Er. PERUMAL MANIMEKALAI COLLEGE OF ENGINEERING

(Accredited by NAAC with 'A' Grade / ISO 9001:2015 Certified Institution)

NH-7, 17th KM, Hosur – Krishnagiri Highways, Koneripalli, HOSUR – 635 117.

Website: www.pmctech.org

PMC - EEE

ANNUAL NEWS LETTER

31st DEC 2024

CHIEF PATRON

Mr.P. Kumar,Chairman and Correspondent.

PATRONS

Smt.P.Mallar,Secretary

Smt.P.Sasirekha,Trustee

CO-PATRON

Dr.A.Senthil Kumar. B.E.,M.E.,Ph.D.(IITR).,PDF(TUT,SA).,Senior PDF(VSB-TUO,EUROPE).,PGP AI & ML(University of Texas, Austin).

HOD

Dr.C.R.Balamurugan.M.E.Ph.D., Profssor & Head/EEE,

EDITOR

Faculty Members

Department of EEE

IN OUR HEARTS FOREVER & ALWAYS

FOUNDER'S MESSAGE

This sums up the entire philosophy of **Er. P. Perumal**, a visionary, who built the **Er. Perumal Manimekalai Group of Institutions** (Widely known as PMCTECH Group of Institutions) comprising Engineering College, Polytechnic, ITI Industrial School and Matriculation in the Industrial hub of Hosur, Tamilnadu. Born in an ordinary middle class family in Thanjavur, Tamilnadu, by his hard work, he rose to one of the top-ranking educationists. He held on to his dreams and converted them into reality. He helped the students explore their own potential. He made them realize that education, hard work and commitment to the nation are the only means to get themselves employable and overcome poverty. He was a true patriot and always advised the youngsters to serve their own Country. His personality had all the nuances of a great human being. He valued friendship and showed great respect, love and concern to his teachers, his family members and parents in equal measure.

The best tribute we can ever offer this architect could be to emulate his ideals and work toward realizing his dreams. Let his vision, **"TO MAKE EVERY MAN A SUCCESS AND NO MAN A FAILURE,"** inspire us to follow in his footsteps.

Er. P. PERUMAL

Founder,
PMC TECH- Group of Institutions

CHAIRMAN'S MESSAGE

"The Institute not only provides a good campus and state of the art computing facilities to students but also aims to equip them with competencies that will make them leaders and trendsetters in their respective fields in this age of competition"

PMC TECH is committed to developing young minds for creative leadership in business and fostering a proactive and useful role in social transformation. Today the need for being proactive and constructive is more acute than ever before due to the sweeping change influencing every aspect of our life. Therefore, there is need for action based on holistic training of youth to take on varied challenges of life. An opportunity to study at PMC TECH empowers a student to acquire knowledge and develop skills that will enable him to lead a highly productive, rewarding and holistic life. As a part of PMC TECH's commitment towards quality technical education and excellence, we embarked on promoting Faculty Development Program, Seminars, Workshops and Conferences, which will keep the faculty and students abreast of their field.

Shri. P.KUMAR

Chairman & Correspondent,

PMC TECH- Group of Institutions

SECRETARY'S MESSAGE

"The goal of education is the advancement of knowledge and the dissemination of truth"

The rapid rate of technological advancement and the information revolution have opened new series of challenges as well as opportunities. We aim to prepare the students to be successful in their workplace. It aims to prepare the students with technical knowledge and capabilities, flexibility and an understanding of the societal context of corporate world. We give the students support and encouragement they need to reach their full potential. We strive to give professional education a new perspective and achieve perfection in all spheres. We provide a pleasant & intellectually stimulating environment. The main reason for our tremendous performance is the faculty, which makes PMC TECH stand out from the rest of engineering colleges and Institutes. I wish to assure all concerned that no efforts will be spared to bring PMC TECH as one of the top Technical education Institutions.

Smt .P.MALLAR

Secretary,

PMC TECH- Group of Institutions

TRUSTEE MESSAGE

"Education is the ability to listen to almost anything without losing your temper or self-confidence"

PMC TECH is committed to creating an ambience for nurturing innovation, creativity and excellence in our students. We aim to prepare the young engineers and managers to confidently and competently face the challenges of intensifying competition by imparting high quality technical and managerial education coupled with appropriate training and wide exposure to the state-of-art practices. Our educational programmes lay emphasis on all round personality development and also in inculcating human values and professional ethics which help our students become more humane and socially alive to lead a meaningful life. This newsletter will help the students and faculty members to make them aware of different activities of their department as well as the other departments and will develop a better culture and academic environment. Further this will boost the morale of students and faculty to participate in future activities.

Smt .S.SASIREKHA

Trustee,

PMC TECH- Group of Institutions

DIRECTOR'S MESSAGE

"Inculcate a Maker, Innovator, Entrepreneurial mind set amongst the students - Today's learners and tomorrows Engineers - to ensure that not only they accomplish their own success but serve their best to the society, nation and the world."

The Institution is committed towards our student's growth and excellent training in order to cater the growing demands of the industry. The ultimate Vision is to create entrepreneurs and corporate leaders. We have the best of the faculties and we do not compromise on our quality of education. The main focus of our Institution is to empower students with industry ready skill, innovation and trends in cutting-edge technologies to experience and face the challenges of Industry 4.0 in a highly networked global perspective.

The inspiration and commitment of our Management to continuous improvement and the hard work of the faculty members towards the overall growth of our students ensures that every student passing out of our College will taste the success in any sphere of life they choose to work. I hope that their desire to contribute for the benefit of the society grows with their happiness and prosperity in life.

Prof. N. SUDHAKARAN

Director,

PMC TECH- Group of Institutions

PRINCIPAL MESSAGE

" TRUE EDUCATION AIMS TO CULTIVATE BOTH INTELLECT AND INTEGRITY "

In today's fast-paced, ever-changing world, the most crucial necessity is a strong moral and intellectual education. At PMC Tech, we are dedicated to providing each student with individualized, high-quality training grounded in discipline. Our programs encourage students to explore various vocations, adapting seamlessly to the dynamic demands of our society.

PMC Tech boasts a long history of success in delivering top-notch education. We prioritize accessibility, affordability, and equality, ensuring that every student has the opportunity to excel. Our institution is committed to creating an inclusive environment where all students can thrive, regardless of their background. Recognizing the unique potential of each student, we tailor our educational approach to meet individual needs. Our dedicated faculty members are passionate about teaching and committed to helping students achieve their fullest potential. Education at PMC Tech extends beyond the classroom. We emphasize holistic development, encouraging students to excel in extracurricular activities such as athletics, music, and cultural events. These opportunities allow students to pursue their passions, develop their talents, and grow as well-rounded individuals. We believe that high-quality education should be accessible to everyone. PMC Tech offers various financial aid options and scholarships to ensure that all students can pursue their education without financial barriers. Our commitment to affordability allows students to focus on their studies without the burden of excessive dept.At PMC Tech, we provide a nurturing environment where students can think critically, express themselves, and showcase their abilities. Our modern facilities, including advanced laboratories and technology centers, support both academic and extracurricular pursuits. PMC Tech is the ideal place for prospective students to shape their promising futures. Our comprehensive approach to education equips students with the skills and knowledge needed to meet the challenges of the modern world. By fostering intellectual growth, moral development, and extracurricular excellence, we prepare our students for successful careers and fulfilling lives.

Dr.A.SENTHIL KUMAR

B.E.,M.E.,MBA.,PH.D(IITR).,PDF(TUT,SA).,
SENIOR PDF(VSB-TUO, EUROPE).,
PGP AI & ML(UNIVERSITY OF TEXAS, AUSTIN)

PRINCIPAL

PMC TECH – Engineering College

HOD's Message

Electrical and Electronics Engineering is the branch that deals with designing and testing circuits that use the electromagnetic properties of the electrical components such as resistors, capacitors, inductors and transistors to achieve a particular functionality.

The theoretical together with the practical content of the source provides a thorough knowledge of the core concepts relating to transmission of signals along the global. Our aim is to develop In young technocrats, ability to solve design-oriented problems in electronic circuits and various communication systems. Electrical and Electronics Engineers have good employment opportunity in power generation, industrial, core & IT fields.

Dr. C. R. Balamurugan,M.E,Ph.D.,
Professor & Head/EEE,
PMCTECH–Engineering College.

