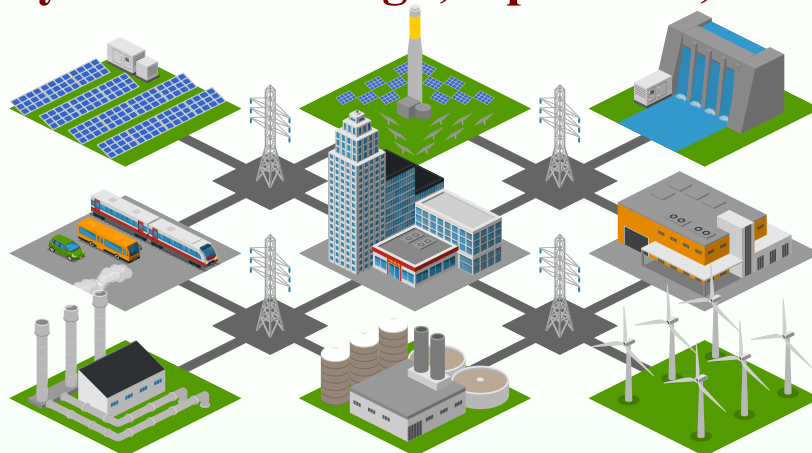


Call for Papers Special Issue on

“Electricity Markets Design, Operation, and Control”



Electricity deregulation has been underway for nearly three decades. In recent years, power systems are changing rapidly. The driving forces are the emerging smart grid, information, and communication technologies, high penetration of renewable energies, demand side participation, and application of big data. These changes contribute to a more comprehensive and in-depth reform of electricity market in terms of design and operation. Moreover, developing countries are also facing some challenges in the process of electricity market reform.

This Special Issue will bring together researchers and practitioners from industry, research laboratories, academia and government to discuss challenges and opportunities related to electricity market reform. In order to promote the future development and construction of the electricity market, theories and solutions need to be developed. Specifically, design, operation, and control of electricity markets call for a deep understanding of multiple aspects.

Topics of interest include, but are not limited to:

- Design and analysis of electricity market and ancillary services markets, including energy and ancillary services markets architecture, business models, utility rate structure, dispatching, pricing, and settlement.
- Evaluation of electricity market operations, including market power assessment, risk management, transmission congestion management, and coordination and interactions between local, distribution, and wholesale markets.
- Bidding strategies analysis of electricity market participants, including electric power market experiment simulation, electricity price forecasting, and bidding behaviors evaluating in power market.
- Modeling, optimization, and control of large-scale distributed energy resources and flexible loads in electricity markets, including the integration of demand response into energy market and ancillary services markets.
- Modern concepts in electricity markets such as decentralized peer-to-peer energy and services trading, distributed ledger, and blockchain technology.
- The government role determination in electricity market, including the methods of government interference and transitional policy development.
- Advanced information and computing technologies and data analytics to support the implementation of novel wholesale, local, and distribution market structures.
- Field demos, utility insights and lessons learnt, and use cases for different electricity markets.

Important Dates

Submission Open: Oct. 01, 2021

Submission Deadline: May. 31, 2022

Final Decision Notification: Jul. 31, 2022

Submit your paper to IJEEE through: <http://ijeee.iust.ac.ir/>

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