kesanupalli (V), Narasaraopet-522 549

*[Signature]*  
Signature of the External Examiner

Date

*[Signature]*  
PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET-522 601, Guntur (DL)



**AUTOMATION OF TRAFFIC CONTROL SYSTEM USING  
IMAGE MORPHOLOGICAL OPERATIONS**

A project submitted  
In the partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF TECHNOLOGY**

IN

**ELECTRONICS AND COMMUNICATION ENGINEERING**

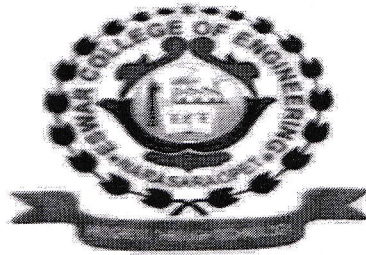
BY

Y.RAMYASRI	19JE1A0463
SK.RESHMA	19JE1A0466
K.SRILAKSHMI	20JE5A0403
SK.SHAKIRA	19JE1A0475
T.SAI KRISHNA	19JE1A0469

Under the esteemed Guidance of

Mrs. SHAIK MONA, ST Tech,

Asst. Professor, Dept of ECE.



Department of Electronics and Communication Engineering,

**ESWAR COLLEGE OF ENGINEERING,**

(Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada)

KESANUPALLI(V) NARASARAOPET, PALNADU (DIST), ANDHRA PRADESH.

(2019-2023)

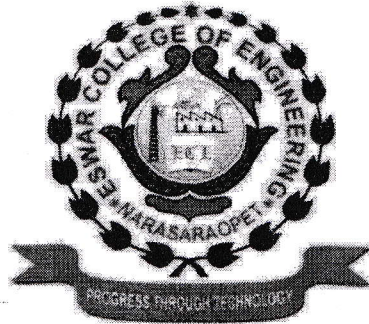
**PRINCIPAL**  
**ESWAR COLLEGE OF ENGINEERING**  
NARASARAOPET-522 601, Guntur



# ESWAR COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada)

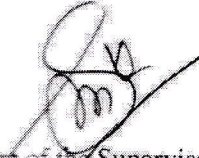
KE SANUPALLI(V) NARASARAOPET, PALNADU (DIST), ANDHRA PRADESH.

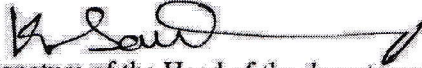


## CERTIFICATE

This is Certified that Y.RAMYASRI(Reg.No 19JEIA0463), SK.RESHMA(Reg.No 19JEIA0466), K.SRILAKSHMI(Reg.No 20JE5A0403),SK.SHAKIRA (Reg. No 19JEIA0475), T.SAURISHNA (Reg.No 19JEIA0469) are carried out the project work presented in this project report on entitled "Automation of Traffic Control System Using Image Morphological Operations" for the award of BACHELOR of Technology from JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA under supervision of MRS.SHAIK.MONA, M.Tech.

The project embodies results of original work, and studies are carried out by the students themselves and the contents of the project do not form the basis for the award of any other degree to the candidates or to anybody else from this or any other University/institution.

  
Signature of the Supervisor  
MRS. SHAIK MONA, M. Tech  
Asst. Prof & Project Supervisor,  
Department Of ECE,  
Eswar College of Engineering.

  
Signature of the Head of the department  
Dr. K. SANJEEVA RAO, M. Tech, Ph.D  
Professor & Head of the Department,  
Department Of ECE, **HOD**  
Department of ECE  
Eswar College of Engineering  
Kesanupalli (V), Narasaraopet-522 549

  
Signature of External Examiner:

Date:

  
PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET-522 601, Guntur (DL)



REAL-TIME SMART HOME SURVEILLANCE SYSTEM OF BASED  
ON ARDUINO UNO

A Project submitted in the partial fulfilment of the requirements for the  
award of the degree of

BACHELOR OF TECHNOLOGY

IN

Electronics and Communication Engineering

BY

U.RATHNA KOTESWARI	19JE1A0464
S.UMA MAHESHWARA RAO	20JE5A0407
G.SURESH	19JE1A0483
SD.UMAR FAROOK	19JE1A0489
P.RIZWANA	19JE1A0467

Under the esteemed Guidance of

Dr. K. SANJEEVARAO M.Tech., Ph.D

Professor & HOD,

Department Of ECE



Department of Electronics and Communication Engineering,

ESWAR COLLEGE OF ENGINEERING,

(Approved by AICTE, New Delhi, Affiliated to JNTUK,  
Kakinada) KESANUPALLI (V), NARASARAOPET,  
PALNADU(DIST), ANDHRA PRADESH.

