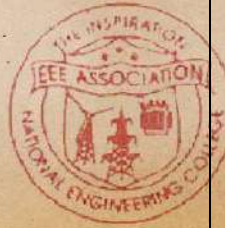# NATIONAL ENGINEERING COLLEGE
(AN AUTONOMOUS INSTITUTION)
K.R.NAGAR, KOVILPATTI-628503.

EEE NEWSLETTER

OCTOBER 2020

Volume 8 Issue 1

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CONTENTS

ACHIEVEMENTS OF NEC

Our NEC Bagged 189th position in NIRF 2020 Ranking

Our NEC has secured Band A Rank (Between 6th – 25th) among the 373 Self-financed Institutions all over the Nation applied for Atal Ranking of Institutions on Innovation Achievements (ARIIA) 2020.

Our NEC secured 5-Star rating with a score of 97.5 out of 100 for the academic year 2019-20

B.E. – EEE Program has got Re-accreditation status by NBA - Tier 1 (Washington Accord) for the period of July 2020 to June 2021

FEATURES OF NEC – DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

NATIONAL ENGINEERING COLLEGE
(An Autonomous Institution, Affiliated to Anna University – Chennai)
K.R. NAGAR, KOVILPATTI – 628 503

Department of Electrical and Electronics Engineering

- State of art Infrastructure Facilities
- 24 x 7 Wi-Fi enabled Campus
- Experienced Faculty with Ph.D
- 90% Placement Record (2020 EEE batch)
- Highest Salary Package of 7.5L/Annum
- Exclusive Hands on Training @ Mini Project Forum
- Smart Classrooms with interactive learning
- Moodle/Google based online Learning Management System
- Exposure in MATLAB, LABVIEW, ANSYS, ETAP, PSIM
- Sports Facilities and Scholarship
- NBA Tier -I Accredited Program

TNEA Counseling Code 4962

nirf RANK 189

Our Top Recruiters
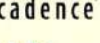
Cognizant, TSTS, COMCAST, VVDN, cadence, Datalogics, e-con Systems, DATA PATTERNS, ZOHO, Hexaware, TATA CONSULTANCY SERVICES, BOSCH, TESSOLVE, Schneider Electric, Infosys, Caliber Interconnect Solutions

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ESTABLISHMENT OF NEW LABORATORY
SWITCHGEAR AND PROTECTION LAB

Need for Power system protection:

`A good electric power system should ensure the availability of electrical power without any interruption to every load connected to it. Generally power is transmitted through high voltage transmission line and lines are exposed, there may be chances of their breakdown due to storms, falling of external objects, and damage to the insulators etc. These can result not only mechanical damage but also in an electrical fault. Protective relays and relaying systems detect abnormal conditions like faults in electrical circuits and automatically operate the switchgear to isolate faulty equipment from the system as quick as possible. The switch gear must be capable of interrupting both normal currents as well as fault current. The protective relay on the other hand must be able to recognize an abnormal condition in the power system and take suitable steps so that there will be least possible disturbance to normal operation.

Salient features of Switchgear and Protection Lab:

The State-of-the art switchgear and Protection lab in EEE department is equipped with modern tools like advanced Numeric Relay based smart protection schemes like Over current Protection, Transformer Protection, Distance Protection, Motor protection, conventional electromagnetic relays and SCADA based substation automation with Bay Control Unit and also ETAP software package, for the overall worth of Rs.25 Lakhs.

Equipment's:

Sl.No	Name of the Equipment
1	Feeder (Over Current and Earth fault Protection Relay)- MiCOM P14DB
2	Transformer Protection Numerical Relay-MiCOM P642
3	Motor Protection Relay - P24DM
4	Distance Protection Relay on -MiCOM P442
5	Bay Control Unit -C264

FEEDER (OVER CURRENT AND EARTH FAULT PROTECTION RELAY)- MiCOM P14DB:

Feeder protection is defined as the protection of the feeder from the fault so that the power grid continues supply the energy. The feeder injects the electrical energy from the substation to the load end. So it is essential to protect the feeder from the various type of fault.

The over current relay is defined as the relay, which operates only when the value of the current is greater than the relay setting time. It protects the equipment of the power system from the fault current. Depending on the time of operation the over current relay is categorized into following types.

- Instantaneous Overcurrent relay
- Inverse time Overcurrent Relay
- Definite Time Overcurrent Relay
- Inverse Definite Time Overcurrent Relay
- Very Inverse Definite Time Overcurrent Relay
- Extremely Inverse Definite Time Overcurrent Relay
- Instantaneous Overcurrent relay

Earth fault is the unintended fault between the live conductor and the earth. It also occurs, because of the insulation breakdown. When the fault occurs, the short-circuit currents flow through the system, and this current is returned through the earth or any electrical equipment. This fault current damaged the equipment of the power system and also interrupted the continuity of the supply.

TRANSFORMER PROTECTION NUMERICAL RELAY-MiCOM P642:

Transformers have become an essential component for high voltage power transmission, ensuring long distance transmission of power is economically practical. Transformer protection solutions enhance transformer reliability through special techniques and methods to increase the life of transformers.

The Agile P64x transformer protection relays provide fast protection for transformer faults. The platform consists of three model variants (P642, P643 and P645) that cover two and three-winding transformers (including auto-transformers), with up to five sets of 3-phase CT inputs, and offers high and low impedance restricted earth fault, and has integral asset management capability.

Key features:

- No slow-down of differential elements due to 2nd harmonic component in fault currents
- Current transformer supervision operates with or without voltage inputs, fast enough to prevent any spurious tripping and alarm
- 10 integrated function keys, tri-color LEDs, and graphical programmable logic permit the creation of comprehensive, tailored schemes
- Supports all major digital control system protocols, easing integration into DCS, SCADA and engineering workstations

MOTOR PROTECTION RELAY - P24DM

The Agile P24xM Motor Management Series is a field proven P40 Agile protective relay platform, and has been designed for the protection, control, and management of medium voltage motors in industrial applications. The P24xM series offers a small, flexible form factor, advanced and redundant communications, multiple I/O options, and is available with current and voltage inputs (P24DM). The P24xM series delivers reliable protection for pumps, conveyors, fans, and compressors to ensure maximum process uptime.

Key Benefits

- Cost-effective, flexible protection and control for medium voltage motors
- Field-proven algorithms and reliable protection to avoid unwanted trips or under-protection
- Ease of integration and standardization with universal CT inputs and multiple case sizes
- Time stamped event reports and waveform capture, simplifying post-event analysis
- Application flexibility with user programmable motor overload curve, comprehensive start sequence and re-acceleration scheme
- Redundant communications with multiple ports and protocols allowing seamless integration with SCADA and DCS systems
- Ease of use with intuitive device configuration software and user-friendly logic configuration tool

DISTANCE PROTECTION RELAY ON -MiCOM P442

This type of relay which functions depending upon the distance of fault in the line. More specifically, the relay operates depending upon the impedance between the point of fault and the point where relay is installed. Distance protection relay is the name given to the protection, whose action depends on the distance of the feeding point to the fault. The time of operation of such protection is a function of the ratio of voltage and current, i.e., impedance.

BAY CONTROL UNIT -C264:

The Bay Control Unit (BCU) performs control in accordance with control commands from network to control equipment and monitoring the bay power apparatus. Electrical substation consists of two parts, main circuits and auxiliary circuits, that the BCU integrates all of the auxiliary functions in a single unit.

Functions of BCU:

a) Monitoring:

To monitor the whole system remotely away. The status of primary equipment or auxiliary devices can be obtained from auxiliary contacts. Therefore, it is possible to detect and indicate both the OPEN and CLOSED position or a fault or intermediate circuit-breaker or auxiliary contact position.

b) Control:

In addition to the monitoring functions, BCU also support all control functions that are required for operating medium-voltage or high voltage substations. The main application is reliable control of switching and other processes. With integrated logic, the user can set, via a graphic interface (CFC), specific functions for the automation of switchgear or substation. Functions are activated via function keys, binary input or via communication interface. Switching authority.

c) Command Processing:

All the functionality of command processing is offered. This includes the processing of single and double commands with or without feedback, sophisticated monitoring of the control hardware and software, checking of the external process, control actions using functions such as runtime monitoring and automatic command termination after output.

