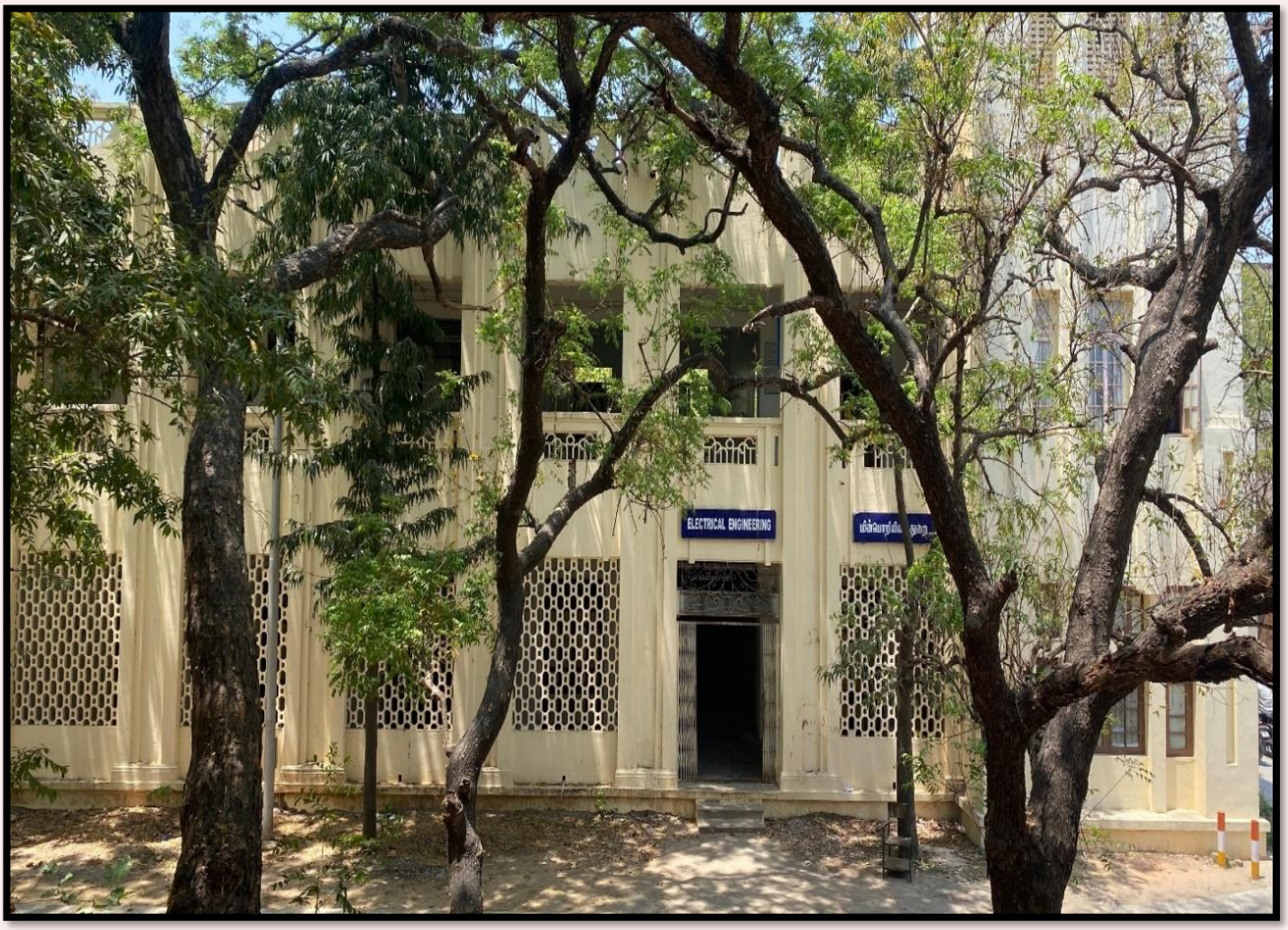
Annamalai University

Faculty of Engineering and Technology

Department of Electrical Engineering

Newsletter

2022-2023



VISION

- **To develop the Department into a Centre of Excellence with a perspective to provide quality education and skill-based training with state-of-the-art technologies to the students, thereby enabling them to become achievers and contributors to the Industry, Society and Nation together with a sense of commitment to the profession.**

