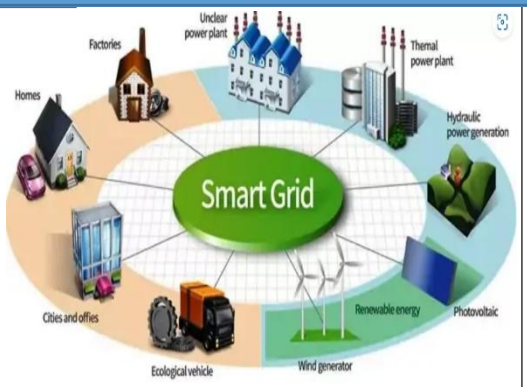
MAY-Aug 2025 (Vol-22)

Vision of EEE Department:

To become a role model department where students are nurtured to achieve multidisciplinary skills leading to their employability, research and can contribute to the society.

Mission of EEE Department

1. To implement effective learning Strategies with a well-structured curriculum and assessment methods
2. To develop expertise in emerging technologies through collaboration with industry and Academic institutions.
3. To prepare socially responsible Engineers by promoting sustainable practices to address societal needs, enhance employability and contribute to the quality education.



Chief Editor
Mr K. SURESH, HOD

Editors

Mrs. U. DIVYA, Asst. Professor

Learning Strategies

HITAM-EEE
News Letter

HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT

EEE DEPARTMENT

Program Educational Objectives

PEO1: Graduates will have a successful technical or professional career, including supportive and leadership roles on multidisciplinary teams.

PEO2: Graduates will be able to acquire, use and develop skills as required for effective professional practices.

PEO3: Graduates will be able to attain holistic education which is an essential prerequisite for being a responsible member of society.

.

Program Specific Outcomes

PSO1: Analyze, Model, Test and provide engineering solutions in the areas related to electric drives, control, and power systems.

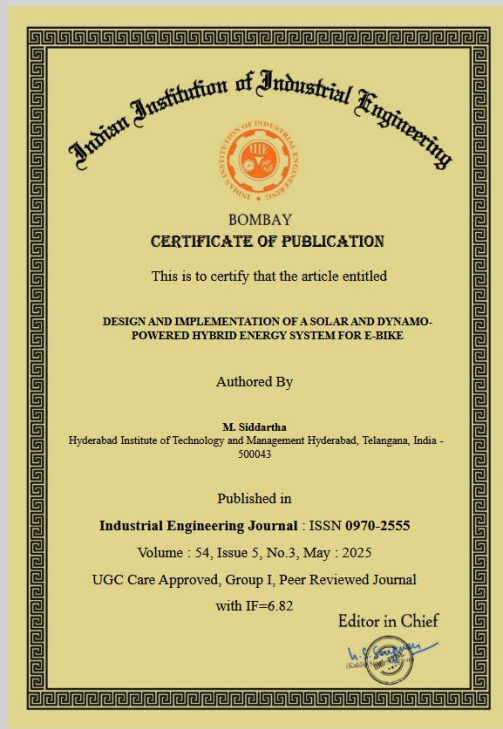
PSO1: Apply fundamentals of electrical engineering to simulate and develop electrical and electronic systems using MATLAB, and PSPICE tools.

Paper Publication

- Dr M. Chiranjivi Working as an Associate Professor in EEE Dept successfully presented a paper entitled **"Passivity-Based Techniques for Controlling BLDC Motor-Driven EVs"**in the 7th International Conference on Energy, Power and Environment (ICEPE 2025)on May 9 –11 2025, Sohra , Meghalaya.

- Satyanarayana, S. V., & Madhavi, P. (2025). Challenges and Opportunities to Address the Crisis in Core Engineering Education. Journal of Engineering Education Transformations, 38(4), 69–73. https://doi.org/10.16920/jeet/2024/v38i4/25097.

- Mr M. Siddartha, working as Assistant professor in EEE dept ,Published a paper entitled "Design and Implementation of a Solar and Dynamo Powered Hybrid Energy System for E-Byke" Indian Institute of Industrial Engineering ISSN N0-0970-2555 Vol -54 Issue -5 No-3 May-2025 .



Indian Institution of Industrial Engineering

BOMBAY

CERTIFICATE OF PUBLICATION

This is to certify that the article entitled

DESIGN AND IMPLEMENTATION OF A SOLAR AND DYNAMO-POWERED HYBRID ENERGY SYSTEM FOR E-BIKE

Authored By

M. Siddartha
Hyderabad Institute of Technology and Management Hyderabad, Telangana, India - 500043

Published in

Industrial Engineering Journal : ISSN **0970-2555**

Volume : 54, Issue 5, No.3, May : 2025

UGC Care Approved, Group I, Peer Reviewed Journal

with IF=6.82

Editor in Chief

- MrsU.Divya & T.Sirisha, working as Assistant professor in EEE dept ,Presented a paper Entitle on" IoT-Based Smart Battery Monitoring System with Fault Analysis and Battery Life Prediction for Electric Vehicles" *in the* in IJIRSET, Volume 14, Issue 6, June 2025.

- Dr M. Chiranjivi Working as an Associate Professor in EEE Dept successfully Published a paper entitled **"Passivity-Based Techniques for Controlling BLDC Motor-Driven EVs"**in the 7th International Conference on Energy, Power and Environment (ICEPE 2025)on May 9 –11 2025, Sohra , Meghalaya.

