



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



Vellore institute of Technology, Chennai and Deakin University Australia Jointly organize
**IEEE - Sponsored Third International Virtual Conference On
Power Engineering Computing and Control (PECCON'22)**

**Theme : Developments in Electric Vehicles and
Energy sector for Sustainable Future**

Date: 5th – 6th May 2022

About VIT

Recognized as Institution of Eminence (IoE), Govt. of India

Vellore Institute of Technology was founded by Dr. G. Viswanathan who is also the Chancellor of the Institute. Under the leadership of the Chancellor, VIT stands as a center of excellence in the higher technical education. Vellore Institute of Technology (VIT) has emerged as one of the best institutes of India and is aspiring to become a global leader. Quality in teaching-learning, research and innovation makes VIT unique. VIT attracts students from all the 29 states of India and more than 41 different countries because of its academic excellence. VIT has the record of publishing maximum number of SCOPUS Indexed Research Journal papers, among Indian Universities, overtaking all the premier institutions. VIT has also completed 3 cycles of NAAC accreditation and has been rated as an "A++" grade institution. In addition, VIT also has obtained the coveted ABET accreditation by US agency. VIT is also ranked by QS World University Ranking, Times Higher Education (THE) World University Ranking, QS and THE Asia Ranking, QS and THE BRICS Ranking, THE Young university ranking of the world universities and others. 10 engineering programs of Vellore and 4 engineering programs of Chennai campus are accredited by ABET, USA. VIT is the first institute of India to receive QS 4-Star rating in overall category and QS 5-Star rating in teaching, employability, facilities, innovation and inclusiveness. VIT Chennai is ably spearheaded by Vice Presidents Mr. Sankar Viswanathan, Dr. Sekar Viswanathan and Mr. G.V. Selvam, Vice Chancellor Dr. Rambabu Kodali, and Pro Vice Chancellor Dr. V. S. Kanchana Bhaaskaran They all share in the mission to make VIT a global educational center.

About DEAKIN University

Deakin's innovation and excellence in both education and research generate ideas that transform lives and communities. Deakin has a track record of leveraging strong partnerships to maximise the social, cultural and economic impacts, regionally, nationally and internationally. Energy research at Deakin spans numerous Faculties, Schools, Research Institutes and Centres. Research teams come together from across the University to deliver projects. Deakin's Future Economy Precinct at the Waurn Ponds Campus provides an important link between technological innovation and commercial outcomes. This Precinct links Deakin's high-level research capabilities in a variety of fields with specialised research equipment and industrial-scale infrastructure.

About School of Electrical Engineering (SELECT)

In VIT Chennai, the School of Electrical Engineering (SELECT) was established in the year 2010. Since the inception of the institute, the department developed the state-of-art infrastructure for teaching and research. To mention, Smart Grid lab is one of its kind in the country. The school has highly qualified and experienced faculty members. The school offers B.Tech. program in Electrical and Electronics Engineering, M.Tech(by Research) and Ph.D program. There are four major research groups: Power Systems, Power Electronics, Control & Instrumentation and Electrical Machines & Drives. The research findings of these groups are published in several peer reviewed International Journals with high impact factor. The School has also signed MoUs with various industries for collaborative works. Eminent professors from reputed Indian and Foreign Universities share their expertise for the benefit of the students. International Journals with high impact factor. The school is listed in 251 - 300 of the QS World University ranking by subject.

About cSPER and School of Engineering, Deakin University

The Centre for Smart Power and Energy Research (cSPER) sits under sustainable energy research theme within the School of Engineering at Deakin university. The centre vision is to lead university research through extensive engagement with other research centres, communities, industry and government in the areas of power and energy sector. The key objective of the centre is to address challenges in the areas of power grid operation and stability, control of power and energy systems, renewable energy, electric vehicle applications, energy storage, and cyber-physical energy systems.

The School of Engineering at Deakin University offers courses in Electrical and Electronics Engineering, Mechatronics, Mechanical Engineering, Civil Engineering, Infrastructure Engineering and management, and Environmental Engineering. Our courses are hands-on and industry-led. At the heart of our engineering courses is the project-based learning. Whether you're building robots in our state-of-the-art lab spaces, or solving complex problems on industry placement, the skills you'll be learning will prepare you for your dream career. Our engineering degree courses focus on the employability of our graduates and the future needs of industry. Our graduates are well-rounded engineers with significant exposure to professional engineering practices, well-equipped to meet the challenges of the future, including those caused by climate change and sustainability issues.