MISSION

- **To impart quality education in tune with emerging technological developments in the field of Electrical and Electronics Engineering.**
- **To provide practical hands-on-training with a view to understand the theoretical concepts and latest technological developments.**
- **To produce employable and self-employable graduates.**
- **To nurture the personality traits among the students in different dimensions emphasizing the ethical values and to address the diversified societal needs of the Nation.**
- **To create futuristic ambience with the state-of-the-art facilities for pursuing research.**

All India Council for Technical Education

(A Statutory body under Ministry of Education, Govt. of India)

Nelson Mandela Marg,Vasant Kunj, New Delhi-110070 Website: www.aicte-india.org

APPROVAL PROCESS 2022-23

Extension of Approval (EoA)

F.No. Southern/1-10976161581/2022/EOA

Date: 03-Jul-2022

To,

The Principal Secretary
(Higher Education) Govt. of Tamil Nadu,
N. K. M. Bld. 6th Floor Secretariat,
Chennai-600009

Sub: Extension of Approval for the Academic Year 2022-23

Ref: Application of the Institution for Extension of Approval for the Academic Year 2022-23

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations, 2022 Notified on 4th February, 2022 and amended on 24th February 2022 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Permanent Id	1-2870850431	**Application Id**	1-10976161581
Name of the Institution	FACULTY OF ENGINEERING AND TECHNOLOGY	**Name of the Society/Trust**	ANNAMALAI UNIVERSITY
Institution Address	ANNAMALAI UNIVERSITY ANNAMALAINAGAR, ANNAMALAINAGAR, CUDDALORE, Tamil Nadu, 608002	**Society/Trust Address**	ANNAMALAI UNIVERSITY,ANNAMALAINAGAR, CUDDALORE,Tamil Nadu,608002
Institution Type	State Government University	**Region**	Southern
Year of Establishment	1994		

To conduct following Courses with the Intake indicated below for the Academic Year 2022-23

Level	Program	Course	Affiliating Body (University /Body)	Intake Approved for 2021-22	Intake Approved for 2022-23	NRI Approval Status	FN / Gulf quota/ OCI/ Approval Status
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	COMPUTER SCIENCE AND ENGINEERING (DATA SCIENCE)	NOT APPLICABLE	60	60	NA	NA
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	ELECTRICAL AND ELECTRONICS ENGINEERING	NOT APPLICABLE	120	120	NA	NA
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	ELECTRONICS AND COMMUNICATIONS ENGINEERING	NOT APPLICABLE	60	60	NA	NA
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	ELECTRONICS AND INSTRUMENTATION ENGINEERING	NOT APPLICABLE	60	60	NA	NA

INAUGURAL FUNCTION

Inaugural function of Electrical Engineering Association, IEI (Student Chapter) & Engineer's Day Celebrations held on 24th September at 11.00 am in the AUMTEC 71 Hall, FEAT

Chief Guest Er. S. Srikanth, [Alumnus AU BE (EEE) 1997 Batch] , CEO, System Control (Manufactures of Switchgears and Panels), delivered the Inaugural Address and initiated the Association Activities


ANNAMALAI UNIVERSITY
INAUGURAL FUNCTION OF
ACADEMIC YEA
rs day
TECH


ANNAMALAI UNIVERSITY
INAUGURAL FUNCTION OF
ASSOCIATION ACTIVITIES
ACADEMIC YEAR 2022-2023
Engineers day celeb ion
ACULTY OF ENGG. & TECH

Research Publications by Faculty (2022-2023)