(2019-2023)

PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING  
501, Guntur (V)

NARASARAOPET



# ESWAR COLLEGE OF ENGINEERING


(Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada, AP)  
KESANUPALLI (V), NARASARAOPET-522549, PalnaduDist, AP




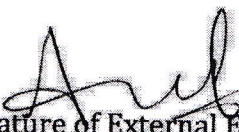
## CERTIFICATE


This is Certified that URATHNA KOTESWARI(Reg. No 19JE1A0464),S.UMA MAHESHWARA RAO(Reg.No.20JE5A0407),G.SURESH(Reg.No. 19JE1A0483),SD.UMAR FAROOK (Reg. No 19JE1A0489), P.RIZWANA (Reg. No. 19JE1A0467) has carried out the project work presented in this project report entitled "REAL-TIME SMART HOME SURVEILLANCE SYSTEM OF BASED ON ARDUINO UNO" for the award of Bachelor of Technology from JAWAHARLALNEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA under our supervision.

The project report embodies results of original work, and studies are carried out by the students ourselves and the contents of the project do not form the basis for the award of any other degree to the candidates or to anybody else from this or any other University/Institution.

  
Signature of the supervisor  
DR.K.SANJEEVA RAO,M.Tech.,Ph.D  
Project Supervisor & Prof  
Department of ECE  
Eswar College of Engineering.

  
Signature of the Head of the department  
DR.K.SANJEEVA RAO,M.Tech,Ph.D  
Project Supervisor & Prof  
Department of ECE **HOD**  
Eswar College of Engineering  
Department of ECE  
Eswar College of Engineering  
Kesanupalli (V), Narasaraopet-522 549

  
Signature of External Examiner  
Date:

  
PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET-522 601, Guntur (Dt.)



# Hardware Realization of Low Power and Area Efficient of Vedic MAC in DSP Filters

A project report submitted  
In the partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF TECHNOLOGY**  
IN

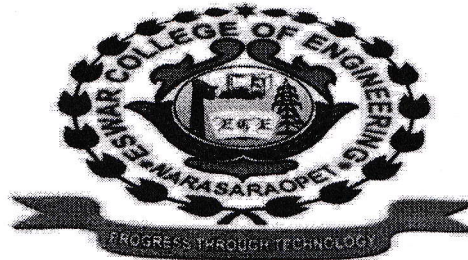
**Electronics and Communication Engineering**

BY

<b>K. SAIDEEPA</b>	<b>19JE1A0468</b>
<b>K.M. PRIYANKA</b>	<b>20JE5A0404</b>
<b>A. YAMUNA</b>	<b>19JE1A04A3</b>
<b>D.V. ANJANEYULU</b>	<b>19JE1A0496</b>
<b>M.VAMSI</b>	<b>19JE1A0491</b>

Under the esteemed Guidance of

Mrs. D. REKHA, M. Tech,  
Assistant Professor,  
Department Of ECE.



Department of Electronics and Communication Engineering,

**ESWAR COLLEGE OF ENGINEERING**

(Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada)  
KESANUPALLI (V), NARASARAOPET, PALNADU (DIST), ANDHRA PRADESH.  
(2022-2023)

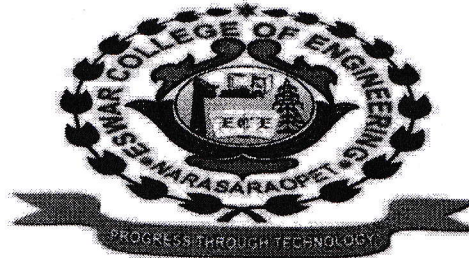
  
PRINCIPAL  
**ESWAR COLLEGE OF ENGINEERING**  
NARASARAOPET-522 601, Guntur (DL)



# ESWAR COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada, AP)


KESANUPALLI (V), NARASARAOPET-522549, Guntur Dist, AP





## CERTIFICATE


This is Certified that K. SAIDEEPA (Reg. No 19JE1A0468), K.M.PRIYANKA (Reg. No 20JE5A0404),  
K. RAMENA (Reg. No 19JE1A04A3), D.V.ANJANEYULU (Reg. No 19JE1A0496), M.VAMSI (Reg.  
No 19JE1A0491) are carried out the project work presented in this project report on entitled "Hardware  
Simulation of Low Power and Area Efficient of Vedic Mac in DSP Filters" for the award of Bachelor  
of Technology from JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA  
under my supervision.

