VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of the UGC Act, 1956)

School of Electrical Engineering (SELECT)

Vision

To offer an education in electrical engineering that provides strong fundamental knowledge, skills for employability, cross-disciplinary research and creates leaders who provide technological solutions to societal and industry problems.

Mission

- Provide personalized experiential learning in industry sponsored labs to prepare students in electrical engineering with strong critical thinking and employability skills.
- Foster design thinking, creativity and cross-disciplinary research with highly qualified faculty to create innovators and entrepreneurs in the broad area of electrical engineering.
- Collaborate with national and international partners to provide innovative solutions to societal and industry challenges.

ICASIC 2022 NOVEMBER 28-29,2022

- ICASIC 2022 was jointly organized by VIT, Vellore and Taylor's University, Malaysia.
- ICASIC 2022 was hosted at Taylor's University, Malaysia.
- Theme of the conference was "Sustainable Developments through Automation".
- 174 papers were received.
- Accepted papers will be published in American Institute of Physics (AIP) proceedings.

UNIVERSITIES VISITED

1) Taylor's Univeristy, Malaysia
2) MARA University of Technology, Malaysia
3) University of Thumlnkur Abdul-Rahman, Malaysia
4) Sun Way University, Malaysia
5) Asia Pacific University, Malaysia
6) Multimedia University, Malaysia

ICASIC 2022 NOVEMBER 28-29,2022

SELECT Team visit- MARA University of Technology, Malaysia

SELECT Team visit- Sun Way University, Kuala Lumpur, Malaysia

SELECT Team visit- Asia Pacific University, Malaysia

SELECT Team visit- University of Thuminkur Abdul-Rahman (UTAR), Malaysia

ENERGY CONSERVATION WEEK DECEMBER 14 - 18, 2022

300 School Students

60 College Students Trained on DC Micro-grid

250 Participants in walk-a-thon

10 Lakhs Project Fund for Hack-a-thon

Sponsored by

Danfoss

Schneider Electric

India 4.0
ALLIANCE 4 DIGITIZATION

ENERGY CONSERVATION WEEK DECEMBER 14 - 18, 2022

National Energy Conservation Day is celebrated on December 14 to raise awareness on the possible ways to save energy resources. To commemorate this, School of Electrical Engineering of Vellore Institute of Technology, Vellore organized one week awareness program on Energy Conservation from 14th December to 18th December 2022.

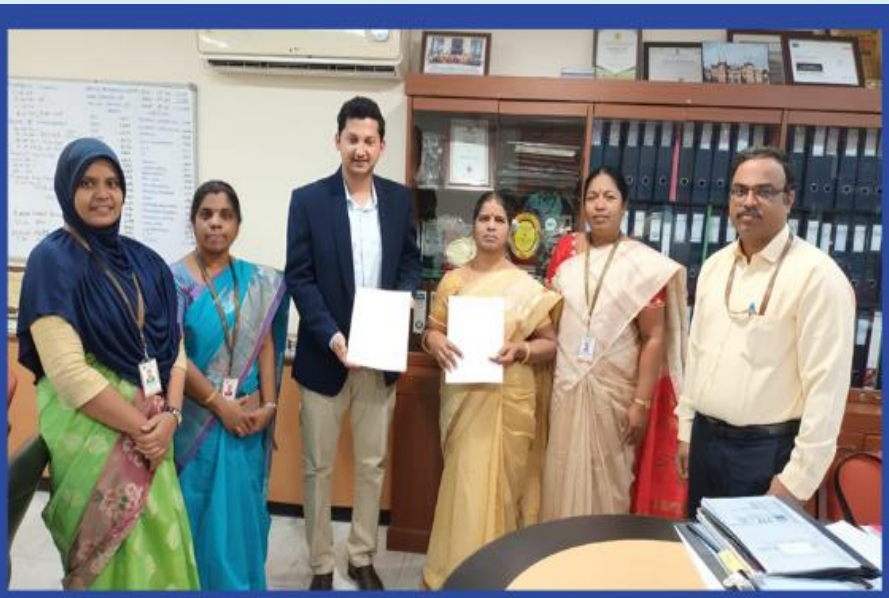
Various events like energy hackathon, skill development program, poster presentation, poem writing, essay writing, video and animation presentation have been organized in the thematic areas of energy conservation to enhance the skills of students.