Passivity-Based Techniques for Controlling BLDC Motor-Driven EVs

M. Chiranjivi
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EPE) | 979-8-3315-9706-1/25/$31.00 ©2025 IEEE | DOI: 10.1109/ICEPE65965.2025.11139686

***Abstract*—Brushless DC (BLDC) motors have great efficiency, dependability, and accurate speed control, it is essential to manage them well in a variety of Electric Vehicle (EV) sectors and renewable energy applications. Nevertheless, problems like torque ripples and harmonic distortions frequently impair the efficiency and performance of BLDC motors. With an emphasis on harmonic detection and reduction, this work seeks to solve these issues by developing and implementing a passivity-based Proportional-Integral (PI) controller for BLDC motors of electric vehicles. This system employs a boost converter to increase the DC output once it has been rectified. The SEPIC converter is operated by a passivity-based PI controller, which boosts voltage steadily and efficiently. The amplified output is then sent into a three-phase**

have a high degree of efficiency, reducing energy loss and increasing driving range [1, 2]. Accurate Speed Control: The smooth acceleration and deceleration made possible by BLDC motors' accurate speed control Low Maintenance: BLDC motors require less maintenance and have a longer lifespan than internal combustion engines since they have fewer moving components. Compact Size: Because BLDC motors are lightweight and compact, they may be integrated into a variety of vehicle chassis [3, 4]. Applications for BLDC motor-driven electric vehicles are found in many different fields, such as public transit, commercial vehicles, and passenger automobiles. An EV is a car that uses electrical energy from rechargeable batteries or other energy storage

- Chiranjivi, M., Suresh, K., Reddy, C.L., Siddartha, M., Rani, M. (2026). The Design of a New Single Phase Cascaded Quasi-Z-Source Inverter with High Boost and Better THD. In: Gundebommu, S.L., Chintala, L.R., Kotha, S.R. (eds) Renewable Energy, Green Computing, and Sustainable Development. REGS 2025. Communications in Computer and Information Science,

vol 2613. Springer, Cham. https://doi.org/10.1007/978-3-032-00983-8_14.

The Design of a New Single Phase Cascaded Quasi-Z-Source Inverter with High Boost and Better THD

M. Chiranjivi[1], K. Suresh[1], Ch. Lokeshwar Reddy[2(✉)], M. Siddartha[3], and M. Rani[3]

[1] Departmentof EEE, Hyderabad Institute of Technology and Management, Hyderabad, Telangana 501401, India

[2] Departmentof EEE, CVR College of Engineering, Hyderabad, Telangana 501510, India
reddy.lokeshwar@gmail.com

[3] Departmentof EEE, Hyderabad Institute of Technology and Management, Hyderabad 501401, India

Abstract. This article represents a new single-phase inverter having an enhanced boost and improved THD at the load end. This research also represents a cascaded quasi-Z-source impedance network inverter containing a modified unipolar SPWM switching scheme . It is observed that modified unipolar PWM schemes having additional boost switch employed on a QZSI inverter circuit results larger boost voltage/current and improved THD at its load. In this study, the working principle of the modified unipolar SPWM technique and the proposed cascaded QZSI are discussed. MATLAB/Simulink simulation software was used to perform all the simulations. The presented technique results a 39% larger boost than the QZSI topology with a modified switch technique. In addition to that, it gives us a lower THD than the traditional QZSI topologies, with a value of 0.91%.

- Chiranjivi, M., Suresh, K., Reddy, C.L., Siddartha, M. (2026). Enhancing Smart Farming with Machine Learning Technologies. In: Gundebommu, S.L., Chintala, L.R., Kotha, S.R. (eds) Renewable Energy, Green Computing, and Sustainable Development. REGS 2025. Communications in Computer and Information Science, vol 2613. Springer, Cham. https://doi.org/10.1007/978-3-032-00983-8_7.

Enhancing Smart Farming with Machine Learning Technologies

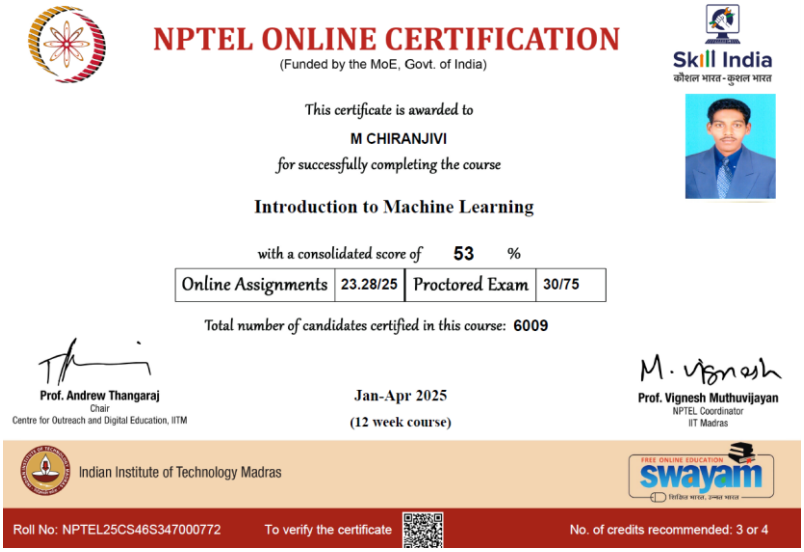
M. Chiranjivi[1], K. Suresh[1], Ch. Lokeshwar Reddy[2(✉)], and M. Siddartha[1]

[1] Department of EEE, Hyderabad Institute of Technology and Management, Hyderabad, Telangana 501401, India
chiranjivimadduluri@gmail.com
[2] Department of EEE, CVR College of Engineering, Hyderabad, Telangana 501510, India
reddy.lokeshwar@gmail.com

Abstract. Smart farming harnesses machine learning (ML) algorithms to optimize crop production by providing tailored recommendations based on various factors such as crop selection, seasonality, and field dimensions. This paper explores the development and implementation of machine learning models, including Logistic Regression with Principal Component Analysis (LR with PCA), K-Nearest Neighbors (KNN), Random Forest (RF), Support Vector Machine (SVM), as well as Soft and Hard Voting classifiers, to assist farmers in predicting crop yield using user-provided inputs. By integrating historical data, climate patterns, and soil conditions, these models offer accurate predictions for crop yields, enabling farmers to make informed decisions and maximize their agricultural output. The use of machine learning in agriculture is revolutionizing traditional farming practices. Farmers are increasingly turning to data-driven approaches to enhance productivity and efficiency. By applying advanced algorithms, they can better understand complex variables influencing crop growth and outcomes. This includes factors such as temperature fluctuations, rainfall patterns, and soil health. Models like Random Forest and Support Vector Machines excel in handling these multidimensional datasets and extracting insights that lead to actionable outcomes for farmers. In

Faculty Achievements

- Mr Dr M.Chiranjeevi , Associate Professor EEE Dept. Successfully completed the Course in "**Introduction to Machine Learning**" with a consolidation score of 53% organized by NPTEL Online Certification on JAN_APR 2025.



NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India

कौशल भारत-कुशल भारत

This certificate is awarded to

M CHIRANJIVI

for successfully completing the course

Introduction to Machine Learning

with a consolidated score of 53 %

Online Assignments	23.28/25	Proctored Exam	30/75

Total number of candidates certified in this course: 6009

Prof. Andrew Thangaraj
Chair
Centre for Outreach and Digital Education, IITM

Jan-Apr 2025
(12 week course)

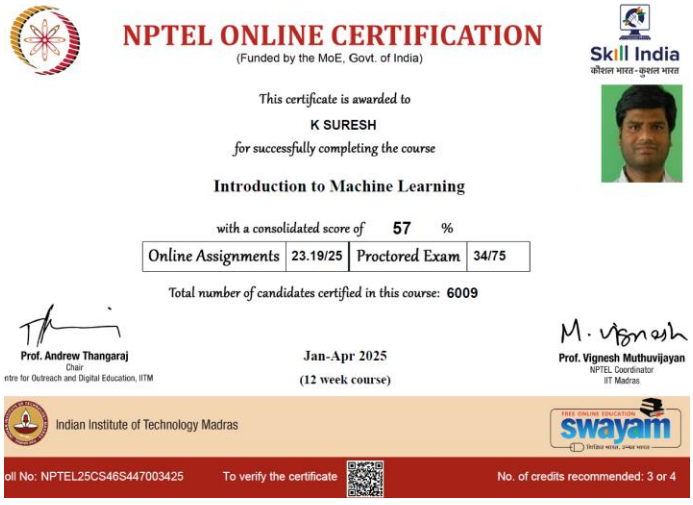
Prof. Vignesh Muthuvijayan
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

swayam

Roll No: NPTEL25CS46S347000772 To verify the certificate No. of credits recommended: 3 or 4

- Mr K Suresh , Associate Professor EEE Dept. Successfully completed the Course in "**Introduction to Machine Learning** "with a consolidation score of 57% organized by NPTEL Online Certification on JAN_APR 2025.



NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India

कौशल भारत-कुशल भारत

This certificate is awarded to

K SURESH

for successfully completing the course

Introduction to Machine Learning

with a consolidated score of 57 %

Online Assignments	23.19/25	Proctored Exam	34/75

Total number of candidates certified in this course: 6009

Prof. Andrew Thangaraj
Chair
ntre for Outreach and Digital Education, IITM

Jan-Apr 2025
(12 week course)

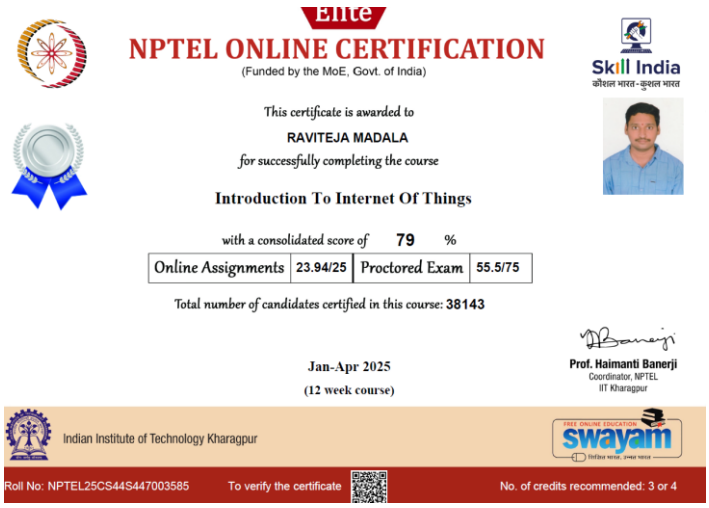
Prof. Vignesh Muthuvijayan
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

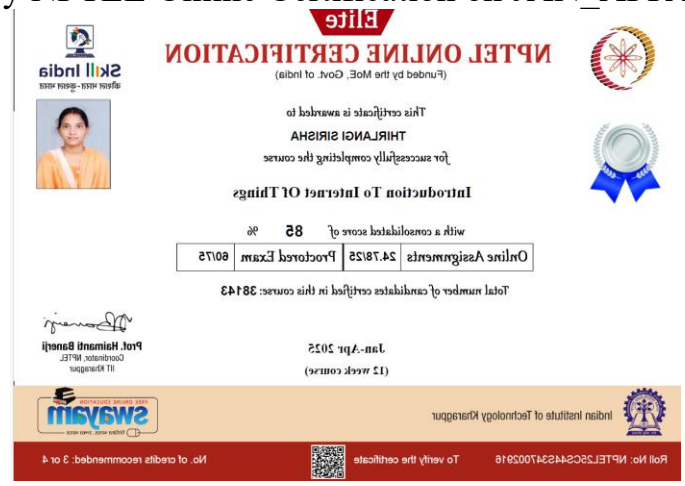
swayam

oll No: NPTEL25CS46S447003425 To verify the certificate No. of credits recommended: 3 or 4

- Mr M.Ravi Teja, Assistant Professor EEE Dept. Successfully completed the Course in "**Introduction to Internet of Things**" with a consolidation score of 79% organized by NPTEL Online Certification on JAN_APR 2025.

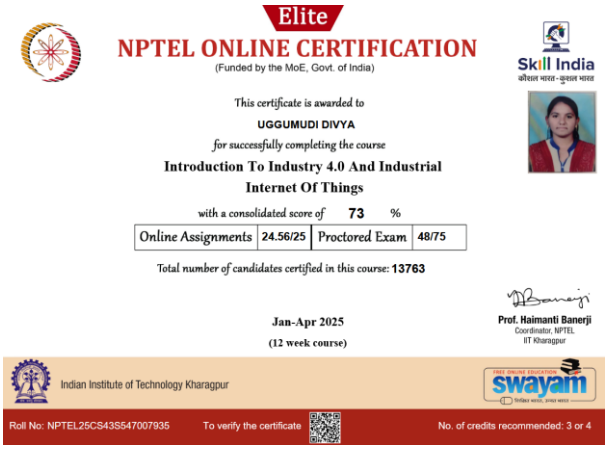


- Mrs T.Sirisha , Assistant Professor EEE Dept. Successfully completed the Course in "**Introduction to Internet of Things**" with a consolidation score of 85% organized by NPTEL Online Certification on JAN_APR 2025.