The project report embodies results of original work, and studies are carried out by the students  
themselves and the contents of the project do not form the basis for the award of any other degree to the  
candidates or to anybody else from this or any other University/Institution.

  
Supervisor  
M. Tech  
Assistant Supervisor & Asst. Prof.  
Department of ECE  
Eswar College of Engineering.

  
Signature of the Head of the department  
Mr. Dr. K. SANJEEVA RAO, M.Tech., PhD  
Head of the Department,  
Department Of ECE,  
Eswar College of Engineering  
Department of ECE  
Eswar College of Engineering  
Kesanupalli (V), Narasaraopet-522 549

  
Signature of External Examiner  
Date:

  
PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET-522 601, Guntur (DL)



# 3-LEVEL AUTHENTICATION FOR BANK LOCKER SECURITY

A project submitted

In the partial fulfillment of the requirements for the award of the degree of

## BACHELOR OF TECHNOLOGY

IN

## ELECTRONICS AND COMMUNICATION ENGINEERING

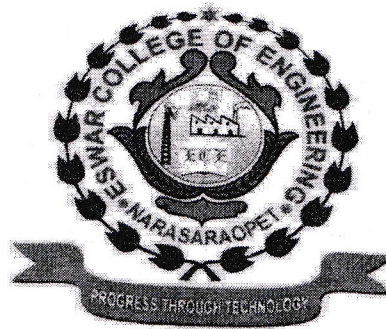
Submitted by

D.SRINIVASA RAO	19JE1A0480
P.VIJAYA	19JE1A04A2
B.TEJA SRI	19JE1A0485
SK.SANA SULTHANA	19JE1A0474
S.RAMA SAILESH	20JE5A0409

Under the esteemed Guidance of

**Mrs. P. SAILAJA**, M.Tech.

Asst. Professor, Dept of ECE.



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING,


**ESWAR COLLEGE OF ENGINEERING,**

(Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada)

**KESANUPALLI (V), NARASARAOPET, PALNADU (DIST),**

**ANDHRA PRADESH.**

(2019-2023)

  
PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET-522 601, Guntur (DL)



**ESWAR COLLEGE OF ENGINEERING**  
(Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada, AP)  
**KESANUPALLI (V), NARASARAOPET, PALNADU (DIST),**  
**ANDHRA PRADESH.**



**CERTIFICATE**

This is Certified that **D. SRINIVASARAO** (Reg. No 19JE1A0480) **P.VIJAYA** (Reg. No 19JE1A04A2) **B.TEJA SRI** (Reg.No 19JE1A0485) **SK.SANA SULTHNA** (Reg.No 19JE1A0474) **S.RAMA SAILESH** (Reg.No 20JE5A0409) has carried out the project work presented in this main project entitled "3-Level Authentication for Bank Locker Security" for the award of Bachelor of Technology from **JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA** under the supervision of **Mrs.P.SAILAJA, M.Tech** the project embodies results of original work, and studies are carried out by the student him-self and the contents of the project do not form the basis for the award of any other degree to the candidate or anybody else from this or any other University/Institution.

*P. SAILAJA*  
Signature of the Supervisor  
**P. SAILAJA, M. Tech**  
Asst Prof & Project Supervisor,  
Department Of ECE,  
Eswar College of Engineering.

*K. Sanjeeva Rao*  
Signature of the Head of the department  
**Dr. K. SANJEEVA RAO, M. Tech, Ph. D**  
Professor & Head of the Department,  
Department Of ECE, **HOD**  
Eswar College of Engineering  
Department of ECE  
Eswar College of Engineering  
Kesanupalli (V), Narasaraopet-522 549

*[Signature]*  
Signature of External Examiner  
Date:

*[Signature]*  
**PRINCIPAL**  
**ESWAR COLLEGE OF ENGINEERING**  
NARASARAOPET-522 601, Guntur (Dist.)