The Walk-a-thon event started from the Chittoor bus stand to VIT on 18th December with 250 participants including faculty members, college students, school students, and parents. Our Honourable Vice President, **Mr.G.V.Selvam** flagged and inaugurated this event.

On 18th December, around 300 students from schools have participated in the events like painting, model exhibition, art and craft and exhibited their talents. Our Honourable Vice President **Shri. Shankar Viswanathan,** Vellore Institute of Technology and Er. Suresh Babu, Executive Engineer, TNEB, along with industrial sponsors Mr. Sri Ganesh, Schneider Electric and Mr. Hasan Mydin, India 4.0 distributed the prizes to the winners.

Dr. Gilles Nougier, Director- Strategy, Schneider Electric inaugurated the event and delivered the awareness talk on energy conservation practices. Energy saving lamps and environment friendly writing tablets were given as prizes along with the certificates. The active participation of students and faculty in large numbers have resulted the appropriate dissemination of energy and environment conservation practices in protecting our planet.

Energy Conservation Week
Inauguration by
Dr. Gilles Nougier, Director of Strategy at
Schneider Electric, Greater India
Operations



School of Electrical Engineering is supporting Priva Technologies, Goa to develop chargers for electric vehicles. Faculty and PhD students are involved in this consultancy project.

FOREIGN EXPERT GUEST LECTURES

S.No	Date	Guest Lecture Title	Resource Person
1	06.10.2022	Bio Signal and Medical Image processing methods for clinical feature extraction	Dr. S. Mohamed Yacin Associate Professor, Majmaah University, Saudi Arabia
2	06.10.2022	Overview of PCB design and Fabrications	Dr. Rameshwar Rathnam, Vice President, Electronic Interconnect Corp. Illinois, USA
3	03.11.2022	Application of Power Electronics in Envelope Tracking Power Supply	Dr. Srikanth Yerra, Sr. Staff Engineer, Infineon technolgies Americas corp, USA
4	08.11.2022	Digital Design of Pharamaceutical Crystallization processes for control of product quality attributes	Mrs. Hemalatha Kilari, West Lafayette, IN, USA
5	21.10.2022	Artificial Intelligence and Machine Learning for Engineering Design	Dr. Sathees Kumar Nataraj, Assistant Professor, University of Technology Bahrain

Dr. S. Mohamed Yacin
Associate Professor, Majmaah University, Saudi Arabia

Dr. Apurba Mahapatra,
Polish Academy of Sciences, Poland

Prof. Sachin Apparao Pawar,
Assistant Professor, Ritsumeikan University, Japan

Dr. S. Mohamed Yacin
Associate Professor, Majmaah University, Saudi Arabia

S.No	Date	Guest Lecture Title	Resource Person
6	28.11.2022	Design and Development of Materials for Solar Cells	Prof. Sachin Apparao Pawar, Assistant Professor, Ritsumeikan University, Japan
7	25.11.2022	Charging Technologies for Electric Vechicles	Dr. Vinu Thomas, Ecole Centrale de Nantes,Nantes, France
8	14.12.2022	Effect of doping, ion migration, defects and polarization on the performance and stability of perosvkite single crystal based photodetectors	Dr. Apurba Mahapatra, Institute of Physical Chemistry, Polish Academy of Sciences Poland
9	23.12.2022	Foreign Expert Lecture on 5G Networks in Smart Grid – Deployment and Maintenance	Dr. Gunasekaran, University of Technology and Applied Sciences, Muscat

STUDENT ACHIVEMENT

Ms. Grishma Kalepu, who graduated in 2022 from the B.Tech. program in Electronics and Instrumentation secured a lucrative internship opportunity at NASA Goddard Space Flight Centre, Pathways Program.

Grishma credits her achievement to her B.Tech. at VIT and MS at Georgia Tech., USA.