PMC TECH-AN OVERVIEW

Er.Perumal Manimekalai College of Engineering, established in the academic year2002-2003 is approved by All India Council of Technical Education (AICTE), affiliated to Anna University, Accredited by NAAC with „A" Grade and NBA for CSE, EEE, ECE, IT and MECH departments. Recently the institute conformed with Autonomous Status by the University Grants Commission (UGC) for a period of 10 years from 2023 onwards. PMC TECH creates unique opportunities, affords individualized educational challenges, promotes high order thinking skills and maintains a strong tradition of academic excellence for the students.

The College is equipped with good infrastructure, highly qualified and well experienced faculty members for grooming the student's proficiency in their subjects. On the other side an active training cell is acquainting the students with essential soft skills so that finally the placement cells successfully carry out placements on the expert guide of our Principal

ABOUT THE DEPARTMENT

The Department was incepted in the year 2002. The Department offers a 4-Year full time B.E. programme in Electrical and Electronics Engineering; a 2-year full time M.E. programme in Power Electronics and Drives and it has a team of well-qualified faculty members with rich industrial and academic experience. ICT enhanced teaching techniques are also used in the department to supplement the regular chalk and talk lectures.

The Department provides a comprehensive multi-disciplinary education, equipping students with the knowledge and skills to excel in a wide range of careers, including the design, development, maintenance, and management of electrical and electronic systems. This includes power systems, renewable energy, automation, robotics, embedded systems, and communication technologies.

Vision

To develop eminent electrical and electronics engineers with innovation ability, research and ethical values.

Mission

M1: To impart fundamental and advanced education in Electrical, Electronics and interdisciplinary disciplines, suitable for emerging industrial and societal needs

M2: To endow the students in research activities leading to innovation.

M3: To inculcate the habit of leadership, ethics and lifelong learning for betterment of self and society.

Program Educational Objectives (PEO's)

PEO1: To develop graduates with strong foundation in mathematics, science and engineering to formulate, solve and analyze electrical and electronics engineering problems.

PEO2: Graduates with ability to provide innovative solutions pertaining to Electrical and Electronics engineering to emerging industrial and societal problems.

PEO3: Graduates able to communicate and indulge in life-long learning and practice professionalism with ethics.

Program Outcomes (PO's)

- **PO1 Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering Problems.
- **PO2 Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
- **PO3 Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health, safety, cultural, societal and environmental considerations.
- **PO4 Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis, and interpretation of data and synthesis of the information to provide valid conclusions.
- **PO5 Modern tool usage:** Create, select, apply appropriate techniques, resources, modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- **PO6 The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- **PO7 Environment and sustainability:** Understand the impact of the professional engineering solutions in societal, environmental contexts, demonstrate the knowledge and need for sustainable development.
- **PO8 Ethics:** Apply ethical principles, commit to professional ethics, responsibilities and norms of the engineering practice**.**
- **PO9 Individual and team work**: Function effectively as an individual, as a member or leader in diverse teams and in multidisciplinary settings.

- **PO10 Communication:** Communicate effectively on complex engineering activities with the engineering community with society at large being able to comprehend, write effective reports, design documentation, make effective presentations and receive clear instructions.
- **PO11 Project management and finance:** Demonstrate knowledge, understanding of the engineering and management and leader in a team, to manage projects and in multidisciplinary environments.
- **PO12 Life-long learning:** Recognize the need, ability to engage in independent and lifelong learning in the broadest context of technological change.

Program Specific Outcomes(PS0)

- **PSO1:** Able to identify, formulate and investigate various real time problems of Electrical Machines, Control System, Instrumentation System and Power Electronics & drives.
- **PSO2:** Able to develop innovative solutions through conventional and renewable energy systems to minimize the environmental impact to the society

Chief Patrons

Shri.P.Kumar, Chairman, PMC TECH - Group of Institutions

Smt.P.Mallar, Secretary, PMC TECH – Group of Institutions

Smt.P.Sasirekha, Trustee, PMC TECH–Group of Institutions

Patron

Dr.A.Senthil Kumar, Principal, PMCTECH–Engineering College

Convener

Dr.C.R.Balamurugan, Professor & Head / Electrical & Electronics Engineering

Editorial Board Members (Faculty)

Dr. A. Gnana Saravanan, Prof / EEE

Dr. M. Sahithullah, Associate Professor / Department of EEE

Mrs. G. Shasikala, Assistant Professor / Department of EEE

Mr. T. Senthilkumar, Assistant Professor / Department of EEE

Mrs.S.MeenaKumari, Assistant Professor / Department of EEE

Dr.V. Vijal , Assistant Professor/ Department of EEE

Mrs.N.Neeladevi, Assistant Professor / Department of EEE

Mrs.Jayashree, Assistant Professor/ Department of EEE

Mrs.G.S.Graciah Titus , Assistant Professor/ Department of EEE

Mr.Dinesh Balaji , Assistant Professor/ Department of EEE

Mr.K.M.Dharmarajan , Assistant Professor/ Department of EEE

Editorial Board Members (Students)

S. Barath, final year EEE

S. Chandra sekar, final year EEE

N. Nayana, finalyear EEE

P.Adhiraj. third year EEE

S.Manokar, third year EEE

Raveen R Moorthy, third year EEE

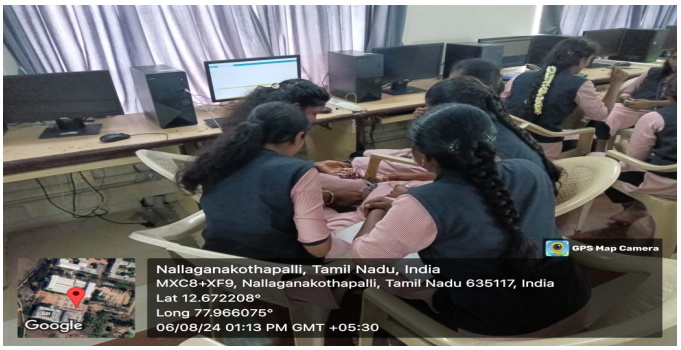
R. Bharath Kumar, second year EEE

M.S.Indhuja, second year

r. PERUMAL MANIMEKALAI COLLEGE OF ENGINEERING DEPARTM
ELECTRICAL & ELECTRONICS ENGINEERING
SIUM/CONFERENCE/SEMINAR/FDP/GUEST LECTURES ACADAMIC YI 2025
(ODD SEMESTER)

CO-CURRICULAR ACTIVITIES

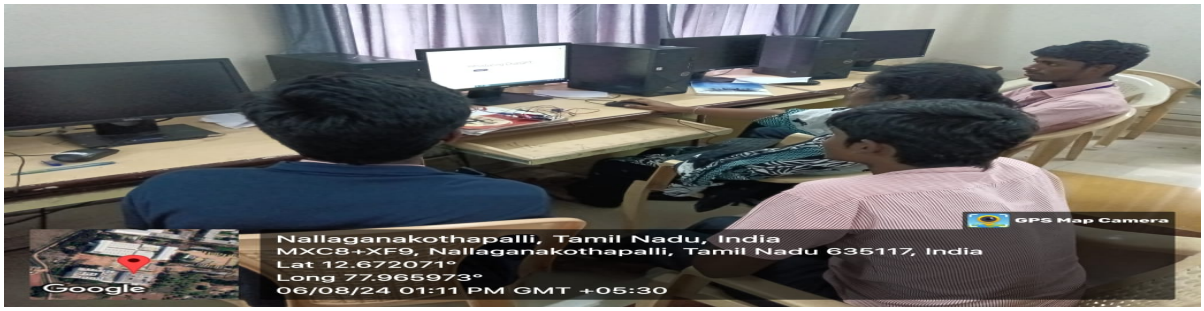
S.NO	NAME OF THE EVENT	RESOURSE PERSON	DATE	YEAR
1.	Automative Embedded system using IDE Tool	Ms.Sanjana N.M &;Immaculate Suganthi.T Innovation Engineering Products, Hosur.	01.6.2024, 05.8.2024 To 08-8-2024	III
2.	Machine Control Using Smart Devices	Ms.Sanjana N.M &Immaculate Suganthi.T Innovation Engineering Products, Hosur	1.8.24 To 3-8-24	IV
3.	AI in Sustainable Energy	Dr. Gokulsidarth Thirunavukkarasu, Lecturer Electrical Energy Engineering atSwinburne university of technology, Australia	11.9.24	IV,III,II
4	IOT Boot Camp	Mr. Murugan S C-DAC,Bangalore	18.11.2024 To 22.11.2024	III


