

International Japan-Africa Conference on Electronics, **Communications, and Computations**

JAC-ECC 2020 (Online)

14 - 15 December 2020



JAC-ECC is a venue for extending collaboration between prominent African, and International researchers from academia and industry in the fields of electronics, communications, and computer engineering the conference will be held at Alexandria, Egypt, from 14-15 December, 2020 will include keynote speeches, technical and special sessions, and tutorials on the state-of-the-art topics. Research papers are solicited in one of the following tracks, where all submissions will be peer-reviewed. The topics in each track are mentioned below but are not limited to the following areas:

Selected Topics in Artificial Intelligence

- Deep Learning. * Computational Intelligence: Neural Net works.
- Fuzzy Logic Evolutionary techniques. * Pattern Recognition.
 Data Mining. * Natural Language Processing.
- Sentiment Analysis. * Agents and Multi-Agent Systems
- * Biometrics. * Autonomous Robots.* Intelligent Transportation.

Selected Topics in Communications

- PHY layer, signal transmission and reception.

 Spectrum sharing, spectrum management, and cognitive radio.
- * 5G and Next Generation Communication Systems. * M2M, D2D, and Ad-hoc Networks . * VANET and MANET Networks
- * MZM, DZD, and Ad-hoc Networks. * VANE I and MANE I Networks. * UAV Wireless Networks and its applications. * Energy Harvesting and Green Communications . * Wireless network security * Underwater communications * Wireless body area networks . * Wireless Sensor Networks . * Optical communications and Photonics

Selected Topics in Signal, Image, and Video Processing

- Image and Video Processing * Analog and Digital Signal Processing.
 Biomedical Signal Processing * Multimedia Systems and Applications
 Visual Communications Systems * Applications of Internet of Things (IoT)

Selected Topics in Internet of Things (IoT)

- * Systems on chip for IoTs. * IoT system architecture,
 * IoT enabling technologies, * IoT communication and networking
 protocols, * IoT services and applications, * Security and privacy in
 embedded IoT scenarios, * Experiences in building smart wearable
 IoT platforms, * Power consumption and optimization in embedded
 IoT * Equit to locate and reliability in pended and IoT applications. Fault-tolerance and reliability in embedded IoT applications,
- * Middleware and platforms for embedded IoT applications * The social implications of IoT * Wireless Energy Harvesting for IoT

Selected Topics in Biomedical Engineering and Applications

- Biomedical Devices for Computer Interaction. * Brain-Computer Interfaces and Brain Imaging. * Telemedicine and Health Monitoring Systems. * Wearable Sensors and Systems. * Video and Image Analysis for Physiological Signals.
- **Biomedical Embedded and Mobile Systems**

Important Dates

- Paper Submission Deadline: August 15, 2020
- * Notification of Acceptance: October 4, 2020
- * Camera Ready Version Due: October 18, 2020

Selected Topics in Big Data Analytics and Cloud Computing

- * Data-driven algorithms and applications * Volume, Velocity, Variety, Value and Veracity of Big Data * MapReduce for Big Data processing * Distributed file systems for Big Data * Big Data visualization * Big Data mining * Large data stream processing * Performance characterization, evaluation and optimization * Sensor network, social network and big data * Big data applications * Distributed algorithms * Parallel and Pill Generating * Cloud Parallel
- * Distributed algorithms * Parallel and GPU Computing * Cloud Data Analysis Algorithms * Cloud resource management * Security in cloud * Load balancing algorithms for cloud computing.

Selected Topics in Circuits and Systems

- Computer Aided Network Design * VLSI Systems and Applications
- Neuromorphic Systems. * Analog and Mixed Signal Integrated Circuits. * Digital Integrated Circuits, SOC, and NOC. * Linear and Non-linear Circuits and Systems. * Embedded Electronics. * RFICs and Microwave Systems. * Power Management and Energy Harvesting. * Hardware/Software Co-design. * Biomedical Circuits and Systems. * Sensory Circuits and Systems.
- Embedded systems for Vehicular applications

Selected Topics in Microwave and Antennas

- * Multiple Antenna Systems, Coding and Cooperative Communications * RF and mmWave * Electromagnetic Fields and waves
- Antenna Design and Applications * Scattering and propagation,
 Millimeter-wave/THz * Broadband and multi-band antennas,
- * MIMO antennas, * Active adaptive and smart antennas, * Antenna measurements, reconfigurable antennas, and others. * Wireless power transfer * Electromagnetics in biology and medicine

Selected Topics in Smart Grid

- New Trends and Technologies for Smart Grid * Policies and Strategies for Smart Grid * Novel Energy Conversion Studies in Smart Grid Systems Grid Systems * Future Challenges and Directions for Smart * Microgrids for Transportation Electrification *Power Grids *Microgrids for Transportation Electrification *Power
 Devices and Driving Circuits for Smart Grid *Decision Support
 Systems for Smart Grid *ICT, IOT, Real-Time Monitoring and
 Control * Smart Metering, Measurement, Instrumentation, and
 Control * Impact of Smart Grid on Distributed Energy Resources
 Energy Management Systems * Wide Area Protection, Communication,
 and Control in Energy Systems * Cyber Security Systems
 Self-Healing *Smart Grid Deployment and Demonstration Projects
 Energy Storage Technologies and Systems * Grid Modeling,
 Simulation, and Data Management *Smart Homes, Cities, and
 Communities Smart Energy Grid Education

- **Communities Smart Energy Grid Education**

Paper Submission

Prospective authors are invited to submit full-length, 4 page papers in IEEE two-column formats including diagrams and references. The title page should include author(s) name(s), affiliation, mailing address, telephone, fax, and e-mail address. The author should indicate one or two of the above categories that best describe the topic of the paper. More information for authors is available on the conference website.

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