FACULTY INDUSTRY VISIT

Department of Instrumentation faculty visited KRAMSKI STAMPING AND MOLDING INDIA PVT. LTD. in Nov'22 to secure consultancy projects

KRAMSKI India , a Multi-National Company undertake design & development of High speed metal stampings and High precision Injection over-molded. Faculty from Department of Instrumentation visited KRAMSKI to initiate MoU and to finalize consultancy projects.

FACULTY PUBLICATIONS IN > 5 IF JOURNALS

Gopinath M., Marimuthu R., A review on solar energy-based indirect water-splitting methods for hydrogen generation, International Journal of Hydrogen Energy. I.F. 7.139

SolomonsC.D.,ShanmugasundaramV.,Balasubramanian S. Encoder-Controlled Functional Electrical Stimulator for Bilateral Wrist Activities, Design and Evaluation Bioengineering. I.F. 5.046

TOP 10 HIGH IMPACT FACTOR PUBLICATIONS - OCTOBER 2022

1) Singirikonda S., Obulesu, Y.P., Kannan R., Reddy, K.J., Kiran Kumar G., Alhakami W., Baz A., Alhakami H. Adaptive control-based Isolated bidirectional converter for G2V& V2G charging with integration of the renewable energy source, Energy Reports. I.F. 4.937

2) Sharma P., Chinnappa, Naidu R., Optimization techniques for grid connected PV with retired EV batteries in centralized charging station with challenges and future possibilities: A review in Shams Engineering Journal. I.F. 4.790

3) Thiyagarajan K., Rajini, G.K., Maji D., Cost-Effective, Disposable, Flexible, and Printable MWCNT-Based Wearable Sensor for Human Body Temperature Monitoring, IEEE Sensors Journal. I.F. 4.325

4) Nataraj S.K., Al-Turjman, F., Adom A.H.B., Sitharthan R., Rajesh M., Kumar R., Intelligent Robotic Chair With Thought Control and Communication Aid Using Higher Order Spectra Band Features, IEEE Sensors Journal. I.F. 4.325

5) Gade C.R., Razia Sultana W., Control of Permanent Magnet Synchronous Motor Using MPC–MTPA Control for Deployment in Electric Tractor, Sustainability (Switzerland). I.F. 3.889

6) Darla R.B., Annamalai C. A novel reliability prediction with input transients for an LLC converter, Frontiers in Energy Research. I.F. 3.858

7) Kanna R.R., Singh R.R., A feasibility study on Balarbhita for advancing rural electrification with a solar—Micro-hydro hybrid system, Frontiers in Energy Research. I.F. 3.858

8) Shanmugam S., Sharmila A., Multiport converters for incorporating solar photovoltaic system with battery storage: A pilot survey towards modern influences, challenges and future scenarios, Frontiers in Energy Research. I.F. 3.858

TOP 10 HIGH IMPACT FACTOR PUBLICATIONS - NOVEMBER 2022

1) Sahu P.R., Lenka R.K., Khadanga R.K., Hota P.K., Panda S., Ustun T.S., Power System Stability Improvement of FACTS Controller and PSS Design: A Time-Delay Approach, Sustainability (Switzerland). I.F. 3.889

2) Vijayakumar S., Sudhakar N., A review on unidirectional converters for on-board chargers in electric vehicle, Frontiers in Energy Research. I.F. 3.858

3) Kondaiah V.Y., Saravanan B., A modified deep residual network for short-term load forecasting, Frontiers in Energy Research. I.F. 3.858

4) Madhana R., Mani G., Design and analysis of the multi-port converter-based power enhancement for an integrated power generation system using predictive energy amendment algorithm, Frontiers in Energy Research. I.F. 3.858

5) Kumar G.V.B., Palanisamy K., Energy management of renewable energy-based microgrid system with HESS for various operation modes, Frontiers in Energy Research. I.F. 3.858

6) Ashok Kumar A., Amutha Prabha N., A comprehensive review of DC microgrid in market segments and control technique, Heliyon. I.F. 3.776

7) Suresh V., Aksan F., Janik P., Sikorski T., Sri Revathi B., Probabilistic LSTM-Autoencoder Based Hour-Ahead Solar Power Forecasting Model for Intra-Day Electricity Market Participation: A Polish Case Study, IEEE Access. I.F. 3.476