STAFF ACTIVITIES

COURSE ATTENDED

S.No.	Name of the Staff	Events/Guest Lecture	Topic/Event	Date	College/ Industry
1	Dr.M.Willjuice Iruthayarajan, Professor and Head/EEE	Short term Course	Essential Tools in Optimization	25th – 29th June 2020	Dr. B. R. Ambedkar National Institute of Technology, Jalandhar
2	Dr.L.Kalaivani, Professor	Workshop on Universal Human Values	Inculcating Universal Human Values In Technical Education	11th – 15th May 2020	AICTE, New Delhi
3	Dr.N.B.Prakash, Asso. Prof,	AICTE Margdharshan Scheme	Perspectives and Challenges in Outcome based research	13th – 17th July 2020	National Institute of Technology, Trichy
		Online Webinar Series (FDP)	Technological Advancement in Power System Control, Power Controllers, Drives & E-Vehicles – TAPPAD 2020	27th March – 1st May 2020	Dr.N.G.P. Institute of Technology, Coimbatore
4	Dr.S.Sankara Kumar, AP(SG)	Virtual FDP	Evolutionary optimization Techniques	15th – 17th June, 2020	SSN College of Engineering, Chennai
5	Dr.S.Senthil kumar, AP(SG)	One Week FDP	International Webinar in AI Applications in Industrial Evolution 4.0	13th – 17th July 2020	Bangalore Institute of Technology, Bengaluru
		FDP	Challenges and Innovations in Electrical Engineering Systems	09th – 13th June 2020	Karpagam College of Engineering, Coimbatore
6	Dr.M.Bakrutheen, AP(SG)/EEE	Keeping Students Engaged – Building strong student/teacher connections in a remote learning environment.		23.10.2020	Microsoft Education Centre
		AICTE Margdharshan Scheme	Perspectives and Challenges in Outcome based research	13th – 17th July 2020	National Institute of Technology, Trichy

7	Dr.B.Vigneshwaran, AP(SG)	AICTE Margdharshan Scheme	Perspectives and Challenges in Outcome based research	13th – 17th July 2020	National Institute of Technology, Trichy
8	Mr.M.Sivapalani Rajan , AP	FDP	Robotics & Control (Robocon) 2020	15th – 19th July 2020	NIT, Silchar (Under the aegis of TEQIP-III)
		FDP	LateX	17th – 30th March 2020	Gopalan College of Engineering and Management with IIT Bombay
9	Mr.K.Kumar, AP	Online Live FDP	Circuit Design using AutoCAD Electrical	20th – 24th July 2020	ICT Academy
10	Ms.N.Avudaiammal ,AP	AICTE Margdharshan Scheme	Perspectives and Challenges in Outcome based research	13th – 17th July 2020	National Institute of Technology, Trichy
11	Ms.B.Shunmuga Nithya,AP	AICTE Margdharshan Scheme	Perspectives and Challenges in Outcome based research	13th – 17th July 2020	National Institute of Technology, Trichy
12	Mr.P.Nirmal Kumar, AP	International FDP	Skilling Teachers for Online Education	02th – 06th June 2020	UKA Tarsadia Univeristy
13	Mr.K.Karthik Kumar, AP	International FDP	Emerging Research Areas in Engineering	05th – 09th June 2020	SRM Institute of Science and Technology, Chennai
		FDP	Research Perspectives of Artificial Intelligence in Electrical Engineering	27th – 31st July 2020	Sri Ramakrishna Institute of Technology, Coimbatore

EXPERT LECTURE DELIVERED

- ✓ **Dr. N.B.Prakash**, Associate Professor /EEE has delivered the expert lecture in a Webinar on "**IoT – its Significance and applications**", organized by Department of EEE, SSN College of Engineering, Chennai on August 24, 2020.

- ✓ **Dr. N.B.Prakash**, Associate Professor /EEE has delivered the expert lecture in a Webinar on "**Microprocessor and Microcontroller**", organized by Department of EEE, RMD Engineering College, Chennai on September 29, 2020.

- ✓ **Dr. M.Willjuice Iruthayarajan**, Professor and Head/EEE has delivered the expert lecture in a **AICTE Sponsored Six Days Online Short Term Training Programme on "Soft Computing Techniques in Engineering Applications"** titled "**Particle Swarm Optimization and Differential Evolution**" and "**Application of Evolutionary Optimization Algorithms (Case Studies using MATLAB Programming)**", organized by Department of ECE, Syed Ammal Engineering College, Ramanathapuram on July 21 and 22, 2020.

- ✓ **Dr. M.Willjuice Iruthayarajan**, Professor and Head/EEE has delivered the expert lecture in a **AICTE Sponsored Six Days Online Short Term Training Programme on "Soft Computing Techniques in Engineering Applications"** titled "**Particle Swarm Optimization and Differential Evolution**" and "**Application of Evolutionary Optimization Algorithms – Controller Tuning, Power system Economic dispatch, Image segmentation, Cellular base station location (Case Studies Using MATLAB Programming)**", organized by Department of ECE, Syed Ammal Engineering College, Ramanathapuram on August 11 and 12, 2020.

- ✓ **Dr. R.V.Maheswari**, Professor /EEE has delivered the expert lecture in a **AICTE Sponsored Six Days Online Short Term Training Programme on "Soft Computing Techniques in Engineering Applications"** titled "**Artificial Neural Networks and its Applications**", organized by Department of ECE, Syed Ammal Engineering College, Ramanathapuram on July 24, 2020.

- ✓ **Dr. R.V.Maheswari**, Professor /EEE has delivered the expert lecture in a **AICTE Sponsored Six Days Online Short Term Training Programme on "Soft Computing Techniques in Engineering Applications"** titled "**Artificial Neural Networks and its**

Applications", organized by Department of ECE, Syed Ammal Engineering College, Ramanathapuram on August 13, 2020.

✓ **Dr. R.V.Maheswari**, Professor /EEE has delivered the expert lecture in a Webinar on "**Condition Monitoring of High Voltage Apparatus**", organized by Department of EEE, Lakshmi ammal Polytechnic College, Kovilpatti on July 14, 2020.

STAFF PUBLICATIONS

✓ **M. Ravindran, S. Senthil Kumar**, N. Karuppiah and M. Asokan, "**Experimental Investigation on Room Temperature Vulcanised Silicone rubber and Epoxy resin coated porcelain outdoor insulators located at highly polluted environment**", Journal of Ceramic Processing Research, Vol. 21, No. 1, pp. 14-20, 2020, **Impact factor**: 0.386

✓ S.Vimal, Manju Khari, Ruben Gonzalez Grespo, **L.Kalaivani**, Nilanjan Dey, M.Kaliappan, "**Energy enhancement using multi-objective ant colony optimization with double Q learning algorithm for IoT based cognitive radio networks**", Computer Communications, Vol 154 PP. 481-490, 2020, **Impact Factor**: 2.816

✓ S.Vimal, **L.Kalaivani**, M.Kaliappan, "**Collaborative approach on mitigating spectrum sensing data hijack attack and dynamic spectrum allocation based on CASG modeling in wireless cognitive radio networks**", Cluster Computing **22,** 10491–10501, 2019, **Impact Factor** – 3.458

✓ E.Punarselvam, Mohamed yacin sikkandar, Mohsen Bakouri, **N.B.Prakash**, T.Jayasankar, S.Sudhakar, "**Different loading condition and angle measurement of human lumbar spine MRI image using ANSYS**", Journal of Ambient Intelligence and Humanized computing, https://doi.org/10.1007/s12652-020-01939-7, 2020, **Impact Factor**: 4.594

✓ M.Karthikeyan, K.Sharmilee, PM.Balasubramaniam, **N.B.Prakash**, M.Rajesh Babu, V.Subramaniya swamy, S.Sudhakar, "**Design and implementation of AN-based SAPF approach for current harmonics mitigation in industrial power systems**", Microprocessors and Microsystems, Vol.77, 2020, **Impact factor**: 1.161

- ✓ ***G.Kannayeram, N.B.Prakash, R.Muniraj***, "Intelligent hybrid controller for power flow management of PV/Battery/FC/SC system in smart grid applications", International Journal of Hydrogen Energy, Vol. 45, pp. 21779-21795, 2020, **Impact factor:** 4.939

- ✓ Mohamed Yacin Sikkandar, T.Jayasankar, K.R.Kavitha, ***N.B.Prakash***, Natteru.M Sudharsan, G.R.Hemalakshmi, "**Three Factor nonnegative matrix factroization based HE stain unmixing in histopathological images**", Journal of Ambient Intelligence and Humanized computing, https://doi.org/10.1007/s12652-020-02265-8, 2020, **Impact Factor**: 4.594

- ✓ ***S.Sankarakumar, M.Willjuice Iruthayarajan***, T.Sivakumar, "***Evolutionary algorithm based selective harmonic elimination for three phase cascaded H-bridge multilevel inverters with optimized input sources***", Journal of Power Electronics, 20, 1172–1183, 2020, **Impact Factor**: 0.83

- ✓ Arun Ramaveerapathiran, ***Muniraj Rathinam***, ***Willjuice Iruthayarajan Maria Siluvairaj***, "***A New Controller Design method for single loop Internal model control systems***", Studies in Informatizes and Control, pp. 219-229, 2020, **Impact factor**: 2.102

- ✓ Mohamed Yacin Sikkandara, S. Sabarunisha Begum, N.M. Sudharsan, ***N.B. Prakash***, "***Study of flow dynamic behavior of electrochemical reactor for treating liquid biomedical waste water***" Desalination and Water Treatment, 197, pp. 67–75, 2020, **Impact Factor:** 1.320.

