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

JAC-ECC 2022

19 – 20 December 2022

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 19-20 December, 2022 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 Computer Hardware and Embedded/ Smart Systems

- Parallel Computer Architectures – Multi-Core and Multiprocessor Architectures – Impact of Technology on Architecture
- Embedded/Reconfigurable Architectures – GPGPU/APU Heterogeneous Systems – Architectures for Cloud-Based HPC and Data Centers - Impact of Compilers and System SW on Architecture – Performance Modeling, Scalability, and Evaluation - Architecture for Novel Application Workloads
- Fault-Tolerant

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.
* 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 * 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.

Selected Topics in Artificial Intelligence

- Deep Learning / Machine Learning – Computational Intelligence
- Pattern Recognition – Image Processing / Computer Vision
- Data Mining – Natural Language Processing – Sentiment Analysis
- Agents and Multi-Agent Systems
- Biometrics – Autonomous Robots – Intelligent Transportation

Selected Topics in Big Data Analytics and Cloud Computing

• Parallel and Distributed Computing of Big Data • Cloud and Fog Computing • Security in cloud • Cluster and Grid Computing • Big Data Mining • Big Data Applications / Computing / visualization
• Volume, Velocity, Variety, Value and Veracity of Big Data
• Quantum Computing • Mobile Computing • Bioinformatics •Data and Information Visualization • Distributed Systems and Databases
• Data-driven Algorithms and Applications

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

Important Dates

*** Paper Submission Deadline: September 2, 2022**
*** Notification of Acceptance: November 15, 2022**
*** Camera Ready Version Due: November 22, 2022**

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.

Conference Organizing

Conference Chairs

* Adel Bedair, E-JUST, Egypt
* Haruichi Kanaya, Kyushu University, Japan

Technical Committee Co-Chairs

* Mohammed Abo-Zahhad, E-JUST, Egypt
* Amin Shoukry, E-JUTS, Egypt
* Hossam Shalaby, E-JUST, Egypt
* Ahmed El-Mahdy, E-JUST, Egypt
* Sabah M. Ahmed, E-JUST, Egypt

Organizing Committee Co-Chairs

* Osamu Muta, Kyushu University, Japan
* Maha Elsabrouty, E-JUST, Egypt
* Mostafa I. Soliman, E-JUST, Egypt
* Mohammed S. Sayed, E-JUST, Egypt
* Ahmed Allam, E-JUST, Egypt
* Samir Elsagheer, E-JUST, Egypt
* Ahmed Abd El-Malek, E-JUST, Egypt
* Rami Zewail, E-JUST, Egypt

Organizing Committee:

- Hussien Mouftah, Ottawa Univesity, Canada
- Om Parkash Malik, University of Calgary, Canada
- Damian Flynn, University College Dublin, Ireland
- Hadia ElHennawy, Ain Shams University, Egypt
- Hesham Elbadawy, National Telecommunication Institute, Egypt
- Gamal Famhy, Kuwait University, Kuwait
- Ahmed M. Attiya, Electronics Research Institute, Egypt
- Moustafa Youssef, Alexandria University, Egypt
- Yehea Ismail, AUC Zewail City, Egypt
- Abbas Omar, University of Akron, USA
- Ahmad Al ajlouni, Yarmouk University, Jordan
- Said El-Khamy, Alexandria University, Egypt
- Moustafa Hussein Aly, AASTMT, Egypt
- Diaa Khalil, Ain Shams University, Egypt
- EL-Sayed Mostafa Saad, Helwan University, Egypt
- El-Sayed Elrabie, Menofia University, Egypt
- Hesham F. A. Hamed, Minia University, Egypt
- Ahmed Hassan, Nile University, Egypt
- Elsayed Esam M. Khaled, Assuit University, Egypt
- Mohamed Abbas, King Saud University, Saudi Arabia
- Farhad Mehdipour, Otago Polytechnic University New Zealand
- Tanemasa Asano, Kyushu University, Japan
- Haris Gacanin, RWTH Aachen University, Germany
- Koji Inoue, Kyushu University, Japan
- Ramesh Pokharel, Kyushu University, Japan
- Adel Barakat, Kyushu University, Japan
- Ahmed Bayomy, E-JUST, Egypt
- Sherif Rabia, Alexandria University, Egypt
- Walid Gomaa, E-JUST, Egypt
- Moataz Abdelwahab, E-JUST, Egypt

https://jac-ecc22.ejust.edu.eg