8) Sarin C.R., Mani G., An Intelligent BMS With Probabilistic MO-GSA Based CDMAS Integrating Edge Controller Analytics, IEEE Access. I.F. 3.476

9) Madhavaram P.R., Manimozhi M., Smart Energy Management Strategy for Microgrids Powered by Heterogeneous Energy Sources and Electric Vehicles' Storage, Energies. I.F. 3.252

10) Jagadeesh I., Indragandhi V., Comparative Study of DC-DC Converters for Solar PV with Microgrid Applications, Energies. I.F. 3.252

TOP 10 HIGH IMPACT FACTOR PUBLICATIONS - DECEMBER 2022

1) Aggarwal S., Goyal J.K., Ghosh S., Kamal S., H∞ performance of multi-agent consensus with output feedback and saturated input, International Journal of Robust and Nonlinear Control. I.F. 3.897

2) Nallolla C.A., Perumal V., Optimal Design of a Hybrid Off-Grid Renewable Energy System Using Techno-Economic and Sensitivity Analysis for a Rural Remote Location, Sustainability (Switzerland) . I.F. 3.889

3) Hete R.R., Mishra S.K., Dash R., Jyotheeswara Reddy K., Subburaj V., C D., Design and Analysis of DFIG-STATCOM Coordinated P2P Grid Connected System Using RMSProp, Sustainability (Switzerland) . I.F. 3.889

4) Vijayan M., Udumula R.R., Mahto T., Lokeshgupta B., Goud B.S., Kalyan C.N.S., Balachandran P.K., C D.,, Padmanaban S., Twala B., Optimal PI-Controller-Based Hybrid Energy Storage System in DC Microgrid, Sustainability (Switzerland) . I.F. 3.889

5) A P., K S., Optimized RNN-oriented power quality enhancement and THD reduction for micro grid integration of PV system with MLI: Crow Search-based Harris Hawks Optimization concept, Frontiers in Energy Research. I.F. 3.858

6) Karthikeyan V., Vivekanandan S., Optimize an effective triboelectric nanogenerator surface morphology to harvest the human wrist pulse pressure: A numerical study on finite element method, Heliyon. I.F. 3.776

7) Ramshanker A., Isaac J.R., Jeyeraj B.E., Swaminathan J., Kuppan R., Optimal DG Placement in Power Systems Using a Modified Flower Pollination Algorithm, Energies. I.F. 3.252

8) RamKumar A., Marimuthu R., Energy, exergy, economic, environmental (4E) and frequency distribution analysis of train wind gust with real-time data for energy harvesting, Environmental Research Communications. I.F. 3.237

9) Abinands R., Mallick P.S., Performance Analysis of Multiple Strips to Reduce the Separation of Photonic Waveguides in Photonic Array, Silicon. I.F. 2.941

10) Aljafari B., Ashok Kumar L., Indragandhi V., Subramaniyaswamy V., Analysis and Implementation of Sliding Mode Controller-Based Variable Frequency Drive Using the SCADA System International Transactions on Electrical Energy Systems. I.F. 2.639

ADVISORY TEAM

Dr.Mathew M Noel
Prof and Dean

Dr. Amutha Prabha N
Prof and Asso.Dean

EDITORIAL TEAM

Dr.Joshua Reddipogu

Dr. Indragandhi V

SELECT PRE-INCUBATION CELL

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VIT is accredited by NAAC with the highest A++ grade in 4th cycle

NAAC Accredited A++ Grade

EEE is the Highest Ranked Program in VIT (QS Subject-wise world ranking 2022)

QS WORLD UNIVERSITY RANKINGS BY SUBJECT | 2022

EEE is ranked 8th in India (QS Subject-wise world ranking 2022)

உவப்பத் தலைக்கூடி உள்ளப் பிரிதல்
அனைத்தே புலவர் தொழில். – திருவள்ளுவர்
You meet with joy, with pleasant thought you part;
Such is the learned scholar's wonderous art! - Thiruvalluvar