No	Name of the Scholar	Title	Published
1.	Sathiyapoobalan. S, and Neela R	A Deep Learning-Based approach to Segregate Solid Waste Generated in Residential Areas, https://doi.org/10.48084/etasr.5716	Engineering, Technology & Applied Science Research, Vol. 13(2), pp. 10439-10446.
2.	Aseela Swetha, B. Baskaran, P. Duraipandy	A Novel Voltage Lifting Technique of Switched-Inductor Cell Based Modified Luo Converter Topology for Water Pumping System, DOI: 10.11591/ijape.v12.i2.pp1-15	International Journal of Applied Power Engineering (IJAPE), Vol. 12(2), pp. 1-15.
3.	B. Pushpa, B. Baskaran, S Vivekanandan and P. Gokul	Liver fat analysis using optimized support vector machine with support vector regression, Doi:10.3233/THC-220254	Technology and Health care, Vol. 31(3):867-886.
4.	P. Naveen, B. Baskaran, and R.V.D. Rama Rao	Transformer-Less Novel Hybrid Converter Based Solar PV fed UPS System, Doi: 10.1142/S0218126623501335	Journal of Circuits, Systems, and Computers, Vol. 32(8)
5.	Sathish C H, Chidambaram I.A., Manikandan M.	Intelligent cascaded adaptive neuro-fuzzy interface system controller fed KY converter for hybrid energy based microgrid applications. DOI:10.20998/2074-272X.2023.1.09	Electrical Engineering & Electromechanics
6.	Sathish C H., Chidambaram I.A., Manikandan M	Hybrid Renewable System With High Gain Modified Z-Source Boost Converter for Grid Tied Applications, https://doi.org/10.52254/1857-0070.2023.1-57.04	Problemele Energeticii Regionale Vol. 1(57), pp. 39-54.
7.	Sathish C H., Chidambaram I.A., Manikandan M	Recent advances for DC-DC converter Topology in Hybrid Renewable System, https://doi.org/10.36548/Jeea.2022.4.005	Electrical Engineering and Automation Vol. 4(4), pp. 277-296. https://irojournals.com/iroeea/article/view/4/4/5
8.	Balakishan P, Chidambaram I A, & Manikandan M	An ANN Based MPPT for Power Monitoring in Smart Grid using Interleaved Boost Converter, https://doi.org/10.17559/TV-20220820194302	Tehnički vjesnik / Technical Gazette Vol. 30(2), pp. 381-389.
9.	K. Manikandan, S.Sasikumar, R. Arulraj	A novelty approach to solve an economic dispatch problem for a renewable integrated micro-grid using optimization techniques https://doi.org/10.20998/2074-272X.2023.4.12	Electrical Engineering & Electromechanics
10	K. Manikandan, S.Sasikumar, R. Arulraj	Investigation on CEED-RES Problem Using Modifeid Lagrange Method, https://doi.org/10.13052/dgaej2156-3306.38114	Distributed Generation & Alternative Energy Journal Vol. 38(1), pp. 319-342.

Research Publications by Faculty (2022-2023)