- ✓ G. R. Hemalakshmi, D. Santhi, V. R. S. Mani, A. Geetha and ***N. B. Prakash, "Deep Residual Network Based on Image Priors for Single Image Super Resolution in FFA Images***", Computer Modeling in Engineering & Sciences, DOI:10.32604/cmes.2020.01133, 2020, **Impact Factor:** 0.805.

- ✓ E. Punarselvam, T. Kalavathi Devi, A. Sagai Francis Britto, ***N. B. Prakash***, and P. Suresh, "***Segmentation Analysis Techniques and Identifying Stress Ratio of Human Lumbar Spine Using ANSYS***", Journal of Medical Imaging and Health Informatics, Vol. 10, 2308–2315, 2020, **Impact Factor:** 0.659.

R & D ACTIVITIES

- ✓ **Dr.M. Bakrutheen, AP(SG)/EEE** has completed his **Doctorate in "*Investigation on edible and on edible natural esters as liquid insulation for power transformers*",** on 18.06.2020 under the supervision of Dr.M.Willjuice Iruthayarajan, Professor and Head/EEE.

- ✓ **Dr.J. Sivadasan** has completed his **Doctorate in** "*Evolutionary Computation based tuning of Nonlinear PID Controller for Twin Rotor MIMO system*",** on 08.06.2020 under the supervision of **Dr.M.Willjuice Iruthayarajan, Professor and Head/EEE.**

- ✓ **Dr.S. Renuka,** has completed her **Doctorate in "*Development and Implementation of Compressive Sensing Schemes for Energy Conservation in Wireless Sensor Network*",** on 28.08.2020 under the supervision of **Dr. A. Abudhahir** and Research Coordinator **Dr.M.Willjuice Iruthayarajan, Professor and Head/EEE.**

- ✓ **Dr.E.A. Mohamed Ali,** has completed his **Doctorate in "*Design and Analysis of Control Schemes for Improving the Performance of PEM Fuel Cells*",** on 07.10.2020 under the supervision of **Dr. A. Abudhahir** and Research Coordinator **Dr.M.Willjuice Iruthayarajan, Professor and Head/EEE.**

- ✓ **Dr. J. Babitha Thangamalar,** has completed her **Doctorate in "*Development and comparison of modified methods to improve the linearity of transducer characteristics*",** on 28.10.2020 under the supervision of **Dr. A. Abudhahir** and Research Coordinator **Dr.M.Willjuice Iruthayarajan, Professor and Head/EEE.**

EVENT ORGANIZED

S. No	Title of the Webinar	Date(s)	Resource Person	Participants
1	Opportunities and Challenges in Elevators and Escalators	13.05.2020	*Er. Srikanth*, MBA, Senior Electrical Engineer, Johnson Lifts Private Limited., Chennai	Final Year Students and Faculty Members
2	Essentials to get a job in core Industry (Organized by IE(I) Students' Chapter, EEE Department)	19.05.2020	*Mr.P.Selvam,* (2016 Passed out), Hardware Engineer, Hardware Design and Development (HDD), Data Patterns (India) Pvt. Ltd, Chennai.	Department students
3	Overview and condition monitoring of gas insulated	21.05.2020	*Dr.K.Sunitha,* Associate professor,	High Voltage Engineering - Special interest

	substation and gas insulated transmission lines		Department of Electrical Engineering, National Institute of Technology, Calicut.	group & Faculty members
4	Design and Development of High Power audio Amplifier for Home Theatre	22.05.2020	*Mr.S.V.Sreeraj* Director EmCog Solutions, Chennai	Only for Second and Few Third Year Students
5	"Opportunities and Challenges in Power Electronics for Electric and Hybrid Vehicles"	23.05.2020	*Er.Gauthaman Balasubramanian* (2001 Passed out), Project Manager, Robert-Bosch-Platz 1, 70839 Gerlingen, Germany,	72 Final Year EEE Students And 10 EEE Faculty Members Participated
6	Recent Advances in High Voltage Insulators: Fundamentals And Case Study	26.05.2020	*Dr.Alok Ranjan Verma*, Assistant Professor, Dept of Electrical Engineering, Indian Institute of Technology, Kanpur.	High Voltage Engineering- SIG and Staff members
7	Digital Substation and Carrier Opportunities in Substation Automation	29.05.2020	*Er. Rajesh Ananth* (1999 Passed out), Manager – Protection Applications, Grid Automation /Middle East (GCC), Grid Solutions ,General Electric (GE),Dubai- UAE	65 Final Year EEE Students And 07 EEE Faculty Members Participated
8	Carrier Opportunities in Advanced Driver Assistance Systems (ADAS) and autonomous vehicles	09.06.2020	*Er. Anurag Reghu,* Technology Manager (Automotive domain), Tata Elxsi, Trivandrum, Kerala.	NEC Students, Kovilpatti
9	Industry expectations from Academia	12.06.2020	*Dr.S.Sudalai Shunmugam,* Ph.D,(CPRI Bangalore), (PG Alumni, 2014) Associate Professor, Department EEE, BNM Institute of Technology (BNMIT), Bangalore,	Final year students
10	Webinar on "Built your own decentralized smart home using raspberry pi"	08.08.2020	*Mr.Venkat Subramanian* (UG Alumni -2015) IoT Enthusiast/Web Architect / Mozila Representative, SP Telecom Pvt Ltd, Singapore	Final year students
11	Webinar on "System Applications and Products 9SAP) in Modern IT and Electrical World"	23.07.2020	*Mr.Selvakumar Palpandian* SAP Integration Architect, Volvo Group, AB Location, Sweden	Final year students
12	Webinar on "Need to enrich soft skill to build a strong holistic personality"	02.08.2020	*Dr.P.Mathumathi* Assistant Prof., English University VOC College of Engineering, Anna University, Thoothukudi	Final year students

ONLINE COURSE COMPLETED

S.No	Faculty Name	Title of the Course	Name of Course	Duration
1	Mr P.Samuel Pakianathan	Recent Advances in Transmission Insulator	NPTEL	Feb-2020
2	Mr K.Karthik kumar	Introduction to Soft Computing	NPTEL	Mar-2020
3	Dr.S.Senthil Kumar	Introduction to Soft Computing	NPTEL	Mar-2020
4	Dr.M.P.E.Rajamani	Introduction to symbolic Math with MATLAB	MathWorks	24.04.2020
5	Dr.M.P.E.Rajamani	Solving Nonlinear Equations with MATLAB	MathWorks	24.04.2020
6	Mr K.Kumar	Machine Learning Onramp	MathWorks	11.04.2020
7	Dr.M.P.E.Rajamani	Solar Energy Basics	Coursera	10.05.2020
8	Dr.M.P.E.Rajamani	Photovoltaic Solar Energy	Coursera	10.05.2020
9	Dr.M.P.E.Rajamani	Introduction to Power Electronics	Coursera	16.05.2020
10	Dr.M.P.E.Rajamani	Solving Ordinary Differential Equations with MATLAB	MathWorks	15.05.2020
11	Mr K.Kumar	MATLAB Fundamentals	MathWorks	07.05.2020
12	Mr Bakrutheen	SPOCATHAN	NPTEL	17.05.2020
13	Mr K.Kumar	SPOCATHAN	NPTEL	17.05.2020
14	Dr.B.Vigneshwaran	SPOCATHAN	NPTEL	17.05.2020
15	Mr.M.Gengaraj	MATLAB Programming Techniques	MathWorks	06.06.2020
16	Ms.M.Madhuri Chithra	Introduction to Solar Cells	Coursera	09.06.2020
17	Mr N.Sankar	Machine Learning with MATLAB	MathWorks	08.06.2020
18	Mr B.Venkatasamy	MATLAB Onramp	MathWorks	10.06.2020
19	Mr M.Sivapalani Rajan	Computer Vision Basics	Coursera	10.06.2020
20	Ms.N.Avudaiammal	Machine Learning with MATLAB	MathWorks	12.06.2020
21	Mr N.Sankar	Deep Learning Onramp	MathWorks	12.06.2020
22	Dr.M.P.E.Rajamani	Introduction to Solar Cells	Coursera	13.06.2020
23	Ms.N.Avudaiammal	Machine Learning Onramp	MathWorks	13.06.2020
24	Dr.L.Kalaivani	Introduction to Statistical Methods with MATLAB	MathWorks	16.06.2020
25	Dr.R.V.Maheswari	Introduction to Statistical Methods with MATLAB	MathWorks	16.06.2020
26	Dr.N.B.Prakash	Machine Learning for All	Coursera	17.06.2020
27	Mr K.Kumar	Deep Learning Onramp	MathWorks	17.06.2020
28	Mr M.Gengaraj	Machine Learning with MATLAB	MathWorks	19.06.2020
29	Ms.G.Shunmugalakshmi	MATLAB Onramp	MathWorks	19.06.2020
30	Dr.N.B.Prakash	Covid-19 Contact Tracing	Coursera	19.06.2020
31	Ms.M.Madhuri Chithra	Solar Energy Basics	Coursera	21.06.2020
32	Mr F.Antony Jeffery Vaz	DL#101 - Getting Started	Guvi	22.06.2020

