



# KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE


Tirupathi (V), Divili, Peddapuram Mandal, East Godavari District, Pin: 533433

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

Accredited by NAAC with B<sup>+</sup> Grade

## PROJECT BATCHES IN ACADAMIC YEAR 2021-22

**KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE**  
Accredited by NAAC with B<sup>+</sup> Grade  
(Approved by AICTE, New Delhi, Affiliated to JNT University Kakinada, Kakinada)  
TIRUPATHI (V), DIVILI, PEDDAPURAM 533 433, (E-01-2008)  
EAST GODAVARI, A.P.  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



**CERTIFICATE**

This is to certify that project work entitled "SMART GRID POWER QUALITY IMPROVEMENT USING MODIFIED UQC" is a bonafide work done and submitted by

BANDARU DEVI	(19JQ5A0207)
KOVVADA KEERTHANA	(19JQ5A0215)
ALLAKA PRAVEEN SAI KUMAR	(19JQ5A0208)
CHAPPATI SIVA SUBRAHMANYAM SWAMY	(19JQ5A0202)
DESIREDDI SATISH	(19JQ5A0203)

in partial fulfillment of requirements for the award of Bachelor of Technology in Electrical and Electronics Engineering at KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE, DIVILI during the year 2021-2022.

*P.V. V. Ramana*  
PROJECT GUIDE  
Mr. P. V. RAMANA, M.Tech  
Assistant Professor

*J.P.S.*  
HEAD OF THE DEPARTMENT  
Mr. B. RAMSHI, M.Tech  
Assistant Professor

*J.P.S.*  
Internal Examiner

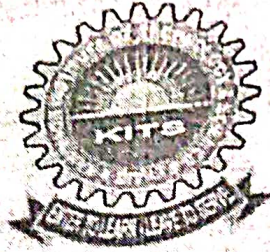
*Arulselvan*  
External Examiner

*P.P.*  
PRINCIPAL  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),  
E.G. Dist., 533433.

**KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE**

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TIRUPATHI (V), DIVILI, PEDDAPURAM 533433, (Estd-2008)

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING




**CERTIFICATE**

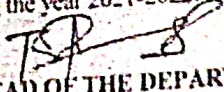
This is to certify that project work entitled   IMPROVED ACTIVE  
POWER FILTER PERFORMANCE FOR RENEWABLE POWER  
GENERATION SYSTEMS  is a bonafide work done and submitted by

TADAKA ROHIT KUMAR  
BARRE NARENDRA KUMAR  
YASARAPU BHANU LAVANYA  
KALANADHABHATLA ABHINAV  
PEGAREDLA MURALL KRISHNA

(18JQ1A0204)  
(18JQ1A0202)  
(18JQ5A0214)  
(19JQ5A0209)  
(19JQ5A0216)

In partial fulfillment of requirements for the award of Bachelor of Technology in  
Electrical & Electronics Engineering at KAKINADA INSTITUTE OF  
TECHNOLOGY AND SCIENCE, DIVILI during the year 2021-2022.

  
**PROJECT GUIDE**  
Mr. B. BABY M. Techi  
Assistant Professor

  
**HEAD OF THE DEPARTMENT**  
Mr. B. RAMESH M.Tech  
Assistant Professor

  
**Internal Examiner**

  
**External Examiner**

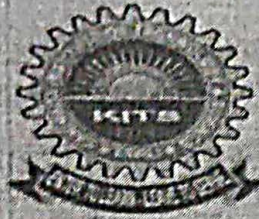
  
**PRINCIPAL**  
Kakinada Institute of Technology and Science  
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TIRUPATHI (V), DIVILI, PEDDAPURAM 533 433, (Estd-2008)  
EAST GODAVARI, A.P.

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**



**CERTIFICATE**

This is to certify that project work entitled "FIRE FIGHTING ROBOT"  
is a bonafide work done and submitted by

SURAVARAPU JAYASURYA	( 19JQ5A0241)
CHOPPA SRINIVAS	(19JQ5A0225)
BELA CHAKRADHAR	( 19JQ5A0235)
NEMALA MAHESH	(19JQ5A0223)
BANDARI DURGA PRASAD	(19JQ5A0201)

in partial fulfillment of requirements for the award of Bachelor of Technology in  
Electrical & Electronics Engineering at KAKINADA INSTITUTE OF TECHNOLOGY  
AND SCIENCE, DIVILI during the year 2021-2022.

  
PROJECT GUIDE

MR. B RAMESH SIR M.TECH

HEAD OF THE DEPARTMENT

  
INTERNAL EXAMINAR

  
EXTERNAL EXAMINAR

  
PRINCIPAL  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),  
E.G. Dist. 533433.

**KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE**

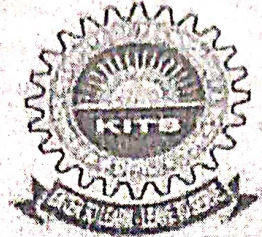
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TIRUPATHI (V), DIVILI, PEDDAPURAM 533433, (Est-2005)

EAST GODAVARI, A.P.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



**CERTIFICATE**

This is to certify that project work entitled "DUAL BUCK AC-AC CONVERTER WITH INVERTING AND NON-INVERTING OPERATIONS" is a bonafide work done and submitted by

- |                          |              |
|--------------------------|--------------|
| NANDHYALA GOVINDU KRISHA | (19JQ5A0218) |
| BOJJA DATTATREYA         | (19JQ5A0224) |
| PONAGANTI ARAVIND        | (19JQ5A0234) |
| PEDIREDDI SATYANANDAM    | (19JQ5A0210) |

in partial fulfillment of requirements for the award of Bachelor of Technology in Electrical and Electronics Engineering at KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE, DIVILI during the year 2021-2022.

*M.P. Vyamana*  
PROJECT GUIDE

Mr. P. VYAMANA, M.Tech  
Assistant Professor

*B. Ramesh*  
HEAD OF THE DEPARTMENT

Mr. B. RAMESH, M.Tech  
Assistant Professor

*T.S.P. I*  
Internal Examiner

*V. S. Reddy*  
External Examiner

*[Signature]*  
PRINCIPAL  
Kakinada Institute of Technology and Science  
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TIRUPATHI (V), DIVILI, PEDDAPURAM 533 433, (Est-d-2008)

EAST GODAVARI, A.P.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



**CERTIFICATE**

This is to certify that project work entitled "SMART ENERGY METER USING IOT" is a bonafide work done and submitted by

SIDDHANTHAPU SAIVIVEK  
GAVVALA POOJITHA  
MALASANI UMA ADINARAYANA  
MADDURI SURESH  
THIRAMSETTI VEERENDRA

(19JQ5A0227)  
(18JQ1A0202)  
(19JQ5A0222)  
(19JQ5A0230)  
(19JQ5A0232)

in partial fulfillment of requirements for the award of Bachelor of Technology in  
Electrical and Electronics Engineering at KAKINADA INSTITUTE OF  
TECHNOLOGY AND SCIENCE, DIVILI during the year 2021-2022.

  
**PROJECT GUIDE**

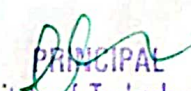
Mrs. B. BABY, M.Tech  
Assistant Professor

  
**HEAD OF THE DEPARTMENT**

Mr. B. RAMESH, M.Tech  
Assistant Professor

  
**Internal Examiner**

  
**External Examiner**

  
**PRINCIPAL**  
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TIRUPATHI (V), DIVILI, PEDDAPURAM 533 433, (Estd-2008)

KAKINADA, A.P.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING




**CERTIFICATE**

This is to certify that project work entitled ..  
**AUTONOMOUS POWER MANAGEMENT FOR INTERLINKED AC-DC  
MICROGRIDS**.. is a bonafide work done and submitted by

ADDALA VIJAYA SRI SAI GANESH	(19JQ5A0237)
SODASANI VENKATA AYYAPPA KUMAR	(19JQ5A0221)
KARNI YAZRA	(19JQ5A0226)
JATLA VENKATA DURGA POLARAO	(17JQ5A0204)


In partial fulfillment of requirements for the award of  
Bachelor of Technology in Electrical and Electronics Engineering at  
KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE, DIVILI during the  
year 2019-2022

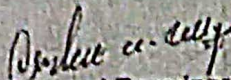
  
PROJECT GUIDE

Mr. B. RAMESH, M.Tech  
Assistant Professor

  
HEAD OF THE DEPARTMENT

Mr. B. RAMESH, M.Tech  
Assistant Professor

  
Internal Examiner

  
External Examiner

PRINCIPAL  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),  
E.G. Dist., 533433.

**ANN BASED MPPT APPLIED TO SOLAR POWERED  
WATER PUMPING SYSTEM USING BLDC MOTOR**  
A Project Report Submitted in Partial fulfillment of the Requirements for the  
award of the degree of

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

From  
**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY**  
Kakinada Andhra Pradesh

Submitted by

**ELELA MAHESH  
MOSAM NEELAVATHI  
ALUMURI RAMESH  
TIPPANA UMA MAHESH**

**18JQ5A0211  
17JQ1A0205  
18JQ5A0202  
18JQ5A0228**

Under the Esteemed guidance of  
**P.S.D.NARENDRA NADH M.Tech**



**DEPARTMENT OF ELECTRICAL ENGINEERING**

**KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE**

*(Approved by AICTE New Delhi & Affiliated to JNTU, Kakinada Accredited by NAAC)*

*Tirupathi (V), Divili, Peddapuram Mandal, East Godavari District, Andhra Pradesh, Pin: 533433*

**(2017-2021)**

**PRINCIPAL**  
Kakinada Institute of Technology and Science  
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E.G. Dist. - 533433.

**KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE**

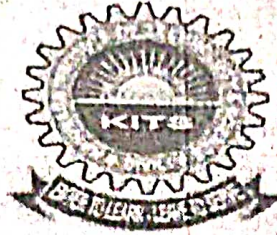
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TIRUPATHI (V), DIVILI, PEDDAPURAM 533 433, (E.G.) 2008)

EAST GODAVARI, A.P.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



**CERTIFICATE**

This is to certify that project work entitled "Modelling and Control Design for Variable Speed Wind Turbine Energy System" is a bonafide work done and submitted by

SANA MANIKANTA	(19JQ5A0205)
EAGALA DURGA PRASAD	(19JQ5A0204)
PODIYAM NAGENDRA DORA	(19JQ5A0219)
SINGAMSETTI RAJU	(19JQ5A0220)
TELLURI PRATHIBHA	(19JQ5A0231)

In partial fulfillment of requirements for the award of Bachelor of Technology in Electrical & Electronics Engineering at KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE, DIVILI during the year 2021-2022.

*P. V. V. Ramana*  
PROJECT GUIDE

Mr. P. V. V. RAMANA M.Tech  
Assistant Professor

*TSP*  
Internal Examiner

*TSP*  
HEAD OF THE DEPARTMENT

Mr. B. RAMESH M.Tech  
Assistant Professor

*Dr. Lakshmi*  
External Examiner

*P. V. V. Ramana*  
PRINCIPAL

Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),  
E.G. Dist., -533433.

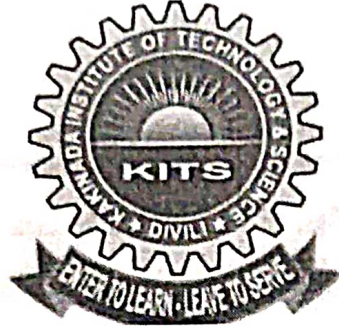


# KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE

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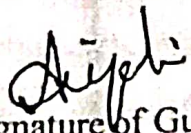
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KAKINADA, TIRUPATI (V)-533433.East Godavari Dist. A.P.

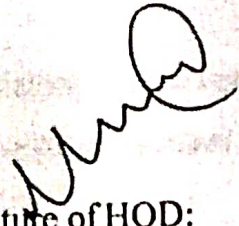


## CERTIFICATE

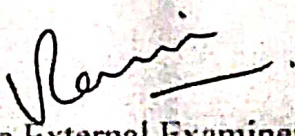
This is to certify that the project work entitled "MESSAGE ENCODING AND DECODING" is done By "E.R.RAMYA (19JQ5A0501), P.SWARNA LATHA (18JQ1A0521), P.HARITHA DEVI (18JA1A0520), B.DEVI SRI (18JQ1A0505), K.VINAY (18JQ1A0514)" students of Department of Computer Science & Engineering is a record of bonafide work carried out by them under my guidance and supervision during 2021-2022. This project is done as a partial fulfillment of obtaining Bachelor of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada. The matter embodied in this project report has not been submitted to any other university for the award of any other degree.