GPS Map Camera
Nallaganakothapalli, Tamil Nadu, India
MXC8+XF9, Nallaganakothapalli, Tamil Nadu 635117, India
Lat 12.672208°
Long 77.966075°
06/08/24 01:13 PM GMT +05:30
Google


GPS Map Camera
Nallaganakothapalli, Tamil Nadu, India
MXC8+XF9, Nallaganakothapalli, Tamil Nadu 635117, India
Lat 12.67249°
Long 77.966003°
01/08/24 10:50 AM GMT +05:30
Google


GPS Map Camera
Krishnagiri, Tamil Nadu, India
Unnamed Road, Tamil Nadu 635117, India
Lat 12.673052°
Long 77.966258°
11/09/24 03:47 PM GMT +05:30
Google


GPS Map Camera
Nallaganakothapalli, Tamil Nadu, India
MXC8+XF9, Nallaganakothapalli, Tamil Nadu 635117, India
Lat 12.672308°
Long 77.966167°
07/08/24 10:48 AM GMT +05:30
Google


GPS Map Camera
Nallaganakothapalli, Tamil Nadu, India
MXC8+XF9, Nallaganakothapalli, Tamil Nadu 635117, India
Lat 12.672071°
Long 77.965973°
06/08/24 01:11 PM GMT +05:30
Google

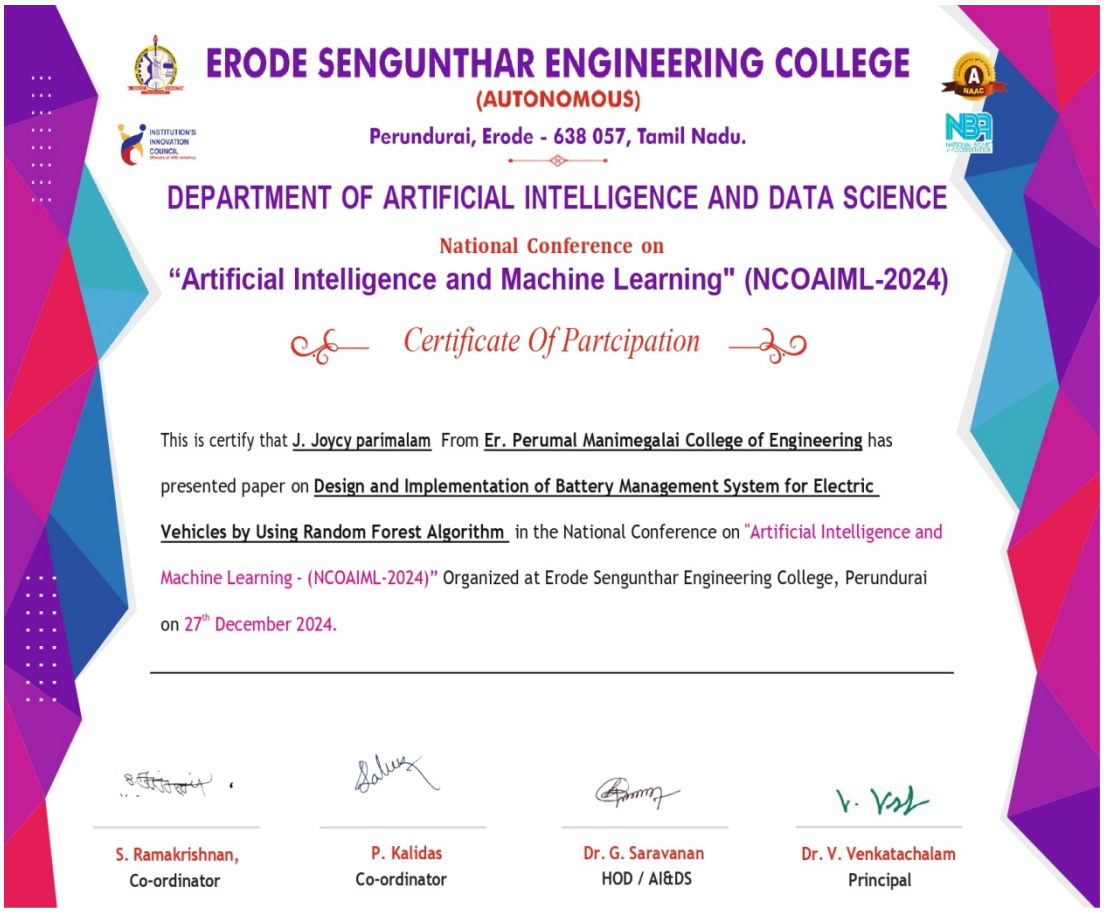
PARTICIPATIONS OF STUDENTS IN CONFERENCE, SYMPOSIUM, TECHNICAL EXHIBITIONS (2024-2025)

INDUSTRIAL VISIT

S.No	Year	Name of the company	Period
1.	II	Mettur Thermal power station-I, Mettur	One day (28.10.2024)
2.	IV	CMITI, Bangalore	One day (26.09.2024)

B. STUDENT CONFERENCE

Si.no	Name of the faculty	Event	Topic	Name of the College	Date
1.	Ms.J.Jocy Parimalam	National Conference	Artificial Intelligence and Machine learning-INCOAIML-2024	Erode Sengunthar Engineering College	27.12.2024



ERODE SENGUNTHAR ENGINEERING COLLEGE
(AUTONOMOUS)
Perundurai, Erode - 638 057, Tamil Nadu.

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

National Conference on
"Artificial Intelligence and Machine Learning" (NCOAIML-2024)

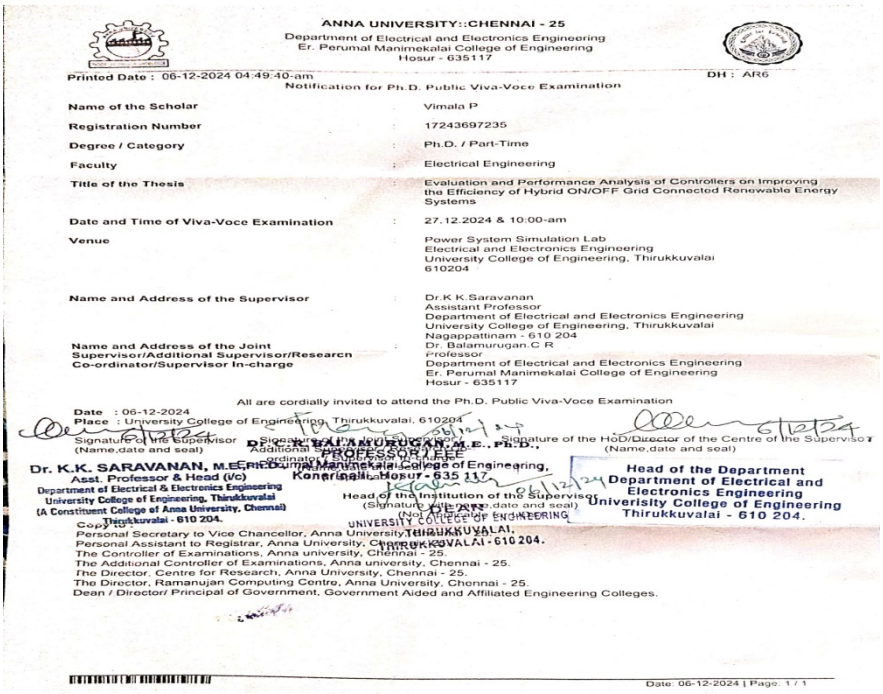
Certificate Of Partcipation

This is certify that J. Joycy parimalam From Er. Perumal Manimegalai College of Engineering has presented paper on Design and Implementation of Battery Management System for Electric Vehicles by Using Random Forest Algorithm in the National Conference on "Artificial Intelligence and Machine Learning - (NCOAIML-2024)" Organized at Erode Sengunthar Engineering College, Perundurai on 27th December 2024.

