Special Session

Operationalizing "Smarter Grids"

for

IEEE IEMCON 2019 - The 10th IEEE Annual Information
Technology, Electronics & Mobile Communication Conference
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http://ieee-iemcon.org/

Chaired and Organized by

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It is becoming increasingly evident that the growing complexity of electric power grids requires innovative solutions to effectively manage and enhance grid system, sub-system, network, and sub-network security and stability (which includes power quality). Context-referenced, high-resolution streaming telemetry daata is central to any scalable and extensible solution for a diversified generation (i.e. mixed energy source) electric grid. Context, the cumulative history derived from data observations related to the various involved smart grid devices/components and their attributes (e.g. current, voltage, phase angle, etc.), is a critical aspect of the analytic and decision-making process. Without context, grid network stability conclusions and infrastructure modification decisions may be specious. By using context-referenced analytics to examine grid big data, grid managers may discern trends, patterns, and relationships. These insights can be utilized to help energy producers and sellers make data-based decisions so as to anticipate and optimally shape business outcomes. Current solution sets are endeavoring to focus upon the use of context-awareness analytics to discern correct values (current and historical) for the nodes and edges of a grid network. Near real-time decisions, such as load shedding or pathway selection, can then be made based upon the combination of contextually correct data and analytics. This paradigm then segues into a "smarter grid," and the ensuing issues of information and communication technologies (ICT) become readily evident. This special track of the 10th Annual IEEE Information Technology, Electronics and Mobile Communication Conference (IEEE IEMCON 2019) aims to provide a forum for researchers and practitioners from academia, industry, government, and regulators with backgrounds in artificial intelligence, cognitive computing, communications, computational intelligence, computing, control, cyber security, deep learning, machine learning, numerical methods, signals processing, energy, information systems, and other pertinent domain to exchange ideas, explore enabling technologies, and share experiences.

Topics include, but not limited to:
- Protecting Industry 4.0 Assets
- Industrial Control Systems Monitoring and Protection
- Cyber Electromagnetic Spectrum Security for the Power Grid
- Production-oriented Continuous Streaming Big Data
- Information Systems and Smart Grid Analytics

- Communications and Networks to Enable the Smart Grid
- Context-Aware Control and Operation of Smart Grids
- Artificial Intelligence and Cyber Security for the Smart Grid

Paper Categories

Regular Paper – 7 pages maximum (3 additional pages allowed but at an extra charge)
Short Paper (Work-in-Progress) – 6 pages maximum (2 additional pages allowed but at an extra charge)
Poster – 5 pages maximum

Regular papers should present novel perspectives within the general scope of the conference. Short papers (Work-in-Progress) are an opportunity to present preliminary or interim results. Posters are intended for ongoing research projects, concrete realizations, or industrial applications/projects presentations.

Paper Submission Info:

IEEE IEMCON uses EDAS for submission.

Authors need to:
1. Create an account (if not already registered) with EDAS at http://edas.info
2. Submission link https://edas.info/newPaper.php?c=25845&track=97792

Important Dates

Full Paper Submission: 30th June 2019
Acceptance Notification: 24th July 2019
Final Paper Submission: 14th August 2019
Conference: 17th - 19th October 2019

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