  
Signature of Guide

**MS.Y.ANJALI, M.Tech.**  
Asst. Professor of CSE

  
Signature of HOD:

**Mr.B.VEERENDRA, M.Tech,(Ph.D)**  
Assoc. Professor of CSE

  
Signature of the External Examiner

  
PRINCIPAL  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),  
E.G.Dist.-533433.

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TIRUPATHI (V), DIVILI, PEDDAPURAM (M) 433, (Est'd-2000)

EAST GODAVARI, A.P.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING





**CERTIFICATE**

This is to certify that project work entitled "Doubly Fed Induction Generator Wind Energy Conversion Systems with Integrated Active Filter Capabilities" is a bonafide work done and submitted by

THORATI MANIKANTA	(19JQ5A0213)
DODDI SATYA PAVAN KUMAR	(19JQ5A0217)
ULIVIREDDY AJAY	(19JQ5A0229)
SRIPATHI MANIKANTA	(19JQ5A0206)
PRADHA SARADHI	(16JQ5A0231)

in partial fulfillment of requirements for the award of Bachelor of Technology in Electrical & Electronics Engineering at KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE, DIVILI during the year 2021-2022.

  
PROJECT GUIDE  
Mr. B. RAMESH M.Tech  
Assistant Professor  
Internal Examiner

  
HEAD OF THE DEPARTMENT  
Mr. B. RAMESH M.Tech  
Assistant Professor  
External Examiner

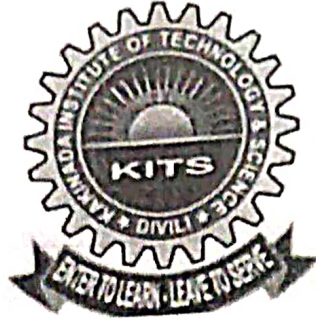
  
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Tirupathi (V), Divili, Peddapuram (M),  
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# KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE

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Accredited by NAAC with B+ Grade)

KAKINADA, TIRUPATI (V)-533433, East Godavari Dist. A.P.



## CERTIFICATE


This is to certify that the project work entitled "SALARY PREDICTION BASED ON YEARS OF EXPERIENCE" is done by " H.GAYATHRI (18JQ1A0511), R.LAHARI (18JQ1A0526), G.V.S.HARIBABU(18JQ1A0508),Y.VINEETHA(18JQ1A0532),N.SWAPNA(18JQ1A0517)" students of Department of Computer Science & Engineering is a record of bonafide work carried out by them under my guidance and supervision during 2021-2022. This project is done as a partial fulfillment of obtaining Bachelor of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada.

The matter embodied in this project report has not been submitted to any other university for the award of any other degree.

  
Signature of Guide:

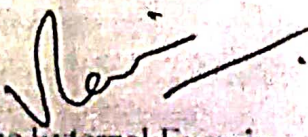
**Ms. Y. ANJALI SATYAVATHI, M.Tech.**

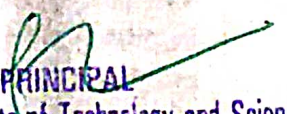
Asst. professor of CSE

  
Signature of HOD:

**Mr. B. VEERENDRA, M.Tech, (Ph.D)**

Assoc. Professor of CSE

  
Signature of the External Examiner

  
PRINCIPAL  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),  
E.G. Dist, 533433.

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Accredited by NAAC (with B+ Grade)

KAKINADA, TIRUPATI (V) - 533433, East Godavari Dist, A.P.




## CERTIFICATE

This is to certify that the project work entitled "VOLUME CONTROL WITH HAND GESTURE" is done By "S.JOGESH BABU(19JQ5A0502), U.PRADEEP(19JQ5A0507), GV.PRUDHVIRAJ(18JQ1A0545), R.ROJI(18JQ1A0525), M.ANJALIDEVI(19JQ5A0505)" students of departments of Computer Science and Engineering is a record of bonafide work carried out by them under by guidance and supervision during 2021-2022. This project is done as a partial fulfillment of obtaining Bachelor of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada. The matter embodied in this project report has notg been submitted to any other university for the award of any other degree.

  
Signature of Guide:

**MS.Y.ANJALI**, M.Tech  
Asst. Professor of CSE

  
Signature of HOD:

**Mr.B.VEERENDRA**, M.Tech, (Ph.D)  
Assoc. Professor of CSE

  
Signature of the External Examiner

  
PRINCIPAL  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),  
E.G. Dist, -533433.

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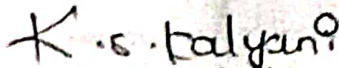
KAKINADA, TIRUPATHI (V)-533433, East Godavari Dist. A.P.




## CERTIFICATE

We certify that the project work entitled "CARTOONIFYING AN IMAGE" is done by "V.SAIGANESH-(18JQ1A0535), K.SUKANYA-(18JQ1A0513), N.LIKHITHA-(18JQ1A0518), O.SURYASEKHAR-(18JQ1A0519), D.SRINIVAS-(18JQ1A0502)" students of Department of Computer Science & Engineering is a record of bonafide work carried out by them under my guidance and supervision during 2021-2022. This project is done as a partial fulfillment of obtaining Bachelor of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada.

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Signature of Guide:

Mrs. K.S. KALYANI, M.Tech,  
Asst. Professor of CSE

  
Signature of HOD:

Mr. B. VEERENDRA, M.Tech, (Ph.D)  
Assoc. Professor of CSE

  
Signature of the External Examiner

  
PRINCIPAL  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),  
E.G. Dist.-533433.

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Accredited by NAAC with B+ Grade

KAKINADA, TIRUPATHI (V)-533433, East Godavari Dist. A.P.



## CERTIFICATE

This is to certify, that the project work entitled "ONLINE VOTING SYSTEM" is done By "M.PAVANI (18JQ1A0538), G.RATNA VASANTHI (18JQ1A0509), S.UMA SANKAR (18JA1A0529), S.VENU (18JQ1A0527), P.SRI DEVI (18JQA0523)" students of Department of Computer Science & Engineering is a record of bonafide work carried out by them under my guidance and supervision during 2021-2022. This project is done as a partial fulfillment of obtaining Bachelor of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada.

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Signature of Guide:

**Mr. B. VEERENDRA, M.Tech, (Ph.D)**

Assoc. Professor of CSE

Signature of HOD:

**Mr. B. VEERENDRA, M.Tech, (Ph.D)**

Assoc. Professor of CSE

Signature of the External Examiner

PRINCIPAL

Kakinada Institute of Technology and Science

Tirupathi (V), Divili, Peddapuram (M),

E.G. Dist. 533433.

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# KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE

Approved by AICTE., New Delhi - Affiliated to JNTUK, Kakinada TIRUPATI (V),  
Peddapuram-533433, E.G.DI, ANDHRA PRADESH.

## DEPARTMENT OF CIVIL ENGINEERING



### CERTIFICATE

This is to certify that the project work entitled "EXPERIMENTAL INVESTIGATION ON SELF-COMPACTING CONCRETE BY PARTIAL REPLACEMENT OF FINE AGGREGATE WITH QUARRY DUST AND CEMENT WITH GGBS"

is done by

T.SRI KANAKA MAHALAKSHMI

19JQ5A0132

N.APPALAKONDA

18JQ1A0104

G.A. SREE RAMA MURTHY

19JQ5A0105

K.V.SWAMY REDDY

19JQ5A0109

students of Department of Civil Engineering, is a record of bonafide work carried out under my guidance and supervision during 2018-2022. This project is done as a partial fulfillment of obtaining Bachelor of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada. The matter embodied in this project report has not been submitted to any other university for the award of any other degree.

  
Counter signed

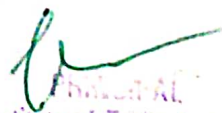
Sri. K.V.V.Rama Raju, M.Tech  
Assistant Professor & Head  
Department. of Civil Engineering,  
Kakinada Institute of Technology & Science,  
& Science, Divili.

  
Thesis Supervisor

Sri K.V.V.Rama Raju, M.Tech  
Assistant Professor & Head  
Department. of Civil Engineering  
Kakinada Institute of Technology  
Divili.

Signature of the External Examiner



  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M).

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# DEPARTMENT OF CIVIL ENGINEERING



## CERTIFICATE


This is to certify that the project work entitled, "DURABILITY STUDIES ON RECYCLED COARSE AGGREGATE CONCRETE OF M40

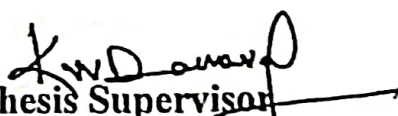
GRADE" is done by

Y.SUSARITHA  
V.PREM KUMAR  
S.DEVI  
P.BADRI

19JQ5A0135  
18JQ1A0105  
18JQ1A0110  
19JQ5A0121

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Counter signed  
Sri. K.V.V.Rama Raju  
Assistant Professor & Head  
Department. of Civil Engineering,  
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Divili.

  
Thesis Supervisor  
Sri. K.V.V.Rama Raju  
Assistant Professor & Head of Department  
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Kakinada Institute of Technology & Science,  
Divili.

Signature of the External Examiner 

  
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Tirupathi (V), Divili, Peddapuram (M),  
E.G.Dist.-533433.



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TIRUPATI (V), Peddapuram-533433, E.G.Di, ANDHRA  
PRADESH.

## DEPARTMENT OF CIVIL ENGINEERING





### CERTIFICATE

This is to certify that the project work entitled, "An Experimental Study on Concrete with Partial Replacement of Cement with Baggasse Ash and Fine Aggregate with Copper Slag" is done by

M.AGASTIN 18JQ1A0103  
K.NAGABABU 19JQ5A0110  
G.NAGADEVI 19JQ5A0107  
K.MOUNIKA 19JQ5A0111

Students of Department of Civil Engineering, is a record of bonafide work carried out under my guidance and supervision during. This project is done as a partial fulfillment of obtaining Bachelor of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada. The matter embodied in this project report has not been submitted to any other university for the award of any other degree.

  
Counter signed  
Sri. K.v.v.Rama Raju  
Assistant Professor & Head  
Department. of Civil Engineering,

  
Thesis Supervisor  
Sri. K.v.v.Rama Raju  
Assistant Professor & Head of Department  
Department. of Civil Engineering,  
Kakinada Institute of Technology & Science,

Div

Kakinada Institute of Technology & Science,  
Divili.

  
Signature of the External Examiner

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Peddapuram-533433, E.G.DI, ANDHRA PRADESH.

## DEPARTMENT OF CIVIL ENGINEERING



### CERTIFICATE

This is to certify that the project work entitled, "STABILIZATION OF  
EXPANSIVE SOIL USING FLY ASH" is done by

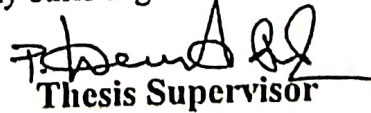
M.VENKATESH  
K.ANUSHA .  
P.SAI  
S.L.MOUNIKA

18JQ1A0108  
19JQ5A0122  
19JQ5A0127  
19JQ5A0128

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Counter signed

Sri.K.v.v.Rama Raju  
Assistant Professor & Head of the  
Department of civil engineering  
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KUM P.Deepika Rani  
Assistant Professor  
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DIVILI, Peddapuram-533433, E.G.DI, ANDHRA PRADESH.  
DEPARTMENT OF CIVIL ENGINEERING



## CERTIFICATE

This is to certify that the project work entitled, "STUDY ON MECHANICAL PROPERTIES OF CONCRETE ON PARTIAL REPLACEMENT IN FINE AGGREGATE WITH COPPER SLAG AND GRANITE POWDER" is done by

K.SANJIVA RAO  
B.LOVARAJU  
M.V.V.RAMANA  
K.PAVAN

19JQ5A0116  
18JQ1A0101  
19JQ5A0117  
19JQ5A0114

students of Department of Civil Engineering, is a record of bonafide work carried out under my guidance and supervision during 2021-2022. This project is done as a partial fulfillment of obtaining Bachelor of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada. The matter embodied in this project report has not been submitted to any other university for the award of any other degree.