- Mr S.V. Sathyanarayana, Associate Professor EEE Dept. Successfully completed the Course in "**Smart Grid: Basics Of Advanced Technologies**" with a consolidation score of 83% organized by NPTEL Online Certification on JAN-_APR 2025.

- Mrs U.Divya , Assistant Professor EEE Dept. Successfully completed the Course in "**Introduction to Industry 4.0 and Industrial Internet of Things**" with a consolidation score of 73% organized by NPTEL Online Certification on JAN_APR 2025.



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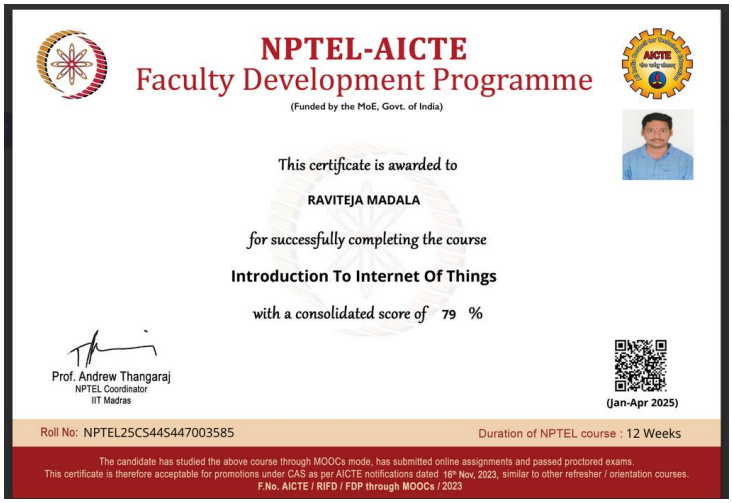
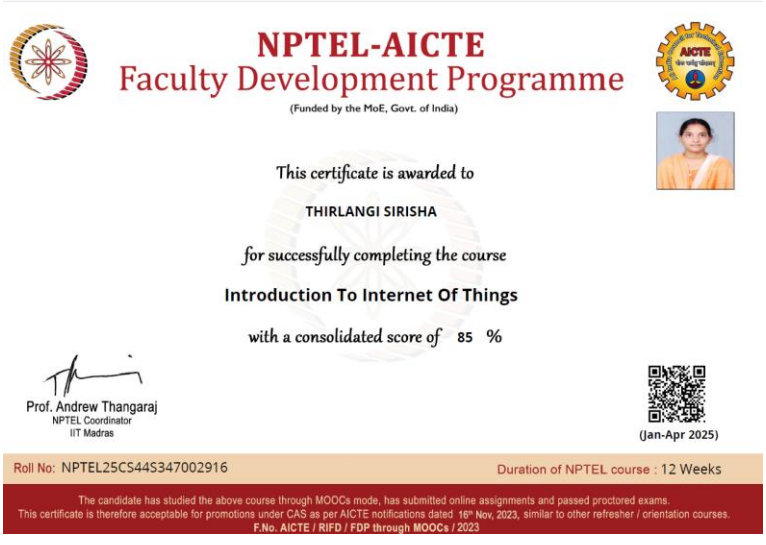
Faculty Participations

- Mr M.Ravi Teja, Assistant Professor Prof, from the EEE Dept successfully participation Faculty Development Program, Dated : JAN-APR 2025 on“ Introduction to Internet of Things “With A Consolidated Score Of 79%.



- Mrs T.Sirisha, Assistant Professor, from the EEE Dept successfully participation Faculty Development Program, Dated : JAN-APR 2025 on“Introduction to Internet of Things “With A Consolidated Score Of 85%.



- Mrs M.Rani , Assistant Professor in EEE Dept. has successfully participated in IP Awareness/Training program under NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION on May 08, 2025.

- Mr M.Siddartha , Assistant Profesor in EEE Dept. has successfully participated in IP Awareness/Training program under NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION on May 08, 2025.

- Mr M.Raviteja , Assistatant professor in EEE Dept. has successfully participated in IP Awareness/Training program under NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION on May 08, 2025.

- Mr M. Siddartha working as an Assistant Professor in EEE dept successfully complete the Innovation Ambassador training **(Foundation Level)** Conducted in Online Mode by MOE's AC year 2024-25.

- MrsT.Siriaha, working as Assistant professor in EEE dept, successfully Participated and Got the Certificate Course On" Python For beginners" Organized by NIELIT Calicut dated on 12th to 16th June-2025

राष्ट्रीय इलेक्ट्रॉनिकी एवं सूचना प्रौद्योगिकी संस्थान

NATIONAL INSTITUTE OF ELECTRONICS AND INFORMATION TECHNOLOGY

(An Autonomous Scientific Society of Ministry of Electronics and Information Technology, Government of India)

NIT Campus P O, Calicut, Kerala – 673601

सहभागिता का प्रमाणपत्र

Certificate of Participation

यह प्रमाणित किया जाता है कि / This is to certify that

THIRLANGI SIRISHA

नाइलिट कालीकट द्वारा आयोजित निम्नलिखित पाठ्यक्रम में भाग लिया है

has participated in the below mentioned course organized by NIELIT Calicut

Python for Beginners

पाठ्यक्रम की अवधि / Course Duration : 12th to 16th June 2025 (5 Days/10 Hours)

तरीका / Mode: Online

Signature Not Verified
Digitally Signed by Saritha S
Date:2025.06.26 14:43:19 IST

प्रमाणपत्र संख्या /Certificate No. OLC 34888

दिनांक / Date 25th June 2025

This is a computer generated digitally signed certificate

प्रशिक्षण अधिकारी

Training Officer

- Mrs T.Sirisha, working as Assistant professor in EEE dept, successfully Participated and completed One Week Online Faculty Development Program (FDP) on "Harnessing NI LabVIEW and Industrial Automation: Advances and Applications" from 12th June 2025 to 17th June 2025 organized by Department of Electronics and Communication Engineering, Vardhaman College of Engineering, Hyderabad, Telangana

VARDHAMAN

Department of Electronics and Communication Engineering

CERTIFICATE

OF PARTICIPATION

This is to certify that

Ms. Thirlangi Sirisha

Assistant Professor, Department of Electrical and Electronics Engineering from Hyderabad Institute of Technology and Management, Telangana has successfully completed One Week Online Faculty Development Program (FDP) on *"Harnessing NI LabVIEW and Industrial Automation: Advances and Applications"* from 12th June 2025 to 17th June 2025 organized by Department of Electronics and Communication Engineering, Vardhaman College of Engineering, Hyderabad, Telangana.

