



MAR BASELIOS
COLLEGE OF ENGINEERING AND TECHNOLOGY
AUTONOMOUS

IEEE Kerala Section



IEEE SPICES 2022

IEEE International Conference on
Signal Processing, Informatics, Communication and
Energy Systems

10 - 12 March 2022 | Thiruvananthapuram, Kerala, INDIA

Organised by IEEE Kerala Section & Mar Baselios College of Engineering and Technology (Autonomous)



ieeespices2022@mbcet.ac.in



www.ieeespices2022.com

The Event

IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (**IEEE SPICES 2022**) organized by IEEE Kerala Section & Mar Baselios College of Engineering and Technology (Autonomous) will be held during 10th -12th March 2022. The theme of the conference is **"Smart Systems for Sustainable Development and Social Welfare"**. As a premier conference, IEEE SPICES provides an excellent forum for scientists, researchers, engineers and industrial practitioners throughout the world to present and discuss the latest technology advancement as well as future trends in Signal Processing, Informatics, Communication, Energy Systems, Robotics & Smart Cities. The technical program includes invited talks by experts along with regular technical sessions and special sessions.

IEEE Kerala Section

IEEE activities in Kerala were formally initiated on 17th February 1975 as a subsection under the India Council. From the outset, IEEE Kerala Section has been noted for its vibrant activities. Several innovations from IEEE Kerala Section in organizing activities for students as well as professionals have been appreciated and replicated by the global IEEE community. IEEE Kerala Section has been organizing high quality, high impact technical events including several international conferences in the recent past.

The Institution

Mar Baselios College of Engineering and Technology (MBCET), Thiruvananthapuram, Kerala was established in the year 2002 by the Major Archdiocese of Trivandrum with the noble objective of providing quality technical education based on fundamental human values. MBCET offers 5 B. Tech programmes in 5 branches with an intake of 120 students each and 5 M. Tech programmes in 5 specializations. The Institution is an approved research centre under APJ Abdul Kalam Technological University, Kerala.

All the B.Tech programmes are accredited by NBA since 2016. The Institution is accredited by NAAC with 'A' grade (CGPA: 3.13) since 2016. The Institution is also conferred with the Autonomous status by University Grants Commission (UGC) in the year 2020.

Important Dates

Last date for Paper Submission	: 31 st August 2021
Notification of Acceptance	: 20 th December 2021
Final Camera-ready Paper & Copyright Form with Registration	: 15 th January 2022
Conference Dates	: 10 th – 12 th March 2022

Submission Guidelines

Only online submission is allowed.

All papers should be submitted through EasyChair using the link: <https://easychair.org/conferences/?conf=ieeespices2022>. IEEE format should be strictly followed. For more details, refer the conference website. Submissions by email will **NOT** be accepted. For any clarification, authors can contact the publication desk via email : ieeespices2022@mbcet.ac.in

Registration Details

Category	Indian Delegates		Foreign Delegates	
	IEEE members	Non IEEE members	IEEE members	Non IEEE members
UG/PG Student	Rs.5000/-	Rs.6500/-	US \$ 125	US \$ 150
Faculty/ Research scholar	Rs.6000/-	Rs.8000/-	US \$ 125	US \$ 150
Industry/Corporate	Rs.8000/-	Rs.10000/-	US \$ 125	US \$ 150
Co-author/ Attendee	Rs.4000/-	Rs.4000/-	US \$100	US \$100

At least one author of an accepted paper should register on or before 15th January 2022 and present it at the conference for the paper to be included in the conference proceedings.

Call for Papers

Prospective authors are invited to submit full length original research papers (which are not submitted or published or under consideration anywhere in other conferences/journals)

Signal Processing

- Speech and Audio Signal Processing
- Image and Video Signal Processing
- Remote Sensing
- Multidimensional Signal Processing
- Multirate Signal Processing
- Wavelets and Filter Banks
- Non-Linear Signal Processing
- Bio-Medical Signal Processing
- Pattern Recognition
- Computer Vision
- Sensors and Sensing Techniques