  
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KUM. P. Deepika Rani  
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Thesis Supervisor

KUM P. Deepika Rani  
Assistant professor  
Department of civil engineering  
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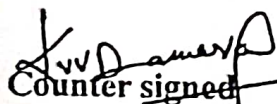


### CERTIFICATE

This is to certify that the project work entitled, "An Experimental Study on concrete by partial replacement of cement with GGBS and fine aggregate with copperslag." is done by

T. MANOJ KUMAR	18JQ1A0106
G. JAGADEESH PYDI RAJU	19JQ5A0104
P. SIVA GANGA BHAVANI	19JQ5A0123
S.N.MURTHY	19JQ5A0131

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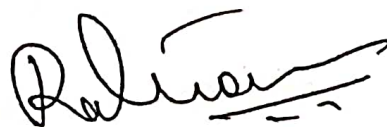
  
Counter signed

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Assistant Professor & Head  
Department. of Civil Engineering,  
Kakinada Institute of Technology & Science,  
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Thesis Supervisor

Sri. B.Sri Datta Subramanyam  
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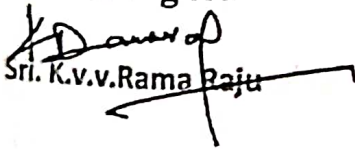
This is to certify that the project work entitled "EXPERIMENTAL INVESTIGATION TO IMPROVE RIGID PAVEMENT BY PARTIAL REPLACEMENT OF STONE DUST AND BRICK DUST MIXTURE IN FINE AGGREGATE"

is done by

SIRAPARAPU.SAI	19JQ5A0129
DUNDU.MAHESH	18JQ1A0109
KOREDDIJAYA KUMAR	19JQ5A0112
KANCHARLA.NAGA SINDHU	19JQ5A0119

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Counter signed

  
Sri. K.v.v.Rama Raju

M.Tech

Assistant Professor & Head

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Thesis Supervisor

  
Sri CH.Ganga Bhavani

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Assistant Professor & Head

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Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),

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## DEPARTMENT OF CIVIL ENGINEERING



### CERTIFICATE

This is to certify that the project work entitled "AN EXPERIMENTAL INVESTIGATION ON CONVENTIONAL CONCRETE BY ADDING PLASTIC FIBER" is done by

TANGELLA DURGAPRASAD

18JQ1A0107

PRATHI SAI


19JQ5A0126

G.SANJAY

19JQ5A0106

students of Department of Civil Engineering, is a record of bonafide work carried out under my guidance and supervision during . This project is done as a partial fulfillment of obtaining Bachelor of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada. The matter embodied in this project report has not been submitted to any other university for the award of any other degree.

Counter signed

  
Sir. K.v.v.Ram Raju

Assistant Professor & Head

Department. of Civil Engineering,

Kakinada Institute of Technology & Science , Kakinada Institute of Technology & Science,  
Divili. Divili.

  
Thesis Supervisor

Kum. P. Depika Rani

Assistant Professor

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### CERTIFICATE

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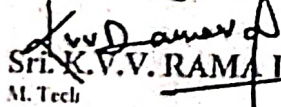
is done by

UMMIDI.SIVA DURGA	19JQ5A0133
CHEDULURI. VEERA BABU	19JQ5A0103
ALLAMPALLI MANIKANTHA SWAROOP	19JQ5A0102
VALLABHASETTI.RAGHAVAMMA	19JQ5A0134

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Counter signed

  
Sri. K.V.V. RAMA RAJU  
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Assistant Professor & Head

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Thesis Supervisor

  
Sri. Mr. B. SRI BATTI SUBRAHMANYAM  
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Assistant Professor

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Signature of the External Examiner

  
PRINCIPAL

Kakinada Institute of Technology and Science

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Tirupati (v), Divili, Pedapuram Mandal, East Godavari District, Andhra Pradesh, Pin:  
533433.

## DEPARTMENT OF MECHANICAL ENGINEERING



### CERTIFICATE

This is to certify that the project report entitled, "A PROTOTYPE OF AIR CONDITIONER USING PELTIER MODULE" is a bonified work done by

T.V.K.GANESH

18JQ1A0319

S.SEKHAR

18JQ1A0317


G.VEERABABU

19JQ5A0340

O.SURESH

19JQ5A0341

In a partial fulfillment of the requirement for the award of the degree of BACHELOR OF TECHNOLOGY IN MECHANICAL ENGINEERING to the JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA is a record of bonafide work carried out by them under my guidance and supervision. The results reported in this thesis have not been submitted to any other university or institute for any degree or diploma.

  
Signature of the Guide

Mr. N. CHAITANYA MITRA M.Tech


Assistant professor,  
Dept of mechanical engineering,  
KITS Engineering College, Divili.

  
Signature of the 

Er. Y. DHANA SEKHAR M. Tech, (Ph.D)

Associate professor & HOD,  
Dept of mechanical engineering,  
KITS Engineering College, Divili.

KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE  
TIRUPATI(V), PEDDAPURAM (M), EAST GODAVARI (OT)

  
Signature of the External Examiner

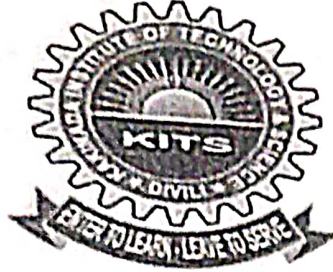
  
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Kakinada Institute of Technology and Science  
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E.G. Dist. - 533433.



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## DEPARTMENT OF MECHANICAL ENGINEERING

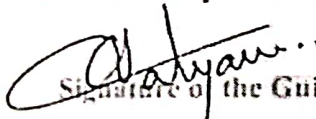


### CERTIFICATE

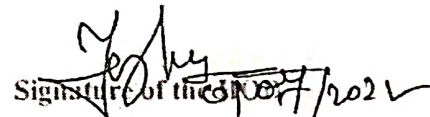
This is to certify that the project report entitled, "SWING HUMAN POWERED GENERATOR" is a bonafide work done by

TANGUDU BHARADWAJ	18JQ1A0318
KAMUJULA VENKATA DURGA SATISH	18JQ1A0327
SARAKANAM SURYA RAMA KRISHNA	19JQ5A0342
VANTAKULA SIVA KUMAR	19JQ5A0344

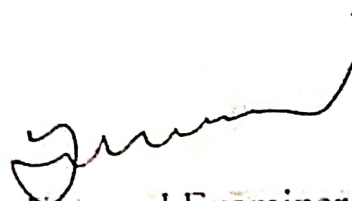
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Signature of the Guide

V.SATHYANARAYANA M.Tech  
Assistant professor,  
Mechanical engineering  
KITS Engineering College, Divili.

  
Signature of the HOD

Er. Y. DHANA SEKHAR M. Tech, (Ph.D)  
Associate professor & HOD  
HEAD DEPT. OF MECH. ENGG.  
Dept. of mechanical engineering  
KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE  
KITS Engineering College  
TIRUPATHI, PEDDAPURAM (V), EAST GODAVARI (DT)

  
Signature of the External Examiner

  
PRINCIPAL  
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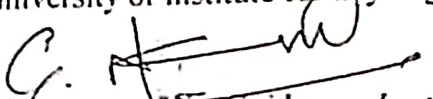


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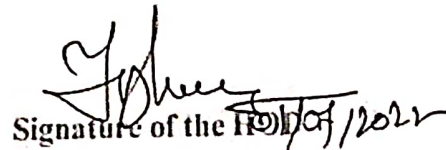
is is to certify that the project report entitled, "WARM CONDUCTIVITY OF EPOXY COMPOSITES LOADED UP WITH ALUMINUM NITRIDE (AIN)" is a bonified work done by

MUDDADA PREM KUMAR	19JQ5A0360
MAKIREDDY GOPINADH	18JQ1A0324
VASAMSETI VEERA SRINU SWAMY	19JQ5A0361
NUNNA SUNIL KUMAR	18JQ1A0326

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Signature of the Guide

G.NAGA KUMAR M.Tech  
Assistant professor,  
Dept of mechanical engineering,  
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Signature of the HOD

Er. Y. DHANA SEKHAR M. Tech, (Ph.D)

Associate professor & HOD,  
Dept of MECHANICAL ENGINEERING,  
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TIRUPATI(V), PEDDAPURAM (MD), EAST GODAVARI (DT).



Signature of the External Examiner

  
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TIRUPATHI, Divili, Peddapuram, East Godavari District, Andhra Pradesh, Pin  
code:533433

DEPARTMENT OF MECHANICAL ENGINEERING



### CERTIFICATE

This is to certify that the project report entitled "CFD ANALYSIS ON  
TRIPLE FLUID HEAT EXCHANGER" is a bonafied work done by


AJAY KUMAR.PILLI

19JQ5A0311

VENKATESH.KUKKALA

19JQ5A0347

in a partial fulfillment of the requirements for the award of BACHELOR OF  
TECHNOLOGY DEGREE in MECHANICAL ENGINEERING to the  
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Signature of the Guide

Mr. P.VENUGOPAL M.E

Assistant Professor

Dept of Mechanical engineering  
KITS Engineering College Divili.

  
Signature of the

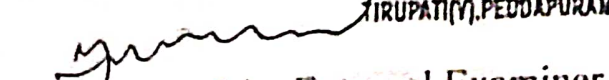
Er.Y.DHIANA SEKHAR M.Tech(Ph.D)

Associate Professor & HOD

Dept of Mechanical engineering  
KITS Engineering College Divili.

HEAD DEPT.OF MECH.ENGG.

KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE  
TIRUPATHI(V),PEDDAPURAM (M),EAST GODAVARI (DT)

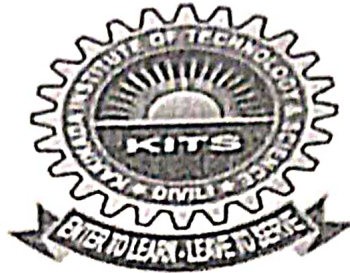
  
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PRINCIPAL  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M), -  
E.G.Dist.-533433.

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533433

## DEPARTMENT OF MECHANICAL ENGINEERING



### CERTIFICATE

This is to certify that the project report entitled, "IMPACT OF BIODIESEL, GRAPHENE OXIDE AND HYDROGEN BLENDS ON DI DIESEL ENGINE PERFORMANCE AND EMISSION CHARACTERISTICS" is a bonified work done by

GOWTHAM ADDANKI	18JQ1A0305
TATABABU MAROTHI	19JQ5A0335
KATIKAREDDY VEERA MANIKANTA	19JQ5A0334
SHAIK SIRAJ BABA	19JQ5A0316
DESAM SETTY AJAY	19JQ5A0313

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Er. Y. DHANA SEKHAR M. Tech.(Ph.D)

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Signature of the Supervisor

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DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the dissertation entitled "DESIGN AND STRUCTURAL ANALYSIS OF HIGH SPEED HELICAL GEAR USING ANSYS" is the Bonafide record of the project work done by

KOLLU SRI RAMA RAJU  
BUDDHA NIKILESH  
BOKAM SRINU

19JQ5A0307  
19JQ5A0321  
19JQ5A0330

In partial fulfillment of the requirements for the award of B.Tech (MECHANICAL ENGINEERING) in Mechanical Engineering during the academic year 2019-2022.

  
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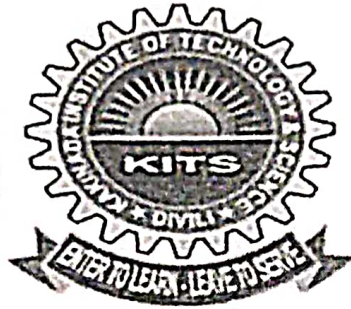
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DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the dissertation entitled "FABRICATION AND PERFORMANCE TESTING OF VORTEX TUBES WITH VARIABLE PARAMETERS" is the Bonafide record of the project work done by

PENKE SATYA HARINADH  
PILLA SIVA KUMAR  
MALLA RAVI KUMAR

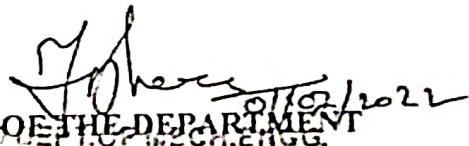
19JQ5A0348  
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1984

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KAKINADA, TIRUPATHI(V), SUDHUR East  
Godavari Dist. A.P.



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We certify that the project work entitled "STATIC ANALYSIS OF A COMPOSITE LEAF SPRING WITH STIFFENERS" is done by " D.RAMU - (19JQ5A0351), Y.MANOJ KUMAR - ( 18JQ1A0321), M.VEEERA KUMARI - (19JQ5A0352)" students of Department of Mechanical Engineering is a record of bonafide work carried out by them under my guidance and supervision during 2021-2022. This project is done as a partial fulfillment of obtaining Bachelor of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada.