Dr. M. Srilatha
Coordinator

Prof. S. Rajendar
Head of the Department

Prof. JVR Ravindra
Principal

VARDHAMAN COLLEGE OF ENGINEERING
(Autonomous)
Affiliated to JNTUH, Approved by AICTE, Accredited by NAAC with A++ Grade
Kacharam, Shamshabad, Hyderabad-501218, Telangana, India.
info@vardhaman.org, www.vardhaman.org

- Mrs U. Divya, working as Assistant professor in EEE dept, successfully Participated and completed One Week Online Faculty Development

Program (FDP) on "Harnessing NI LabVIEW and Industrial Automation: Advances and Applications" from 12th June 2025 to 17th June 2025 organized by Department of Electronics and Communication Engineering, Vardhaman College of Engineering, Hyderabad, Telangana.


VARDHAMAN
COLLEGE OF ENGINEERING
Department of Electronics and Communication Engineering
CERTIFICATE
OF PARTICIPATION
This is to certify that
Ms. Uggumudi Divya
Assistant Professor, Department of Electrical and Electronics Engineering from Hyderabad Institute of Technology and Management, Telangana has successfully completed One Week Online Faculty Development Program (FDP) on *"Harnessing NI LabVIEW and Industrial Automation: Advances and Applications"* from 12th June 2025 to 17th June 2025 organized by Department of Electronics and Communication Engineering, Vardhaman College of Engineering, Hyderabad, Telangana.
Dr. M. Srilatha
Coordinator
Prof. S. Rajendar
Head of the Department
Prof. JVR Ravindra
Principal
VARDHAMAN COLLEGE OF ENGINEERING
(Autonomous)
Affiliated to JNTUH, Approved by AICTE, Accredited by NAAC with A++ Grade
Kacharam, Shamshabad, Hyderabad-501218, Telangana, India.
info@vardhaman.org, www.vardhaman.org

- Mrs Maduguri Rani working as Assistant Professor in EEE dept got the Certificate Of Participation In Faculty Development Program on “Data Analytics Using Power Bi” Organized By Atria Institute of Technology (AIT), Autonomous, Bangalore, Karnataka Annasaheb Dange College of Engineering and Technology, Ashta, Maharashtra In collaboration with ExcelR Edtech Pvt. Ltd. Dated on 28th July 2025 to 01st August 2025

- Mrs Maduguri Rani working as Assistant Professor in EEE dept got the Certificate Of Participation In 5 Days Faculty Development Program on "AI, ML & Deep Learning for Autonomous Vehicles "Organized By STEP – National Institute of Technology Karnataka (STEP NITK)

  In Association With Pantech e Learning Dated on 28th July 2025 to 01st August 2025.

Pantech e Learning
DIGITAL LEARNING SIMPLIFIED

CERTIFICATE

OF PARTICIPATION

THIS IS TO CERTIFY THAT

MADUGURI RANI

Successfully Participated on 5 days Faculty Development Program on **AI, ML & Deep Learning for Autonomous Vehicles** held on 28th July to 01st August 2025, Organized by STEP-National Institute of Technology Karnataka in Association with Pantech e Learning

SENTHIL KUMAR M R
Technical Director,
Pantech solutions india Pvt Ltd

Prof.Subray R Hegde
Professor In-Charge,
STEP NITK

pantechelearning.com

- MrsT.Siriaha, working as Assistant professor in EEE dept, successfully Participated and Got the Certificate Course On" EmbeddedFor beginners" Organized by NIELIT Calicut dated on 10th to 14th July-2025

Chips to Startup Programme

Ministry of Electronics & Information Technology
Government of India

रा.इ.सू.प्रौ.सं NIELIT

राष्ट्रीय इलेक्ट्रॉनिकी एवं सूचना प्रौद्योगिकी संस्थान

NATIONAL INSTITUTE OF ELECTRONICS AND INFORMATION TECHNOLOGY

(An Autonomous Scientific Society of Ministry of Electronics and Information Technology, Government of India)

NIT Campus P O, Calicut, Kerala – 673601

सहभागिता का प्रमाणपत्र

Certificate of Participation

यह प्रमाणित किया जाता है कि / This is to certify that

THIRLANGI SIRISHA

नाइलिट कालीकट द्वारा आयोजित निम्नलिखित पाठ्यक्रम में भाग लिया है

has participated in the below mentioned course organized by NIELIT Calicut

Embedded for Beginners

पाठ्यक्रम की अवधि / Course Duration : 10th to 14th July 2025 (5 Days/5 Hours)

तरीका / Mode : Online

Signature Not Verified
Digitally Signed by Saritha S
Date:2025.07.23 13:12:49 IST

प्रमाणपत्र संख्या /Certificate No. OLC 36707

दिनांक / Date 23rd July 2025

This is a computer generated digitally signed certificate

प्रशिक्षण अधिकारी
Training Officer

- MrsT.Siriaha, working as Assistant professor in EEE dept, successfully Participated and Got the Certificate Course On" Machine Learning Using Python" Organized by NIELIT Calicut dated on 10th to 14th Aug-2025

Chips to Startup Programme

Ministry of Electronics & Information Technology
Government of India

रा.इ.सू.प्रौ.सं NIELIT

राष्ट्रीय इलेक्ट्रॉनिकी एवं सूचना प्रौद्योगिकी संस्थान

NATIONAL INSTITUTE OF ELECTRONICS AND INFORMATION TECHNOLOGY

(An Autonomous Scientific Society of Ministry of Electronics and Information Technology, Government of India)

