



International Conference on Intelligent Controller and Computing for Smart Power, 2022
July 21st -23rd, 2022 !! Hyderabad, India



Sreenidhi Institute of Science and Technology, Hyderabad, India

ICICCSP 2022 Special Sessions on

“Intelligent Controller Based Grid Integration of Renewable Energy System”

Aims & Scope of the Session (100-200 words):

Modern power system is a web of energy sources. These sources are integrated within the mainstream system for efficiency, reliability and economy. The building blocks of this system include small power sources such as solar photovoltaic, fuel cells, wind turbines etc., power electronic devices and interfaces, information and communication, and supervisory control systems. Non-conventional renewable energy sources and systems (RESS) including but not limited to biomass, biogas, geothermal etc. are increasingly playing an important role for electric power distribution and storage. The idea is to develop a resilient energy infrastructure minimizing the cost of remote power and support green and sustainable development efforts.

In particular, Intelligent Controllers (IC) applied in the grid and renewable energy sectors are getting more attention nowadays popular these days, due to the complicated nature of such applications. The adaptive control, model predictive control, fuzzy based controllers, artificial intelligence based controllers. The main objective of this special session is to motivate and create the bridge in between the researchers, students and academicians. To share their knowledge advance technologies in renewable Energy systems and develop innovations in renewable energy system using advance technologies such as Smart and Intelligent Controllers.

Topics of interest include, but are not limited to:

- Artificial Intelligence based Renewable Energy System (RES)
- Soft Computing based Grid Integration of RES
- Artificial Intelligence based Power Quality Improvements
- Soft Computing techniques for Smart Inverters
- Smart Grid
- Microgrid
- Artificial Intelligence Based Battery Energy Management system
- Distributed Generation
- Rural Electrification

Special Session Organizers (names and contact emails):



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Dr. Sarat Kumar Sahoo presently working as Professor in the Department of Electrical Engineering at Parala Maharaja Engineering College, Berhampur, Odisha, India. He has served as Professor and HOD, in the School of Electrical Engineering, VIT University, Vellore, Tamilnadu from 2008 to 2018. He has 20 years of teaching and research experiences. He has received his Master's degree in Computer Application to Industrial Drives, from Visvesvaraya Technological University, Belgaum, Karnataka, India, in the year 2002. He has received his Ph.D. from JNTU, Hyderabad, India in the year 2011. He is Principal Investigator for the project funded by, Department of Science and Technology (DST), Govt. of India. (Project No. - DST/TSG/NTS/2013/59). He is also Co-Principal Investigator for a project granted by Department of Science & Technology (DST) Govt. of India and Ministry of Science, Technology & Research, Sri Lanka. He has guided 7 Doctoral students. He has published 60 International peer-reviewed journals, about 70 conference publications, 15 Magazine articles and has published 3 books. His research interests are Grid-Tie-Inverters for Solar Energy application, Distributed Generation; Renewable Integration; Rural Electrification, Micro-grid Energy System, Smart Grid and Smart meter, Electric Vehicle Controller based on Space Vector Modulation and Direct Torque Control, Multilevel inverters; Medium voltage drives. He received travel grant from DST, Govt. of India, for attending Conference AUPEC-2017, hosted by Victoria University, Australia. He has been awarded Chartered Management Institute Level-5 certificate in Management and Leadership and selected for study tour to UK under AICTE-UKIERI leadership development program in October 2019. He has visited Australia, Singapore, Malaysia, Thailand, Srilanka and China for giving honoring lectures and to attend international conference as key note speaker. He is a Senior Member IEEE, Chattered Engineer, Fellow Institute of Engineer, Fellow IETE and served as expert for various competitive examinations.



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Dr. Balamurugan M presently working as Assistant Professor in Department of EEE, JAIN (Deemed-to-be University) Bangalore. He received his Ph.D. degree in Power Electronics Application in Renewable Energy Systems from VIT University, Vellore, Tamilnadu in 2019. He received his Postgraduate Degree in Power Electronics and Drives from VIT University Vellore and Undergraduate degree in Electrical and Electronics Engineering from C. Abdul Hakeem college of Engineering and Technology affiliated to Anna University, Chennai in the year 2014 and 2012 respectively. He has 3 years of research experience as Junior Research Fellow for sponsored project funded by Department of Science and Technology (DST) in School of Electrical Engineering at VIT University, Vellore, India. He has also awarded as Best Researcher in the year 2016 by VIT University. He has published 30 papers in international journals, book chapters and conferences of high repute. His research interests are cascaded Multilevel Inverter, Power Electronics application in Renewable energy systems and Soft computing techniques.