**AN ANALYSIS OF LPC, RASTA & MFCC TECHNIQUES BY  
USING SPEECH RECOGNITION SYSTEM**

**A project report submitted  
in the partial fulfilment of the requirements for the award of the degree of**

**BACHELOR OF TECHNOLOGY**

**IN**

**ELECTRONICS AND COMMUNICATION ENGINEERING**

*Submitted by:*

<b>SK. SUMERA</b>	<b>19JE1A0481</b>
<b>B. VENKAYAMMA</b>	<b>19JE1A04A1</b>
<b>D.SAI KRISHNA</b>	<b>19JE1A0472</b>
<b>SD. SALIMA</b>	<b>19JE1A0473</b>
<b>P.V. RAMA KRISHNA</b>	<b>20JE5A0406</b>

**Under the esteemed Guidance of**

**Mr. J. VISHNUMURTHY, M. Tech.**

**Asst. Professor, Dept. of ECE.**



**Department of Electronics and Communication Engineering,**

**ESWAR COLLEGE OF ENGINEERING,**  
(Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada)  
**KESANUPALLI (V), NARASARAOPET, PALNADU (DIST),**  
**ANDHRA PRADESH.**

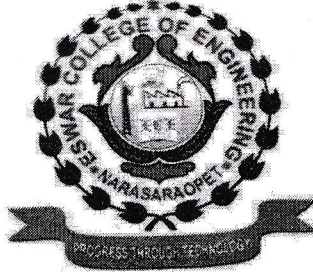
**2019-2023**

  
**PRINCIPAL**  
**ESWAR COLLEGE OF ENGINEERING**  
**NARASARAOPET-522 601, Guntur (Dt)**



# ESWAR COLLEGE OF ENGINEERING


Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada, AP)  
KESANUPALLI (V), NARASARAOPET, PALNADU (DIST),  
ANDHRA PRADESH.




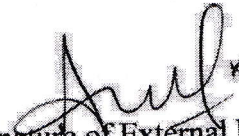
## CERTIFICATE

This is Certified that SK. SUMERA (Reg. No 19JE1A0481), B. VENKAYAMMA (Reg.No19JE1A04A1), D.SAIKRISHNA (Reg.No19JE1A0472), SD.SALIMA (Reg.No19J1 19J1), P.V.RAMA KRISHNA (Reg.No20JE5A0406) has carried out the project work presented in this main project entitled "AN ANALYSIS OF LPC, RASTA & MFCC TECHNIQUES BY USING SPEECH RECOGNITION SYSTEM" for the award of Bachelor of Technology from JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA under our supervision.

The project report embodies results of original work, and studies are carried out by the student ourselves and the contents of the project report do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.

  
Signature of the Supervisor:  
E.VISENUMURTHY, M.Tech.  
Asst.Prof & Project Supervisor,  
Department Of ECE,  
Eswar College of Engineering.

  
Signature of the Head of the department:  
Dr. K. SANJEEVA RAO, M.Tech, Ph.D  
Professor & Head of the Department,  
Department Of ECE,  
Eswar College of Engineering,  
Department of ECE  
Eswar College of Engineering  
Kesanupalli (V), Narasaraopet-522 549

  
Signature of External Examiner:  
Date:

  
PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET-522 601, Guntur (Dt.)



**AN ANALYSIS OF LPC, RASTA & MFCC TECHNIQUES BY  
USING SPEECH RECOGNITION SYSTEM**

A project report submitted  
in the partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF TECHNOLOGY**

**IN**

**ELECTRONICS AND COMMUNICATION ENGINEERING**

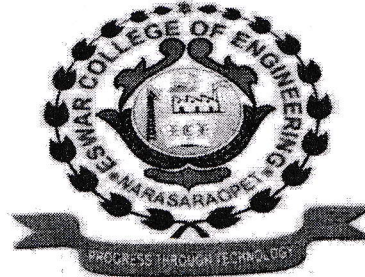
*Submitted by*

<b>SK. SUMERA</b>	<b>19JE1A0481</b>
<b>B. VENKAYAMMA</b>	<b>19JE1A04A1</b>
<b>D.SAI KRISHNA</b>	<b>19JE1A0472</b>
<b>SD. SALIMA</b>	<b>19JE1A0473</b>
<b>P.V. RAMA KRISHNA</b>	<b>20JE5A0406</b>

Under the esteemed Guidance of

**Mr. J. VISHNUMURTHY, M. Tech.**

Asst. Professor, Dept. of ECE.