NIT Campus P O, Calicut, Kerala – 673601

सहभागिता का प्रमाणपत्र

Certificate of Participation

यह प्रमाणित किया जाता है कि / This is to certify that

THIRLANGI SIRISHA

नाइलिट कालीकट द्वारा आयोजित निम्नलिखित पाठ्यक्रम में भाग लिया है

has participated in the below mentioned course organized by NIELIT Calicut

Machine Learning using Python

पाठ्यक्रम की अवधि / Course Duration : 10th to 14th August 2025 (5 Days/5 Hours)

तरीका / Mode : Online

Signature Not Verified
Digitally Signed by Saritha S
Date:2025.08.29 14:33:24 IST

प्रमाणपत्र संख्या /Certificate No. OLC 39420

दिनांक / Date 29th August 2025

This is a computer generated digitally signed certificate

प्रशिक्षण अधिकारी
Training Officer

Student Publications

- Mr Salava V Satyanarayana,Mrs Pillalamarri Madhavi,Sindhuja,Bharath,Sai Priya,Pranay Published a paper in Industrial Engineering Journal with a title of "RADAR-DRIVEN AUTOMATION" in April 2025.

- Mrs Pillalamarri Madhavi, Mr Salava V Satyanarayana,Lingala Akanksha,Mankali Akshitha,Ramagiri chandra Saicharan,Gunji Poojitha Published a paper in Industrial Engineering Journal with a title of "Creation of Web Page for SSDC"in April 2025.

- Mr K.Suresh,B.Umesh Reddy,G.Sindhu Sagar,M.Bhargavi Published a paper in Industrial Engineering Journal with a title of "Smart Monitoring And Control Of Single-Phase Induction MotorUsing IOT"in May-2025.

Industrial Engineering Journal
ISSN: 0970-2555
Volume : 54, Issue 5, No.2, May : 2025

SMART MONITORING AND CONTROL OF SINGLE-PHASE INDUCTION MOTOR USING IoT

Suresh, Associate professor, *Department of EEE, Hyderabad Institute of Technology and Management.*Hyderabad, India: sureshk.eee@hitam.org
B. Umesh Reddy, Btech Scholar *Department of EEE Hyderabad Institute of Technology and Management,* Hyderabad, India Umeshreddy2411@gmail.com
G. Sindhu Sagar, Btech Scholar , *Department of EEE, Hyderabad Institute of Technology and Management,* Hyderabad, India g.sindhusagar@gmail.com
M. Bhargavi, Btech Scholar *Department of EEE, Hyderabad Institute of Technology and Management* Hyderabad, India bhargavimardanapally2003@gmail.com

ABSTRACT :
This project focuses on the smart monitoring and control of a single-phase induction motor using the Internet of Things (IoT) to enhance efficiency, reliability, and remote accessibility. The system employs various sensors to measure key parameters such as temperature, frequency, speed, voltage, current, and power consumption in real time. These values are continuously transmitted to a cloud-based IoT platform (ThingSpeak), enabling users to remotely monitor motor performance. By tracking these parameters, the system helps prevent overheating, overloading, and inefficiencies, ensuring safe and reliable operation. Users can also control motor settings remotely, thus optimizing energy usage and minimizing operational costs. In the event of abnormal conditions, automatic alerts are generated to support preventive maintenance, reduce downtime, and extend the motor's lifespan.
Keywords: IoT, Single-Phase Induction Motor, Smart Control, Remote Monitoring, Energy Efficiency, ThingSpeak, Arduino Uno, Real-Time Data.

- Mrs T. Sirisha , Mrs U. Divya, N. Gayathri, K. Vishnuvardhan goud, G. Rakesh Published Paper in International Research Journal on Advanced Engineering Hub (IRJAEH) With a title of " **Optimized Power Distribution in Regenerative Braking with Smart Relay**

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Optimized Power Distribution in Regenerative Braking with Smart Relay Control

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Abstract

This project presents an enhanced regenerative braking system for electric vehicles (EVs) utilizing a dual-battery energy storage mechanism with intelligent relay control to maximize energy recovery efficiency. The system captures kinetic energy during braking, converts it into electrical energy, and optimally distributes it between two batteries using an automated relay system that prioritizes the battery with lower charge levels. Key components include a PIC microcontroller for control, a boost converter for voltage regulation, sensors for system monitoring, and an LCD for real-time feedback. By improving battery balancing and energy management, the system enhances EV range and efficiency, contributing to sustainable and advanced green transportation technologies.

Keywords: *Regenerative braking, EVs, dual-battery, relay control, energy recovery, PIC microcontroller, boost converter, battery balancing, green transportation*

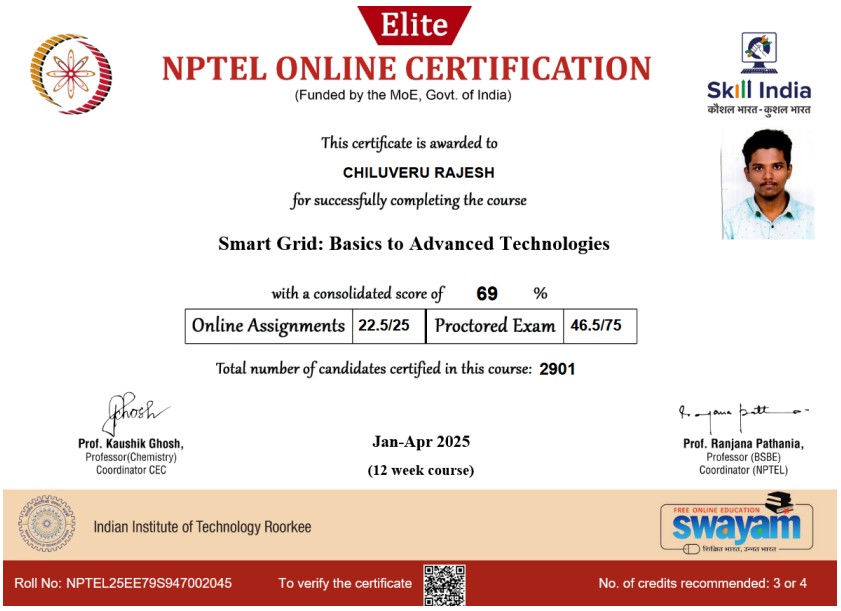
Student Achievements

- V.Akhil Sai, M.Kailash and L.Akanksha from SSDC EEE Won First place and Received Cash Prize of 5000/- in the CODE&WIRE - ARDUINO competition at BVRITW Hyderabad in April 2025.

