



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**

“Title of the special session”

INTELLIGENT FREQUENCY REGULATION IN MODERN POWER SYSTEM

1. Aims & Scope of the Session:

Intelligence techniques, such as Expert systems (ESs), Fuzzy logic (FL), and Artificial neural networks (ANNs or NNWs), Metaheuristic Algorithms have brought an advancing frontier in power electronics and power engineering. Microgrids, Nanogrids, Smartgrids are one one subsets of universal modern power system. Intelligence techniques provide powerful tools for design, simulation, control, estimation, fault diagnostics, and fault-tolerant control in modern power systems. The Intelligent technologies have gone through fast evolution during last several decades, and their applications have increased rapidly in modern industrial systems. This special session aims at highlighting those intelligent based Control, Operation, Protection, Sizing, Management, Automated design of modern wind generation system and its health monitoring in the operating condition, fault pattern identification, and control based on real-time simulator, Solar PV MPPT techniques, Fuel cell's, Electric vehicles, etc participation for higher power scale generation, etc. in SG and RES.

2. List of topics (but not limited to) to:

- Overview of the renewable-dominated modern power systems and their frequency regulation issues
- Frequency regulation strategies in the present deregulated electricity market
- Applications of Soft computing Techniques applications for robust frequency control
- Role of energy storage technologies in frequency regulation in modern power systems
- Electric vehicles and their impacts on modern power system operation and control in terms of frequency stability
- Demand-side management (DSM) and demand response techniques in frequency management in the power system
- Frequency regulation in AC/ DC Microgrids
- Smart grid Monitoring, Operation-Control & Quality, Power system Protection
- FACTS controllers in frequency regulation
- Machine learning in power system and power electronic applications in Smart grid

Special Session Organizers

Details of Proposer:



Dr. Puja Dash

MIEEE, ISTE

Associate Professor, Department of EEE,
Gayatri Vidya Parishad College of Engineering (Autonomous),
Visakhapatnam, Andhra Pradesh

Email: pujadash.nits@gmail.com, pujadash@gypce.ac.in

Contact No.: 9337889813, 8895164503

Dr. Puja Dash (M'94125593) has received the B.E. degree in electrical engineering from the Biju Pattnaik University of Technology, Odisha, India, in 2005. She has completed her M.Tech with specialization in Power & Energy System Engineering from National Institute of Technology Silchar in the year of 2008 and completed her Ph.D in Electrical Engineering from National Institute of Technology Silchar in the year of 2015. She is presently working as an Associate Professor in EEE department at Gayatri Vidya Parishad College of Engineering Autonomous, Visakhapatnam, Andhra Pradesh, India. She has a total experience of 12 years in teaching and research. Her research areas are Automatic load frequency control and voltage regulation both in conventional and Deregulated power system with both renewable and non-renewable energy sources, Designing of intelligent controllers and designing of FACTS based controllers for power system applications, Coding and application of soft computing techniques. She is a Life Member of the Indian Society for Technical Education (ISTE), the System Society of India and Member of IEEE. She has chaired couples of IEEE and Springer conferences successfully and acted as the Technical Program Committee member in ICACIE2018- Springer, ICCIoT18-IEEE, ICEPE2018-IEEE successfully. She has acted as a Technical resource person and delivered at various National level Workshops, STTPs, FDPs founded by CSIR, TEQUIP-III, Central University.



Dr. Arindita Saha

Assistant Professor, Department of EE

Regent Education and Research Foundation Group of Institutions,
West Bengal

Email: sahaarindita.91@gmail.com

Contact No.: 9774451245

Dr. Arindita Saha

Dr. Arindita Saha has received the B.Tech degree in Electrical Engineering from National Institute of Technology Agartala in 2013. She has completed her M.Tech degree in Power Electronics and Drives from National Institute of Technology Agartala in 2015 and PhD degree in Electrical Engineering from National Institute of Technology Silchar in 2019. Presently she is working as Assistant Professor in the Department of EE at Regent Education and Research Foundation Group of Institutions, West Bengal, India. She has total experience of 3.5 years in the field of teaching. Her research areas are load frequency control both in traditional and restructured power system with both renewable and non-renewable energy sources, energy storage devices, FACTS devices, designed few fractional order controllers, and application of soft computing techniques. She has good number of International Conferences, Book Chapters and Journal publications.