The matter embodied in this project report has not been submitted to any other university for the award of any other degree.

Signature of Guide:

**Miss.G.SAI LASYA**, M.Tech,  
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DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project report entitled "DESIGN AND FABRICATION OF STAIR CLIMBER TROLLEY" is a bonafied work done by

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V.V. SATYANARAYANA.P	19JQ5A0367

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*P. Venugopal*

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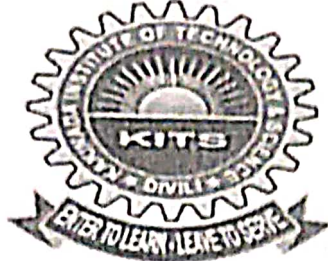
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This is to certify that the project report entitled "ANALYSIS OF PERFORMANCE AND EMISSION CHARACTERISTICS OF MANGO SEED BIODIESEL ON DI DIESEL ENGINE" is a bonified work done by

PALLIBOINA GANGADHAR	18JQ1A0311
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S DURGA PRASAD	19JQ5A0329
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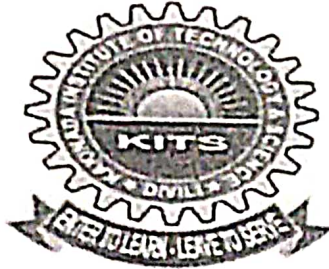
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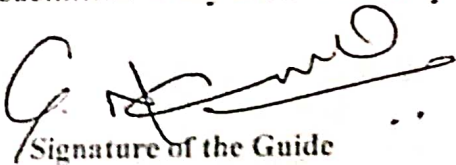


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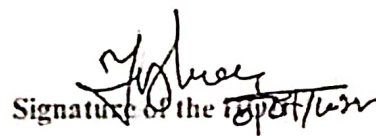
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KUNDRAMAHANTHI.NAVEEN	19JQ5A0358
PASALA.VEERABABU	19JQ5A0359

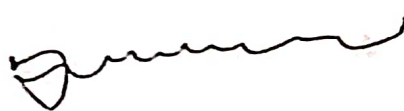
In a partial fulfillment of the requirement for the award of the degree of BACHELOR OF TECHNOLOGY IN MECHANICAL ENGINEERING to the JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA is a record of bonafide work carried out by them under my guidance and supervision. The results reported in this thesis have not been submitted to any other university or institute for any degree or diploma.

  
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Signature of the External Examiner

  
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Andhra Pradesh, pin -533433.

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### CERTIFICATE

This is to certify the work which is being presented in the thesis entitle,  
"DESIGN AND FABRICATION OF NORMAL LATHE MACHINE TO CNC  
MACHINE" is a bonafide work done by

CHINTAMNIDI V V S N SURYAVINAY	19JQ5A0318
BODEM VIJAY	19JQ5A0317
GOPU SIVAJI	19JQ5A0320
KONELLA PRAVEEN	18JQ1A0307

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carried out by them under my guidance and supervision. The result reported in this thesis have not been  
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## DEPARTMENT OF MECHANICAL ENGINEERING



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This is to certify that the project report entitled, "DESIGN AND MANUFACTURING OF COMPUTER NUMERICAL CONTROL (CNC) MACHINE" is, a bonified work done

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18JQ1A0302

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TECHNOLOGY IN MECHANICAL ENGINEERING to the JAWAHARLAL NEHRU

TECHNOLOGICAL UNIVERSITY, KAKINADA is a record of bonafide work carried out by them under my guidance and supervision. The results reported in this thesis have not been submitted to any other university or institute for any degree or diploma.

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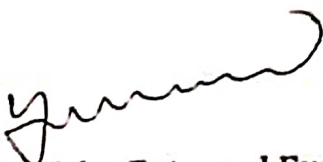
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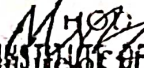


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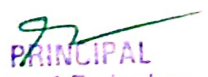
This is to certify that the dissertation entitled "MASSIVE MIMO IN SUB-6GHZ AND MM WAVE: PHYSICAL, PRACTICAL AND USER-CASE DIFFERENCE" being submitted by *K. Sandhya (18JQ1A0411)*, *L. Kiran Babu (18JQ1A0414)*, *P.S.V.Lakshmi (18JQ1A0418)*, *V.Sumanth (19JQ5A0401)*, *V.Nagarjuna (18JQ1A0422)* in partial fulfillment of the requirements for the award of *Bachelor of Technology* in **ELECTRONICS & COMMUNICATION ENGINEERING** to the *Jawaharlal Nehru Technological University-Kakinada* is a record of confide work carried out by her under my guidance and supervision during 2018-2022. The results embodied in this thesis have not been submitted to any other University for the award of any Degree.

  
Signature of Guide

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**Mr. M.Sathibabu** M.Tech,  
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*External Examiner*

  
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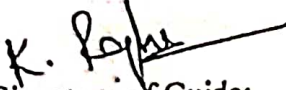
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## CERTIFICATE

This is to certify that the project work entitled "AREA BASED COVERAGE FOR THREE DEPLOYMENT DISTRIBUTION AND THEIR CONNECTIVITY IN WIRELESS SENSOR NETWORK" is done By "M.SWAROOP KUMAR (18JQ1A0415), J.SAI PRANEETH RUSHMIK(18JQ1A0410), M.SAI LAKSHMI (19JQ5A0407), T.KANCHANA (19JQ5A0410)" are students of the Department of Electronics & Communication Engineering is a record of bonafide work carried out by them under my guidance and supervision during 2021-2022. This project is done as a partial fulfillment of obtaining Bachelor of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada.

The matter embodied in this project report has not been submitted to any other university, for the award of any other degree.

  
Signature of Guide:  
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Signature of HOD:  
Mr. M. SATHI BABU, M.Tech.(Ph.D)  
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Signature of the External Examiner

  
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EAST GODAVARI, A.P.



## CERTIFICATE

This is certify that dissertation entitled '*DESIGN OF INNOVATIVE LOW PROFILE MONOPOLE ANTENNA FOR WEARABLE APPLICATIONS*' being submitted by B.S.S.V.HARI SUNDHAR(18JQ1A0401), K V V S SAI KIRAN (18JQ1A0420), N DEVI (19JQ5A0408), S.DURGESH (19JQ5A0408), K SWAMY (19JQ5A0411) in partial fulfillment of the requirements for the award of *Bachelor of Technology* in *ELECTRONICS & COMMUNICATION ENGINEERING* to Jawaharlal Nehru Technological University-Kakinada in a record of bonafied work carried out by them under my guidance and supervision during 2018-2022. The results embodied in this thesis have not been submitted to any other University for the award of any Degree.

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Signature of the Head of the Dept:

Mr.M.Sathi Babu M.Tech

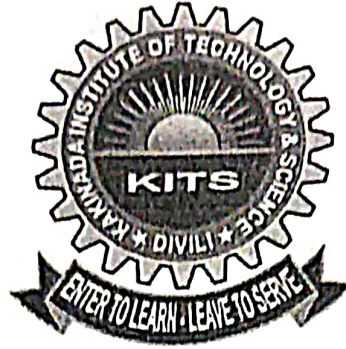
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**CERTIFICATE**

This is to certify that the dissertation entitled '*Power and an efficient Area Aware Improved SQRT CSLA*' being submitted by *G.Madhavi(18JQ1A0419),S.Siva(19JQ5A0402),Ch.Vineetha(18JQ1A0404), A.Chakravarthi (18JQ1A0425)* in partial fulfilment of the requirements for the award of *Bachelor of Technology* in **ELCTRONICS & COMMUNICATION ENGINEERING** to the *Jawaharlal Nehru Technological University-Kakinada* is a record of confide work carried out by her under my guidance and supervision during 2018-2022. The results embodied in this thesis have not been submitted to any other University for the award of any Degree or Diploma.

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Signature of the  
Head of the Dep

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CERTIFICATE

This is to certify that the dissertation entitled "*Design Methodology to Explore Hybrid Approximate Adders for Energy Efficient Image and Video Processing Accelerators*" being submitted by *D.Akhil, Roll.No:18JQ1A0406, P.Sandhya, Roll.No:19JQ5A0405, M.Kavya Akhila, Roll.No:19JQ5A0412 and D.Aswini, Roll.No:19JQ5A0404* in partial fulfillment of the requirements for the award of *Bachelor of Technology* in **ELCTRONICS & COMMUNICATION ENGINEERING** to the *Jawaharlal Nehru Technological University, Kakinada* is a record of confide work carried out by them under my guidance and supervision during 2018-2022. The results embodied in this thesis have not been submitted to any other University for the award of any Degree or Diploma.

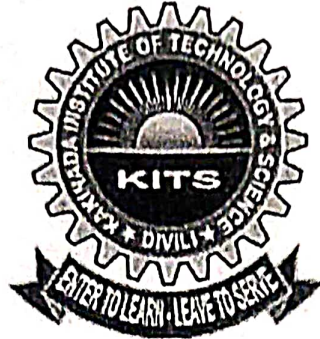
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THIRUPATHI (V), DIVILI, PEDDAPURAM 533 433, (Estd-2008)  
EAST GODAVARI, A.P.



**CERTIFICATE**

This is to certify that the dissertation entitled „*Design of CODEC using VLSI Architecture for Efficient Communication*“ being submitted by Venkata Reshma, Roll.No:19JQ5A0414, G.Sirisha, Roll.No:18JQ1A0408, K.Mangamma, Roll.No:18JQ1A0413, M.Sushma, Roll. No.18JQ1A0416 and K.Srikanth, Roll.No:19JQ5A0403 in partial fulfillment of the requirements for the award of *Bachelor of Technology* in **ELCTRONICS & COMMUNICATION ENGINEERING** to the *Jawaharlal Nehru Technological University-Kakinada* is a record of confide work carried out by them under my guidance and supervision during 2018-2022. The results embodied in this thesis have not been submitted to any other University for the award of any Degree or Diploma.

Guide's Signature:

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TIRUPATHI (V), DIVILI, PEDDAPURAM 533 433, (Estd-2008) EAST  
GODAVARI, A.P.




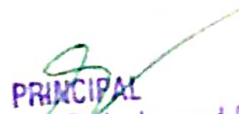
CERTIFICATE

This is to certify that the dissertation work entitled "SOLAR GRASS CUTTER WITH OBSTACLE AVOIDANCE" being submitted by *I. Jaya Kumari (18JQ1A0409)*, *T.Venkata Ramana(18JQ1A0421)*, *K.Abhilash (18JQ1A0403)*, *Y.Rahul (18JQ1A0424)*, *V.Jyosthna (19JQ5A0406)* in partial fulfilment for the award of 'Bachelor of Technology in ELECTRONICS & COMMUNICATION ENGINEERING to the Jawaharlal Nehru Technological University- Kakinada is a record of confide work carried out by her under my guidance and supervision during 2018-2022.The result embodied in this have not submitted to any other University for the award of any Degree.

  
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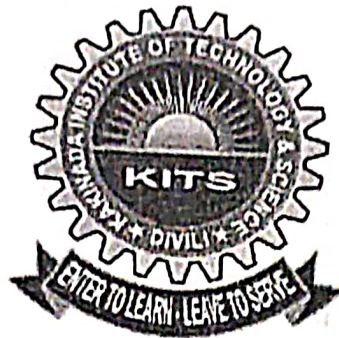
  
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## CERTIFICATE

This is to certify that the dissertation entitled „*DESIGN OF NAND FLASH MEMORY USING LOW POWER 10T SRANFM CELL USING BASED CELL STATE DISTRIBUTION ASSISTED VOLTAGE DETECTOR*“ being submitted by *B.D Prasanna, Roll.No:18JQ1A0402, N.Tulasi, Roll.No:18JQ1A0417, M.B Sai Kumar, Roll.No:19JQ5A0413 and M Ram Prasad, Roll.No:19JQ5A0416* in partial fulfillment of the requirements for the award of *Bachelor of Technology* in **ELCTRONICS & COMMUNICATION ENGINEERING** to the *Jawaharlal Nehru Technological University-Kakinada* is a record of confide work carried out by them under my guidance and supervision during 2018-2022. The results embodied in this thesis have not been submitted to any other University for the award of any Degree or Diploma.

