



GOVERNMENT COLLEGE OF ENGINEERING TIRUNELVELI-7

DEPARTMENT OF
ELECTRICAL AND ELECTRONICS ENGINEERING

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BRIEF REPORT ON ARDUINO WORKSHOP

One day workshop on **Arduino** was organised by **Department of Electrical and Electronics Engineering** on **6th April, 2024**. The workshop was organised for 3rd year students who actively participated in the **Hands on training on Interfacing of Arduino with Sensors**. The workshop was conducted by **Mr.D.Ram Kumar, Trainer in Microcontroller, Systems, Thatchanallur, Tirunelveli**.

The inaugural ceremony of the workshop witnessed the presence of the Head of the Department, **Dr.P.Latha** along with the **Co-ordinator, Prof.M.Balasubramanian AP/EEE** and **Dr.G.Balasubramanian AP/EEE**.

Objectives of the Workshop:

- Introduction to Arduino.
- Real Life Applications & Live Demo of Arduino projects.
- Project Ideas and Further opportunities in Research and Development.

Outcomes of the workshop:

- Students gained knowledge on writing Arduino programs.
- Practically worked on Arduino by interfacing sensors and get Hands on.
- Understand Real time applications and live demo of projects



CONTENTS OF THE WORKSHOP

The contents of the workshop include totally six Interfacing modules ,conducted by using Arduino Uno and the activities based on the module are detailed above.The activity of the module is the demonstration by connecting sensor at the input port of arduino board which is used in various applications.

| S. No | Modules Conducted | Activity |
|-------|--|---|
| 1 | Interfacing of flashing LED with Arduino Uno | Did the demonstration by blinking the inbuilt LED on the Arduino board |
| 2 | Interfacing of LCD – 16x2 with Arduino Uno | Did the demonstration by connecting LCD – 16x2 at the input port of Arduino board which measures the light intensity |
| 3 | Interfacing ultrasonic sensors with Arduino Uno | Did the demonstration by connecting ultrasonic sensor at the input port of Arduino board which is used to measure the distance |
| 4 | Interfacing temperature sensor with Arduino Uno | Did the demonstration by connecting Temperature sensor at the input port of Arduino board which is used to measure the room temperature |
| 5 | Interfacing IR sensor with Arduino Uno | Did the demonstration by connecting IR sensor at the input port of Arduino board which is used to detect the sound |
| 6 | Interfacing Thingspace with ESP322-Nord 0.9 Board. | Did the demonstration by connecting Thingspace at the interfacing port of ESP322-Nord 0.9 Board. |



INDUSTRIAL VISITS

INDUSTRIAL VISIT TO RENOM ENERGY SERVICE PVT LTD

On March 3rd 2024 , the fourth-year students of the Electrical and Electronics Engineering department from Government College of Engineering, Tirunelveli, undertook an industrial visit to the RENOM Energy Services Pvt Ltd located in Panakudi, Tamilnadu. The total of 66 students participated in the visit.



INDUSTRIAL VISIT TO KEL.CO.LTD

The second year students of the electrical and Electronics department from government college of engineering ,Tirunelveli went on an industrial visit to Kerala electrical and allied engineering company limited located in kerala.



GATE RESULTS

| S.No | Name of the student | Department | GATE Score (out of 100) | All india Rank |
|------|---------------------|------------|----------------------------|----------------|
| 1 | VINISA G | EEE | 29.33 | 5151 |
| 2 | VIGNESH K | EEE | 28.33 | 5773 |
| 3 | ROSHAN SHIFANA P | EEE | 26.33 | 7284 |
| 4 | SIVA ANUSH M | EEE | 21.67 | 12834 |

The following given details contain the Result of the IV students of EEE department from Government College of Engineering, Tirunelveli ,who attend the GATE exam. The score of each student and their ALL INDIA RANK are noted .

PLACEMENT DETAILS

There are totally 18 students from Government College Of Engineering , Tirunelveli under the department of Electrical and Electronics Engineering got placed in different companies. The students name ,register number , company name and salary package of the placed students are mentioned above.

| S.no | Name | Reg.no | Company Name | Salary Package |
|------|---------------|--------------|-----------------|----------------|
| 1 | JANARTHANAN J | 950820105011 | Larsen & Tourbo | 6 - 6.5 LPA |
| 2 | JEEVA MARKJ | 950820105014 | Larsen & Tourbo | 6 – 6.5 LPA |