S. Ramakrishnan, Co-ordinator
P. Kalidas Co-ordinator
Dr. G. Saravanan HOD / AI&DS
Dr. V. Venkatachalam Principal

C. Ph.D.STUDENT VIVA -VOCE

Si.no	Name of the student	Event	Topic	Name of the Supervisor	Date
1.	Ms.P.Vimala	Viva-Voce	Evaluation and Performance Analysis of Controller on Improving the Efficiency of Hybrid ON/OFF Grid Connected Renewable Energy System	Dr.C.R.Balamurugan	27.12.2024



ANNA UNIVERSITY::CHENNAI - 25
Department of Electrical and Electronics Engineering
Er. Perumal Manimekalai College of Engineering
Hosur - 635117

Printed Date : 06-12-2024 04:49:40-am DH : AR6

Notification for Ph.D. Public Viva-Voce Examination

Name of the Scholar	:	Vimala P
Registration Number	:	17243697235
Degree / Category	:	Ph.D. / Part-Time
Faculty	:	Electrical Engineering
Title of the Thesis	:	Evaluation and Performance Analysis of Controllers on Improving the Efficiency of Hybrid ON/OFF Grid Connected Renewable Energy Systems
Date and Time of Viva-Voce Examination	:	27.12.2024 & 10:00-am
Venue	:	Power System Simulation Lab Electrical and Electronics Engineering University College of Engineering, Thirukkuvalai 610204
Name and Address of the Supervisor	:	Dr.K.K.Saravanan Assistant Professor Department of Electrical and Electronics Engineering University College of Engineering, Thirukkuvalai Nagappattinam - 610 204
Name and Address of the Joint Supervisor/Additional Supervisor/Research Co-ordinator/Supervisor In-charge	:	Dr. Balamurugan.C R Professor Department of Electrical and Electronics Engineering Er. Perumal Manimekalai College of Engineering Hosur - 635117

All are cordially invited to attend the Ph.D. Public Viva-Voce Examination

Date : 06-12-2024
Place : University College of Engineering, Thirukkuvalai, 610204

Signature of the Supervisor (Name,date and seal) — Signature of the Joint Supervisor/Additional Supervisor/Research Co-ordinator/Supervisor In-charge (Name,date and seal) — Signature of the HOD/Director of the Centre of the Supervisor (Name,date and seal)

Dr. K.K. SARAVANAN, M.E., Ph.D.,
Asst. Professor & Head (i/c)
Department of Electrical & Electronics Engineering
University College of Engineering, Thirukkuvalai
(A Constituent College of Anna University, Chennai)
Thirukkuvalai - 610 204.

Dr. K.R. BALAMURUGAN, M.E., Ph.D.,
PROFESSOR & HEAD
Department of Electrical and Electronics Engineering
Er. Perumal Manimekalai College of Engineering,
Kondrigail, Hosur - 635 117.

Head of the Institution of the Supervisor (Signature with date and seal)
(Not Applicable for ENGINEERING COLLEGES)
UNIVERSITY COLLEGE OF ENGINEERING THIRUKKUVALAI, THIRUKKUVALAI - 610 204.

Head of the Department
Department of Electrical and Electronics Engineering
University College of Engineering
Thirukkuvalai - 610 204.

Copy to:
Personal Secretary to Vice Chancellor, Anna University, Chennai - 25.
Personal Assistant to Registrar, Anna University, Chennai - 25.
The Controller of Examinations, Anna university, Chennai - 25.
The Additional Controller of Examinations, Anna university, Chennai - 25.
The Director, Centre for Research, Anna University, Chennai - 25.
The Director, Ramanujan Computing Centre, Anna University, Chennai - 25.
Dean / Director/ Principal of Government, Government Aided and Affiliated Engineering Colleges.

Date: 06-12-2024 | Page: 1 / 1

Department of Electrical and Electronics Engineering
Academic Year 2024-2025 (ODD SEM)

Participation of staffs in Conference, Journal, Symposium and Technical Exhibitions

A. FACULTY FDP/WORKSHOP/INTERNSHIP

Si.no	Name of the Faculty	College/ Agency participated	Program Title	Date
1.	Dr.C.R.Balamurugan	MES College of Engineering	Hydrogen Energy for Sustainable Future	08.07.2024 to 12.07.2024
2	Dr.Sahithulla.M	MES College of Engineering	Hydrogen Energy for Sustainable Future	08.07.2024 to 12.07.2024
3	Mrs.G.Shasikala	Paavai Engineering College	Emerging Trends in Advance PowerEngineering Applications	22.07.2024 to 26.07.2024
		Nanjiah Lingammal Polytechnic College	Outcome Based Education and BloomsTaxonomy	13.09.2024
4.	Mrs.S.Meena Kumari	Paavai Engineering College	Emerging Trends in Advance PowerEngineering Applications	22.07.2024 to 26.07.2024
5.	Mrs.V.Vijayal	Kongunadu College of Engineering .	Opportunities &Challenges in Integrating Renewable Energy in EV Charging Infrastucture	24.06.2024 to 29.07.2024
		MES College of Engineering	Hydrogen Energy for Sustainable Future	08.07.2024 to 12.07.2024

		Paavai Engineering College	Emerging Trends in Advance Power Engineering Applications	22.07.2024 to 26.07.2024
6.	Mr.T.Senthil Kumar	I-Stem	EV design using MATLAB	29.05.2024 to 20.06.2024
7.	Mr.KM.Dharmarajan	Nucleus of Learning andDevelopment	InnovativeTeaching Strategies using Digital Tools for EnhancedLearning Experience	19.09.2024
8.	Mr.K.Gobi	ATAL	Demystifying Machine Learning using Python	14.10.2024 to 19.10.2024
		ATAL	The Future of Quantum Computing and High Performance Computing	23.12.024 to 28.12.2024
9.	Mr.C.Dineshbalaji	MES College of Engineering	Hydrogen Energy for Sustainable Future	08.07.2024 to 12.07.2024
10	Mrs.Graciah Titus	Paavai Engineering College	Emerging Trends in Advance Power Engineering Applications	22.07.2024 to 26.07.2024
		Kongunadu College of Engineering	Opportunities & Challenges in Integrating Renewable Energy in EV Charging	24.06.2024 to 29.07.2024

			Infrastructure	
11	Mrs.N.Neeladevi	MES College of Engineering	Hydrogen Energy for Sustainable Future	08.07.2024 to 12.07.2024
		Paavai Engineering College	Emerging Trends in Advance Power Engineering Applications	22.07.2024 to 26.07.2024
		Kongunadu College of Engineering	Opportunities & Challenges in Integrating Renewable Energy in EV Charging Infrastucture	24.06.2024 to 29.07.2024
12	Mrs.M.Jayashree	MES College of Engineering	Hydrogen Energy for Sustainable Future	08.07.2024 12.07.2024

ATAL/2024/1728472415

Skill India | ATAL | AICTE

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi -110070

AICTE Training and Learning (ATAL) Academy

Certificate

It is certified that Mr. Gobi K, Faculty members of the AICTE approved institutions of Er. Perumal Manimekalai College of Engineering, Hosur-635117 has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Demystifying Machine Learning using Python at MOUNT ZION COLLEGE OF ENGINEERING AND TECHNOLOGY from 14/10/2024 to 19/10/2024.

GURUNATHAN K
Associate Professor Level (AICTE Institute), Coordinator
MOUNT ZION COLLEGE OF ENGINEERING AND TECHNOLOGY

Dr. Sunil Luthra
Director & Bureau Head
Training and Learning Bureau, AICTE

KONGUNADU COLLEGE OF ENGINEERING AND TECHNOLOGY
(AUTONOMOUS)
Approved by AICTE, New Delhi, Affiliated to Anna University Chennai, Accredited by NAAC, Accredited by NBA (CSE, ECE, EEE & MECH), Recognized by UGC with 2(f) & 12 (B), An ISO 9001:2015 Certified Institution.
Namakkal - Trichy Main Road, Thulurpatti Post, Thottiam Taluk, Trichy - 621 215, Tamil Nadu.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

PARTICIPATION CERTIFICATE

Certificate No: 24EFDP115

This is to certify that Mrs. GRACIAH TITUS G S, Associate Professor, Department of Electrical and Electronics Engineering, ER.Perumal Manimekalai College of Engineering has attended Six Day Online FDP entitled "Opportunities and Challenges in Integrating Renewable Energy in EV Charging Infrastructure" Organized by the Department of Electrical and Electronics Engineering from 24th to 29th June 2024.