33	Mr N.Sankar	Introduction to Electronics	Coursera	24.06.2020
34	Mr P.Nirmal Kumar	Machine Learning Onramp	MathWorks	24.06.2020
35	Mr P.Nirmal Kumar	Deep Learning Onramp	MathWorks	25.06.2020
36	Dr.N.B.Prakash	Introduction to Python	Coursera	26.06.2020
37	Mr K.Kumar	Introduction to Solar Cells	Coursera	29.06.2020
38	Dr.N.B.Prakash	Image compression and generation using Variational Autoencoders in Python	Coursera	30.06.2020
39	Mr M.Sivapalani Rajan	Neural Networks and Deep Learning	Coursera	30.06.2020
40	Mr N.Sankar	Equivalent Circuit cell model simulation	Coursera	01.07.2020
41	Dr.N.B.Prakash	Covid 19 Data Analysis using Python	Coursera	01.07.2020
42	Ms.N.Avudaiammal	Deep Learning Onramp	MathWorks	02.07.2020
43	Mr P.Nirmal Kumar	Introduction to Solar Cells	Coursera	03.07.2020
44	Ms.M.Madhuri Chithra	Machine Learning Onramp	MathWorks	03.07.2020
45	Dr.M.P.E.Rajamani	Motors and Motor control Circuits	Coursera	03.07.2020
46	Ms.N.Shanmuga Nithya	Motors and Motor control Circuits	Coursera	03.07.2020
47	Mr M.Sivapalani Rajan	Computer Vision - Object tracking with OpenCV and Python	Coursera	05.07.2020
48	Mr M.Gengaraj	Introduction to Statistical Methods with MATLAB	MathWorks	06.07.2020
49	Dr.B.Vigneshwaran	Introduction to Statistical Methods with MATLAB	MathWorks	06.07.2020
50	Mr K.Kumar	Deep Learning with MATLAB	MathWorks	07.07.2020
51	Mr F.Antony Jeffery Vaz	DL#102 - Primitive Neurons	Guvi	08.07.2020
52	Dr.M.P.E.Rajamani	Electric Utilities Fundamentals and Future	Coursera	10.07.2020
53	Dr.M.P.E.Rajamani	Introduction to battery management systems	Coursera	11.07.2020
54	Dr.M.Bakrutheen	Basic Statistics	Coursera	13.07.2020
55	Mr K.Kumar	Deep Learning with MATLAB	MathWorks	14.07.2020
56	Mr M.Gengaraj	MATLAB for data Processing and Visualization	MathWorks	19.07.2020
57	Ms.N.Shanmuga Nithya	Safety in the Utility Industry	Coursera	20.07.2020
58	Dr.M.Willjuice Iruthayarajan	AI for Everyone	Coursera	25.07.2020
59	Dr.M.P.E.Rajamani	Converter Circuits	Coursera	25.07.2020
60	Mr P.Nirmal Kumar	Introduction to battery management systems	Coursera	30.07.2020
61	Dr.M.Bakrutheen	Introduction to molecular spectroscopy	Coursera	06.08.2020
62	Ms.N.Shanmuga Nithya	Solar Energy Basics	Coursera	09.08.2020
63	Mr K.Karthik Kumar	Motors and Motor control Circuits	Coursera	10.08.2020

64	Dr.M.P.E.Rajamani	Wind Energy	Coursera	15.08.2020
65	Ms.G.Shunmugalakshmi	Wind Energy	Coursera	18.08.2020
66	Mr K.Kumar	Solving Nonlinear Equations with MATLAB	MathWorks	18.08.2020
67	Ms.M.Madhuri Chithra	Linear Circuits 1 : DC Analysis	Coursera	18.08.2020
68	Ms.N.Shanmuga Nithya	Linear Circuits 1 : DC Analysis	Coursera	05.09.2020
69	Dr.M.Willjuice Iruthayarajan	Practical PLC Programming (PLC-II)	Udemy	14.09.2020
70	Dr.R.Muniraj	Advanced Linear Continuous Control Systems: Application with MATLAB programming and Simulink	NPTEL	19.09.2020
71	Mr.S.Sankara Kumar	Power Electronics	NPTEL	19.10.2020

FACULTY DEVELOPMENT PROGRAM

FACULTY TRAINING PROGRAM ON RELAY DEMONSTRATION:

EEE department has arranged the faculty training program for demonstration of distance protection, motor protection relay and bay control unit given by Mr.Vijay Karthik, Lead – Technical Institute and his team, GE T&D India Ltd, Chennai from **12.10.2020-15.10.2020.**

Session on 12.10.2020:

On 12.10.2020 all the panels was opened by *Mr.Vijay karthik* & team in the presence of department faculty members and it was witnessed. The visual inspection was found to be ok.

Then MiCOM S1 Agile software demonstration was given to faculty members regarding the features, installation and programmable scheme logic.

Session on 13.10.2020:

On 13.10.2020 training was imparted by by Mr.Vijay karthik & team regarding distance protection, Motor protection. The following topics were covered briefly in the session as follows,

- ✓ Introduction to Distance Relays
- ✓ Principal types of distance relays
- ✓ Choice between Impedance Type, Reactance Type and Mho Type Relays
- ✓ Classification of Distance Relays
- ✓ VI supervision
- ✓ Broken Conductor
- ✓ Auto reclosure.
- ✓ Power Swing

Session on 14.10.2020:

On 14.10.2020 hands on training on **"Programmable Scheme Logic"** was given by **Mr.Kannan**. He explained The Programmable Scheme Logic (PSL) is a module of programmable logic gates and timers in the IED, which can be used to create customized logic to qualify how the product manages its response to system conditions. The IED's digital inputs are combined with internally generated digital signals using logic gates, timers, and conditioners. The resultant signals are then mapped to digital outputs signals including output relays and LEDs. Then followed by that he gave hands on training to the faculty members regarding

- ✓ Creating a scheme logic for input mapping,
- ✓ Output mapping,
- ✓ LED/Function key mapping,
- ✓ Fault record trigger.

Session on 14.10.2020:

On 15.10.2020 theory and practical session on **Bay Control Unit** was taken by Mr.Saood Ahmed. Initially he gave a brief introduction about **Substation Automation System (SAS)** which provides protection, control, automation, monitoring, and communication capabilities as a part of a comprehensive substation control and monitoring solution. Then he explained the automated substation functioning, substation automation scheme, system architecture and levels of substation control philosophy. Finally the

demonstration of bay control unit was performed with various monitoring and control of all relays within the lab.

TECHNICAL ARTICLE – STAFF MEMBERS

FUTURE OF PLC IN INDUSTRIAL AUTOMATION

Ms. B. Shanmuga Nithya

Assistant Professor

Department of Electrical and Electronics Engineering

A PLC is a Programmable Logic Controller. In other words, it is an industrial computer used as a standalone unit and can be used in a network of PLCs to automatically control a process or perform a specific function. To take information from the outside world such as temperature of a liquid, level in a tank, speed of an object etc., PLC uses different forms of connected sensors. Future of industrial automation would be great if automation people use PLC to control processes. However, the real-world signals are transformed into electrical signals by the external sensors and relayed to the PLC that turn processes the electrical signals and uses them to complete its pre-programmed task.