**Department of Electronics and Communication Engineering,**

**ESWAR COLLEGE OF ENGINEERING,**

(Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada)  
**KESANUPALLI (V), NARASARAOPET, PALNADU (DIST),  
ANDHRA PRADESH.**

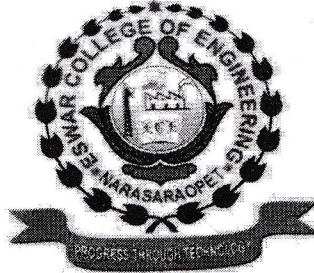
2019-2023

  
**PRINCIPAL**  
**ESWAR COLLEGE OF ENGINEERING**  
NARASARAOPET-522 601, Guntur (Dt)



# ESWAR COLLEGE OF ENGINEERING


Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada, AP)  
KESANUPALLI (V), NARASARAOPET, PALNADU (DIST),  
ANDHRA PRADESH.





## CERTIFICATE


This is Certified that SK. SUMERA (Reg. No 19JE1A0481), B. VENKAYAMMA (Reg.No19JE1A04A1), D.SAIKRISHNA (Reg.No19JE1A0472), SD.SALIMA (Reg.No19J1A0473), P.V.RAMA KRISHNA (Reg.No20JE5A0406) has carried out the project work presented in this main project entitled "AN ANALYSIS OF LPC, RASTA & MFCC TECHNIQUES BY USING SPEECH RECOGNITION SYSTEM" for the award of Bachelor of Technology from JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA under our supervision.

The project report embodies results of original work, and studies are carried out by the student ourselves and the contents of the project report do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University Institution.

  
Signature of the Supervisor:  
VISHNUMURTHY, M.Tech  
Asst.Prof & Project Supervisor,  
Department Of ECE,  
Eswar College of Engineering.

  
Signature of the Head of the department:  
Dr. K. SANJEEVA RAO, M.Tech, Ph.D  
Professor & Head of the Department,  
Department Of ECE,  
Eswar College of Engineering,  
Department of ECE,  
Eswar College of Engineering  
Kesanupalli (V), Narasaraopet-522 549

  
Signature of External Examiner:  
Date:

  
PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET-522 601, Guntur (Dt.)



# SMART MONITORING SYSTEM FOR AGRICULTURE FIELDS

A project submitted  
In the partial fulfillment of the requirements for the award of the degree of

## BACHELOR OF TECHNOLOGY

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

M.ASMA	20JE5A0405
K.SAI LAKSHMI PRASANNA	19JE1A0470
M.VENKATESWARLU	19JE1A04A0
T.VAISHNU	19JE1A0490
D.RAVI TEJA	19JE1A0465

Under the esteemed Guidance of

**Mr.SK. FARMANULLA**, M.Tech.  
Asst. Professor, Dept of ECE.



Department of Electronics and Communication Engineering,


**ESWAR COLLEGE OF ENGINEERING,**

(Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada)

**KESANUPALLI (V), NARASARAOPET, PALNADU (DIST),**

**ANDHRA PRADESH.**

(2019-2023)

  
**PRINCIPAL**  
**ESWAR COLLEGE OF ENGINEERING**  
NARASARAOPET-522 801, Gunt.



# ESWAR COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada, AP)


KESANUPALLI (V), NARASARAOPET, PALNADU (DIST),

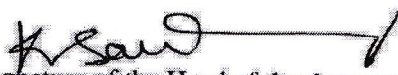
ANDHRA PRADESH.




## CERTIFICATE

This is Certified that M. ASMA (Reg. No 20JE5A0405), K. SAILAKSHMI PRASANNA (Reg. No 19JE1A0470), M.VENKATESWARLU (Reg. No 19JE1A04A0), T.VAISHNU (Reg. No 19JE1A0409), & DR.AVI TEJA (Reg. No 19JE1A0465) are carried out the project work presented in this project entitled "SMART MONITORING SYSTEM FOR AGRICULTURE FIELDS" for the award of Bachelor of Technology from JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA under supervision of Mr.Sk.FARMANULLAH, M.Tech. The project embodies results of original work, and studies are carried out by the students on their own and the contents of this project work do not submit for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.

  
Signature of the Supervisor  
MR. FARMANULLA, M. Tech  
Asst. Prof & Project Supervisor,  
Department Of ECE,  
Eswar College of Engineering.