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|----|------------------|--------------|----------------|-----------------|
| 3 | VINISA G | 950820105051 | Larsen & Turbo | 6 – 6.5 LPA |
| 4 | VIGNESH K | 950820105049 | Finsurge | 3.5 – 8 LPA |
| 5 | RABISHA R | 950820105034 | Finsurge | 3.5 – 8 LPA |
| 6 | ROSHAN SHIFANA P | 950820105036 | Voltas | 4 LPA |
| 7 | SHARMILA M | 950820105041 | Voltas | 4 LPA |
| 8 | JESSLINA | 950820105015 | Voltas | 4 LPA |
| 9 | SIVA ANUSH M | 950820105042 | Voltas | 4 LPA |
| 10 | JEBA MATHEW J | 950820105012 | Axicades | 3.6 LPA |
| 11 | VIJAY BALARAM L | 950820105050 | Axicades | 3.6 LPA |
| 12 | KISHORE MARK P | 950820105018 | Pothigai Power | 3.6 LPA |
| 13 | KISHORE A | 950820105704 | Pothigai Power | 3.28 – 3.53 LPA |
| 14 | SRIMAN M | 950820105044 | Pothigai Power | 3.28 – 3.53 LPA |
| 15 | SHEIK MOHAMED M | 950820105707 | Pothigai Power | 3.28 – 3.53 LPA |
| 16 | MUGESH KUMAR M | 950820105702 | Pothigai Power | 3.28 – 3.53 LPA |

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|----|-----------------|--------------|----------------|-----------------|
| 17 | RAMA KRISHNAN S | 950820105043 | Pothigai Power | 3.28 – 3.53 LPA |
| 18 | UDAYAKUMAR M | 950820105045 | Pothigai Power | 3.28 – 3.53 LPA |

SPORTS ACTIVITIES

Godwin Antoneey.R from second year Electrical and electronics department form Government college of Engineering Tirunelveli Won 2nd grade in state Level Powerlifting Championship held at Erode on May 2024 and Won First Prize in Bench Press in both Junior and Master Category and Second prize in Deadlifting in “Tirunelveli Powerlifting association championship 2024.”



FACULTY PUBLICATION

| S,NO | Number of quality publications in refereed /SCI Journals, citations, Book/Book chapters |
|------|--|
| 1 | Dharmalingaswamy, Anitha, & Latha, P. (2023). Additive metric composition-based load aware reliable routing protocol for improving the quality of service in industrial internet of things. <i>Int. Arab J. Inf. Technol.</i> , 20(6), 954-964. |
| 2 | Anitha, D., & Latha, P. (2023). Residual Energy and Expected Transmission count based routing protocol for Industrial Internet of Things. |
| 3 | Vinisha mary. J and Suganthi. J (2023). Performance Analysis Of Grid Connected Hybrid Systems Using Finite Control Set Model Predictive Control. <i>Journal of Interdisciplinary Cycle Research</i> , 15(10), 86-91 |
| 4 | Kavin, K. S., Subha Karuvelam, P. , Devesh Raj, M., & Sivasubramanian, M. (2024). A Novel KSK Converter with Machine Learning MPPT for PV Applications. <i>Electric Power Components and Systems</i> , 1-19. |
| 5 | Umadevi, C., Gnana Sundari, M., & Karuvelam, P. S. (2024). Cascaded Fuzzy Logic Controlled Modular Multilevel Converter for PV Based DSTATCOM Applications. <i>Journal of Electrical Engineering & Technology</i> , 19(3), 1551-1563. |
| 6 | Fabbina, C., Karuvelam, P. S. , & Vijayalakshmi, S. (2024). Hybrid-optimized PI controller integration for wind energy microgrids with high-speed SRG. <i>Electrical Engineering</i> , 1-20. |
| 7 | Selvam, M. P., Palraj, Subha Karuvelam , & Madasamy, G. S. (2024). Adaptive control of a single source reduced switch MLI-based DSTATCOM for wind energy conversion system. <i>Electrical Engineering</i> , 1-22. |
| 8 | Kavin, K. S., Karuvelam, P. S. , Kumar, N., Kar, S., Rahiman, R. A., & Patwa, S. (2024). Coupled inductor interleaved boost converter with ANN and RNN based MPPT algorithm for PV system. <i>International Journal of Applied Power Engineering (IJAPE)</i> , 13(3). |
| 9 | Kaliappan, K., Lins, A. W., Madhana, R., Kavin, K. S., Karuvelam, P. S. , & Ruban, I. J. (2024, April). Design of a PV Grid-Tied Zeta Converter with Modified ANFIS Controller. In <i>2024 International Conference on Recent Advances in Electrical, Electronics, Ubiquitous Communication, and Computational Intelligence (RAEEUCCI)</i> (pp. 1-6). IEEE. |