Introduction

PLCs are used in various places and many of the previous automation processes have been upgraded. This upgraded automation has more flexibility and is simple to alter also. This in turn lends itself to have a more efficient and portable process. On the other hand, PLCs come in various varieties. The sensors connected to the PLCs are smarter than in earlier years. PLC has a great impact on future of industrial automation as the name indicates; it is a programmable logic controller. We are controlling the devices using automation and using PLC programs can be logically done. PLC is mainly designed for multiple input and output arrangements and it can withstand extreme temperatures with resistance to vibration and impact.

Let us understand the following topics in future of industrial automation article:

• Latest trends in industrial automation

• Scope of PLC programming

• Future scope of industrial automation

• Latest PLC technology

• New technology in industrial automation

Latest trends in industrial automation

Latest trends in industrial automation include increased use of analytics, growing use of PLCs, PACs, and increased cloud-based supervisory control and data acquisition (SCADA) systems. These trends will influence the industrial automation control market, according to a report. The report also predicts that these trends will also result in an eight percent compound annual growth rate (CAGR) for the Asia-Pacific region, but the trends are likely to be seen globally. Automation industry is moving towards a future of unparalleled productivity spurred by superior energy efficiency, better design and operator visualization, and rigorous safety standards.

Scope of PLC programming

PLCs are continuously growing and evolving to be the best option for a variety of industrial automation applications. Scope of plc programming is increasing rapidly because of greater programming flexibility and ease, scalability, more memory, smaller sizes, very high-speed (gigabit) Ethernet, and built-in wireless features. PLCs are getting benefits from USB technology and thus make it easier than ever before to get online, program, and monitor your control systems. PLC programming will evolve, and with the availability of smaller

micro and mini USB connectors, you can expect to see this option on more of the smaller PLCs. In the future, PLCs will continuously evolve while adapting technology enhancements in communications, hardware, and software.

Future scope of industrial automation

Future scope of industrial automation would be good enough as every technology is involved with automation techniques. It is the use of various control devices such as PC's, DCs, and PLCs to control various operations of an industry without significant intervention from humans and to provide automatic control performance. In industries, there would be a set of technologies that are implemented to get the desired performance or output, making the automation systems most essential for industries. On the other hand, industrial automation involves usage of advanced control strategies such as cascade controls, control hardware devices and other instruments for sensing the control variables etc.

Latest PLC technology

Latest PLC technology helps to monitor and control distributed server/multi user applications. It also provides a comprehensive and accurate picture of operations, meeting the demands of multiple stakeholders including maintenance, engineering, operations, and production information technology (IT). Reliable and robust functionalities can be obtained using the latest technologies of PLC. These technologies enable you to take advantage of visualization, mobility and other new technologies, meeting various challenges in process, discrete applications and delivering critical visibility when you need it.

New technology in industrial automation

New technology in industrial automation is the driver of progress for companies. From the conception to the introduction of the collaborative robots, we have seen a major change in the technological developments continuously shape the industrial automation landscape. These new technologies in automation industry will shape industry in the year ahead. However, global automation industry has been progressing and enhancing functionalities. Risk to security has enhanced interest in open-source software maintained by an active community eager to fix errors.

Future of PLC in industrial automation has been rising since 1947 and most of the industries including automation are using PLCs and install control systems to reduce the

manual labour and improve the precision and efficiency. PLCs are very popular because of their precision.

TECHNICAL ARTICLE – STUDENTS

NEWBREED OF BETAVOLTAICS

- *Mr. R.Azhaguraj, Pre final year EEE*

Yee's group is using nuclear waste to produce electricity — minus the reactor and sans moving parts. Funded by the Defense Advanced Research Projects Agency (DARPA) and working in collaboration with Stanford University, the researchers have developed a technology that is similar to photovoltaic devices with one big exception: Instead of using photons from the sun, it uses high-energy electrons emitted from nuclear byproducts. Beta voltaic technology has been around since the 1950s, but researchers have focused on tritium or nickel-63 as beta emitters. "Their idea is to revisit the technology from a radiation transport perspective and use strontium-90, a prevalent isotope in nuclear waste".
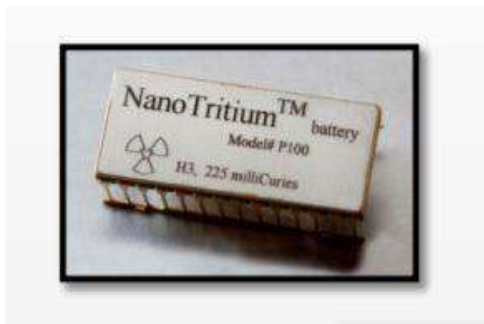
Strontium-90 is unique because it emits two high-energy electrons during its decay process. What's more, strontium-90's energy spectrum aligns well with design architecture already used in crystalline silicon solar cells, so it could yield highly efficient conversion devices.
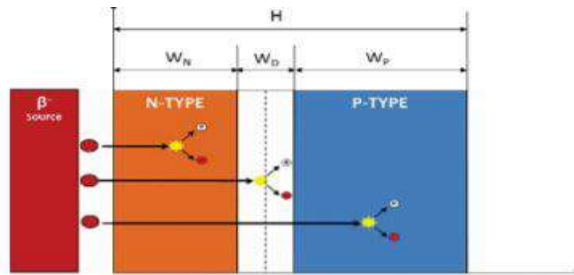
Figure 3. A simple 1-D schematic diagram of betavoltaic battery.

In lab-scale tests with electron beam sources, the researchers have been achieving power conversion efficiencies of between 4 and 18 percent. With continued improvements, Yee believes the beta voltaic devices could ultimately generate about one watt of power continuously for 30 years — which would be 40,000 times more energy dense than current lithium ion batteries. Initial applications include military equipment that requires low-power energy for long periods of time or powering devices in remote locations where changing batteries is problematic.

<u>ARTIFICIAL INTELLIGENCE</u>

- *Ms. M.Aiswarya, final year EEE*

In 2020, Artificial intelligence will move to regular usage, as corporations begin to harness its power. There will be new techniques that train AI on less data to data privacy protections gaining traction. AI - Till now it has been a intellectual language, From now it will be a human language. Even the personal mobile phone a and computers will talk to us in the way that we can't even imagine from basic planning to the defense analytics.

"ARITIFICIAL INTELLIGENCE INTEGRATED WITH THE HUMAN INTELLEGENCE IS THE FUTURE AND THAT FUTURE IS NOW"

Recent trends in AI include invention of AI with efficient energy, neural networks, and the capacity to process natural language that can be understood by humans. There are also challenges ahead as AI gains attention. One such challenge is the increase in malicious applications like AI.

If artificial intelligence penetrates large industries and medicine field, surely the electrical engineering will play a major role and they play an important role. Electrical engineers are expected to do much work with AI. By blending the skill with AI , electrical engineers are contribute the following:

- ✓ Create complex algorithms for data interpretation
- ✓ Develop comprehensive strategies in the field of electronics

Most importantly, artificial intelligence help electrical engineers to process an image and also helps to invent complex image processing algorithms to help machines detect electrical or structural abnormalities on a framework and quickly send feedback or suggest rectifications. This helps to improve the safety of electrical engineers who are often involved in hazardous and massive electronic production lines.

"ARTIFICIAL INTELLEGENCE IS THE NEW ELECTRICITY"

- ANDREW NG

Artificial Intelligence is a product of science and myth. The idea that machines could think and perform the tasks just as humans do has gained attention. It may be better to view these technologies as the implementation of powerful and long-established cognitive principles through the engineering.