No	Name of the Scholar	Title	Published
11	A. Gayathri, S. Sasikumar	Modified Butterfly Optimization Algorithm based Energy Efficient Routing Protocol for Internet of Things Environment doi: 10.48047/nq.2022.20.8.NQ221028	Neuro Quantology
12	N. Balavenkata Muni, S. Sasikumar, K. Hussain, K. Meenendranath Reddy	A Progressive Approach of Designing and Analysis of Solar and Wind Stations Integrated with the Grid Connected Systems, pp. 83-96. https://link.springer.com/chapter/10.1007/978-3-031-16364-7_7	Computational Intelligence in Data Science
13	Arunprasad Govindharaj, Anitha. M, Ambikapathy Aladiyan, Hassan Haes Alhelou	Real time implementation of Adaptive neural back stepping control ler for battery less solar powered PMDC motor, https://doi.org/10.1049/pel2.12369	IET Power Electronics, Vol. 16(1), pp. 128-144.
14	R. Suganya, M. Anitha and P. Pugazhendiran	Hybrid power flow controller based micro-grid system for power quality enhancement with futuristic semiconductor materials https://doi.org/10.1016/j.matpr.2023.03.119	Materials Today Proceedings
15	D. Meena , V. Padmathilagam and A. Arulvizhi	Bridgeless Isolated Sepic PFC for EV Battery Charging Using ANN Controller Doi: 10.59018/032387	ARPN Journal of Engineering and Applied Sciences, Vol. 18(6), pp. 623-632.
16	Arun Nami P, Aravindhababu P	Optimal UPFC Placement for Voltage Stability Enhancement, **DOI** 10.1149/2162-8777/accaa4	ECS Journal of Solid State Science and Technology, Vol. 12(4).
17	K Srilakshmi, S Poorna Chander Rao, G Deepika, B.V Sai Thrinath, A. Ramadevi, G. Sravanthy, K.Dushanth Kumar, P. Aravindhababu	Performance Analysis of Artificial Intelligence Controller for PV and Battery Connected UPQC, https://doi.org/10.20508/ijrer.v13i1.13523.g8672	International Journal of Renewable Energy Research Vol. 13(1).
18	S Yamparala, L Lakshminarasimman, GS Rao	Improvement of LVRT Capability for DFIG based WECS by Optimal Design of FoPID Controller using SLnO+ GWO Algorithm, https://doi.org/10.22266/ijies2023.0228.18	International Journal of Intelligent Engineering & Systems 16 (1), Vol. 16(1), pp. 202-213.
19	S Yamparala, L Lakshminarasimman, GS Rao	Optimal design of FoPID controller for DFIG based wind energy conversion system using Grey-Wolf optimization algorithm, https://doi.org/10.20508/ijrer.v12i4.13446.g8594	International Journal of Renewable Energy Research (IJRER), Vol. 12 (4), pp. 2111-2120.

Research Publications by Faculty (2022-2023)

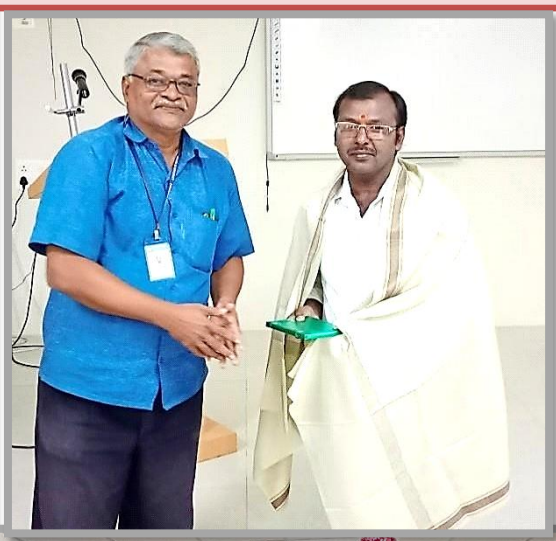
No	Name of the Scholar	Title	Published
20	S Pradeep, L Lakshminarasimman	Multi-objective strategy-based resource allocation and performance improvements in 5G and beyond wireless networks, https://doi.org/10.1002/dac.5288	International Journal of Communication Systems, Vol. 35 (15), e5288.
21	A Umadevi, L Lakshminarasimman	Interharmonics estimation using hybrid multi sine cosine algorithm, http://dx.doi.org/10.22075/ijnaa.2022.6453	International Journal of Nonlinear Analysis and Applications, Vol. 13(2), pp. 619-629
22	Thamaraiselvi A, Subramanian S, Yamuna G, Sasikala J & Ganesan. S,	Distribution System State Estimation Using Scaled PMU Placement in Optimal Locations http://hebgydxxb.periodicales.com/index.php/JHIT/article/view/1208	Journal Of Harbin Institute Of Technology, Vol. 54(8), pp. 25-33.
23	B.Balaji, S.Ganesan, P.Pugazhendiran and S.Subramanian,	CURRENT MODE FOPID CONTROLLED DC MICRO-GRID SYSTEM WITH ENHANCED RESPONSE http://hebgydxxb.periodicales.com/index.php/JHIT/article/view/1215.	Journal Of Harbin Institute Of Technology, Vol. 54(8), pp. 62-74.
24	B.Balaji, S.Ganesan, P.Pugazhendiran and S.Subramanian	Sliding mode controlled DC microgrid system with enhanced response https://doi.org/10.1080/23307706.2022.2120556.	Journal of control and Decision [Taylor & Francis]
25	G.Girishkumar,S.Ganesan, N.Jayakumar,S.Subramanian,	Black Widow Optimization for Multi Area Economic Emission Dispatch., https://doi.org/10.32604/iasc.2023.027514	Intelligent Automation & Soft Computing, Vol. 35(1), pp. 609-625.
26	G.Girishkumar,S.Ganesan, N.Jayakumar,S.Subramanian,	Multi Area Power Dispatch using Black Widow Optimization Algorithm. Doi:10.22937/IJCSNS.2022.22.10.16	International Journal of Computer Science and Network Security, Vol. 22(10), pp. 113-130.
27	B.Balaji, S.Ganesan, P.Pugazhendiran and S.Subramanian	Closed loop proportional resonant controller controlled DC microgrid system with advanced material technology in solar PV system. https://doi.org/10.1016/j.matpr.2023.01.084.	Materials Today: Proceedings,
28	A.Sreenivasulu, S.Subramanian and P.Sangameswara Raja,	Design and simulation of Advanced intelligent deep learning MPPT approach to enhance power extraction of 1000W grid connected Photovoltaic System. Doi:10.3233/JIFS-221465.	Journal of Intelligent & Fuzzy Systems, Vol. 44(3)