- 14 IV EEE Students Successfully completed the Course in “**Smart Grid: Basics Of Advanced Technologies**” with a consolidation score of 69% organized by NPTEL Online Certification on JAN-_APR 2025.

S.no	Student Name	Achievement	Course Type	Date
1.	CH.Rajesh	Smart Grid: Basics Of Advanced Technologies With 69%	NPTEL	*JAN_APR 2025*

2.	Akhil Sai.V	Smart Grid: Basics Of Advanced Technologies With 63%	NPTEL	*JAN_APR 2025*
3.	G.Rakesh	Smart Grid: Basics Of Advanced Technologies With 83%	NPTEL	*JAN_APR 2025*
4.		Smart Grid: Basics Of Advanced Technologies With	NPTEL	*JAN_APR 2025*



Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India
कौशल भारत-कुशल भारत

This certificate is awarded to

CHILUVERU RAJESH

for successfully completing the course

Smart Grid: Basics to Advanced Technologies

with a consolidated score of 69 %

Online Assignments	22.5/25	Proctored Exam	46.5/75

Total number of candidates certified in this course: 2901

Prof. Kaushik Ghosh,
Professor(Chemistry)
Coordinator CEC

Jan-Apr 2025
(12 week course)

Prof. Ranjana Pathania,
Professor (BSBE)
Coordinator (NPTEL)

Indian Institute of Technology Roorkee

swayam

Roll No: NPTEL25EE79S947002045 To verify the certificate No. of credits recommended: 3 or 4

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Skill India
कौशल भारत-कुशल भारत

This certificate is awarded to

AKHILSAI VODNALA

for successfully completing the course

Smart Grid: Basics to Advanced Technologies

with a consolidated score of 63 %

Online Assignments	18.44/25	Proctored Exam	45/75

Total number of candidates certified in this course: 2901

Prof. Kaushik Ghosh,
Professor(Chemistry)
Coordinator CEC

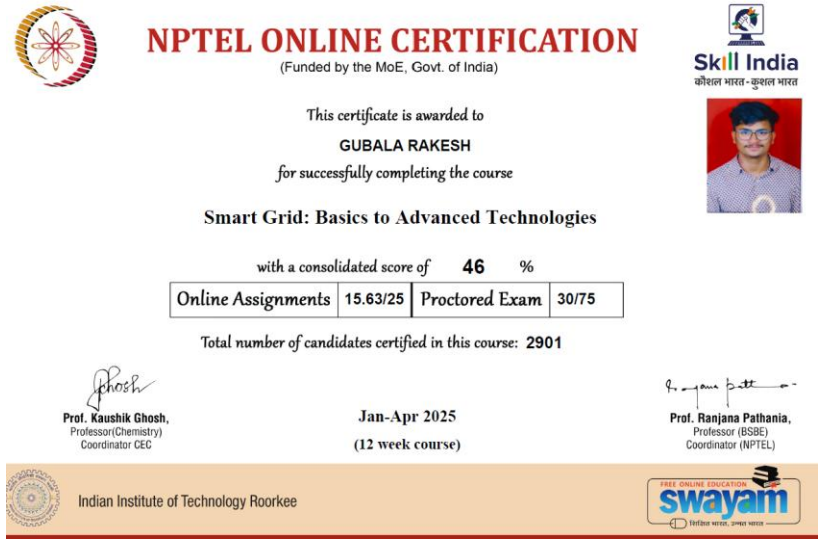
Jan-Apr 2025
(12 week course)

Prof. Ranjana Pathania,
Professor (BSBE)
Coordinator (NPTEL)

Indian Institute of Technology Roorkee

swayam

Roll No: NPTEL25EE79S1047003154 To verify the certificate No. of credits recommended: 3 or 4



NPTEL ONLINE CERTIFICATION

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Skill India
कौशल भारत-कुशल भारत

This certificate is awarded to

GUBALA RAKESH

for successfully completing the course

Smart Grid: Basics to Advanced Technologies

with a consolidated score of 46 %

Online Assignments	15.63/25	Proctored Exam	30/75

Total number of candidates certified in this course: 2901

Prof. Kaushik Ghosh,
Professor(Chemistry)
Coordinator CEC

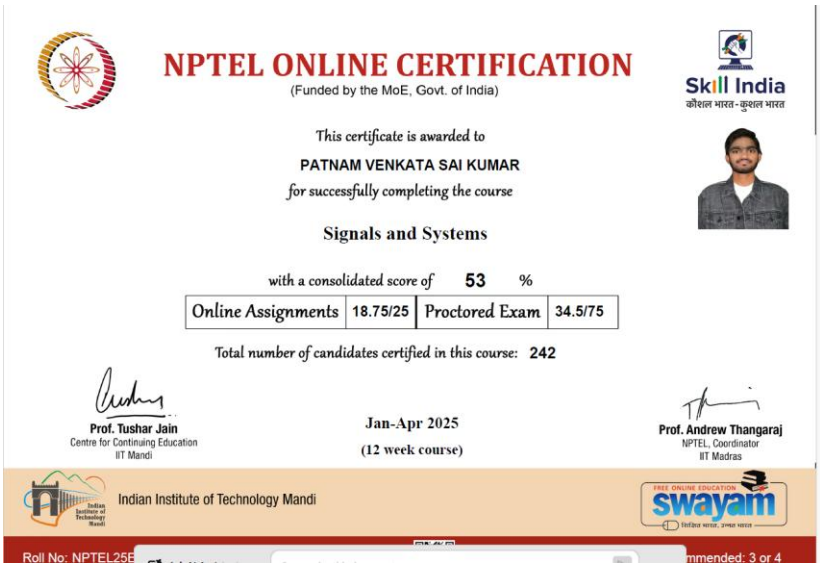
Jan-Apr 2025
(12 week course)

Prof. Ranjana Pathania,
Professor (BSBE)
Coordinator (NPTEL)

Indian Institute of Technology Roorkee

swayam

- Patnam Venkata Sai Kumar Successfully completed the Course in "**Signals and Systems**" with a consolidation score of 53% organized by NPTEL Online Certification on JAN-_APR 2025.



NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India
कौशल भारत-कुशल भारत

This certificate is awarded to

PATNAM VENKATA SAI KUMAR

for successfully completing the course

Signals and Systems

with a consolidated score of 53 %

Online Assignments	18.75/25	Proctored Exam	34.5/75

Total number of candidates certified in this course: 242

Prof. Tushar Jain
Centre for Continuing Education
IIT Mandi

Jan-Apr 2025
(12 week course)

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Mandi

swayam

Roll No: NPTEL25E

mmended: 3 or 4

- N. Gayathri, IV EEE got the CERTIFICATE OF PARTICIPATION 1st International Conference on Power and Intelligent Control Systems (PICS-2025) PICS-2025/P-057 **Paper Title**"DESIGN AND OPTIMIZATION OF REGENERATIVE BRAKING SYSTEMS FOR EFFICIENT ENERGY MANAGEMENT IN ELECTRIC VEHICLES" **Authors:** T. Sirisha.U. Divya.N. Gayathri.K. Vishnuvardhan goud.G. Rakesh Organized by: Department of Electrical Engineering, NIT Hamirpur Dated on July 04–05, 2025.

PICS-2025/P-057

Springer

PICS-2025

CERTIFICATE

OF PARTICIPATION

This certificate is proudly presented to

N.Gayathri

for delivering a presentation on the paper titled "**DESIGN AND OPTIMIZATION OF REGENERATIVE BRAKING SYSTEMS FOR EFFICIENT ENERGY MANAGEMENT IN ELECTRIC VEHICLES**" authored by **T.Sirisha, U.Divya , N.Gayathri , K.Vishnuvardhan goud ,G.Rakesh** at the 1st International Conference on Power and Intelligent Control Systems **(PICS-2025)** organized by the **Department of Electrical Engineering, NIT Hamirpur**, held on **July 04–05, 2025** in Hybrid Mode.

Dr. Ram Niwash Mahia
Organizing Chairman

Dr. Katam Nishanth
Organizing Secretary

Dr. Pankaj K. Mishra
Organizing Secretary

- M.Akshitha Studying in IIIrd EEE ,got the third Prize in National Level Technical Symposium& Idea Pitching in BVRIT Narasapur Conducted on 22nd &23rd Aug 2025.

B V RAJU INSTITUTE OF TECHOLOGY

(UGC-AUTONOMOUS)

Vishnupur, Narsapur,Medak Dist., Telangana.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

IEEE POWER & ENERGY SOCIETY (PES) STUDENT BRANCH CHAPTER

NATIONAL LEVEL TECHNICAL SYMPOSIUM & IDEA PITCHING COMPETITION

CERTIFICATE OF ACHIEVEMENT

3rd Prize

This is to certify that Mr/Ms Mankali Akshitha has been awarded Third Prize in the National Level Technical Symposium & Idea Pitching Competition, conducted on 22nd and 23rd August 2025 at B V Raju Institute of Technology, Narsapur.

We appreciate and congratulate him/her for the outstanding performance and innovation showcased during the competition.

Sponsored by IEEE PES Hyderabad

DR.SANJAY DUBEY
PRINCIPAL

DR.K.RAYUDU
HOD-EEE DEPARTMENT

DR.P.CHANDRABABU
CONVENER

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रक्षा अनुसंधान एवं विकास संगठन
अनुसंधान केंद्र इमारत (आर सी आई)
डॉ एपीजे अब्दुल कलाम प्रक्षेपास्त्र समुच्चि
विज्ञान कांचा, हैदराबाद– 500 069
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Government of India, Ministry of Defence
Defence Research & Development Org (DRDO)
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No. RCI/HRD/Paid Internship Scheme/2025/EEE/02 Date: 28.08.2025

To,
The Selected Candidate,
[Please refer the list of selected Candidates attached at page 02 of 03]

AWARD OF PAID INTERNSHIP AT RCI/DRDO, HYDERABAD IN 'ELECTRICAL ENGG'

With reference to Advertisement No. RCI/HRD/PDINTERN/2025/01, dated 27th June 2025 your Application, Bio-data and Academic record is found suitable and you are hereby offered **Undergraduate Paid Internship** in **RCI/DRDO** subject to the following terms & conditions:

i. **You are requested to give a confirmation of Acceptance through e-mail within 03 days of receiving this letter/e-mail, failing which, your offer for Internship will be cancelled, and opportunity will be given to waitlisted candidate.**

ii. The internship will be for **6 Months** i.e. **01st Sep 2025 to 27th Feb 2026.** You will be paid a Monthly stipend of **Rs. 5000/-pm**. The stipend of the entire duration will be paid in **two equal instalments** after 3 months each.

iii. All the Internship Students must submit their Undertaking Non-Disclosure Agreement under Official Secrets Act 1923 and Information Technology Act 2000 (with amendments in force) and the **Police Verification Certificate** at the time of joining.

iv. **You must submit a certificate duly signed by college for your availability for minimum of 15 days attendance in a month at RCI for paid internship during the period 01st Sep 2025 to 27th Feb 2026 (06 months). If NOT internship will be terminated.**

v. On completion of Internship a detailed project report w.r.t work done during entire period of Paid Internship to be submitted to the Supervisor for evaluation and to be reviewed by a committee with recommendations for the Certificate to be awarded.

vi. The offer of Internship will not confer any right on you for regular/temporary appointment in DRDO.

vii. DRDO will not be responsible for any injuries sustained during the Internship Period.

2. Subject to the above terms and conditions of acceptability, you should report on **01st Sep 2025, 09:00hrs** at Research Centre Imarat (RCI), APJ Abdul Kalam Missile Complex, Vignyanakancha, Hyderabad 500069, Telangana.

3. This letter can be used to obtain Conduct and Character Certificate from Local Police Authorities for the purpose of your engagement for Paid Internship in RCI/DRDO, Hyderabad.

Encl: Do's and Don'ts during Internship at RCI are attached at page 03 of 03 for strict compliance.

(TARUN MOHINDRA)
Sc 'G' & Head, HRD
For Director