STUDENTS ACHIEVEMENTS

S.No	Name	Organized by	Program	Event	Remarks	Date
1.	T.Angelin Anu Abraham, M. Menaka	Kalasalingam Institute of Technology, Krishnankoil	E-Vyuga'20-A National Level Technical Symposium	Paper Presentation	Second Prize	15.02.2020
2.	S.Sharmila	Malla reddy college of engineering and technology, Telangana	Quiz – "Electrical Engineering"		90% (Score)	
		RVS college of Engineering and Technology	Online Technical Quiz - Electrical Engineering		87% (Score)	
3.	A. Siva Priya	JSPM Jayawantrao Sawant polytechnic, Pune	Online Mock test -Programming in C		93% (Score)	
4.	S. Surdish Muthu	RVS college of Engineering and Technology	Online Technical Quiz - Electrical Engineering		97% (Score)	
5.	S. Tamilselvan	RVS college of Engineering and Technology	Online Technical Quiz - Electrical Engineering		93% (Score)	
6.	T.Sukumar	JSPM Jayawantrao Sawant polytechnic, Pune	Online Mock test -Programming in C		89% (Score)	

STUDENTS INTERNSHIP

Sl. No	Reg.No	Student Name	Company Name	Duration	
1	1613029	GOBIGA.R.K	Kondaas Automation Pvt Ltd., Coimbatore	06.01.2020	06.02.2020
2	1613042	KOWSALYA.S		06.01.2020	06.02.2020
3	1613091	SHEEBA.J		06.01.2020	06.02.2020
5	1613076	POORNA PUSHKALA.A	Aero Engineers, Bangalore	18.01.2020	20.01.2020
6	1613072	PIO.P	JRK Consulting Services Private Limited, Chennai	20.01.2020	31.01.2020
7	1613080	RAMKUMAR.P	SSNR Power (P) Ltd, Vilathikulam	20.01.2020	31.01.2020
8	1613088	SARANYA.S	Tessolve Semiconductor Private Ltd, Bangalore	20.01.2020	11.03.2020
9	1613094	SINDUJA.M	VOLTECH Engineers Pvt. Ltd, Chennai	20.01.2020	20.02.2020
10	1613105	SUBASHRAJA.P	Bharu Technologies Private Limited, Chennai	20.01.2020	12.02.2020
11	1613106	SUBBIAH KUMAR.K		20.01.2020	04.02.2020
12	1613117	VIGNESHWARAN.S		20.01.2020	04.02.2020
13	1613121	VINCENT DENIS.J		20.01.2020	04.02.2020
14	1613412	SURESHKUMAR.A		20.01.2020	04.02.2020
15	1613413	VARATHARAJAN.M		20.01.2020	12.02.2020
16	1613415	VIGNESH.C		20.01.2020	04.02.2020
17	1613067	NIVEDHA.V	Connect training solutions Pvt. Ltd, Tirunelveli.	20.01.2020	20.02.2020
18	1613403	AROCKIA RANJITH KUMAR.S	Data logistics	20.01.2020	21.02.2020
19	1613406	GOWTHAMA RAJ.M	Data logistics	20.01.2020	21.02.2020
20	1613073	PITCHAI KUMAR ARUN.R	JRK Consulting Services Private Limited, Chennai	20.01.2020	31.01.2020
21	1613018	BALACHANDRAN.P	Mas Solar Systems Pvt Ltd., Coimbatore	20.01.2020	20.02.2020
22	1613026	GAILAINATHAN.G		20.01.2020	02.02.2020
23	1613036	KANNIKUMAR.D		20.01.2020	02.02.2020
24	1613074	PONSELVAKUMAR.P		20.01.2020	02.02.2020
25	1613107	SUDALAIMANI.P		20.01.2020	20.02.2020
26	1613109	SURESH.C		20.01.2020	02.02.2020
27	1613408	M.MURUGAN	SSNR Power (P) Ltd, Vilathikulam	20.01.2020	31.01.2020
28	1613002	AARTHY.B	Sundaram Clayton Limited., Chennai	20.01.2020	14.02.2020

29	1613005	ABIRAMI.M		20.01.2020	14.02.2020
30	1613102	SRI ALAMELU MANGAI.N		20.01.2020	14.02.2020
31	1613087	SANTHIYA.R		20.01.2020	11.03.2020
32	1613025	ESWARI PRABHA.P	Tessolve Semiconductor Private Ltd, Bangalore	20.01.2020	11.03.2020
33	1613034	KALYANARAJA.J		20.01.2020	11.03.2020
34	1613085	SAMIVEL SUBASH.S	JRK Consulting Services Private Limited, Chennai	21.01.2020	31.01.2020
35	1613010	ANUKARTHIKA.P	Roots Industries India Limited, Coimbatore	21.01.2020	14.02.2020
36	1613017	ASWINI.M		21.01.2020	14.02.2020
37	1613075	POORANI.V		21.01.2020	14.02.2020
38	1613047	MAFIN RIJOE.M	Kondaas Automation Pvt Ltd., Coimbatore	23.01.2020	04.02.2020
39	1613064	NALLA SELVA PRAKASH.V		23.01.2020	04.02.2020
40	1613070	PANDARAVEL KANNAN.M		23.01.2020	04.02.2020
41	1613095	SIVA SANKAR.P		23.01.2020	04.02.2020
42	1613113	VASANTHAN.R		23.01.2020	04.02.2020
4	1613122	VINITHA.B	Runiks Technologies Pvt Ltd., Madurai	06.02.2020	27.02.2020
43	1713414	SUKUMAR.T	Azure skynet solutions Pvt Ltd in association with Elan & Nvision - IIT-HYDERABAD.	01.04.2020	30.04.2020
44	1713414	SUKUMAR.T	Internshala Trainings	06.05.2020	17.06.2020
48	1713089	RAJAKUMARI.L	NEC business incubator	13.05.2020	13.06.2020
49	1713078	PADMANABAN R	NEC BUSINESS INCUBATOR , SUMMER INTERNSHIP PROGRAM 2020 - INTERNSHIP FROM HOME BUSINESS INTELLIGENCE & DATA ANALYTICS	13.05.2020	13.06.2020
50	1713052	KARTHICK R	Aerodynamic Adventure Services	15.05.2020	25.05.2020
51	1713086	PREMKALA.N	MY ASSESSMENT	17.05.2020	17-06-2020
52	1713114	VARSHA.R	MY ASSESSMENT	17.05.2020	17-06-2020
53	1713031	GOMATHI PRABHAA.J	TCS ION	19-05-2020	15-07-2020

54	1713063	MAHADEVAN S		20.05.2020	29.05.2020
55	1713054	KARTHIKEYAN S		20.05.2020	29.05.2020
56	1713117	VENKADESHAPERUMAL. S		20.05.2020	29.05.2020
57	1713020	BHARATHAN.E		20.05.2020	29.05.2020
58	1713042	JENIFA MABEL.Y		20.05.2020	29.05.2020
59	1713051	KANTHARI.S		20.05.2020	29.05.2020
60	1713055	KARUPPASAMY MANIKANDAN M		20.05.2020	29.05.2020
61	1713064	MAHALAKSHMI.S		20.05.2020	29.05.2020
62	1713066	MARIAPPAN. C		20.05.2020	29.05.2020
63	1713068	MENAGA DEVI P		20.05.2020	29.05.2020
64	1713026	DINESHKUMAR M		20.05.2020	29.05.2020
65	1713079	PANDEESWARI B		20.05.2020	29.05.2020
66	1713085	S.PRAVEEN KUMAR		20.05.2020	29.05.2020
67	1713103	SRI BALA KRISHNAN.A		20.05.2020	29.05.2020
68	1713098	SELVADEVI H		20.05.2020	29.05.2020
69	1713003	AISWARYA.M	Edgate Technologies Private Limited, Bangalore	20.05.2020	29.05.2020
70	1713017	BALA AKALYA.S.T		20.05.2020	29.05.2020
71	1713024	DHANUSHIYA. K		20.05.2020	29.05.2020
72	1713074	MUGESH.C		20.05.2020	29.05.2020
73	1713077	NIFERLIN R		20.05.2020	29.05.2020
74	1713106	SUBA SHREE G		20.05.2020	29.05.2020
75	1713113	THIRUMALAI KUMARASAMY.M		20.05.2020	29.05.2020
76	1713115	VATHSALAPRIYA.K		20.05.2020	29.05.2020
77	1713009	ANANTHI M		20.05.2020	29.05.2020
78	1713049	A.KAILASH		20.05.2020	29.05.2020
79	1713062	MADHUMITHA M		20.05.2020	29.05.2020
80	1713093	J.RAVI SHANKAR		20.05.2020	29.05.2020
81	1713116	VELMANIKANDAN. M		20.05.2020	29.05.2020
82	1713002	ADCHAYA. K		20.05.2020	29.05.2020
83	1713108	SUGUNA.M		20.05.2020	29.05.2020
84	1713112	TAMILSELVAN S		20.05.2020	29.05.2020
85	1713007	AMARAVATHI.M		20.05.2020	29.05.2020
86	1713015	ARUNARANI. M		20.05.2020	29.05.2020
87	1713046	JOSEPH FRANCIS.S		20.05.2020	29.05.2020