Research Publications by Faculty (2022-2023)

No	Name of the Scholar	Title	Published
29	SANEPALLE GOPAL REDDY,S. GANAPATHY and M. MANIKANDAN	Three Phase Four Switch Inverter based DVR for PQ improvement with optimized CSA Approach Vol.10, pp. 72263-78. DOI: 10.1109/ACCESS.2022.3188629	IEEE Access, Vol. 10, pp. 72263 - 72278
30	R. Geshma Kumari , Naresh Pasula , and A. Ezhilarasi	Developmemt of cascadded power converters for high voltage constant current applications https://doi.org/10.1080/01430750.2022.2095531	IEEE Transactions on Plasma Science, Vol. 43, pp. 8386-8399
31	Sivaranjani Srinivasan, Ezhilarasi Arivukkannu and Ramaswamy Muthiah	A fuzzy sliding mode controller for power quality improvement of solar PV https://doi.org/10.1080/01430750.2022.2095531	International Journal of Ambient Energy, Vol. 43(1), pp. 8386-99.
32	Remala Geshma Kumari1, A. Ezhilarasi1, Naresh Pasula2	Control strategy for modified CI-based Bi-directional Γ-Z source DC-DC converter for buck-boost operation DOI: 10.11591/ijpeds.v13.i3.pp1510-1518	International Journal of Power Electronics and Drive Systems (IJPEDS), Vol. 13(3)
33	AP Srivishnupriya Dr.M. Mohamed Thameem Ansari , Vinoth Kumar N J	Automatic Generation Control of Three Area Hybrid Power System by Sine Cosine Optimized Dual Mode Fractional Order Controller https://doi.org/10.20508/ijrer.v12i3.13127.g8524	International Journal of Renewable Energy Research, Vol. 12(3).
34	N. Sivaraj, B. Rajagopal	Grey Wolf Optimized PNN for the Detection of Faults in Induction Motors, Vo. 10(4). pp. 16-22. https://ijisae.org/index.php/IJISAE/article/view/2191	International Journal of intelligent systems and applications in engineering
35	J. Samuel, Dr.B. Rajagopal	Dual Axis with MPPT PV Panel Monitoring and Control System Based on IoT, http://cims-journal.com/index.php/CN/article/view/470	Computer Integrated Manufacturing Systems, Vol. 28(12), pp. 860-875
36	J Samuel, Dr. B. Rajagopal	IoT Based PV panel Cleaning System https://doi.org/10.22214/ijraset.2022.47420	International Journal for Research in Applied Science and Engineering Technology, vOL. 10(xi)
37	J Samuel, B. Rajagopal	Dual Axis Solar PV Panel Tracking System with MPPT Solar Charge Controller based on IoT	Indian Journal of Natural Sciences (IJONS), Vol. XIV(14), pp. 54816-54822.