Communication and Networks

- Antennas and Propagation
- Cognitive radio systems and Networking
- Multicarrier Communication Systems
- Secure Communication & Cryptography
- Space time coding and MIMO
- Underwater Wireless Communication
- Green telecommunications
- Industrial electronics
- IoT and Sensor Networks
- Mobile & Wireless Networks
- Next-Generation Networking and Internet
- Optical Networks & Systems
- Satellite and Space Communications
- Smart Grid Communications
- Ad Hoc and Sensor Networks
- Management in Networks
- Network Security

- Social Media and Networking
- Load Balancing, Scheduling and Resource

Advanced Computing

- Multi-Core Processing
- Databases and Data Mining Applications
- Distributed Databases
- Query and Search Engine Optimization
- Software Engineering
- Software Project Management
- Algorithms for Numerical Linear Algebra and Data Structures
- Large Scale Graph Analytics
- High Performance Computing
- Big Data Computing and its Applications
- Hardware Acceleration for Parallel Applications
- Parallelism in Scientific Data Visualization and Visual Analytics
- Scientific/Engineering/Industrial Applications and Workloads
- Exascale Computing and Cloud Platforms
- Data Center Architectures and Services
- Parallel Languages, Programming Environments and Performance Assessment
- Hybrid Parallel Programming with GPUs and Accelerators

Artificial Intelligence and Data Science

- Machine Learning Theories, Models and Systems
- Clustering, Classification and Regression Methods
- Application of hybrid artificial intelligence approaches

- Genetic programming Business Data Analytics
- Deep Learning and Deep Analytics
- Healthcare and Clinical Decision
- Human Activity Recognition
- Natural Language Processing
- Information Retrieval
- Statistical Learning Theory
- Scalable Analysis and Learning
- Dimensionality Reduction
- High Performance Computing for Data Analytics
- Architecture, Management and Process for Data Science
- Security, Trust and Risk in Big Data
- Data Integrity, Matching and Sharing
- Privacy Preserving Big Data Access/Analytics

Power and Energy Systems

- Intelligent micro-grids
- Hybrid Renewable sources
- Power system modeling and simulation
- Power system planning and operation
- Energy conversion techniques
- Hybrid Electric Vehicles
- Power electronics and Industrial Drives
- Modelling, Simulation and Control of Power converters
- Smart Devices & Metering
- Fault Diagnosis, Condition monitoring and Reliability of Electric Drives
- Green Power and Energy Technologies
- Smart, Distributed and Autonomous Energy Systems

- Energy Storage Systems
- Power System Transients and Testing
- Information and Communication infrastructure for future power systems

Instrumentation and Control

- Adaptive/Robust systems and control
- Aerospace / Flight control and Surveillance systems
- Emerging control theory and applications
- Novel Instrumentation for Process Measurement
- Optimization and Optimal control
- Predictive control and Process control
- Micro and Nanotechnology in Instrumentation and Measurement
- Advances in modern instrumentation

Robotics and Automation

- Autonomous Agents
- Cognitive Approach for Robotics
- Collective and Social Robots
- Control and Supervision Systems
- Drones and Internet of Things for Surveillance
- Engineering Applications on Robotics and Automation
- Guidance, Navigation and Control
- Human-Machine Interfaces
- Humanoid Robots
- Human-Robots Interfaces
- Industrial Networks and Automation

- Intelligent Transportation Technologies and Systems
- Mechatronics Systems
- Mobile Robots and Intelligent Autonomous Systems
- Modelling, Simulation and Architecture
- Network Robotics
- Perception and Awareness
- Robot Design, Development and Control
- Space and Underwater Robots
- Surveillance, Fault Detection and Diagnosis
- Telerobotics and Teleoperation
- Vehicle Control Applications
- Virtual Environment, Virtual and Augmented Reality
- Vision, Recognition and Reconstruction

Smart Cities

- Transportation and traffic systems
- Smart city - modeling and simulation
- Smart environment and ecosystems
- Policy development
- Mobility and transportation
- Digital city and smart growth
- Sustainability and energy efficiency
- Intelligent infrastructure
- Vehicle-to-infrastructure integration
- Smart Urban Planning and Design Solutions
- Technology Enabled Homes and Interiors
- Robots Capabilities in Smart Cities
- Smart buildings and Intelligent Infrastructure
- Smart transportation and traffic systems

- Smart emergency management



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