88	1713047	JOY JACOB CHARLES. S		20.05.2020	29.05.2020
89	1713048	KABILAN.M		20.05.2020	29.05.2020
90	1713056	KAVITHA A		20.05.2020	29.05.2020
91	1713107	SUBALAXMI.S		20.05.2020	29.05.2020
92	1713014	ARUNA. M		20.05.2020	29.05.2020
93	1713105	STEFFI CRANAFF . J		20.05.2020	29.05.2020
94	1713001	AARTHI T		20.05.2020	29.05.2020
95	1713038	ISWARYA. S		20.05.2020	29.05.2020
96	1713091	RAMESH KUMAR.J		20.05.2020	29.05.2020
97	1713081	PAVITHRA.S		20.05.2020	29.05.2020
98	1713094	SANGEETHA R		20.05.2020	29.05.2020
99	1713090	RAM MOHAN.T		20.05.2020	29.05.2020
100	1713061	M. D. ANGELIN WARSHA. R		20.05.2020	29.05.2020
101	1713033	GOWSALYA V		28.05.2020	06.06.2020
102	1713040	JASHVA SHERIN J		28.05.2020	06.06.2020
103	1713088	RAJA DEEPAK R		28.05.2020	06.06.2020
104	1713039	JANANI.B		28.05.2020	06.06.2020
105	1713019	V.BENISHA		28.05.2020	06.06.2020
106	1713021	BLESSING S		28.05.2020	06.06.2020
107	1713034	GOWTHAMAN G M		28.05.2020	06.06.2020
108	1713060	LAVANYA NARAYANI T		28.05.2020	06.06.2020
109	1713076	MUTHU SARANYA .M		28.05.2020	06.06.2020
110	1713080	PARTHA SARATHY.M		28.05.2020	06.06.2020
111	1713083	PON GANESH.P		28.05.2020	06.06.2020
112	1713401	AKASH SASI.N		28.05.2020	06.06.2020
113	1713010	ANGELIN ANITHA.D		28.05.2020	06.06.2020
114	1713102	SIVA PRIYA A		28.05.2020	06.06.2020
115	1713111	SWETHA. K		28.05.2020	06.06.2020
116	1713096	SANTHOSH K		28.05.2020	06.06.2020
117	1713006	AKASH KUMAR B		28.05.2020	06.06.2020
118	1713018	BALASUNDARAM S		28.05.2020	06.06.2020
119	1713023	DHANABALRAJ. P		28.05.2020	06.06.2020
120	1713501	BALAJI G		28.05.2020	06.06.2020
121	1713028	GANDHIRAM.P		28.05.2020	06.06.2020
122	1713032	GOPINATH L		28.05.2020	06.06.2020

123	1713092	RAMKUMAR.M		28.05.2020	06.06.2020
124	1713118	VIGNESH K		28.05.2020	06.06.2020
125	1713084	PON KARTHIKA R		28.05.2020	06.06.2020
126	1713087	PRICILLA INFANSA. A		28.05.2020	06.06.2020
127	1713095	SANJAII ROHAN SINGH. R		28.05.2020	06.06.2020
128	1713037	HARISHKUMAR. A		28.05.2020	06.06.2020
129	1713073	MOHAMED MUSTAFA T	KaaShiv Infotech	01.06.2020	05.06.2020
130	1713062	MADHUMITHA M	KaaShiv Infotech	02.06.2020	06.06.2020
131	1713027	GANAPATHY SUBRAMANIYAN. S	Emcog Solution, Chennai	04.06.2020	19.06.2020
132	1713041	JAYARAM.S		07.06.2020	16.06.2020
133	1713405	MAHESWARI M		07.06.2020	16.06.2020
134	1713065	MARIA JOEVIN.A		07.06.2020	16.06.2020
135	1713407	MONIKA K		07.06.2020	16.06.2020
136	1713008	K.ANANDAMOORTHY	Edgate Technologies Private Limited, Bangalore	07.06.2020	16.06.2020
137	1713104	SRINIVASAPANDIAN M		07.06.2020	16.06.2020
138	1713097	SELVA KUMAR M		07.06.2020	16.06.2020
139	1713099	SELVAKUMAR R		07.06.2020	16.06.2020
140	1713109	SURDISH MUTHU S		07.06.2020	16.06.2020
141	1713411	RAKHAPRADHA P		07.06.2020	16.06.2020
142	1713005	AJITHKUMAR M		08.06.2020	26.08.2020
143	1713075	MUTHU GANESH R		08.06.2020	26.08.2020
144	1713016	T.M AZEES RAHMAN		08.06.2020	26.08.2020
145	1713022	BOOMINATHAN R		08.06.2020	26.08.2020
146	1713036	HARI RAM. E		08.06.2020	26.08.2020
147	1713050	KALIRAJ M		08.06.2020	26.08.2020
148	1713058	KISHORE M		08.06.2020	26.08.2020
149	1713070	MOHAMED ELIYAS M K	Emcog Solution, Chennai	08.06.2020	26.08.2020
150	1713072	MOHAMED MOIDEEN.S		08.06.2020	26.08.2020
151	1713073	MOHAMED MUSTAFA T		08.06.2020	26.08.2020
152	1713086	PREMKALA.N		08.06.2020	26.08.2020
153	1713100	SEYAD IBRAHIM N.M.		08.06.2020	26.08.2020
154	1713114	VARSHA.R		08.06.2020	26.08.2020

155	1713404	KARTIKEYAN C		08.06.2020	26.08.2020
156	1713044	JOELPRAVEENKUMAR D		08.06.2020	26.08.2020
157	1713030	GANGAGOWTHAM K		08.06.2020	26.08.2020
158	1713071	MOHAMED IBRAHIM S.S		08.06.2020	26.08.2020
159	1713090	RAM MOHAN.T		08.06.2020	26.08.2020
160	1713117	VENKADESHAPERUMAL. S		08.06.2020	26.08.2020
161	1713029	GANESH KUMAR.M		08.06.2020	26.08.2020
162	1713103	SRI BALA KRISHNAN.A		08.06.2020	26.08.2020
163	1713104	SRINIVASAPANDIAN M		08.06.2020	26.08.2020
164	1713014	ARUNA. M	KaaShiv Infotech	08.06.2020	12.06.2020
165	1713064	MAHALAKSHMI.S		08.06.2020	12.06.2020
166	1713068	MENAGA DEVI P		08.06.2020	12.06.2020
167	1713108	SUGUNA.M		08.06.2020	12.06.2020
168	1713116	VELMANIKANDAN. M		08.06.2020	17.06.2020
169	1713002	ADCHAYA. K	TechVolt Software, Pvt Limited, Coimbatore	08.06.2020	15.06.2020
170	1713003	AISWARYA.M		08.06.2020	20-08-2020
171	1713007	AMARAVATHI.M		08.06.2020	20-06-2020
172	1713012	ANISHA SUBHASREE U		08.06.2020	15.06.2020
173	1713017	BALA AKALYA.S.T		08.06.2020	15.06.2020
174	1713024	DHANUSHIYA. K		08.06.2020	20.06.2020
175	1713025	R.DHARSHINI		08.06.2020	15.06.2020
176	1713038	ISWARYA. S		08.06.2020	20.06.2020
177	1713042	JENIFA MABEL.Y		08.06.2020	20.06.2020
178	1713048	KABILAN.M		08.06.2020	20.06.2020
179	1713051	KANTHARI.S		08.06.2020	24-06-2020
180	1713057	KEERTHIKA B		08.06.2020	20.06.2020
181	1713061	M. D. ANGELIN WARSHA. R		08.06.2020	15.06.2020
182	1713107	SUBALAXMI.S		08.06.2020	20.06.2020
183	1713059	KRISHNA CHANDAR.M	Emcog Solution, Chennai	10.06.20202	28-06-2020
184	1713067	MEENAKSHI SUNDERESWARAN		10.06.20203	26-06-2020
185	1713402	AYYADURAI K		10.06.20204	28.06.2020