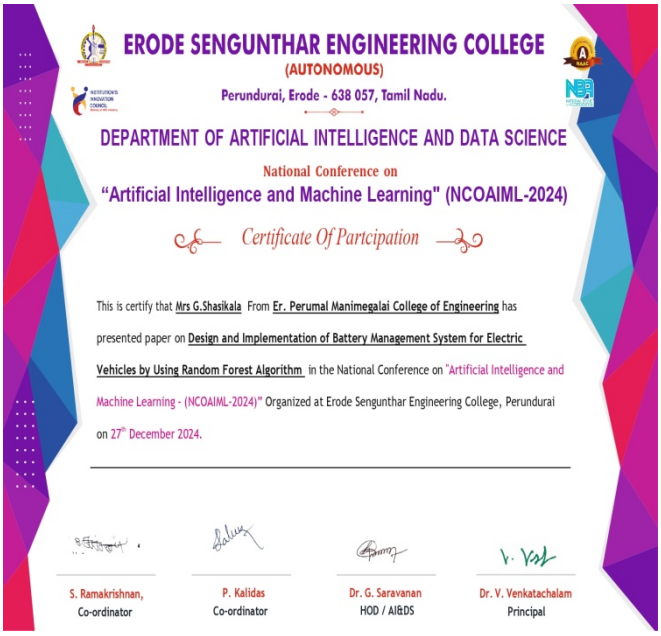
Dr. R. SHANKAR
HOD /EEE

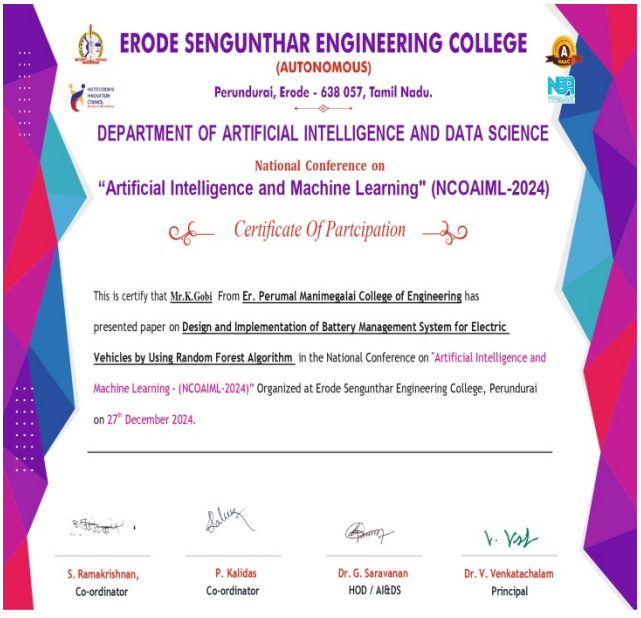
Dr. R. ASOKAN
PRINCIPAL

Department of Electrical and Electronics Engineering
Academic Year 2024-2025 (ODD SEM)

B. FACULTY CONFERENCE

Si.no	Name of the faculty	Event	Topic	Name of the College	Date
1.	Mrs.G.Shasikala	National Conference	Artificial Intelligence and Machine learning-INCOAIML-2024	Erode Sengunthar Engineering College	27.12.2024
2.	Mr.k.Kobi	National Conference	Artificial Intelligence and Machine learning-INCOAIML-2024	Erode Sengunthar Engineering College	27.12.2024





Department of Electrical and Electronics Engineering
Academic Year 2024-2025 (ODD SEM)

- **C. FACULTY JOURNAL**

Si.no	Name of the Faculty	Name of the Journal	Title	Volume
1.	Dr.C.R.Balamurugan	Industrial Engineering Journal	IOT based smart Gate Operated	Volume :53, Issue7, No.8, July : 2024
		Industrial Engineering Journal	Design and Implementation of New born Neonatal Intensive Care Unit for premature Infant based on IOT	Volume :53, Issue7, No.8, July : 2024
		Industrial Engineering Journal	Leaf Disease Detection using ANN Algorithm	Volume :53, Issue7, No.8, July : 2024
		Industrial Engineering Journal	Implementation of Smart System for Visually Challenged People by using CNN Algorithm	Volume :53, Issue7, No.8, July : 2024
		Electrical Engineering	A novel bald eagle search optimised ANFIS controlled high gain SEPIC converter-based efficient regenerative charging control for electric vehicles	24 July 2024
		Electrical Engineering	Selective harmonic elimination in Novel 27-leveltrinary DC source inverter using optimization algorithm for hybrid renewable energy sources	24 July 2024
		Electrical Engineering	FOPIR controller for TCSC based gate turn-off	24 July 2024

			switches to control powerquality in transmission line	
		Frontiers	Enhancing power quality in grid-connected hybrid renewable energy systems using UPQ Cand optimized O-FOPID	30 July 2024
		Industrial Engineering Journal	Electricity Theft Detection For Smart grid Security Using Smart meter System	Volume :53, Issue8, No.8, August 2024
		Industrial Engineering Journal	Implementation of Child Monitoring And Tracking System Using Internet of Things	Volume :53, Issue8, No.8, August 2024
		Industrial Engineering Journal	Design And Development of Unground Cable Fault Detection Using Gsm	Volume :53, Issue8, No.8, August 2024
		Industrial Engineering Journal	Semantic Segmentation of Retinal Blood Vessels From Fundus Using Random Forest Algorithm	Volume :53, Issue8, No.8, August 2024
		Industrial Engineering Journal	Canvast : Can Bus Security Analysis And Attack Type Classification With Minimal Overhead	Volume :53, Issue8, No.8 August 2024
		Industrial Engineering Journal	Design And Implementation of Animal Husbandry Health Monitoring System	Volume :53, Issue8, No.8, August 2024
		IJIJSET	Time Varying Social Aware	Volume 13,

			Issues Resourse Allocation for Device -to-Device Communication	Issue8,August 2024

Industrial Engineering Journal
ISSN: 0970-2555
Volume : 53, Issue 7, No.3, July : 2024

ARTIFICIAL NEURAL NETWORKS BASED FABRIC SEWINGDEFECT DETECTION AND AUTOMATIC STITCH CONTROLSYSTEM

S. Juliet Mercy, Assistant Professor, Er.Perumal Manimekalai College of Engineering,Hosur, TamilNadu ,India.
R. Elavarasi, Associate Professor, Er.Perumal Manimekalai College of Engineering,Hosur, TamilNadu ,India.
C.R. Balamurugan , Professor, Er.Perumal Manimekalai College of Engineering,Hosur, TamilNadu ,India.
R. Aravind, C. Dhayanandhan, H. Sai Raghava,UG SCHOLAR, Er.Perumal Manimekalai College of Engineering,Hosur, TamilNadu ,India.

ABSTRACT
This system proposes a computer vision-based strategy for the imperfection discovery on pictures with occasional fabrics. The inspection of sewing defects is an essential step in the quality assurance of garment manufacturing. Although traditional automated defect detection applications have showngood performance, these methods are usuallyconfigured with handcrafted features designed by a human operator. Recently, deep learning methods that include Artificial Neural Networks (ANNs) have demonstrated excellent performance in a wide variety of computer- vision applications. To take advantage of the ANN's feature representation, the direct utilization of feature maps from the convolutional layers as universal feature descriptorshas been studied.
In this project, we propose a sewing defect detectionmethod using a ANN feature map extracted from the initial layers of a pre-trained model to detect a broken stitch from a captured image of a sewing operation. To assess the effectiveness of theproposed method, experiments were conducted on aset of sewing images, including normal images, their synthetic defects, and rotated images. As a result, the proposed method detected true defects with 97.3% accuracyThe results confirm the feasibility of the proposed method's performance as an appropriate manufacturing technology for garment production.
Keywords: Artificial Neural Networks, sewing faultdetection, broken stitch detect.
Domain: Deep Learning.

I . INTRODUCTION
Computer vision and image classification-based models are used in various applied domains including industry-based problems. Clothing is considered as one of the basic requirements forhuman life, and the history of textile industry is as old as human civilization. Fabric is considered as a main element for human clothing and is also used inmany industrial products. Traditionally, inspection process is completed by using manual human effortsto ensure the quality of fabric. The price of fabric that is sent to the market depends on the number of co- occurrence of defects and price increase with theincrease in the number of defects.

OBJECTIVE
We propose an effective sewing defect detection method that uses ANN feature map to detect broken stitches. The sewing defect detection algorithm, we applied simple image processing methods to identify the sewing-stitch region .To automatically find an optimal threshold value for banalization, we use adaptive thresholding method which is suitable for binarizing images To check the continuity of the stitch areas, the extracted area from the feature mapmust be segmented into individual regions.