  
Signature of the Head of the department  
Dr. K. SANJEEVA RAO, M. Tech, Ph. D  
Professor & Head of the Department,  
Department Of ECE,  
Eswar College of Engineering,  
Kesanupalli (V), Narasaraopet-522 549

  
Signature of External Examiner  
Date: \_\_\_\_\_

  
PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET-522 601, Guntur (Dt)



# Anti-theft and Tracking Mechanism for Vehicles using GSM

A Project submitted in the partial fulfillment of the  
requirements for the award of the degree of

## BACHELOR OF TECHNOLOGY

IN

### Electronics and Communication Engineering

BY

K.TEJESWARI	19JE1A0486
V.PRIYANKA	19JE1A0461
P.SHALEM RAJAREDDY	19JE1A0476
P.VEERABABU	19JE1A0494
G.THIRUPATHIRAO	19JE1A0487

Under the esteemed Guidance of

Dr. K. SANJEEVARAO M.Tech., Ph.D

Professor & HOD,

Department Of ECE



Department of Electronics and Communication Engineering,

**ESWAR COLLEGE OF ENGINEERING,**  
(Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada)  
KESANUPALLI (V), NARASARAOPET, PALNADU(DIST),  
ANDHRA PRADESH.

(2019-2023)

PRINCIPAL ENGINEERING

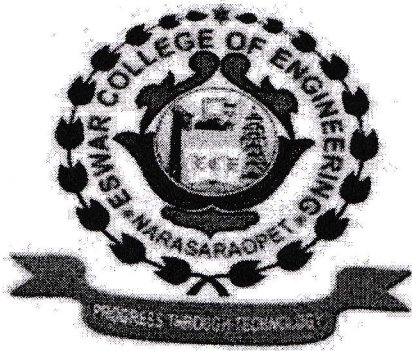
ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET - 522 601, Guntur



# ESWAR COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada, AP)

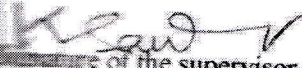
KESANUPALLI (V), NARASARAOPET-522549, Palnadu Dist, AP




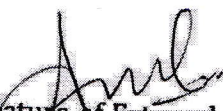
## CERTIFICATE


This is Certified that K. TEJESWARI (Reg. No 19JE1A0486), V. PRIYANKA (Reg. No. 19JE1A0461), P.SHALEM RAJAREDDY (Reg. No. 19JE1A0476), P.VEERABABU (Reg. No 19JE1A0494), G.THIRUPATHIRAO (Reg. No. 19JE1A0487) has carried out the project work presented in this project report entitled "Anti-theft and Tracking Mechanism for Vehicles using GSM" for the award of Bachelor of Technology from JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA under our supervision.

The project report embodies results of original work, and studies are carried out by the students ourselves and the contents of the project do not form the basis for the award of any other degree to the candidates or to anybody else from this or any other University/Institution.

  
Signature of the supervisor  
DR. K. SANJEEVA RAO, M.Tech., Ph.D  
Project Supervisor & Asst. Prof  
Department of ECE  
Eswar College of Engineering.

  
Signature of the Head of the department  
DR. K. SANJEEVA RAO, M.Tech., Ph.D  
Project Supervisor & Asst. Prof  
Department of ECE  
Eswar College of Engineering  
Kesanupalli (V), Narasaraopet-522549

  
Signature of External Examiner  
Date: \_\_\_\_\_

  
PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET-522 601, Guntur (Dt.)



**AUTOMATIC SEGMENTATION OF MR BRAIN IMAGES  
FOR TUMOR EXTRACTION AND EVALUATION**

*A project submitted*

*In the partial fulfilment of the requirements for the award of the degree of*

**BACHELOR OF TECHNOLOGY  
IN  
ELECTRONICS AND COMMUNICATION ENGINEERING**

*Submitted by*

SHAIK JANIBABU	20JE5A0408
SHAIK SHARMILA BEGUM	19JE1A0477
KALYANAM VASAVI MANORAMA	19JE1A0493
INKOLLU VENKAT BHARGAV	19JE1A0495
GUNDA AMARA RAMA BRAHMA SURENDRA	20JE5A0402

*Under the supervision of*

Mr. SK. MUNWAR ALI, M. Tech, (Ph.D)

Associate Professor, Department of ECE



Department of Electronics and Communication Engineering,  
**ESWAR COLLEGE OF ENGINEERING,**

(Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada)

KESANUPALLI (V), NARASARAOPET, PALNADU (DIST),

ANDHRA PRADESH.