186	1713408	P.MURALIKRISHNA		10.06.20205	28.06.2021
187	1713409	PRAVEENKUMAR S		10.06.20206	28.06.2022
188	1713412	RAMAR ANANTH .P		10.06.20207	28.06.2023
189	1713415	VISHNU.S		10.06.20208	28.06.2024
190	1713045	JOSE VISHAL I		10.06.20209	28.06.2025
191	1713053	KARTHIK MAHARAJ S		10.06.20210	28.06.2026
192	1713094	SANGEETHA R		10.06.20211	28.06.2027
193	1713110	SURYA AMBIKA. P		10.06.20212	28.06.2028
194	1713413	SREEDHAR K.T		10.06.20213	28.06.2029
195	1713001	AARTHI T		10.06.20214	28.06.2030
196	1713501	BALAJI G		10.06.20215	28.06.2031
197	1713084	PON KARTHIKA R		10.06.20216	28.06.2032
198	1713087	PRICILLA INFANSA. A		10.06.20217	28.06.2033
199	1713043	JEYARAMAN.T		10.06.20218	28.06.2034
200	1713006	AKASH KUMAR B	KaaShiv Infotech	10.06.20219	14.06.2020
201	1713035	HARIHARAN S	Institute of Electronics and Telecommunication Engineers IETE-PANTECH e Learning	15.06.2020	15.07.2020
202	1713056	KAVITHA A	TechVolt Softwares, Pvt Limited, Coimbatore	17.06.020	04.07.2020
203	1713020	BHARATHAN.E		20.06.2020	24.06.2020
204	1713023	DHANABALRAJ. P		20.06.2021	24.06.2020
205	1713063	MAHADEVAN S		20.06.2022	29.06.2020
206	1713066	MARIAPPAN. C	KaaShiv Infotech	20.06.2023	24.06.2020
207	1713074	MUGESH.C		20.06.2024	24.06.2020
208	1713083	PON GANESH.P		20.06.2025	24.06.2020
209	1713091	RAMESH KUMAR.J		20.06.2026	24.06.2020
211	1813057	BRINDHA K V	Edgate Technologies, Bangalore	13.07.2020	22.07.2020
45	1713037	HARISHKUMAR. A	Oneyes Technologies Pvt Ltd, Chennai.	13.07.2020	31.08.2020
46	1713086	PREMKALA.N	The National small Industries Corporation LTD	15.07.2020	29.07.2020
47	1713114	VARSHA.R		15.07.2020	29.07.2020
220	1813022	HARISH D	Edgate Technologies, Bangalore	12.08.2020	10.09.2020

221	1813045	ANAS TARIK Y		12.08.2020	10.09.2020
222	1813057	ARUMUGAM S		12.08.2020	10.09.2020
212	1813070	HARI SANKAR M	Machine learning	15.08.2020	27.10.2020
213	1813071	GOMATHI ARASU.A		26.08.2020	30.09.2020
215	1813406	GODWIN AHIL.A		26.08.2020	30.09.2020
210	1813065	GOKUL RAM B R		26.08.2020	30.09.2020
218	1813407	LATHA NIVETHA. P		26.08.2020	30.09.2020
225	1813039	SHANMUGA BHARATHI S		26.08.2020	30.09.2020
226	1813064	SATHESH KUMAR A	ZAGA DEVELOPERS	26.08.2020	30.09.2020
227	1813066	SHRIGURUVISHNU V		26.08.2020	30.09.2020
232	1813068	SOBIYA.A		26.08.2020	30.09.2020
229	1813002	SANTHIYA N		26.08.2020	30.09.2020
231	1813009	SELVAKUMAR A		26.08.2020	30.09.2020
219	1813011	GOWSALYA K	Internshala, Machine learning	15.09.2020	27.10.2020
223	1813012	SAKTHIVEL M	TECHVOLT software Ltd, coimbatore	15.09.2020	27.10.2020
224	1813017	RATHINAM S	Internshala - Machine Learning	15.09.2020	27.10.2020
228	1813024	SRIDHAR C R	TECHVOLT software Ltd, coimbatore	15.09.2020	27.10.2020
230	1813031	SUBASHINI M	Internshala - Machine Learning	15.09.2020	27.10.2020
214	1813036	DEEPIKA.A	EmCog solutions, Chennai	16.09.2020	04.10.2020
216	1813047	LAKSHMANAN.S	EmCog solutions, Chennai	16.09.2020	04.10.2020

STUDENTS PARTICIPATIONS

Name of the Student	Participants
SHARMILA S	Successfully completed 3 coursera courses on the topic Machine learning for all, Neural network and deep learning, Hacking and patching
SIVA PRIYA A	Successfully completed coursera courses on the topic "Getting started with AWS Machine learning" on 14 June 2020
	World environmental quiz organized by NSS unit of Tamilnadu agriculture university on 5 June 2020
	Completed Step into Robotic Process automation during GUVI RPA Skill- A-thon 2020 on 12 June 2020
SRI BALA KRISHNAN A	Participated in the National Quiz on History organized by VOC college on 25 May 2020
	Participated online quiz on the topic "income Tax" organized by Shanmuga industries Arts & science college, Thiruvanamalai on 5 June 2020.
	Participated in the international level online quiz program on "Thirst optimists - a commerce quiz" on 20 may 2020
STEFFI CRANAFF J	Participated in IIC online session from 28 Apr to 22 may 2020 conducted by MHRD's innovation cell, New delhi.
	Participated in online quiz organized by ISTE chapter of Mepco schlenk engineering college on 21 May 2020
SUBA SHREE G	Won first place in "fighting COVID 19 technology innovation contest" on 12 May 2020
	Completed Career edge - Knock down the lock down organized by TCS iON from 11 may to 23 May 2020
	Successfully completed 4 coursera courses on the topic Cyber security and IOT, Machine learning for all, introduction to relational database and SQL, Solar basics, Arduino platform and c programming during lock down
	Paticipated in IIC online session from 28 Apr to 22 may 2020 conducted by MHRD's innovation cell, NewDelhi.
	Completed Step into Robotic Process automation during GUVI RPA Skill- A-thon 2020 on 3 June 2020
SUBALAXMI S	Participated "Understanding of Solar PV Value Chain and Advancement in Solar PV Technologies and Business Opportunities" on 7th august 2020 organised by S&H NEC
SUGUNA M	Participated "Understanding of Solar PV Value Chain and Advancement in Solar PV Technologies and Business Opportunities" on 7th august 2020 organised by S&H NEC
SURDISH MUTHU S	World environmental quiz organized by NSS unit of Tamilnadu agriculture university on 5 June 2020
	Participated in Quiz organized by MS university, Tenkasi on 21 June 2020
SURYA AMBIKA P	Successfully completed Machine learning for all, Neural network and deep learning in coursera.
	Participated a webinar on role & scope of engineers in solar power plant organized by NCC on founder's day celebration

	Participated "Understanding of Solar PV Value Chain and Advancement in Solar PV Technologies and Business Opportunities" on 7th august 2020 organized by S&H NEC
SWETHA K	one week Internship in Kaashiv Tech from 13/8/2020 to 17/8/2020
	Participated "Understanding of Solar PV Value Chain and Advancement in Solar PV Technologies and Business Opportunities" on 7th august 2020 organised by S&H NEC
TAMILSELVAN S	Participated in Quiz organized by MS university, Tenkasi on 21 June 2020
THIRUMALAI KUMARASAMY M	Participated "Women safety awareness quiz" on 15 July 2020 by APJ Abdul kalam trust
	Participated in Quiz organized by MS university, Tenkasi on 21 June 2020
VARSHA R	Participated in Online quiz marathon "Evolve 2020" organized by Saveetha engineering college, Chennai on 1 to 5 June 2020.
	Participated in a "Online Technical Quiz in Electrical Engineering" conducted by RVS college of Engineering and Technology and obtained a score of 90%.
	Participated in online quiz organized by ISTE chapter of Mepco schlenk engineering college on 21 May 2020
	Paticipated in webinar on "remote sensing & GEO information" organized by IEEE CSI of NEC on 23 May 2020
	Participated and secured 64% in "TECHNOFRENZY" organized by Dept. of S&H, NEC on 12 May 2020
SUKUMAR T	Completed coursera course on "Getting started with AWS machine learning" on 14 June 2020
	Completed Step into Robotic Process automation during GUVI RPA Skill- A-thon 2020 on 12 June 2020
	Completed NCC E-Quiz organized by NCC of Pasumpon muthuramalinga tevar college on 16 July 2020
	Completed online quiz on "Electronic quiz 2020 organized by government polytechnic college on 29 June 2020
	Completed e quiz with a score of 75% on "easy mathematics" conducted by Sarah tucker college during July 2020
	World environmental quiz organized by NSS unit of Tamilnadu agriculture university on 5 June 2020
	Completed Career edge - Knock down the lock down organized by TCS iON from 24 Apr to 12 May 2020

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