Organizes Committee

Chief Patron

Dr. G. Viswanathan, Founder and Chancellor

Patrons

Mr. Sankar Viswanathan, Vice President

Dr. Sekar Viswanathan, Vice President

Mr. G. V. Selvam, Vice President

Ms. Kadhambari S Viswanathan, Assistant Vice President

Co-Patron

Dr. Rambabu Kodali, Vice Chancellor

Dr. V. S. Kanchana Bhaskaran, Pro Vice Chancellor

Convenor

Dr. A. Peer Fathima, Professor & Dean, SELECT

Conference Chairs

Dr. M.A. Inayathullaah, Asst.Professor (Senior), SELECT, VIT

Dr. N. Hosseinzadeh, Associate Professor &

Director of the Centre for Smart Power and Energy Research, Deakin University

Conference Co-chairs

Dr. A. Mohamed Imran, Asst.Professor (Senior), SELECT, VIT

Prof. Ben Horan, Head of School of Engineering, Deakin University, Australia

Working Committee

Faculty of the School of Electrical Engineering, VIT

Faculty of Sci Eng & Built Env, School of Engineering,

Geelong Waurn Ponds Campus, Deakin University

Call for Papers

This International Conference aims to provide a platform for engineers, researchers, scientists & academicians to present their work, to share experiences and ideas in the conference theme. PEECON 2022 program will feature Keynotes and Plenary Sessions, Technical Paper Presentations, Industry Sessions and Awards. The organizing committee of the conference invites papers from researchers on the following areas and related topics (but not limited to),

Track 1: Advances in Electric Vehicles (All Engineering Aspects)

Power Converters for Electric vehicle, EV systems design, modeling, simulation, and testing, AC and DC conductive charging, wireless charging, smart charging, fast charging, EV fleet and infrastructure asset management, Information Technology and Communication services for the EV ecosystem, Global standards development for EVs and their impact on EV deployment, Trends in EV deployment, supply chain and manufacturing, EV-related educational programs for engineers, legislators, and the public, Advances of Sensors used in EV/ HEV, Emerging and Advanced Green Energy Technologies in Transport

Track 2: Computational and Control Methods for EVs

Energy efficiency and rationale use of energy in EV, Energy Efficient motor drives and controllers, Artificial Intelligence, Neural Networks & Deep learning in EV, Augmented network and virtual reality for EV, Industry 4.0 and Cyber-physical systems for EV security, Information Technology and Communication services for the EV ecosystem

Image processing and Intelligent Decision Support Systems, Navigation and Sensor Network, Night Vision Technology in Automobile

Track 3: Energy Storage using EVs

Advances in EV Energy Storage Technologies, Management EV battery charging time considering power network requirements, EV charging standard and methods, Design and sizing of EV battery storage, Battery energy management for EV application, Charging topology for EV storage, DC fast charging, superfast charging of EV batteries, State of charge and health estimation of EV battery, Security of EV charging system, Solid state transformer (SST) based EV charging system, Application of advanced control technologies to optimize fast charging performance in EV charging stations

Track 4: Sustainable Energy, Microgrids, and Grid Integration

Power grid and renewable energy resource interfacing for EV mass deployment, Vehicle to Grid application, Energy efficiency and rationale use of energy, Impacts of grid integration of renewable based microgrid, Model predictive control of microgrid Harmonic mitigation in Microgrid, Islanding detection of Microgrid, Control and power management of isolated microgrid, Role of energy storage for microgrid, Voltage and frequency stability of microgrid, LVRT/HVRT and Fault ride through enhancement of microgrid, Inverter-based power systems

Track 5: Future Power Systems: Modeling, Control, and Stability

Control of EV storage for Vehicle to Grid (V2G) operation for Grid support, Energy Efficient Designs and Standards, Energy Management Systems, Renewable Energy, Sustainable Power Solutions in Developing Countries, Sustainable Technologies for Energy Conservation, Energy Management, Policies, Economics and Sustainability, Smart Grid / Smart City / Smart Mobility, Sustainable Development Goals (SDGs) and Green Energy, Computational Models for Sustainable Development.



