**Tracks**

1. **Signal/Image Processing and Applications**

* Image/ Video/ Multimedia Signal Processing
* Audio/ Speech/ Spoken Language Processing
* Biomedical Signal Processing and Systems
* Machine Learning and Deep Learning for Signal Processing
* Sensor Array and Multichannel Signal Processing
* Signal Processing for Communication & Networking
* Emerging Technologies in Signal Processing
* Human- Computer Interface

1. **Futuristic Communication Systems**

* Next generation Ad-hoc, Mobile and Sensor Networks
* Satellite and Space Communications
* Optical Communication and Networks
* 5G/6G Wireless Technologies
* MIMO, Massive MIMO, mm Wave MIMO
* Software-Defined Networking (SDN),
* Ad-hoc, Mesh and Sensor Networks
* Green and energy efficient wireless networks
* Machine learning and deep learning for all types of networks
* Ultra-reliable low latency communications (URLLC)
* Multiple Radio Access Technologies (M-RATs) interworking
* Next generation radio access networks (RAN)
* Mobility management and models
* RF Circuits, Systems and Antennas

1. **VLSI Design**

* Analog/Digital and Mixed Signal ICs
* VLSI Signal Processing
* Electronic Design Automation
* Physical Design Automation
* VLSI Testing
* ASIC/FPGA Design
* Electronic Devices, Materials and Fabrication Process
* Device Modeling and Characterization
* Advanced CMOS Devices and Process
* System-on-Chip (SoC)
* Biosensors and Bioelectronics
* MEMS/NEMS Microfluidics
* RF, Microwave and Tera Hertz Devices
* Spintronic Devices for Memory and Computing
* Emerging Logic, Memories and Neuromorphic Devices
* Flexible Electronics and Organic semiconductors
* Photovoltaics and Energy Harvesting

1. **Computational Technologies**

* Big Data Analytics and Cloud Computing
* 5G Technology
* Networks, IoT and Cyber Security
* Computational Intelligence
* Signal and Image Processing
* Blockchain Technology and Applications
* Gamification
* 3-D Printing and Scanning
* Deep Learning/ Artificial Intelligence and Machine Learning Applications
* Geographic Information Systems and Applications
* Augmented Reality/ Virtual Reality
* Quantum Computing and Informatics
* Knowledge Engineering
* Computational Biology & Bioinformatics
* Data, Text, Web Mining & Visualization