*D. Thanni Lakshmi*

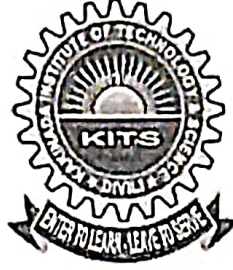
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THIS IS TO CERTIFY THAT THE THESIS ENTITLED "STUDY AND PERFORMANCE EVALUATION OF BATTERY OPERATED WEEDER" THAT IS BEING

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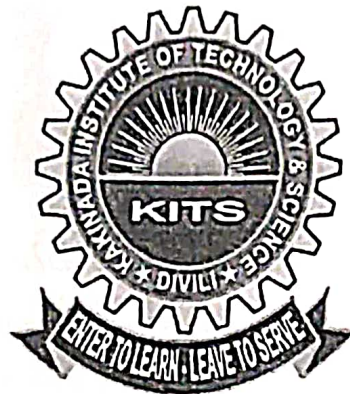
  
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This is to certify that the project work entitled "PREPARATION OF KIWI POWDER TO REPLACE SUCROSE" is a bonafide work done by,

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This to certify that the thesis entitled “DESIGN AND DEVELOPMENT OF SOLAR OPERATED FRUITS AND VEGETABLES DEHYDRATOR” that is being submitted by

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This is to certify that the project work entitled Studies Preparing of instant cook foods with different millet powders is a bonafide work done by,

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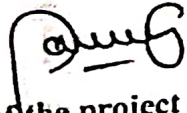



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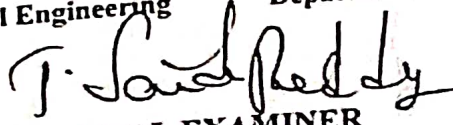
This is to certify that the project work "PERFORMANCE  
EVALUATION OF MANUALLY OPERATED CHAFF CUTTER" is a  
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P. CHINDU SAI SRINIVAS	(19JQ5A3521)
K. DINESH BABU	(19JQ5A3515)
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Y.JYOTHI	(18JQ1A3574)

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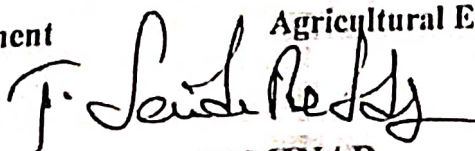
This is to Certify that this project report entitled “DESIGN AND FABRICATION OF COCONUT TREE CLIMBING MACHINE” is the bonafide work of,

KOLAKA SIREESHA	18JQ1A3532
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MELLIKA SARADA	18JQ1A3541
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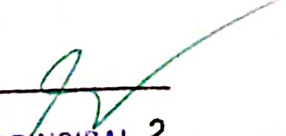
Who carried out the project work under my supervision

Signature of Project Guide  
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Signature of the HOD  
**Mr. G. VARA PRASAD RAO**  
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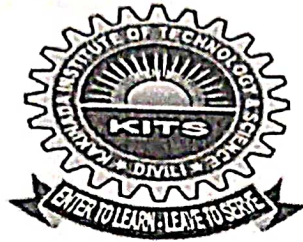
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## DEPARTMENT OF AGRICULTURAL ENGINEERING



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This is to certify that the project work entitled, " DESIGN AND FABRICATION OF TOMATO GRADER ON SIZE " is a confide work of

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B.VAMSI	18JQ1A3550
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Submitted to the Department of agricultural Engineering, in partial fulfillment of the requirements for the award of the degree of BACHELOR OF TECHNOLOGY in AGRICULTURAL ENGINEERING from KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE

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(MTECH)

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Signature of the HOD  
Mr.G.VARA PRASADA RAO  
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THIRUPATHI (V) DIVILI, PEDDAPURAM (M) -533433, East Godavari  
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(2018-2022)

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DEPARTMENT OF AGRICULTURAL ENGINEERING



CERTIFICATE

This is to certify that the project work DEVELOPMENT AND EVALUATION  
OF POWER OPERATED WEEDER IN RICE is a bonafide work done by,

P.PUNESH	18JQ1A3557
R.KIRAN KUMAR	18JQ1A3559
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Submitted to the department of agricultural engineering, in a partial fulfillment  
of the requirements for the award of the degree of BACHELOR OF  
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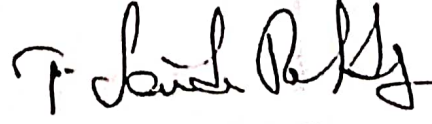
This is to certify that the project work **STUDY AND PERFORMANCE EVALUATION OF SUGARCANE BUD CHIPPER** is a bonafide work done by,

M.SANDHYA	(19JQ5A3517)
G.UMA	(19JQ5A3510)
G.V.SURENDHARA NAIDU	(18JQ1A3580)
I.DEVENDRA KUMAR	(17JQ1A3527)

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Dr T. PRABHAKARA RAO  
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**DEPARTMENT OF AGRICULTURAL ENGINEERING**





**CERTIFICATE**

This is to certify that the project work entitled "THE CULTIVATION OF AZOLLA AND CASE STUDY OF PROTEIN CONTENT IN LIVESTOCK" is a bonafide work done by

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Kakinada)

DIVILI

DEPARTMENT OF AGRICULTURAL ENGINEERING



**CERTIFICATE**

This is to certify that the project work entitled "COMPARATIVE STUDY OF  
DIFFERENT FARMING METHODS UNDER SHADEDNET HOUSE" is done by

K.LAKSHMI PRASANNA	19JQ5A3514
M.SUNNY	19JQ5A3518
C.NAVEEN	18JQ1A3514
A.DIVYA	18JQ1A3502

Students of Department of AGRICULTURAL ENGINEERING, is a record of  
Bonafide work carried out by them under my guidance and supervision during 2016  
2017. This project is done as a partial fulfillment of obtaining Bachelor of Technology  
Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada.

The matter embodied in this project report has not been submitted to any other university  
for the award of any other degree.

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Head Of The Department

HEAD OF THE DEPARTMENT

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that is being submitted by

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N.BHANU PRAKASHI 18JQ1A3544

M.TEJA 18JQ1A3539

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Assistant professor

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Mr.G.VARAPRASADARAO(M.Tech)

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This is to certify that the thesis entitled “STUDY AND DESIGN FEATURES OF THREE ROW SEED DRILL FOR 7HP AND 9HP POWER TILLER” that is being submitted by

N.SHIVAKUMAR	19JQ5A3519
K.MANASA	19JQ5A3513
P.SRAVAN	19JQ5A3522
G.MOUNIKA	18JA1A3522

In partial fulfilment of the requirements for the award of degree of bachelor of technology in the department of AGRICULTURAL ENGINEERING, Kakinada institute of technology and science, divili.

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

  
Project guide

Dr T. PRABHAKARA RAO

Associate Professor

Head of the department

  
Mr.G.VARAPRASADA RAO

Assistant professor



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**CERTIFICATE**

This is to certify that the project work entitled, " DESIGN AND DEVELOPMENT OF TWO ROW MANUALLY OPERATED PADDY TRANSPLANTER" is a confident work of

D.VANDANA	(19JQ5A3508)
S.SIVA	(18JQ1A3583)
G.SANTHI KUMARI	(18JQ1A3524)
J.VENKATESH	(18JQ5A3549)
B.SUJITH	(19JQ5A3504)

Submitted to the Department of Agricultural Engineering, in partial fulfillment of the requirements for the award of the degree of BACHELOR OF TECHNOLOGY in AGRICULTURAL ENGINEERING from KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE

Signature of the project guide  
Mr. G. VARA PRASADA RAO  
(MTECH)

Signature of the External Examiner  
EXTERNAL EXAMINER

Signature of the HOD  
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Principal  
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**KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE**  
Approved by AICTE DELHI, affiliated to JNTU, Kakinada accredited with NAAC (B+)  
**DEPARTMENT OF AGRICULTURAL ENGINEERING**



**CERTIFICATE**

**This is to certify that the project work DESIGN AND CONSTRUCTION OF WOODEN FRAMED SHADED NET HOUSE is a bonafide work done by,**

B.NAVEEN	(19JQ5A3506)
Y.LAKSHMI SALOMI	(18JQ1A3572)
U.PRAMEELA	(18JQ1A3578)
L.VAMSI KRISHNA	(18JQ1A3535)

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**Signature of the project guide**

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Department of Agricultural Engineering

**Signature of the HOD**

**Mr.G.VARAPRASAD RAO (M.Tech)**  
Department of Agricultural Engineering

**EXTERNAL EXAMINER**

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E.G.Dist.-533433.

KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE

Approved by AICTE DELHI, affiliated to JNTU, Kakinada accredited with NAAC (B+)

DEPARTMENT OF AGRICULTURAL ENGINEERING



CERTIFICATE

This is to certify that the project work entitled "DESIGN AND DEVELOPMENT OF AUTOMATIC IRRIGATION SYSTEM FOR PLANTS BY USING SOLAR ENERGY" that has been submitted by,

A.NAGA VAMSI KRISHNA	18JQ1A3505
B.MAHESWARI	18JQ1A3508
A.YAMUNA	18JQ1A3506
D.MOUNIKA	18JQ1A3518

in a partial fulfillment of the requirements for the award of the degree of Bachelor of Technology in the department of AGRICULTURAL ENGINEERING from KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE, DIVILI for the academic year 2018-2022.

The result embodied in this project report have been not submitted to any other institute or university for the award of any degree or diploma.

*B. Sasi*  
Signature of the project Guide

Miss. B.SASI M.TECH

*G. Vara Prasad*  
Signature of the HOD

G.VARA PRASAD M.TECH

*T. Jasi*  
Signature of external examiner

PRINCIPAL  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),  
E.G Dist. 533433.



KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE

(Approved by AICTE, permanently affiliated to JNTUK, Kakinada)

TIRUPATHI (V), DIVILI, PEDDAPURAM MANDAL -533437 (A.P)

## CERTIFICATE

This is to certify that the thesis and title " PREPARATION of MEAT PICKLES BY USING NATURAL PRESERVATIVES & IT's STORAGE STABILITY STUDIES AT ROOM TEMPERAURE" that is being submitted by

A. ASHAPAPA	-	18JQ1A3571
V. MALATHI	-	18JQ1A3598
N. DEEPIKA	-	18JQ1A3547
P. CHARMINI	-	18JQ1A3553

In partial fulfilment of the Requirements for the award of the degree Bachelor of Technology in the department of AGRICULTURAL ENGINEERING, KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE (Approved by AICTE, permanently affiliated to JNTUK, KAKINADA TIRUPATHI (V), DIVILI. The results embodied in this project report have not been submitted to any other institution or university for the award of degree or diploma

PROJECT GUIDE: *S. Farida*  
MIS.SHAIK.FARIDA (AG.MSC)  
professor

HEAD OF THE DEPARTMENT

Mr. G.VARAPRASAD RAO Assistant

*P. Sankar Reddy*  
DEPARTMENT OF AGRICULTURE

EXTERNAL EXAMINAR

---

KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE

2

Principal  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),  
E.G.Dist,-533433.

KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE  
Approved by AICTE DELHI, affiliated to JNTU, Kakinada accredited with  
NAAC (B+)

DEPARTMENT OF AGRICULTURAL ENGINEERING



CERTIFICATE

This is to certify that the project work **PREPARATION AND ORGNOLEPTIC  
EVALUATION OF SWEET LADDOO WITH GERMINATED PUMPKIN  
SEED FLOUR** is a bonafide work done by,

M.SONY	18JQ1A3576
A.ANJALI	18JQ1A3507
V.MOHAN	18JQ1A3579
K.SANDEEP	18JQ1A3594

Submitted to the department of agricultural engineering, in a partial fulfillment of the requirements for the award of the degree of BACHELOR OF TECHNOLOGY in AGRICULTURAL ENGINEERING from KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE, Divili

*B. Sasi*  
Signature of the project guide

Ms. B. SASI (M.Tech)

Department of Agricultural Engineering

*G. Varaprasad Rao*  
Signature of the HOD

Mr.G.VARAPRASAD RAO (M.Tech)

Department of Agricultural Engineering

*P. Sankar Reddy*  
EXTERNAL EXAMINER

*G. Varaprasad Rao*  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M).  
E.G.Dist.-533433.

KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE  
Approved by AICTE DELHI, affiliated to JNTU, Kakinada accredited with NAAC(B+)

DEPARTMENT OF AGRICULTURAL ENGINEERING

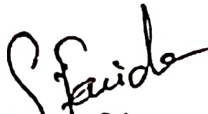


CERTIFICATE

This is to certify that the project work entitled Preparation of  
Performance evolution of petrol lawn mower work done by,  
N. MARY CHANDRIKA      18JQ1A3546  
M. VINEELA                      18JQ1A3536  
K. VENKATESH                18JQ1A3593  
M.GOUTHAM KUMAR        18JQ1A3587

Submitted to the department of agricultural engineering, in a partial fulfillment of the  
requirements for the award of the degree of

BACHELOR OF TECHNOLOGY in AGRICULTURAL ENGINEERING from  
KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE, DIVILI

  
Signature of the project guide

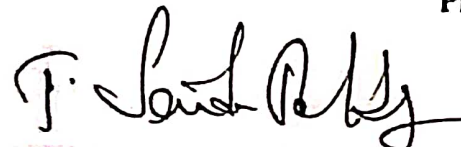
Shaik Farida (Agriculture MSC).

Assist. Professor

  
Signature of the HOD

G. Varaprasad Rao

Professor

  
EXTERNAL EXAMINER

  
PRINCIPAL  
Kakinada Institute of Technology and Science,  
Tirupathi (V), Divili, Peddapuram (M),  
E.G. Dist.,-533433.



KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE

Approved by AICTE DELHI, affiliated to JNTU, Kakinada accredited with NAAC(B+)

DEPARTMENT OF AGRICULTURAL ENGINEERING



CERTIFICATE

This is to certify that the project work entitled Preparation of

Performance evolution of petrol lawn mower work done by,

N. MARY CHANDRIKA 18JQ1A3546

M. VINEELA 18JQ1A3536

K. VENKATESH 18JQ1A3593

M.GOUTHAM KUMAR 18JQ1A3587

Submitted to the department of agricultural engineering, in a partial fulfillment of the requirements for the award of the degree of

BACHELOR OF TECHNOLOGY in AGRICULTURAL ENGINEERING from  
KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE, DIVILI

Signature of the project guide

Shaik Farida (Agriculture MSC).

Assist. Professor

G. Varaprasad Rao

Professor

EXTERNAL EXAMINER

PRINCIPAL  
Kakinada Institute of Technology and Science

Tirupathi (V), Divili, Peddapuram (M),

E.G. Dist.,-533433.

KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE

Approved by AICTE DELHI, affiliated to JNTU, Kakinada accredited with NAAC (B+)

DEPARTMENT OF AGRICULTURAL ENGINEERING



CERTIFICATE

This is to certify that the project work entitled Studies Preparing of instant cook foods with different millet powders is a bonafide work done by,

R.P.S.SAI RAM	18JQ1A3560
A. AKHILA	18JQ1A3501
D. SUSMITHA SRI	18JQ1A3517
M.KRISHNA VENI	18JQ1A3537

Submitted to the department of agricultural engineering, in a partial fulfillment of the requirements for the award of the degree of BACHELOR OF TECHNOLOGY in AGRICULTURAL ENGINEERING from KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE, Divili

*B. Sasi*  
Signature of the project

B.SASIM.Tech

Department of Agricultural Engineering

*G. Varaprasada Rao*  
guide Signature of the HOD

G. VARAPRASADA RAO M.TECH

Department of Agricultural Engineering

*G. Varaprasada Rao*  
EXTERNAL EXAMINE

*G. Varaprasada Rao*  
PRINCIPAL

Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),  
E.G.Dist.-533433.

# KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE

Approved by AICTE,,Affiliated to JNTUK, Kakinada  
DIVILI,Peddapuram- 533433,Eg.Dt, ANDHRA PRADESH.

## DEPARTMENT OF AGRICULTURAL ENGINEERING



### CERTIFICATE

This is to certify that the project work entitled, "EXTRACTION OF NANNAR(DECALEPIS HAMILTONI) SYRUP FROM NANNARI ROOTS" is a confide work of

K.MADHAVI	(18JQ1A3591)
Y.JANAKI	(18JQ1A3575)
S.KHAJA VALI	(18JQ1A3562)
S.KHADEER	(19JQ5A3527)

Submitted to the Departmet of agricultural Engineering ,in partial fulfillment of the requirements for the award of the degree of BACHELOR OF TECHNOLOGY in AGRICULTURAL ENGINEERING from KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE

Signature of the project guide

Miss.S.FARIDA

Signature of the HOD

Mr.G.VARA PRASADA RAO

EXTERNAL EXAMINER

PRINCIPAL

Kakinada Institute of Technology and S.  
Tirupathi (V), Divili, Peddapuram (M),  
E.G.Dist,-533433.

# KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE

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Kakinada)  
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## DEPARTMENT OF AGRICULTURAL ENGINEERING

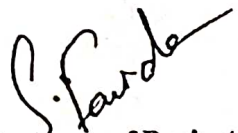



### CERTIFICATE

This is to certify that the project work entitled " PREPARATION OF RAGI FLOUR BASED BISCUITS" is a bonafide work done by

T. SAILAJA	18JQ1A3568
V. ARUN KUMAR	18JQ5A3542
P. KAVITHA	18JQ1A3554
T. DEEPIKA	18JQ1A3567

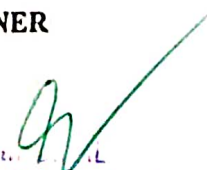
Submitted to the department of agriculture engineering, in partial fulfillment of the requirement for the award of the degree of BACHELOR OF TECHNOLOGY in AGRICULTUREAL ENGINEERING from KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE, Divili.

  
Signature of Project guide  
Ms. Shaik. FARIDA  
(M. Sc)

  
Signature of the HOD  
Mr. G. VARA PRASADA RAO  
(M. TECH)

  
Department of Agricultural Engineering

EXTERNAL EXAMINER

  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M).  
E.G.Dist.-533433.

KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE  
Approved by AICTE DELHI, affiliated to JNTU, Kakinada accredited with  
NAAC (B+)

DEPARTMENT OF AGRICULTURAL ENGINEERING



CERTIFICATE

This is to certify that the project work Extraction of nutrient milk from the unused seeds of the Muskmelon is a bonafide work done by,

T. SAI RAM	18JQ1A3566
V. L. SUJATHA	18JQ1A3570
B. ANKITHA	18JQ1A3511
U. P. KALYAN	19JQ5A3529

Submitted to the department of agricultural engineering, in a partial fulfillment of the requirements for the award of the degree of BACHELOR OF TECHNOLOGY in AGRICULTURAL ENGINEERING from KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE, DIVILI.

*B. Sasi*  
Signature of the project guide

B.SASI M.Tech

Department of Agricultural Engineering

*G. Varaprasada Rao*  
Signature of the HOD

Sir G. VARAPRASADA RAO (M.TECH)

Department of Agricultural Engineering

*G. Sankar Reddy*  
EXTERNAL EXAMINER

*[Signature]*  
PRINCIPAL

Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),  
E.G. Dist, -533433.

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Kakinada)

Accredited By NAAC with B+ Grade, Divili.

## DEPARTMENT OF AGRICULTURAL ENGINEERING





### CERTIFICATE

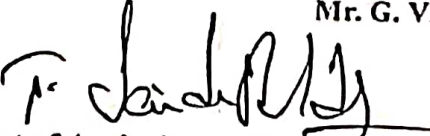
This is to certify that the project work entitled "THE CULTIVATION OF AZOLLA AND CASE STUDY OF PROTEIN CONTENT IN LIVESTOCK" is a bonafide work done by

G. VENUBABU	-	18JQ1A3525
K. DIVYA SRI	-	18JQ1A3527
K. BALA GANGA	-	18JQ1A3533
V. RUTHUMMA	-	18JQ1A3569

Submitted to the department of agriculture engineering, in partial fulfillment of the requirement for the award of the degree of BACHELOR OF TECHNOLOGY in AGRICULTURAL ENGINEERING from KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE, Divili.

  
Signature of Project guide  
Ms. Shaik FARIDA  
(M. Sc)

  
Signature of the HOD  
Mr. G. VARA PRASADA RAO  
(M. TECH)

  
Department of Agricultural Engineering

EXTERNAL EXAMINER

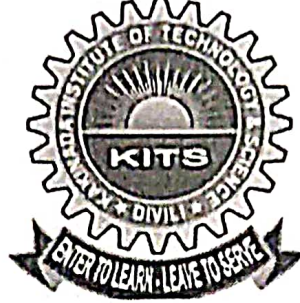
  
PRINCIPAL  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),  
E.G. Dist.-533433.

**KAKINADA INSTITUTE OF TECHNOLOGY  
AND SCIENCE**

(AFFILIATED TO J.N.T. UNIVERSITY, APPROVED BY A.I.C.T.E., NEW  
DELHI.)

Accredited by NAAC with B+ Grade)

KAKINADA, TIRUPATHI (V)-533433, East Godavari Dist. A.P.



**CERTIFICATE**

This is to certify that the project work entitled "Performance evaluation of Digital grain moisture meter " is done By "G.Narendra (18JQ1A3523), SK.Mastan vali (18JQ1A3563), G. Lakshmi priya (18JQ1A3551), V.Vyshnavi (19JQ5A3530), K.Vamsi Krishna (18JQ1A3530)" students of Department of Agriculture Engineering is a record of Bonafide work carried out by them under my guidance and supervision during 2021-2022. This project is done as a partial fulfillment of obtaining Bachelor of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada.


The matter embodied in this project report has not been submitted to any other university for the award of any other degree.

  
Signature of Guide

**Dr T. PRABHAKARA RAO**

  
Signature of HOD:

**Mr. VARAPRASADA RAO**  
(M. Tech)

  
Signature of the External Examiner

  
PRINCIPAL  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),  
E.G. Dist. - 533433.

# KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE

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Kakinada )

Accredited By NAAC with B+ Grade, Divili.

## DEPARTMENT OF AGRICULTURAL ENGINEERING

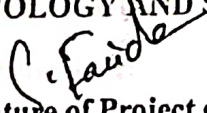


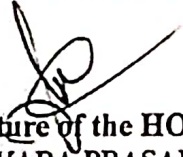
### CERTIFICATE

This is to certify that the project work entitled " BIODEGRADATION OF  
BAGGASE " is a bonafide work done by

M.NIKITHA	18JQ1A3540
CH.SANGEETHA	19JQ5A3507
K.PRAVALLIKA	18JQ1A3528
A.VIJAY KUMAR	19JQ5A3501

Submitted to the department of agriculture engineering, in partial fulfillment of the  
requirement for the award of the degree of BACHELOR OF TECHNOLOGY in  
AGRICULTUREAL ENGINEERING from KAKINADA INSTITUTE OF  
TECHNOLOGY AND SCIENCE, Divili.

  
Signature of Project guide  
Ms. Shaik FARIDA  
(M. Sc)

  
Signature of the HOD  
Mr. G. VARA PRASADA RAO  
(M. TECH)

  
Department of Agricultural Engineering

EXTERNAL EXAMINER

  
PRINCIPAL  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),  
E.G.Dist, 533433.



**KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE**

Approved by AICTE DELHI, affiliated to JNTU, Kakinada accredited with  
NAAC (B+)

**DEPARTMENT OF AGRICULTURAL ENGINEERING**



**CERTIFICATE**

This is to certify that the project work **STUDY AND PERFORMANCE  
EVALUATION OF BELLY MOUNTED DUSTER** is a bonafide work done by,

P. SHANKAR	(18JQ1A3590)
N. BALABHASAKAR	(18JQ1A3577)
B. RAMYA SRI	(18JQ1A3510)
A. BINDU	(18JQ1A3516)

Submitted to the department of agricultural engineering, in a partial fulfillment of the requirements for the award of the degree of **BACHELOR OF TECHNOLOGY** in **AGRICULTURAL ENGINEERING** from **KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE, Divili**

Signature of the project guide

Dr T. PRABHAKARA RAO

Department of Agricultural Engineering

Signature of the HOD

Mr.G.VARA PRASADA RAO (M.Tech)

Department of Agricultural Engineering

*T. Sankar Reddy*

**EXTERNAL EXAMINER**

**PRINCIPAL**  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),  
E.G.Dist. -533433.

KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE  
Approved by AICTE DELHI, Affiliated to JNTU, Kakinada accredited with  
NACC B+  
DEPARTMENT OF AGRICULTURAL ENGINEERING



CERTIFICATE

This is to certify that the thesis entitled "4 STROKE PETROL MINI POWER TILLER" that is being submitted by

G.VINAY

18JQ1A3585

D.THANUJA

18JQ1A3586

P.ANIL KUMAR

18JQ1A3584

K.TEJASWI

18JQ1A3561

Submitted to the department of agricultural engineering, in a partial fulfilment of there requirements for the award of the degree of

BACHELOR OF TECHNOLOGY in AGRICULTURAL ENGINEERING from  
KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE, DIVILI.