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| 10 | Kavitha, P., & Karuvelam, P. S. (2023). An highly efficient optimized pi controller fed sepic converter for hybrid renewable sources based microgrid system. <i>Microprocessors and Microsystems</i> , 104797. |
| 11 | Kumar, A. M., & Karuvelam, P. S. (2023). PV Fed EV charging system based on re-lift Luo converter and DAB converter. <i>Journal of Electrical Engineering & Technology</i> , 18(4), 2609-2621. |
| 12 | Umadevi, C., Gnana Sundari, M., & Karuvelam, P. S. (2024). MMC-based PV-Fed STATCOM with Hybrid GA-RBFNN for PQ Enhancement. <i>IETE Journal of Research</i> , 70(3), 3204-3221. |
| 13 | Kavin, K. S., Karuvelam, P. S. , Santhoshi, B. K., Lakshmi, D., Sivasubramanian, M., & Suresh, R. (2023, August). Review of Maximum Power Point Tracking Based Novel Converters Used in EV Application. In <i>2023 International Conference on Circuit Power and Computing Technologies (ICCPCT)</i> (pp. 1225-1229). IEEE. |
| 14 | Santhoshi, B. K., Reagan, J., Venkatesh, R., Kavin, K. S., Karuvelam, P. S. , & Sivarajan, S. (2023, December). Improved Z-Source DC-DC Converter for PMBLDC Based EV. In <i>2023 International Conference on Energy, Materials and Communication Engineering (ICEMCE)</i> (pp. 1-6). IEEE. |
| 15 | E. Immanuel Bright, N. Pavithran , N. Rathika , M. Gnana Sundari , M. Balasubramanian , Kannan Kaliappan. (2024). An Efficient Grid Integrated Hybrid Renewable Energy System with Battery Storage Using SEPIC Converter. <i>SSRG International Journal of Electrical and Electronics Engineering</i> , Volume 11 Issue 9, 333-343, September 2024 |
| 16 | Mohan, Balasubramanian. , Siddhan, S., & Chinnadurai, N. (2024). Control for Power Quality Improvement of Solar Photovoltaic-Distributed Static Synchronous Compensator Interfaced with Weak Grid Using Multi-Variable Filter Dual Second-Order Generalized Integrator Phase-Locked Loop. <i>Electric Power Components and Systems</i> , 52(9), 1616-1635. |
| 17 | Mohan, Balasubramanian , Saravanan Siddhan, and Nagarajan Chinnadurai. "Alleviation of Power Quality Issues in MVF-DEANF-PLL Based Solar PV Systems under Polluted Grid Conditions." <i>Sustainability</i> 15, no. 21 (2023): 15487. |
| 18 | Esakkiammal R, and Dr.Thangaraj A , hybrid wind/pv/battery energy Management for smart dc microgrid using intelligent Fractional order-pid controller, <i>International Journal of Scientific Development and Research</i> , Volume 8 Issue 9, 2023. |

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| 19 | Ida Evangeline Sundarapandi Edward and Rathika Ponpandi (2023). Challenges, strategies and opportunities for wind farm incorporated power systems: a review with bibliographic coupling analysis. <i>Environmental Science and Pollution Research</i> , 30(5), 11332-11356. |
| 20 | Evangeline, S. I. , Darwin, S., Anandkumar, P. P., & Sreenivasan, V. S. (2024). Investigating the performance of a surrogate-assisted nutcracker optimization algorithm on multi-objective optimization problems. <i>Expert Systems with Applications</i> , 245, 123044. |
| 21 | Evangeline, S. I. , Darwin, S., Baskaran, K., & Raj, E. F. I. (2024). A machine learning-based assessment model for defect diagnosis in XLPE power cables. <i>e-Prime-Advances in Electrical Engineering, Electronics and Energy</i> , 8, 100530. |
| 22 | Evangeline, S. I. , Baskaran, K., & Darwin, S. (2024). Minimizing voltage fluctuation in stand-alone microgrid system using a Kriging-based multi-objective stochastic optimization algorithm. <i>Electrical Engineering</i> , 1-18. |
| 23 | Balasubramanian G , Thivya S, "Neutral Point Voltage Balancing In Three Level Inverters.", <i>Journal of Interdisciplinary Cycle Research</i> , Volume 15, Number 9, Sep 2023, pp. 83-88. ISSN NO: 0022-1945. |
| 24 | G.Balasubramanian ,TentuPapi Naidu,, "Optimal power flow with distributed energy sources using whale optimization algorithm.", <i>International Journal of Electrical and Computer Engineering</i> , Volume Vol. 13,, Number No.5, Oct 2023, pp. 4835-4844. 2023. |
| 25 | G. Balasubramanian T. Papi Naidu, "Optimal power flow control optimisation problem incorporating conventional and renewable generation sources: a review.", <i>International Journal of Ambient Energy</i> , Volume 43, Number I, Jan 2023, pp. 22-28. https://doi.org/10.1080/01430750.2022.2163287 . |
| 26 | Sai goutham golive, B. Paramasivam and J.Ravindra (2024), 'Optimal Siting and Sizing of Electric Vehicle Charging Stations and Distributed Generators in Distribution Systems by Meta Heuristic Techniques', <i>International Journal of Intelligent Systems and Applications in Engineering</i> , Volume 12(15s), ISSN 2147-6799, pp. 55-62. |
| 27 | Sai goutham golive, B. Paramasivam and J.Ravindra (2024), 'Optimal Location of EV Charging Stations in the Distribution System Considering GWO Algorithm', <i>Indian Journal Of Science And Technology</i> , Volume 17(8), ISSN 0974-6846, pp. 751-759. |
| 28 | Sai goutham golive, B. Paramasivam and J.Ravindra (2024), 'Optimal Placement of DG in the Distribution System considering Electric Vehicle Charging Station', <i>European Journal of Advances in Engineering and Technology</i> , Volume 5(1), ISSN 2394-658X, pp. 80-87. |