Vellore Institute of Technology, Chennai and Deakin University Australia Jointly organize
**IEEE - Sponsored Third International Virtual Conference On
Power Engineering Computing and Control (PECCON'22)**

**Theme : Developments in Electric Vehicles and
Energy sector for Sustainable Future**

Date: 5th – 6th May 2022

International Advisory Committee

- Dr Md Enamul Haque, Centre for Smart Power & Energy Research, Deakin University
- Dr. Akhtar Kalam, Victoria University, Australia
- Dr. Syed Islam, Federation University, Australia
- Dr. Arindam Ghosh, Curtin University, Australia
- Dr. Sagar Naik, University of Waterloo, Canada
- Dr. Anurag Srivastava, Washington State University, Pullman, USA
- Dr. Subhadeep Bhattacharya, Schneider Electric, Vancouver, Canada
- Dr. Yigeng Huangfu, Northwestern Polytechnic University, Xi'an, China
- Dr. Pan Xuwei, Harbin Institute of Technology, Shenzhen, China
- Dr. Radha Sree Krishna Moorthy, Oak Ridge National Laboratory, USA
- Dr. Pan Xuwei, HIT Shenzhen, China
- Dr. Amarendra Edpuganti, KU, Abu Dhabi, UAE
- Dr. Gauranag I. Vakil, University of Nottingham
- Dr. S. Surrender Reddy, Woosong University, South Korea
- Dr. Chan-Mook Jung, Woosong University, South Korea
- Dr. M. Sandeep, NTU Singapore
- Dr. Kuan-Wei Lee, I-Shou University, Taiwan
- Ts. Suresh Thanakod, National Defence University of Malaysia

National Advisory Committee

- Dr. B.Babu, IITD & M Kancheepuram
- Dr. Aneesh Prabhakar, National Institute of Technology, Jaipur
- Dr. Tushar Kanti Bera, National Institute of Technology, Durgapur
- Dr. S. Sivasubramani, Indian Institute of Technology, Patna
- Dr. Kamalesh Hatua, Indian Institute of Technology, Madras
- Dr. Qadeer Ahmad Khan, Indian Institute of Technology, Madras
- Dr. P. Raja, National Institute of Technology, Trichy
- Dr. Venkata Kirthiga, National Institute of Technology, Trichy
- Dr. Shihabudheen KV, National Institute of Technology, Calicut
- Dr. Rijil Ramchand, National Institute of Technology, Calicut
- Dr. Shreelakshmi M P, National Institute of Technology, Calicut
- Dr. Kumaravel S, National Institute of Technology, Calicut

Keynote Speakers



Professor Faz Rahman
University of New South Wales,
Australia



Dr. Anurag K Srivastava
Washington State University,
Pullman, USA



Dr. Surender Reddy Salkuti,
Woosong University, South Korea



Dr. Sanjeevikumar Padmanaban,
PhD, Fellow IE, Fellow IETE, Fellow IET(UK),
Aarhus BSS - Aarhus University, Denmark



Dr. Sandeep Madishetti Ph.D
Nanyang Technological University
(NTU) Singapore



Mr. Allabaksh Naikodi,
Head, R&D Electrical and Electronics,
Mahindra Electric Mobility Limited,
Bangalore

Submission

All manuscript should be submitted via <https://cmt3.research.microsoft.com/PECCON2022>

Registration Fee (Inclusive of GST and IEEE Publication charges)

Category of Delegates / Authors	Early Bird on or before 28 th February, 2022	After (From 1 st March, 2022 to 27 th April 2022)	Last Bird Registration (From 28 th April 2022 to 2 nd May 2022)	For recorded video presentation additional fee (in addition to the registration fee)
Indian Authors & Delegates (in INR)				
Full Time Students	4,500	5,000	5,500	1,500
Teachers/ Research Scholars	6,500	7,000	7,500	2,000
Industry	8,000	8,500	9,000	3,000
Co-Author	2,000	2,000	2,000	100
Non Author Participation	1,000	1,000	1,000	Not Applicable
Foreign Authors & Delegates (in USD \$)				
Full Time Students	120	150	180	40
Teachers/ Research Scholars	140	175	210	60
Industry	160	200	240	80
Co-Author	80	100	120	50
Non Author Participation	40	50	60	Not Applicable

Important Dates

Event Name	Date
Full Paper Submission	15.03.2022
Notification of Acceptance	15.04.2022
Final Paper Submission	20.04.2022
PPT submission	03.05.2022

Publication

IEEE Conference Record of PECCON 2022 is 55017. All the accepted papers of PECCON 2022 will be submitted for inclusion in the "IEEE Explore" subject to meeting IEEE Xplore's scope and quality requirements – a digital library of IEEE which is indexed in SCOPUS, web of science, etc.

For further details log on to

<http://vitpecon.com/>

- * **Members from IEEE/PES can avail a membership discount of flat 40% on registration fees.**
- * **Recorded video presentation is applicable only to authors who are working in academic institutions/Industry abroad**