

Call for Paper - Special Session on**Smart and Intelligent Controller Based Grid Integration of
Renewable Energy System**

In present scenario, an environmental issue are increases day by day due to usage of fossil fuel-based power generation and transport. Last decade, many countries are encouraging and funded new renewable energy related research projects and develop innovative renewable energy products by young researchers. The objective of this special session is to provide a platform for the potential researchers, scientists, energy consultants, investors and entrepreneur to share their knowledge, advance technologies in renewable Energy systems, Challenges in Microgrid, Power Quality improvements, Energy management, Smart Materials for RES, IoT based Microgrid and develop innovations in renewable energy system using advanced technologies such as Smart and Intelligent Controllers.

Topics of Interest include, but are not limited to...

- 1) AI Techniques in Renewable Energy System (RES)
- 2) Smart Materials in Solar PV Cells
- 3) Challenges in Grid Integration of RES
- 4) AI based Power Quality Improvement in RES
- 5) Smart Inverters using IOT
- 6) Smart Grid and Smart Cities
- 7) Advanced Control of RES in Micro grid
- 8) AI Based Battery Energy Management system
- 9) Microgrid and its challenges
- 10) AI Based Power system stability improvement.
- 11) AI based Renewable Energy Power management system.

Special Session Organizer(s):

- **Dr Venkateshkumar M**, IEEE Senior Member,
Chair-IEEE YP and Vice Chair-IEEE PES, Madras Section, (venkatmme@gmail.com)
- **Dr Umashankar Subramaniam**, IEEE Senior Member,
Chair-Student Activities & Vice Chair- IEEE Madras Section (shankarums@gmail.com)
- **Dr. Vincenzo Piuri**, Professor at the University of Milan, Italy
- **Dr. Cheng Siong Chin**, Associate Professor at Newcastle University at Singapore

Important dates:

Full Paper Submission	: June 30, 2019
Notification of acceptance	: August 15, 2019
Final Camera ready Submission of Full Manuscript	: August 30, 2019

Papers submitted for special sessions need to be peer-reviewed in the same way as submissions to the regular tracks. Papers should conform to the IEEE format and specifications. Authors are to be invited to submit full paper (Maximum 6 pages, double- column US letter size) as PDF using the IEEE templates. Template and submission system is available on the conference website: <http://www.tencon2019.org/>.

Biographies of Special Session Organizers:



Dr.M. Venkateshkumar, Chairman, IEEE Young Professional Affinity Group, Madras Section. Vice Chairman, IEEE - Power and Energy Society. IEEE P825 Research working group member - USA. Associate Professor, Dept of EEE, AVIT, Chennai. He has published technical papers more than 60 International conferences and Journal. Review board member more than 40 International conferences and international journals. Reviewer of IEEE Transaction on Sustainable Energy. He has also authored in 3 books/chapters. He is received young scientists award from Govt of Tamilnadu. He is received 2015, 2016 and 2017 outstanding contribution Award from MATLAB, U.S.A. He has international copyright for 58 research simulation projects and designs from Mathworks. His current research interest includes Grid integration of hybrid renewable energy sources.

Professional Interests: Power System, Renewable Energy PV cell, Fuel cell, Smart Grid, Artificial Intelligent, Power System, Renewable Energy



Dr Umashankar Subramaniam (M'09-SM'18) is working in Renewable energy Lab, College of Engineering, Prince Sultan University, Saudi Arabia has 15+ years of teaching, research and industrial R&D experience. Previously, he worked as Associate Professor and Head, VIT Vellore as well as Senior R&D and Senior Application Engineer in the field of power electronics, renewable Energy and electrical drives. He is a Senior member-IEEE, and Member of IACSIT, IDES and ISTE. He has taken charge as Vice Chair - IEEE Madras Section and Chair - IEEE Student Activities from 2018. He was executive member (2014-16) and Vice Chair of IEEE MAS Young Professional from 2017 by IEEE Madras Section. He has published more than 250+ research papers in national and international journals and conferences. He has also authored/co-authored/contributed 12 books/chapters and 12 technical articles on power electronics applications in renewable energy and allied areas. He is an Editor of Heliyon, an Elsevier journal. He received Danfoss Innovator Award-Mentor during 2014-15 & 2017-18, Research Award from VIT University during 2013-18. Also he received the INAE Summer Research Fellowship for the year 2014. Under his guidance 24 P.G students and more than 25 U.G Students completed the senior design project work. Also he supervised 6 PhD scholars and Masters Students. He is also involved in collaborative research projects with various international and national level organizations and research institutions.



Dr. Vincenzo Piuri is Full Professor at the University of Milan, Italy (since 2000), where he was also Department Chair (2007-2012). He was Associate Professor at Politecnico di Milano, Italy (1992-2000), visiting professor at the University of Texas at Austin, USA (summers 1996-1999), and visiting researcher at George Mason University, USA (summers 2012-2017).

He founded a start-up company, Sensure srl, in the area of intelligent systems for industrial applications (leading it from 2007 until 2010) and was active in industrial research projects with several companies.

He received his M.S. and Ph.D. in Computer Engineering from Politecnico di Milano, Italy.

His main research and industrial application interests are: intelligent systems, computational intelligence, pattern analysis and recognition, machine learning, signal and image processing, biometrics, intelligent measurement systems, industrial applications, distributed processing systems, internet-of-things, cloud computing, fault tolerance, application-specific digital processing architectures, and arithmetic architectures.



Dr Cheng Siong Chin is an Associate Professor at Newcastle University at Singapore where he has established research projects with vast industry partners from Seagate, ST-Electronics, Soil Machine Dynamics (SMD), SembCorp Marine, POSH, Visenti (Xylem), Temasek Polytechnic and Singapore Maritime Institute (SMI). He is also an Adjunct Professor to Chongqing University. He has also supervised projects on the intelligent systems design and simulation of complex systems in uncertain environment. He has published over 100 journal papers, books, book chapters, and conference papers. He currently holds 3 U.S. Patents, 2 provisional US patent applications, 1 Singapore Provisional Patent and 2 Trade Secrets in electronics and measurement systems. He obtained 2 research grants from SMI and 4 EDB-Industrial Postgraduate Programme (IPP) grants in the areas of intelligent systems design, simulation, and predictive analytics. He is a Fellow of the Higher-Education Academy, Fellow of IMarEST, Senior Member of IEEE and the IET, and a Chartered Engineer. He received the Best Paper Award for the Virtual Reality of Autonomous Vehicle in The 2018 10th International Conference on Modelling, Identification and Control sponsored by IEEE.