*B. Sasi*  
Signature of the project guide

B. SASI M. TECH

Department of Agricultural Engineering

*G. Vara Prasad*  
Signature of the HOD

G.VARA PRASAD

Department of Agricultural Engineering

*P. Subrah*  
EXTERNAL EXAMINER

*[Signature]*  
PRINCIPAL  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),  
E.G. Dist. - 533433.

**KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE**

Approved by AICTE DELHI, affiliated to JNTU, Kakinada accredited with

NAAC (B+)

**DEPARTMENT OF AGRICULTURAL ENGINEERING**



**CERTIFICATE**

This is to certify that the project work entitled **DESIGN AND DEVELOPMENT OF MANUALLY OPERATED FERTILIZER APPLICATOR** is a bonafide work done by,

<b>P. HARIKRISHNA</b>	<b>18JQ1A3552</b>
<b>M.D.S.S. PRASAD</b>	<b>18JQ1A3538</b>
<b>K. AKHILA</b>	<b>18JQ1A3534</b>
<b>J. RAMYA SRI</b>	<b>18JQ1A3596</b>

submitted to the department of agricultural engineering, in a partial fulfillment of the requirements for the award of the degree of **BACHELOR OF TECHNOLOGY** in **AGRICULTURAL ENGINEERING** from **KAKINADA INSTITUTE OF TECHNOLOGY & SCIENCE, DIVILI.**

*B. Sasi*  
Signature of the project guide

**S. B. SASI (M. TECH)**

Department of Agricultural Engineering

*G. Vara Prasada Rao*  
Signature of the HOD

**Mr. G. VARA PRASADA RAO (M.TECH)**

Department of Agricultural Engineering

*T. Sankar Reddy*  
**EXTERNAL EXAMINER**

*[Signature]*  
**PRINCIPAL**  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M).  
E.G. Dist. - 533433.

# KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE

Approved by AICTE., New Delhi - Affiliated to JNTUK, Kakinada  
TIRUPATHI (V), Peddapuram-533433, E.G.DI, ANDHRA PRADESH.

## DEPARTMENT OF CIVIL ENGINEERING



### CERTIFICATE

This is to certify that the project work entitled "ENGINEERING CHARACTERIZATION OF SULPHUR MODIFIED BITUMINOUS BINDERS"

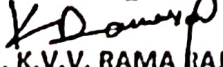
is done by

POLAMARASETTI VENKATA SUDHAKAR	19JQ5A0124
PUJARI SAI DURGA	18JQ1A0102
SONTE VEERA NAGU	19JQ5A0130
JAKKAMSETTI RAVI TEJA	19JQ5A0108

students of Department of Civil Engineering, is a record of bonafide work carried out under my guidance and supervision during 2018-2022. This project is done as a partial

fulfillment of obtaining Bachelor of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada. The matter embodied in this project report has not been submitted to any other university for the award of any other degree.

Counter signed

  
Sri. K.V.V. RAMA RAJU  
M.Tech.

Assistant Professor & Head

Department. of Civil Engineering,

Kakinada Institute of Technology & Science,  
DivIII.

Thesis Supervisor

  
Sri. CH. GANGA BHAVANI  
M.Tech

Assistant Professor

Department. of Civil Engineering

Kakinada Institute of Technology & Science,  
DivIII.

  
PRINCIPAL  
Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (E.G.DI)

E.G.Dist. 533433

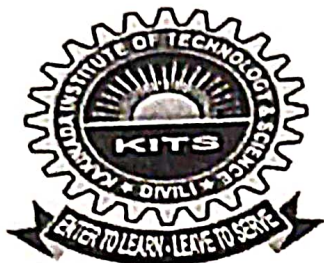
Signature of the External Examiner



# KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCES

(Approved by A.I.C.T.E New Delhi & Affiliated to JNTU, Kakinada Accredited by NAAC)  
Tirupati (v), Divili, Peddapuram Mandal, East Godavari District, Andhra Pradesh, Pin: 533433.

## DEPARTMENT OF MECHANICAL ENGINEERING



### CERTIFICATE

This is to certify that the project report entitled, "DESIGN AND MANUFACTURING OF COMPUTER NUMERICAL CONTROL (CNC)" is a bonified work done b

CHINTHA SATHIBABU

18JQ1A0301

SHAIK GOUSE MOHIDDIN

19JQ5A0369

BODDU LOVAGANGADHAR

19JQ5A0302

In a partial fulfillment of the requirement for the award of the degree OF BACHELOR OF TECHNOLOGY IN MECHANICAL ENGINEERING to the JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA is a record of bonafide work carried out by them under my guidance and supervision. The results reported in this thesis have not been submitted to any other university or institute for any degree or diploma.

Signature of the Guide

Er.Y.DHANASEKHAR M.Tech (Ph.D)  
Associate professor & HOD,  
Dept of Mechanical engineering  
KITS Engineering College, Divili.

Signature of the HOD

Er.Y.DHANASEKHAR M.Tech, (Ph.D)  
Associate professor & HOD,  
Dept of mechanical engineering,  
KITS Engineering College, Divili

HEAD DEPT.OF MECH.ENGG.  
KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE  
TIRUPATI(V),PEDDAPURAM (MD),EAST GODAVARI (DT)

Signature of the External Examiner

HEAD DEPT.OF MECH.ENGG.  
KAKINADA INSTITUTE OF TECHNOLOGY AND SCIENCE  
TIRUPATI(V),PEDDAPURAM (MD),EAST GODAVARI (DT)

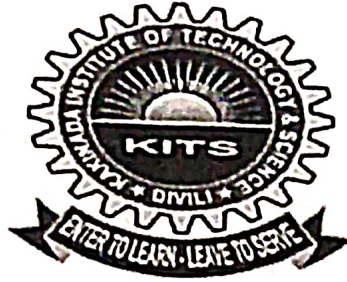
PRINCIPAL

Kakinada Institute of Technology and Science  
Tirupathi (V), Divili, Peddapuram (M),  
E.G.Dist. 533433.

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Tirupati (v), Divili, Pedapuram Mandal, East Godavari District, Andhra Pradesh, Pin:  
533433.

## DEPARTMENT OF MECHANICAL ENGINEERING



### CERTIFICATE

This is to certify that the project report entitled, "IMPACT OF TERINARY BLENDS ON HCCI ENGINE PERFORMANCE AND EMISSION CHARACTERISTICS" is a bonified work done by

PESINGI SANTOSH	18JQ1A0314
SANABOINA NAVEEN	18JQ1A0316
CHIPPADA BRUHADISH	19JQ5A0338
VARRE VEERA SAIPRASAD	19JQ5A0333
RAJANALA VEERENDRA	19JQ5A0315

In a partial fulfillment of the requirement for the award of the degree of **BACHELOR OF TECHNOLOGY IN MECHANICAL ENGINEERING** to the **JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA** is a record of bonafide work carried out by them under my guidance and supervision. The results reported in this thesis have not been submitted to any other university or institute for any degree or diploma.

Signature of the Guide

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This is to certify that the project report entitled "VARIES CUTTING PARAMETERS BY TURNING OPERATION BY USING CNC LATHE MACHINE" is a bonafide work done by

PECHETTY LAKSHMI KANTH	18JQ1A0312
VALLURI SUMANTH	18JQ1A0320
KARRI DHANAVEERA	19JQ5A0331
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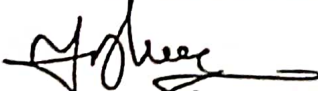


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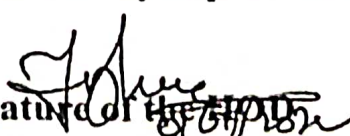
OWK SIVA	18JQ1A0310
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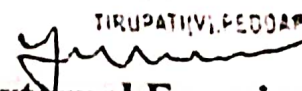
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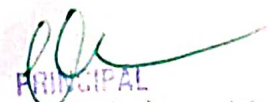
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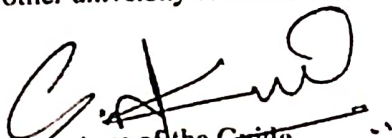


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<b>BOLLU VENKAT</b>	<b>19JQ5A0323</b>

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This is to certify that the project work entitled "Number Plate Recognition" is done By "B. Laxmanrao (18JQ1A0503), M. Siva Durga (18JQ1A0516), B. Siva (18JQ1A0504), B. Gowri (18JQ1A0506), Y. Teja sri (18JQ1A0530)" students of Department of Computer Science & Engineering is a record of bonafide work carried out by them under my guidance and supervision during 2021-2022. This project is done as a partial fulfillment of obtaining Bachelor of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada.

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This is to certify that the dissertation entitled „*Power and an efficient Area Aware Improved SQRT CSLA*’ being submitted by *KASANI KRISHNA SRAVANI*, Roll.No:17JQ1D8112, in partial fulfilment of the requirements for the award of *Master of Technology* in **ELCTRONICS & COMMUNICATION ENGINEERING** to the *Jawaharlal Nehru Technological University-Kakinada* is a record of confide work carried out by her under my guidance and supervision during 2017-2022. The results embodied in this thesis have not been submitted to any other University for the award of any Degree or Diploma.

  
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This is to certify that the dissertation entitled „**Reliable and low density Based Error Correction in SRAM Cells**“ being submitted by **DANDU YAMINI, RollNo:17JQ1D8110**, in partial fulfilment of the requirements for the award of **Master of Technology in ELCTRONICS & COMMUNICATION ENGINEERING** to the **Jawaharlal Nehru Technological University-Kakinada** is a record of confide work carried out by her under my guidance and supervision during 2017-2022. The results embodied in this thesis have not been submitted to any other University for the award of any Degree or Diploma.

  
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(V), DIVILI, PEDDAPURAM MANDAL, E.G. DT, ANDHRA PRADESH.

**DEPARTMENT OF COMPUTER SCIENCE AND  
ENGINEERING**



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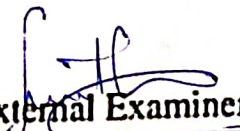
This is to certify that the project work entitled "**INTRUSION DETECTION AND PREVENTION SYSTEM ON CLOUD ENVIRONMENT HYBRID CLASSIFICATION**" is a bonafied work of Ms. **K SYAMALA KALYANI** bearing Regd. No: **18JQ1D5803** submitted to the faculty of Computer Science & Engineering, in partial fulfillment of the requirements for the award of the degree of **Master of Technology in Computer Science and Engineering** from Kakinada Institute of Technology and Science, Divili.

  
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*This is to certify that project entitled "New Control Strategy Based PV-Statcom For Power Oscillation Damping Using Fuzzy Logic Controller" is the work carried out by BANDARU NAGESWARA RAO bearing Roll no19JQ1D4309 in partial fulfillment of the requirement for the award of MASTER OF TECHNOLOGY in ELECTRICAL AND ELECTRONICS ENGINEERING with specialization in POWER ELECTRONICS at KITS, DIVILI, JNTUK, KAKINADA is the record of bonafide work carried out by his under guidance and supervision of Mr.B.RAMESH, M.Tech Asst. Professor, Dept. of Electrical and Electronics Engineering during the academic year 2021-2022.*

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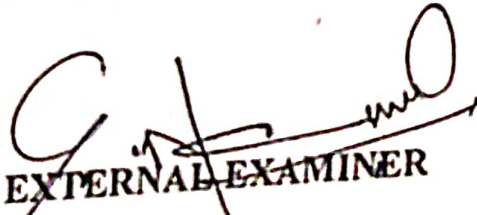
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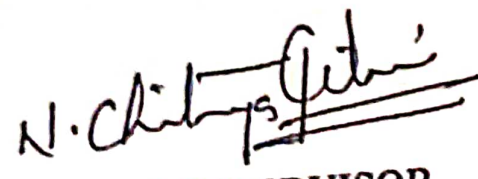
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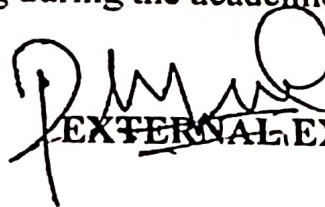
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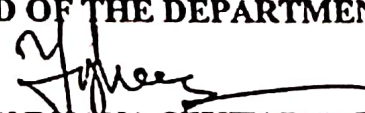
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This is to certify that the dissertation entitled "PERFORMANCE OF A FINNED-TUBE EVAPORATOR OPTIMIZED FOR DIFFERENT REFRIGERANTS AND ITS EFFECT ON SYSTEM EFFICIENCY" is the Bonafide record of the project work done by SRI MANIKANTA NARKEDAMILLI with Regd.No 18JQ1D2101, submitted in partial fulfillment of the requirements for the award of M.Tech (Thermal Engineering) in Mechanical Engineering during the academic year 2018- 2020.