II . LITERATURE SURVEY
[1]. K. Simony an, A. Zisserman, ''Very Deep Convolutional Networks for Large-Scale Image Recognition,'' Computer Science, 2018.
In this paper, a deep-learning algorithm wasdeveloped for an on-loom fabric defect inspection system by combining the techniques of image pre- processing, fabric motif determination, candidatedefect

Industrial Engineering Journal
ISSN: 0970-2555
Volume : 53, Issue 7, No.3, July : 2024

LEAF DISEASE DETECTION USING ANN ALGORITHM

C.R. Balamurugan, Professor, Er. Perumal Manimekalai College of Engineering, Hosur, Tamil Nadu, India
R. Elavarasi, Associate professor, Er. Perumal Manimekalai College of Engineering, Hosur, Tamil Nadu, India
P Anupriya, N Bhuvana, C Pavithra, M Pavithra, UG SCHOLAR, Er. Perumal Manimekalai College of Engineering, Hosur, Tamil Nadu, India

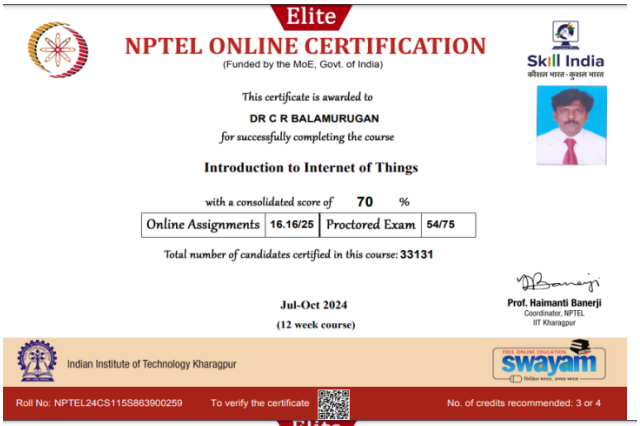
ABSTRACT
The yield from agricultural fields are low because lack of monitoring and treatment for infected region in cultivation fields. This tend to spreading of disease over other crops or infects whole field then the resultant will be loss and less yield. The main objective of this project is to control the spreading of disease and to provide medication for crops in initial stage of disease with the help of automatic controlled UAV with the combination of chemical sprayer. Pesticide or Chemicals is sprayed based on the particular disease of crop which can be identified input visuals of camera and then it is compared with pre-trained images in intel corei5 controller by AI based YoloV8 in video processing. The yolo V8 algorithm is used for analysing the image by extracting features such as texture pattern, color, shape of the crop. And then the sprayer initiated with a specific instructions to spray chemicals on the plants which will provide cure for the crop. The sprayer can spray based on the severity of the diseases and the sprayer will carry few small tanks of pesticides or chemicals to provide medication for crops with different diseases like leave blight and measles. There we can take over the situation under control and get more yield from agriculture. The UAV is controlled by a operator through automatic sensing technology, and then the detection of disease and treating the plant will be done through the UAV. The mixing of chemicals are done with the help of pumps in the chemical tanks, after the mixing of chemical the mixture is sprayed out through a sprinkler.

INTRODUCTION
We all know that the lack of monitoring and maintaining the crop fields may cause low yield due to disease spreading and pest. Here it is due to lack of knowledge in treating the disease with proper medicine and mixing the pesticide solution with proper ratio. They not even know the disease name, It is the main inability of farmers and which chemical to spray for the infected crop. We have lot of consulting centers for farmer to get to know disease and treatment process. And we have lot of online consultancies and apps then also they where facing problems in mixing of solution with proper ratio. For that we are here with a solution called Auto crop disease detection and medication using AI. it will identify the type of disease and treatment for the crop with required chemical with proper chemical proportion. The detection process will be done by video processing technology and that identified disease is sent processor that decides what chemicals to spray. By video processing the infected region is classified and segmented for treatment.

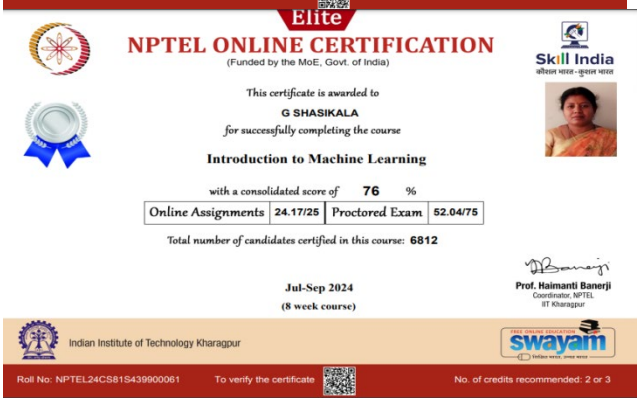
LITERATURE SURVEY
[1] Liu, L.; Dong, Y.; Huang, W.; Du, X.; Ren, B.; Huang, L.; Zheng, Q.; Ma, H. A disease index for efficiently detecting wheat fusarium head blight using sentinel-2 multispectral imagery. IEEE Access 2020,
A significant decrease in the quantity and quality of agricultural production. Early identification of diseases is crucial to avoid huge losses and reduce the excessive use of pesticides, which can harm human health and the environment.

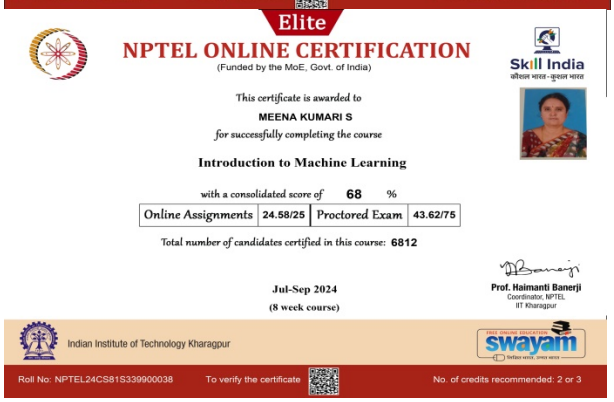
E. FACULTY ONLINE COURSES

Si.no	Name of the faculty	Courses	Program Title	College or organization in which participated	Date
1.	Dr.C.R.Balamurugan	NPTEL Courses	Introduction to IoT	NPTEL	Oct 2024
2.	Mrs.G.Shasikala	NPTEL Courses	Introduction to Machines Learning	NPTEL	Jul-Sep 2024
3	Mrs.S.Meena Kumari	NPTEL Courses	Introduction to Machines Learning	NPTEL	July -Sep 2024
4	Mr.T.Senthilkumar	NPTEL Courses	Introduction to Machines Learning	NPTEL	July -Sep 2024


Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)
Skill India
This certificate is awarded to
DR C R BALAMURUGAN
for successfully completing the course
Introduction to Internet of Things
with a consolidated score of 70 %
Online Assignments 16.16/25 | Proctored Exam 54/75
Total number of candidates certified in this course: 33131
Jul-Oct 2024
(12 week course)
Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur
Indian Institute of Technology Kharagpur
swayam
Roll No: NPTEL24CS115S863900259 To verify the certificate No. of credits recommended: 3 or 4


Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)
Skill India
This certificate is awarded to
SENTHILKUMAR T
for successfully completing the course
Introduction to Machine Learning
with a consolidated score of 73 %
Online Assignments 24.58/25 | Proctored Exam 48.47/75
Total number of candidates certified in this course: 6812
Jul-Sep 2024
(8 week course)
Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur
Indian Institute of Technology Kharagpur
swayam
No: NPTEL24CS81S439900098 To verify the certificate No. of credits recommended: 2 or 3