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| 29 | Sai goutham golive, Paramasivam, B. , & Ravindra, J. (2024). Impact of Electric Vehicle Charging Station in Distribution System: A Comprehensive Review. <i>Journal of New Materials for Electrochemical Systems</i> , Vol. 27, No. 2, June 2024, pp. 77-85. |
| 30 | Sai goutham golive, Paramasivam, B. , & Ravindra, J. (2024). A Comprehensive Technique for Reducing Power Loss in Distribution Networks Utilizing Gridable Electric Vehicles and Distributed Generators using Meta Heuristic Techniques. <i>Tuijin Jishu/Journal of Propulsion Technology</i> , Vol. 45 No.4. pp.74-84 |

FACULTY TRAINING

| S. No | Name of the faculty | Designation | Name of the training | Mode of Training | From | To |
|-------|-----------------------|---------------------|--|------------------|------------|------------|
| 1 | Dr. J. SUGANTHI | Professor (CAS) | All India Survey on Higher Education | Online | 19.01.2023 | - |
| | | | National Intellectual Property Awareness Mission | Online | 07.02.2023 | - |
| | | | One Day FDP on "SAR Preparation for NBA" | Offline | 12.06.2023 | - |
| 2 | Dr. P. SUBHAKARUVELAM | Professor (CAS) | 1Weeks Capacity Building Program | Online & Offline | 28.08.23 | 02.09.23 |
| 3 | Dr. P. SELVAM | Associate Professor | Capacity Building Program-Innovation Mentor | Offline | 28.8.2023 | 02.8.2023 |
| | | | ICT Academy Sponsored FDP on Data Analytics using Python | Offline | 16.10.2023 | 20.10.2023 |
| | | | ATAL Sponsored FDP on "Opportunities in Hybrid Manufacturing Technologies" | Offline | 04.12.2023 | 09.12.2023 |
| 4 | Dr. A. THANGARAJ | Assistant Professor | Twelve Weeks NPTEL - AICTE FDP on Sustainable Power | Online | July'23 | October'23 |

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| | | | Generation Systems | | | |
| | | | FDP - Smart Grid and Integration of Distributed Generation | Online | 28.08.2023 | 01.09.2023 |
| 5 | Dr.G.BALASUBRAMANIAN | Associate Professor(CAS) | 1 Week Capacity Building Program | Online & Offline | 28.08.23 | 02.09.23 |
| | | | AICTE Recognized NITTTR FDP on "Smart Grid and Integration of Distributed Generation" | Online | 28.08.23 | 01.09.23 |
| 6 | Dr.M.BALSUBRAMANIAN | Assistant Professor | AICTE Recognized NITTTR FDP on "Energy Efficient and Decarbonisation Technologies" | Online | 05.06.23 | 09.06.23 |
| | | | Two Weeks "Industrial Training at 5MW Solar Power Plant" | Offline | 05.07.23 | 18.07.23 |
| | | | Tamilnadu State Government Sponsored FDP on "Renewable Energy Sources" | Online | 15.05.23 | 19.05.23 |
| 7 | Dr. S. IDA EVANGELINE | Assistant Professor | NPTEL - AICTE FDP on "Deep Learning" | Online | July'23 | October'23 |
| | | | ATAL sponseres FDP on "AI Based Intelligent and Secure Communication in IoT for Smart Cities" | Offline | 04.12.23 | 09.12.23 |