

IEEE 2nd Global Power, Energy and Communication Conference

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Special Session on Control and Optimization of Renewable Energy Systems

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Renewable energies such as wind and solar have become an inevitable part of power generation in modern grid scenarios. However, unlike conventional sources of power generation, the output of renewable energy sources is intermittent. Advanced control and optimization strategies are required for handling the changing dynamics, nonlinearities, and uncertainties of the system. Efficient control and optimization strategies would increase the number of operational hours of the system and reduce the cost of the electricity produced. We invite original and unpublished papers on the theory, design, development, and applications of advanced controllers for renewable energy systems. Research papers describing new approaches and investigation of control and optimization of renewable energy systems are suitable for this session.

Topics of interest include but are not restricted to:

- Adaptive and predictive control
- Adaptive filtering
- Machine learning
- Artificial intelligence methodologies
- Standalone and connected grid systems
- Energy storage systems
- Microgrid systems
- ➤ Stability
- > Power flow
- > Optimization
- Scheduling
- ➢ Fault analysis

- Protection
- Power electronics
- > Modelling
- Simulation
- Power and energy systems
- Applications
- Case studies
- > Forecasting
- Grid connected renewable energy systems
- Practical applications
- ➢ Efficiency

Organizer(s):

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Deadlines of the special session:

Full paper submission (maximum 6 pages):	June 1, 2020
Notification of acceptance:	August 15, 2020
Final submissions due:	September 1, 2020

All the instructions for paper submission are included at the conference website. http://www.gpecom.org/2020/index.php/guidelines/