ICICCSP 2022 Special Sessions
on

"Artificial intelligent techniques for smart power systems"

1. <u>Aims & Scope of the Session (100-200 words):</u>

By combining modern metering infrastructure, control technologies, and communication technologies, the smart grid enables the collection of vast amounts of high-dimensional and multi-type data about electric power grid operations. Traditional modeling, optimization, and control technologies, on the other hand, have several limits when it comes to processing data; as a result, the use of artificial intelligence (AI) techniques in the smart grid is becoming more obvious.

In modern smart grid (SG) and renewable energy systems, these techniques provide powerful tools for design, modeling, control, estimate, fault diagnostics, and fault-tolerant control (RESs). During the previous several decades, AI technology has advanced quickly, and its applications in current industrial systems have exploded. Without any discussion of AI applications in SG and RESs, this special issue will be incomplete.

2. <u>Topics of interest include, but are not limited to:</u>

➢ Detection, Location and classification of fault in renewable energy integrated power system using Artificial Intelligence Techniques.

➢ Big data applications for smart power systems

➢ Application of deep learning and reinforcement learning for smart power systems

➢ Smart enabling technologies for the effective penetration of microgrids

➢ Artificial Intelligence Techniques in Smart Grids

➢ Future of Artificial Intelligence in Smart Grids

➢ Challenges of Artificial Intelligence in Smart Grids

3. Special Session Organizers (names and contact emails):

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4. Special Session Organizers (short bios with photo):

Prakash Kumar Ray is currently working as an Associate Professor in the Department of Electrical Engineering, Odisha University of Technology and Research, Bhubaneswar, India. He completed his PhD degree from MNNIT, Allahabad, India and Post-Doctoral Fellowship from Nanyang Technological University (NTU), Singapore. He is a Senior Member of IEEE and Life Member of Indian Society for Technical Education (ISTE). His research area includes distributed generations, digital signal processing and soft computing applications in power system and power quality. He has published more than 100 technical papers in International Conferences and Referred Journals

Basanta Kumar Panigrahi is currently working as an Associate Professor in the Department of Electrical Engineering, ITER, Siksha O Anusandhan University, Bhubaneswar, India. He completed his PhD degree from Siksha O Anusandhan University, Bhubaneswar, India and M.Tech from Indian Institute of Technology, Roorkee. He is a Member of IEEE. His research area includes distributed generations, digital signal processing and soft computing applications in power system and power quality. He has published more than 60 technical papers in International Conferences and Referred Journals.