  
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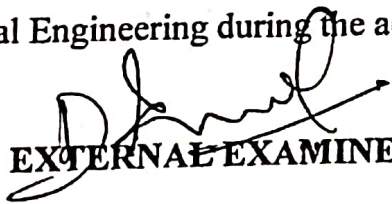
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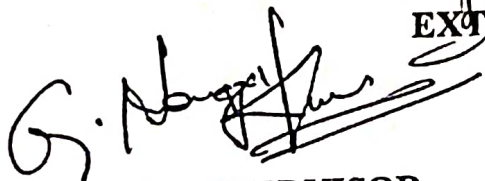
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**HEAD OF THE DEPARTMENT**  
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**CERTIFICATE**

This is to certify that the dissertation entitled "**FATIGUE BEHAVIOUR OF GEAR WHEELS WITH DIFFERENT LOADING CONDITIONS**" is the Bonafide record of the project work done by **RAMA SANTOSH KUMAR ANNEPU** with Regd.No18JQ1D0404, submitted in partial fulfillment of the requirements for the award of M.Tech (CAD/CAM) in Mechanical Engineering during the academic year 2018- 2020.

  
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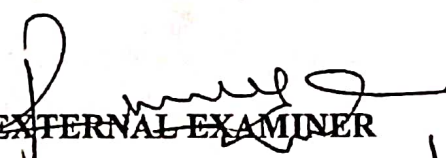
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This is to certify that the dissertation entitled “**EXPERIMENTAL INVESTIGATION OF SURFACE IN HARD TURNING FOR SEVERAL PROCESS PARAMETERS USING FUZZY LOGIC**” is the Bonafide record of the project work done by **SRIMANTHULA RAVIKUMAR** with Regd.No **18JQ1D0405**, submitted in partial fulfillment of the requirements for the award of M.Tech (CAD/CAM) in Mechanical Engineering during the academic year 2018- 2020.

  
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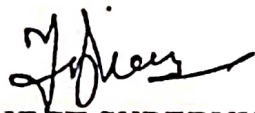
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This is to certify that the dissertation entitled **TOPOLOGY OPTIMISATION OF ENGINE MOUNTING BRACKET UNDER STATIC LOADING CONDITIONS** is the Bonafide record of the project work done by VARADA HARISH with Regd.No:18JQ1D0406, submitted in partial fulfillment of the requirements for the award of M.Tech (CAD/CAM) in Mechanical Engineering during the academic year 2018- 2020.

  
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This is to certify that the dissertation entitled “**NATURAL FREQUENCY ANALYSIS OF HELICOPTER ROTOR BLADES**” is the Bonafide record of the project work done by **EGU VIJAYA RAJU** with Regd.No17JQ1D0403, submitted in partial fulfillment of the requirements for the award of M.Tech (CAD/CAM) in Mechanical Engineering during the academic year 2017- 2019.



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**CERTIFICATE**

This is to certify that the dissertation entitled **“CFD AND THERMAL INVESTIGATION OF FIN TUBE EVAPORATOR BY SHAPE OPTIMIZATION PROCESS”** is the Bonafide record of the project work done by **D.SURENDRA MOHAN** with Regd.No **17JQ1D2107**, submitted in partial fulfillment of the requirements for the award of **M.Tech (THERMAL ENGINEERING)** in Mechanical Engineering during the academic year **2017- 2019**.

  
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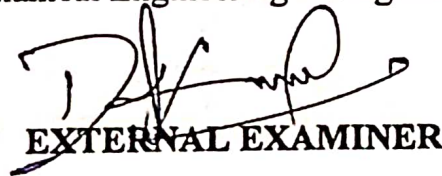
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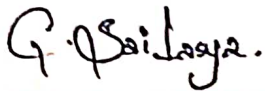
**DEPARTMENT OF MECHANICAL ENGINEERING**



**CERTIFICATE**

This is to certify that the dissertation entitled “**THERMAL ANALYSIS AND CHARACTERISTICS OF HYBRID LOOP HEAT PIPE SYSTEMS WITH MULTIPLE EVAPORATORS USING CFD**” is the Bonafide record of the project work done by **NALLAMATI RAJU** with Regd.No **17JQ1D2117**, submitted in partial fulfillment of the requirements for the award of **M.Tech (THERMAL ENGINEERING)** in Mechanical Engineering during the academic year 2017- 2019.

  
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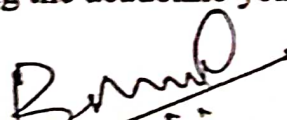
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This is to certify that the dissertation entitled "**CFD SIMULATION OF LAB SCALE FLUIDIZED BED REACTOR WITH AND WITHOUT SIDE GAS INJECTION**" is the Bonafide record of the project work done by **GARIKAPATI VARUN** with Regd.No 17JQ1D2109, submitted in partial fulfillment of the requirements for the award of M.Tech (THERMAL ENGINEERING) in Mechanical Engineering during the academic year 2017- 2020.

  
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**CERTIFICATE**

This is to certify that the dissertation entitled "**CFD ANALYSIS AND OPTIMIZATION OF SHELL-AND-TUBE INTERCOOLER IN MULTISTAGE COMPRESSOR**" is the Bonafide record of the project work done by **SABBIREDDY LAKSHMAN** with Regd.No **17JQ1D2121**, submitted in partial fulfillment of the requirements for the award of **M.Tech (THERMAL ENGINEERING)** in Mechanical Engineering during the academic year 2017- 2019.

  
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This is to certify that the dissertation entitled "EXPERIMENTAL INVESTIGATION ON EROSION WEAR RESPONSE OF PARTICULATE FILLED ZA-27 METAL COMPOSITE MATRIX" is the Bonafide record of the project work done by APPARI LEELA BHUSHAN KUMAR with Regd.No 18JQ1D0401, submitted in partial fulfillment of the requirements for the award of M.Tech (CAD/CAM) in Mechanical Engineering during the academic year 2018-2020.

  
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*This is to certify that project entitled "New Control Strategy of Interconnected Micro grids for Enhancing Power Sharing Capability" is the work carried out by VELPULA VENUGOPAL bearing Roll no19JQ1D4310 in partial fulfillment of the requirement for the award of MASTER OF TECHNOLOGY in ELECTRICAL AND ELECTRONICS ENGINEERING with specialization in POWER ELECTRONICS at KITS, DIVILI, JNTUK, KAKINADA is the record of bonafide work carried out by his under guidance and supervision of Mr.B.RAMESH, M.Tech Asst. Professor, Dept. of Electrical and Electronics Engineering during the academic year 2021-2022.*

*The result embodied in this project report has not been submitted to any other university for the award of any degree.*

  
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*This is to certify that project entitled "Solar Photovoltaic Water Pumping System Utilizing An BLDC Motor Drive" is the work carried out by V S S PAVAN KANKIPATI bearing Roll no19JQ1D4312 in partial fulfillment of the requirement for the award of MASTER OF TECHNOLOGY in ELECTRICAL AND ELECTRONICS ENGINEERING with specialization in POWER ELECTRONICS at KITS, DIVILI, JNTUK, KAKINADA is the record of bonafide work carried out by his under guidance and supervision of Mr.P.V. V.RAMANA, M.Tech Asst. Professor, Dept. of Electrical and Electronics Engineering during the academic year 2021-2022.*

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## DEPARTMENT OF CIVIL ENGINEERING



### CERTIFICATE

This is to certify that the project work entitled, "Experimental study on enhancing properties of self compacting concrete" is done by A.Venkata Ramana Murthy(19JQ1D8719) student of Department of Civil Engineering, is a record of bonafide work carried out under my guidance and supervision during 2020- 2021. This project is done as a partial fulfillment of obtaining Master of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada. The matter embodied in this project report has not been submitted to any other university for the award of any other degree.

  
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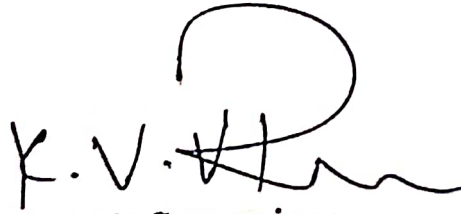


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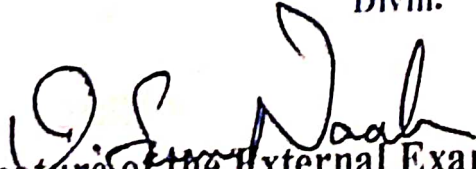
This is to certify that the project work entitled, "Experimental Investigation of M30 Grade Self Compaction Concrete by Partial Replacement of Glass Powder in Place of Fine Aggregate and Bagasse Ash in Place of Cement" is done by P.KOTESWARA RAO (17JQ1D8710) student of Department of Civil Engineering, is a record of bonafide work carried out under my guidance and supervision during 2021-2022. This project is done as a partial fulfillment of obtaining Master of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada. The matter embodied in this project report has not been submitted to any other university for the award of any other degree.

  
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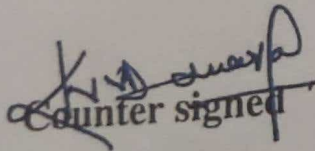
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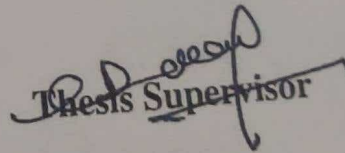
This is to certify that the project work entitled, "Design and analysis of multistoried residential RC building subjected to different loading conditions" is done by SANGISETTI PRAGNYA (19JQ1D8701) student of Department of Civil Engineering, is a record of bonafide work carried out under my guidance and supervision during 2020-2021. This project is done as a partial fulfillment of obtaining Master of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada. The matter embodied in this project report has not been submitted to any other university for the award of any other degree.

  
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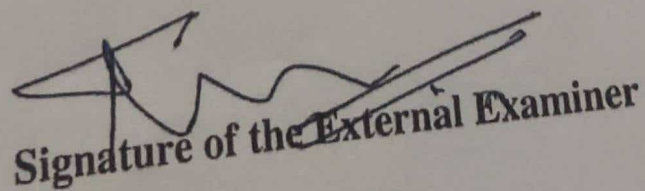
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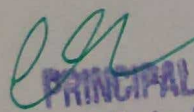
  
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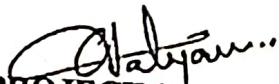
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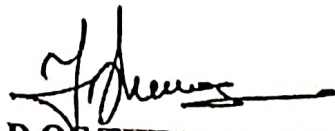
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This is to certify that the dissertation entitled "THERMAL AND CFD SIMULATION OF LAMINAR PULSATING FLUID FLOW IN MICRO TUBE" is the Bonafide record of the project work done by TIRUNAMALA PHANI MOHAN with Regd.No: 19JQ1D2102, submitted in partial fulfilment of the requirements for the award of the degree M.Tech (THERMAL ENGINEERING) in Mechanical Engineering during the academic year 2019-2021.

  
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This is to certify that the project work entitled, "Effect of rubberized concrete on dynamic properties of concrete" is done by V Kranthi Varma (18JQ1D8723) student of Department of Civil Engineering, is a record of bonafide work carried out under my guidance and supervision during 2019-2020. This project is done as a partial fulfillment of obtaining Master of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada. The matter embodied in this project report has not been submitted to any other university for the award of any other degree.

  
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## DEPARTMENT OF CIVIL ENGINEERING



### CERTIFICATE

This is to certify that the project work entitled, "Improving the properties of GPC with different admixtures " is done by G SAI HEMANTH (18JQ1D8721) student of Department of Civil Engineering, is a record of bonafide work carried out under my guidance and supervision during. This project is done as a partial fulfillment of obtaining Master of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada. The matter embodied in this project report has not been submitted to any other university for the award of any other degree.


  
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This is to certify that the project work entitled, “Durability studies on effect of different admixtures on High Performance concrete” is done by K MAHESH (18JQ1D8718) student of Department of Civil Engineering, is a record of bonafide work carried out under my guidance and supervision during 2018-2019. This project is done as a partial fulfillment of obtaining Master of Technology Degree to be awarded by Jawaharlal Nehru Technological University, Kakinada. The matter embodied in this project report has not been submitted to any other university for the award of any other degree.

  
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