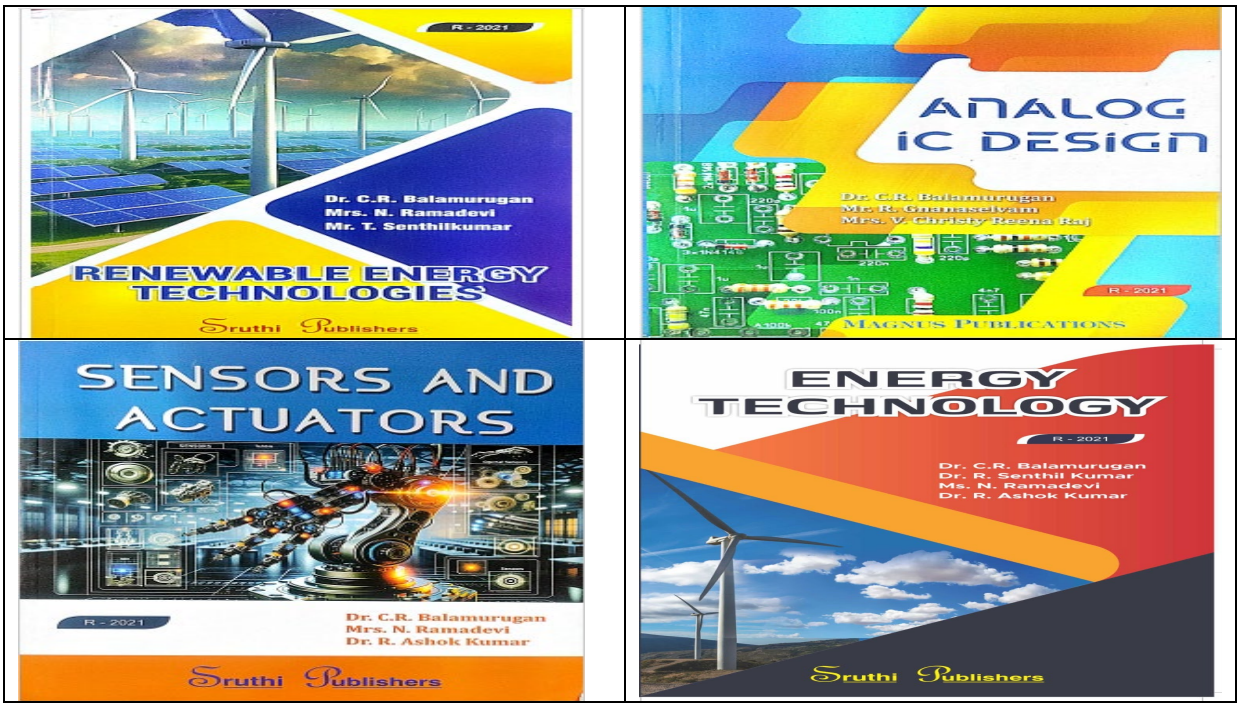

Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)
Skill India
This certificate is awarded to
G SHASIKALA
for successfully completing the course
Introduction to Machine Learning
with a consolidated score of 76 %
Online Assignments 24.17/25 | Proctored Exam 52.04/75
Total number of candidates certified in this course: 6812
Jul-Sep 2024
(8 week course)
Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur
Indian Institute of Technology Kharagpur
swayam
Roll No: NPTEL24CS81S439900061 To verify the certificate No. of credits recommended: 2 or 3


Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)
Skill India
This certificate is awarded to
MEENA KUMARI S
for successfully completing the course
Introduction to Machine Learning
with a consolidated score of 68 %
Online Assignments 24.58/25 | Proctored Exam 43.62/75
Total number of candidates certified in this course: 6812
Jul-Sep 2024
(8 week course)
Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur
Indian Institute of Technology Kharagpur
swayam
Roll No: NPTEL24CS81S339900038 To verify the certificate No. of credits recommended: 2 or 3

Academic Year 2024-2025 (ODD SEM)

F. FACULTY BOOKS PUBLISHED

S.no	Faculty Name	Name of the Book/Chapter	Details of publication	Date
1	Dr.C.R.Balamurugan, Mr.T.Senthil Kumar	Renewable Energy Technologies	Sruthi Publication ISBN:978-81-961881-6-0	First Edition-June:2024
2	Dr.C.R.Balamurugan	Sensors and Actuators	Sruthi Publication ISBN:978-81-961881-9-1	First Edition-July:2024
3	Dr.C.R.Balamurugan	Analog IC design	Sruthi Publication ISBN:978-81-972240-6-5	First Edition-July:2024
4	Dr.C.R.Balamurugan	Energy Technology	Sruthi Publication ISBN:978-81-972803-0-6	First Edition-July:2024
5	Dr.C.R.Balamurugan	IT in Agricultural System	Sruthi Publication ISBN:978-81-968522-4-5	First Edition-July:2024



G. FACULTY / DEPARTMENT FUNDS RECEIVED

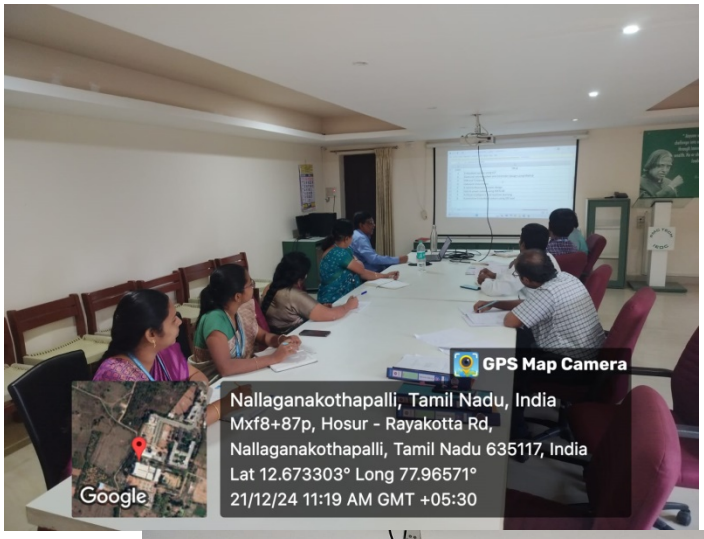
S.no	Name of the Faculty/Department	Project / Workshop Title	Funding Agency	Amount
1.	Dr.C.R.Balamurugan	Student project scheme	Tamil nadu state council for Science and Technology	Rs.7500

805.	Dr.C.R.Balamurugan Professor and Associate Director/R&D Dept. of EEE Er. Perumal Manimekalai College of Engineering. Krishnagiri-635 117	Automatic rain and dust sensing system using car wiper	Naveen M, Balu R, Bojaprasath M, Gowtham G.	EEE-0567	7500

Academic Year 2024-2025(ODD SEM)

Programme Assessment Committee(21-12-2024)

S.No	Members Name List
1	Dr. A. Senthil Kumar, Principal
2	Dr. R. Saravanan, Director - Academics
3	Dr. V. Lakshmi Narayanan, Prof & Dean – ES
4	Dr. C. R. Balamurugan, Prof & Head/EEE
5	Dr. A. Gnana Saravanan, Prof / EEE
6	Mrs. S. Meenakumari, AP/EEE
7	Mrs. G. Shasikala, AP/EEE
8	Mr. T. Senthilkumar, AP/EEE
9	Mrs. N. Neeladevi, AP/EEE
10	Dr. V. Vijayal, AP/EEE
11	Mrs. G.S. Graciah Titus, AP/EEE
12	Mr. K. M. Dharmarajan, AP/EEE
13	Mr. K. Gobi, AP/EEE



Academic Year 2024-2025(ODD SEM)

Department Academic Advisory Committee(23-12-2024)

S.No	Members Name List
1	Dr. A. Senthil Kumar, Principal
2	Dr. R. Saravanan, Director - Academics
3	Dr. V. Lakshmi Narayanan, Prof & Dean – ES
4	Dr. C. R. Balamurugan, Prof & Head/EEE
5	Dr. A. Gnana Saravanan, Prof / EEE
6	Mrs. S. Meenakumari, AP/EEE
7	Mrs. G. Shasikala, AP/EEE
8	Mr. T. Senthilkumar, AP/EEE
9	Mrs. N. Neeladevi, AP/EEE
10	Dr. V. Vijayal, AP/EEE
11	Mrs. G.S. Graciah Titus, AP/EEE
12	Mr. K. M. Dharmarajan, AP/EEE
13	Mr. K. Gobi, AP/EEE
14	Dr. L. P. Sivakumar, Prof/EEE

Department of Electrical and Electronics Engineering

Academic Year 2024-2025(ODD SEM)

Name of the Dept. Association: Effulgent Electrical Engineer's Association (EEFA)

List of Students Office Bearers

S.No	Responsibility	Name of the Student	Year	School Education	CGPA
1	PRESIDENT	K.Bhavya	Final	Eternal Light Hr Sec School, Rayakottai	8.2
2	VICE PRESIDENT	S.Barath	Final	Er.Perumal Manimekalai polytechnic college	7.8
3		P.Adhiraj	Third	Govt boys higher secondary school, Bagalur	7.5
4	SECRETARY	S.Manokar	Third	Govt boys higher secondary school, Bagalur	7.8
5	JOINT SECRETARY	R.Bharath Kumar	Second	Shanthi Nikethsn Hr Secondary School, Karimangalam	8.57
6	TREASURER	M.S.Indhuja	Second	Govt model higher secondary school bedapalli	7.45

Academic Year 2024-2025 (ODD SEM)