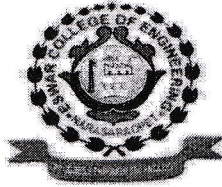
(2019-2023)

PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET-522 601, Guntur (DL)



# ESWAR COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada, AP)  
KESANUPALLI(V), NARASARAOPET-522601, PALNADU Dist., AP



## CERTIFICATE

This is certified that SHAIK JANIBABU, SHAIK SHARMILA BEGUM, KALYANAM VASAVI MANORAMA, INKOLLU VENKAT BHARGAV, GUNDA AMARA RAMABRAHMA SURENDRA bearing the Regd No's: 20JE5A0408, 19JE1A0477, 19JE1A0493, 19JE1A0495, 20JE5A0402 has carried out the project work presented in this project report entitled "AUTOMATIC SEGMENTATION OF MR BRAIN IMAGES FOR TUMOR EXTRACTION AND EVALUATION" for the award of BACHELOR OF TECHNOLOGY from JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA under supervision of SK.MUNWAR ALI, M.Tech.,(Ph.D). The project report embodies results of original work, and studies are carried out by the student himself and the contents of the thesis do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.

  
Signature of the Supervisor:

Mr. SK. MUNWAR ALI, M. Tech. (Ph.D.)

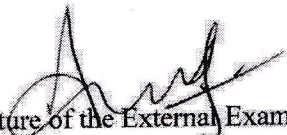
Project supervisor,  
Associate professor

  
Signature of the Head of department:


Dr. K. SANJEEVA RAO, M. Tech. Ph. D

Professor & Head of department,

Department of ECE  
Department of ECE  
Eswar College of Engineering  
Kesanupalli (V), Narasaraopet-522 549

  
Signature of the External Examiner:

Date:

  
PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET-522 601, Guntur (Dt.)



**A NOVEL SIGNATURE FORGERY DETECTION BY  
USING MATLAB**

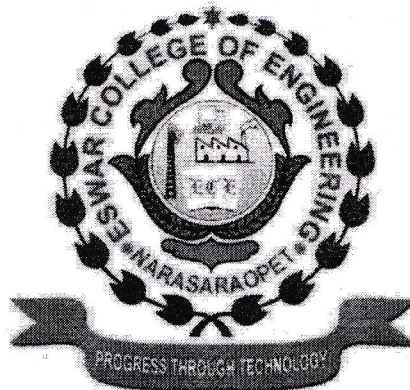
**A Project Report submitted  
In the partial fulfillment of the requirements for the award of the degree of**

**BACHELOR OF TECHNOLOGY  
IN  
ELECTRONICS AND COMMUNICATION ENGINEERING**

**SUBMITTED BY**

<b>K. HARITHA</b>	<b>19JE1A0422</b>
<b>R. ANUSHA</b>	<b>19JE1A0403</b>
<b>K. BHASKAR</b>	<b>19JE1A0410</b>
<b>SD. M. GULAM SAROOR</b>	<b>19JE1A0446</b>
<b>K. NAVEEN</b>	<b>19JE1A0410</b>


**Under the esteemed Guidance of  
MS.R. BHUVANESWARI, M.TECH.  
Assistant Professor, Department Of ECE.**



**Department of Electronics and Communication Engineering,  
ESWAR COLLEGE OF ENGINEERING**

**(Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada)**

**KESANUPALLI(V), NARASARAOPET, PALNADU (DIST), ANDHRA PRADESH  
2019-2023**

  
**PRINCIPAL  
ESWAR COLLEGE OF ENGINEERING  
NARASARAOPET-522 601, Guntur (Dt)**



# ESWAR COLLEGE OF ENGINEERING


(Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada, AP)

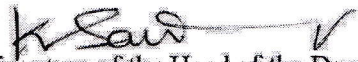
KESANUPALLI (V), NARASARAOPET-522601, Palnadu Dist, AP




## CERTIFICATE


This is certified that **K.HARITHA, R.ANUSHA, K.BHASKAR, SD.M.GILAM SAROOR, K.NAVEEN** bearing the Regd.No's:19JE1A0422, 19JE1A0403, 19JE1A0410, 19JE1A0446, 19JE1A0453 has carried out the research work presented in this main project entitled "**A NOVEL SIGNATURE FOREGERY DETECTION BY USING MATLAB**", for the award of Bachelor of Technology from **JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA** under my supervision of **MS.R.BHUVANESWARI, M.Tech.** The project embodies results of original work and studies are carried out by the students our self and the contents of this project work do not submit for the award of any other degree to this University/Institution or any other University/Institution.