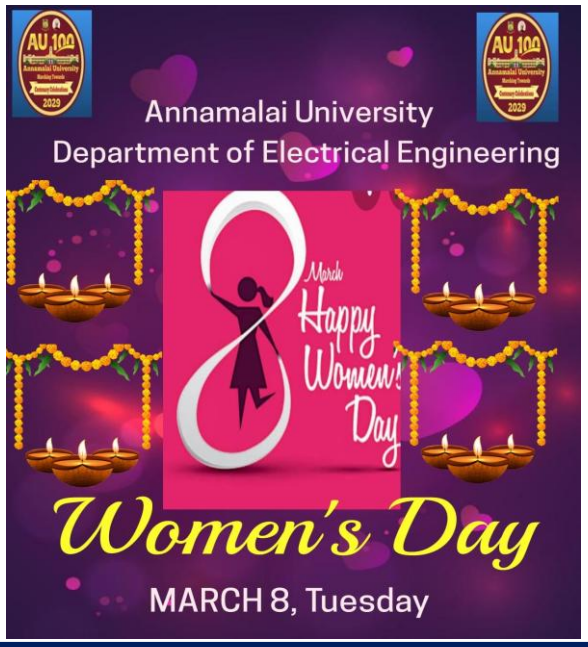
TNPSC AWARNESS CAMP

LECTURE by S. KANNAN (TNPSC OFFICER)



How to face the Competitive exams: Lecture Series for final year Students of Electrical Engineering Held on_21th February 2023"@3.00 pm in the AU69 Golden Jubilee Hall ".

WOMEN'S DAY


Annamalai University
Department of Electrical Engineering
8 March
Happy Women's Day
Women's Day
MARCH 8, Tuesday

ELECTRO SPORTS - 2023

Department of Electrical Engineering conducted the sports extravaganza "Electro Sports" for the Electrical Engineering students during (09 – 11) March - 2023. Students participated in various sports events like Throw Ball, Volley Ball, Foot Ball, Basket Ball, Badminton, Cricket, Chess and Kabadi in the presence of Dr.M.Ramasamy Prof & Head Department of Electrical Engineering.

THROW BALL GIRLS

BASKETBALL

CHESS (BOYS & GIRLS)

LONG JUMP & TRIPLE JUMP

FOOT BALL

SHOT PUT

TRACK EVENTS

JAVELIN THROW

BADMINTON

KABADDI

KHO KHO (GIRLS)

VOLLEYBALL (BOYS & GIRLS)

KHO KHO (BOYS)

INDUSTRIAL VISIT-2023

Industrial visits were arranged by the institution for the students to provide them with practical opportunities that help them combine Theoretical and Industrial knowledge. (12.04.2023 to 15.04.2023)

Salem Murugan Kovil

Wonderla Kochin (Kerala)

Kochin Fort (Kerala)

Vagamon Hill Station (Kerala)

INFRASTRUCTURE DEVELOPMENT

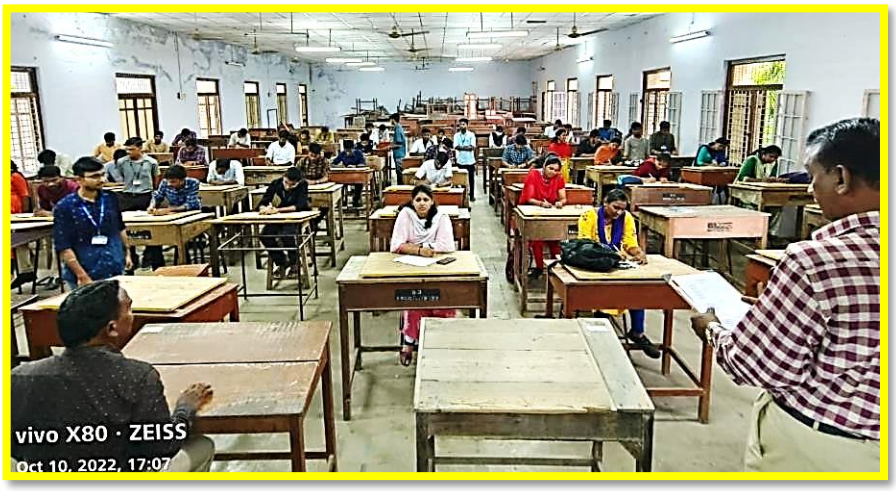
A New Lab, Power System Protection Lab resides on the Ground floor of the EE building was added to the Department this Academic Year sponsored by Alumni Dr Raj Natarajan, an alumnus 1965-75 batch in the remembrance of our beloved Prof V. Balasundaram (Late).