ACADEMIC TOPPERS LIST

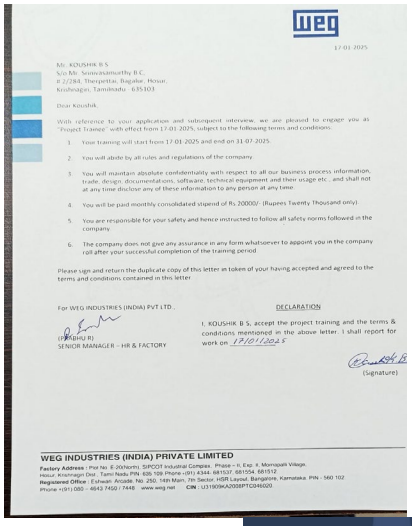
S.No	Year	Reg.Number	Student Name	Photo	Average	Rank
1.	IV	610820105014	Naveen M		9.25	I
2	IV	610820105004	Hemalatha A		8.87	II
3.	IV	610820105005	Kavya M		8.87	II
4.	III	610821105005	Bhavya K		9.0	I
5.	III	610821105038	Soundarya P		8.5	II
7.	II	610822105030	Mahalakshmi C		8.67	I
8.	II	610822105309	Usha		8.2	II

Department of Electrical and Electronics Engineering

Academic Year 2024-2025 (ODD SEM)

Placed student list (Batch:2021 – 2025)

S.no	Register Number	Name of the Student	Company	Salary
1	610821105019	Komal Kumari M	WEG INDUSTRIES	2.4LPA
2	610821105020	Koushik B S	WEG INDUSTRIES	2.4LPA



17-01-2025

Mr. KOUSHIK B S
S/o Mr. Sowvasamurthy B C
2/284, Thenpettai, Bagalur, Hosur,
Krishnagiri, Tamilnadu - 635103.

Dear Koushik,

With reference to your application and subsequent interview, we are pleased to engage you as "Project Trainee" with effect from 17-01-2025, subject to the following terms and conditions:

1. Your training will start from 17-01-2025 and end on 31-07-2025.
2. You will abide by all rules and regulations of the company.
3. You will maintain absolute confidentiality with respect to all our business process information, trade, design, documentations, software, technical equipment and their usage etc., and shall not at any time disclose any of these information to any person at any time.
4. You will be paid monthly consolidated stipend of Rs.20000/- (Rupees Twenty Thousand only).
5. You are responsible for your safety and hence instructed to follow all safety norms followed in the company.
6. The company does not give any assurance in any form whatsoever to appoint you in the company roll after your successful completion of the training period.

Please sign and return the duplicate copy of this letter in token of your having accepted and agreed to the terms and conditions contained in this letter.

For WEG INDUSTRIES (INDIA) PVT LTD.,

(PRABHU R)
SENIOR MANAGER – HR & FACTORY

DECLARATION

I, KOUSHIK B S, accept the project training and the terms & conditions mentioned in the above letter. I shall report for work on 17/01/2025

(Signature)

WEG INDUSTRIES (INDIA) PRIVATE LIMITED

17-01-2025

Ms. KOMAL KUMARI M
D/o Mr. Manoj Kumar D,
3/77, KBSR Residency, Bagalur Circle,
Hosur, Krishnagiri, Tamilnadu - 635103.

Dear Komal Kumari,

With reference to your application and subsequent interview, we are pleased to engage you as "Project Trainee" with effect from 17-01-2025, subject to the following terms and conditions:

1. Your training will start from 17-01-2025 and end on 31-07-2025.
2. You will abide by all rules and regulations of the company.
3. You will maintain absolute confidentiality with respect to all our business process information, trade, design, documentations, software, technical equipment and their usage etc., and shall not at any time disclose any of these information to any person at any time.
4. You will be paid monthly consolidated stipend of Rs.20000/- (Rupees Twenty Thousand only).
5. You are responsible for your safety and hence instructed to follow all safety norms followed in the company.
6. The company does not give any assurance in any form whatsoever to appoint you in the company roll after your successful completion of the training period.

Please sign and return the duplicate copy of this letter in token of your having accepted and agreed to the terms and conditions contained in this letter.

For WEG INDUSTRIES (INDIA) PVT LTD.,

(PRABHU R)
SENIOR MANAGER – HR & FACTORY

DECLARATION

I, KOMAL KUMARI M, accept the project training and the terms & conditions mentioned in the above letter. I shall report for work on 17-1-2025

(Signature)

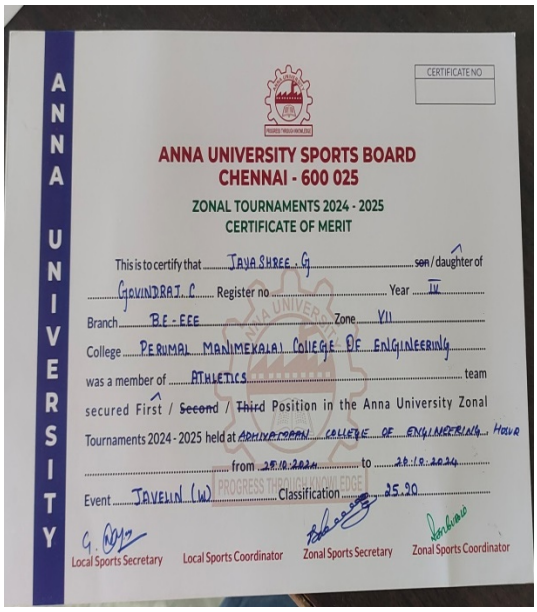
WEG INDUSTRIES (INDIA) PRIVATE LIMITED

Department of Electrical and Electronics Engineering

Academic Year 2024-2025 (ODD SEM)

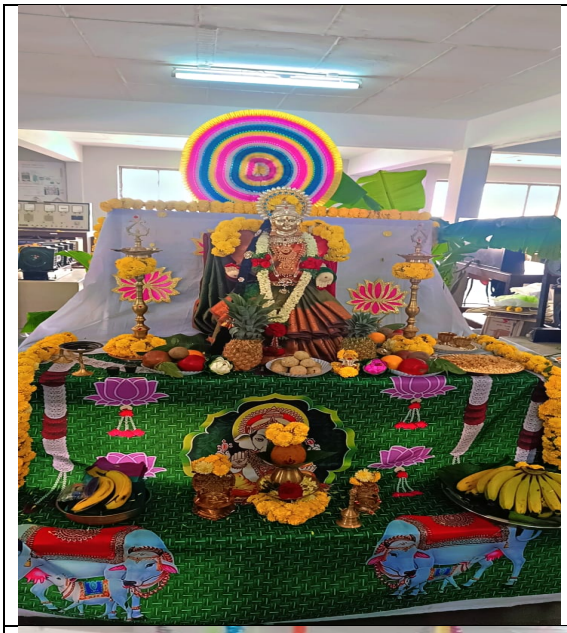
Sports Activities

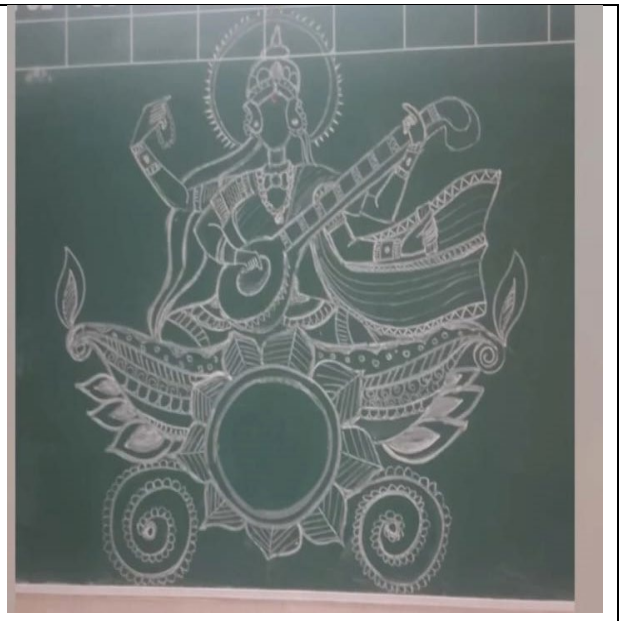
S.no	Year	Name of the Game	Name of the Student	Prize/Award
1.	2024-2025	HEPATHLON	JAYASHREE	1ST PRIZE
		JAVELIN THROUGH	JAYASHREE	1ST PRIZE
		RELAY (4X100)	JAYASHREE	3RD PRIZE
2	2024-2025	INTERNATIONAL SILAMBUM	K.GAYATHRI	GOLD MEDAL



Department of Electrical and Electronics Engineering
Academic Year 2024-2025 (ODD SEM)

S.No	Event Name	Date
1	Ayudha Pooja day celebration	9-10-2024





T