  
Signature of the Supervisor  
**MS.R.BHUVANESWARI, M.Tech**  
Project Supervisor & Asst. Professor  
Department Of ECE,  
Eswar College of Engineering.

  
Signature of the Head of the Department  
**Dr. K.SANJEEVA RAO, M.Tech., Ph.D**  
Professor & HOD,  
Department Of ECE, **HOD**  
Department of ECE  
Eswar College of Engineering  
Kesanupalli (V), Narasaraopet-522 549

  
Signature of External Examiner

Date:

  
**PRINCIPAL**  
**ESWAR COLLEGE OF ENGINEERING**  
NARASARAOPET-522 601, Guntur (DL)



# A LOW POWER 4-BIT ARITHMETIC LOGIC UNIT USING FULL SWING GDI TECHNIQUE

A Main Project Report  
Submitted in Partial fulfillment of the requirements for the Award of the Degree of  
**BACHELOR OF TECHNOLOGY**  
IN  
**ELECTRONICS AND COMMUNICATION ENGINEERING**

SUBMITTED BY

SK.KHAJAVALI	19JE1A0433
E.DEVA KALYAN	19JE1A0415
SK.BAJI BABA	19JE1A0408
G.KRISHNA REDDY	19JE1A0434
SK.JABEEN	19JE1A0425

Under The Esteemed Guidance Of

**Mr.J.VISHNUMURTHY**, M.Tech

Assistant Professor, Department of ECE



Department of Electronics & Communication Engineering

**ESWAR COLLEGE OF ENGINEERING**

(Approved by AICTE & Affiliated to JNTUK)

Kesanupalli (V), Narasaraopet(M), Palnadu (Dist)

2019-2023

PRINCIPAL

**ESWAR COLLEGE OF ENGINEERING**

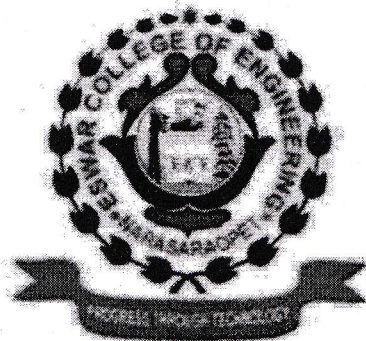
NARASARAOPET-522 601, Guntur (Dt.)



# ESWAR COLLEGE OF ENGINEERING


(Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada, AP)


KESANUPALLI(V),NARASARAOPET-522601, Palnadu Dist,

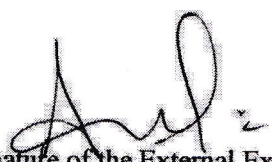


## CERTIFICATE

This is certified that **SHAIK KHAJAVALI, EEPi DEVA KALYAN, SHAIK BAJI BABA, GOGULAMUDI KRISHNA REDDY, SHAIK JABEEN** bearing the Regd No's:19JE1A0433, 19JE1A0415, 19JE1A0408, 19JE1A0434, 19JE1A0425 has carried out the project part-2 work presented in this project report entitled "A LOW POWER 4-BIT ARITHMETIC LOGIC UNIT USING FULL SWING GDI TECHNIQUE" for the award of **BACHELOR OF TECHNOLOGY** from **JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA**, under the supervision of **Mr. J.VISHNUMURTHY, M.Tech.** The project report embodies results of original work, and studies are carried out by the student himself and the contents of the thesis do not form the basis for the award of any other degree to the candidate or to anybody else from from this or this or any other University/Institution.

  
Signature of the supervisor  
**J.VISHNUMURTHY M.Tech.**  
Project Supervisor,  
Assistant Professor,  
Department of ECE.

  
Signature of the Head of the Department  
**Dr. K. SANJEEVA RAO M.Tech, Ph.D.**  
Professor & HOD,  
Department of ECE,  
Eswar College of Engineering,  
Department of ECE  
Eswar College of Engineering  
Kesanupalli (V), Narasaraopet-522 549

  
Signature of the External Examiner:

Date:

  
PRINCIPAL  
**ESWAR COLLEGE OF ENGINEERING**  
NARASARAOPET-522 601, Guntur (Dt)