It contains power system Protection and Power system panels like distance protection, generator protection, motor protection, dynamic testing of relays, over current coordination of IDMT relays.

LITERARY EVENTS

The Literary Events was inaugurated by Dr.C.S.Rathnasabapathy, Associate Professor in Chemical Engineering at Annamalai University, and acted as a Judge for the Events.

SPELL BEE (10/10/2022)

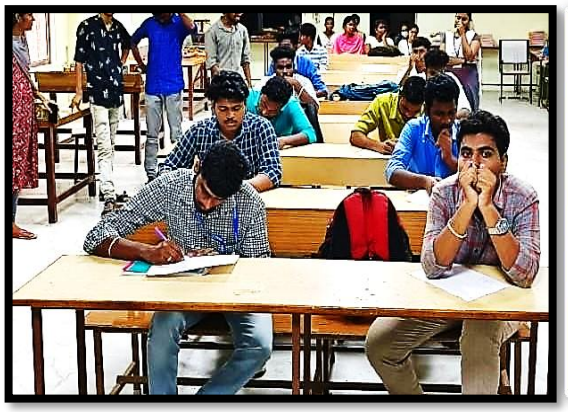


DRAWING (11/0/2022)

SPEECH (12/10/2022)

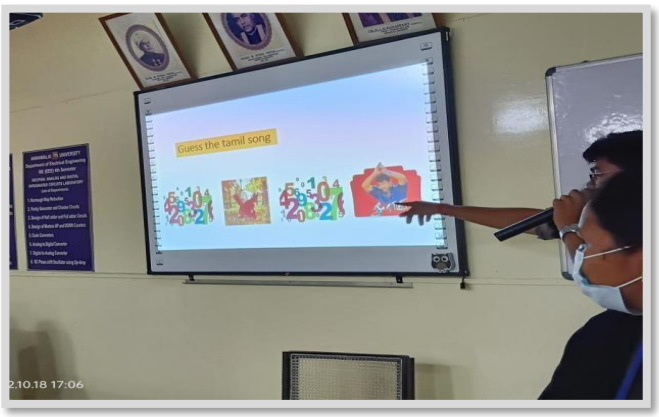
HANDWRITING (13/10/2022)

MEMORY CHALLENGE (14/10/2022)



QUIZ (PRELIMINARY) (17/10/2022)

CONNECTION (18/10/2022)



QUIZ (FINAL) (20/10/2022)

PONGAL CELEBRATIONS 2023

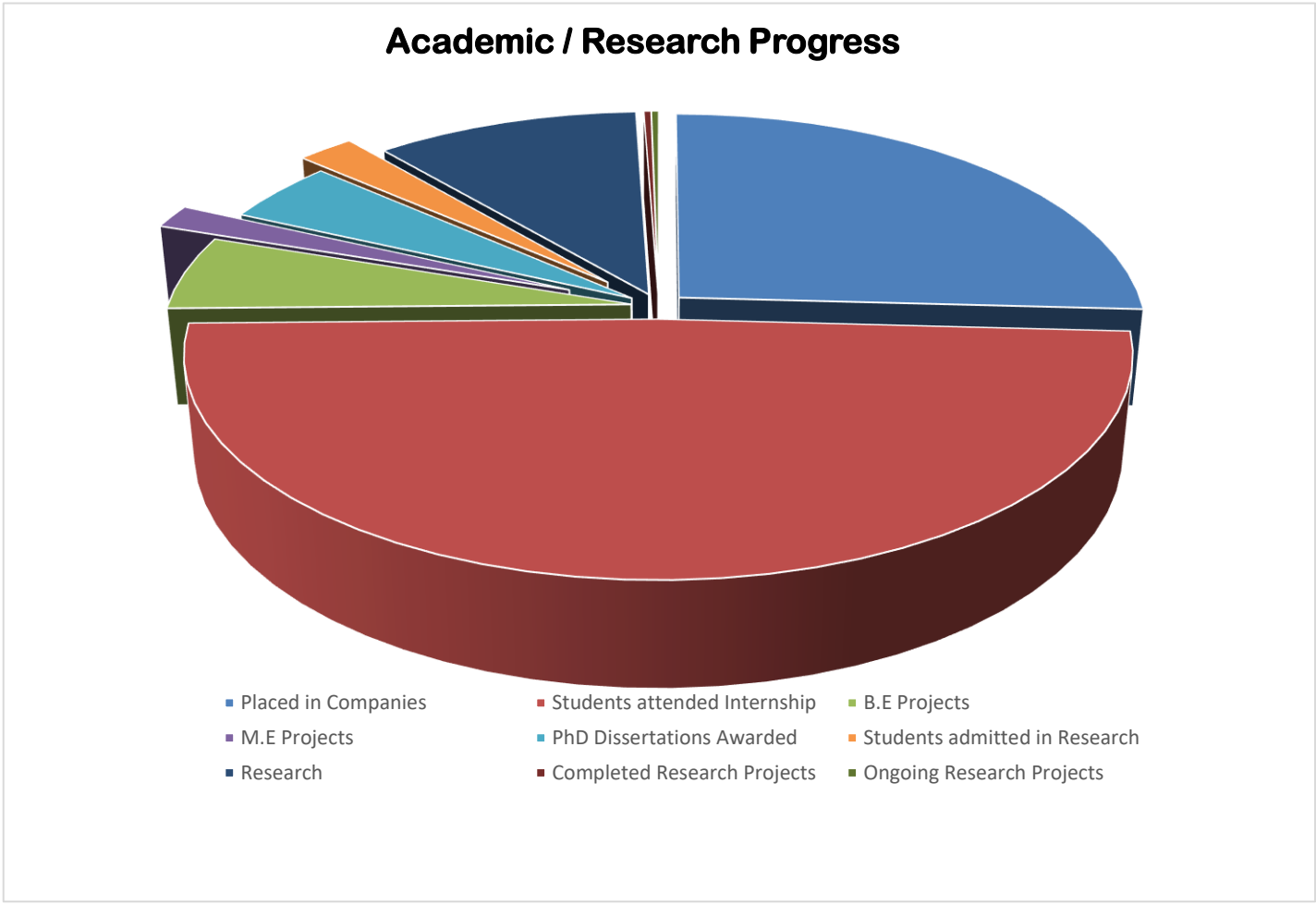
Pongal Celebration was held on 12th January 2023 in the Department of Electrical Engineering.

COMPETITION WINNERS

During the Pongal Celebrations, various competition was conducted and the Prize winners were honored by the Faculty Members of the Department.

Academic/Research Progress

1. No of Students Placed in Companies:90
2. No of Students attended Internship Program: 170
3. No of B.E Projects :19
4. No of M.E Projects: 6
5. No of PhD Dissertations Awarded: 16
6. Number of Students admitted in Research: 8
7. No of Research (Web of Science) Articles by Faculty: 37
8. Existing Research Projects: 2



VALEDICTORY FUNCTION

Department of Electrical Engineering organized Valedictory function of the EEE Student association activities on 29th June 2022.
Chief guest Dr.K.Selvakumar, Professor & Head, Department of Information Technology, Annamalai University .
Conveners Dr.M.Anitha & Dr.K.Gayathri were present.
The Chief Guest distributed the Certificates and Medals for the prize winners of Electro Sports.