# **Tracks of the Conference**

# **Civil and Structural Engineering**

- Construction Engineering and management
- Environmental engineering,
- Engineering Geology
- Geotechnical Engineering,
- Geoinformatics
- Hydrology and Water Resources Engineering
- Structural Engineering and Transportation Engineering
- Advance Concrete Technology & Sustainable Construction Practice

### **Electronics and Communication Engineering**

Applied Electromagnetics and RF Circuits

- Advanced Electromagnetic Materials for RF and Microwave Applications
- Antennas
- Computational Electromagnetics
- Radio Frequency (RF), Microwave, and Millimeter-wave Circuits

### Communications

- Channel Coding Theory and Applications
- Communication Networks and Multi-Agent Systems
- Information Theory
- Optical Communications
- Random Processes
- Wireless Communication Systems

### **Control Systems**

- Discrete Event and Hybrid Systems
- Embedded Control Systems
- Linear Feedback Control
- Modeling and Control of Automotive Power train Systems
- Nonlinear Control
- Production Systems Engineering
- Stochastic Control

Embedded Systems.

Integrated Circuits and VLSI

- Analog Circuits
- Data converters
- Digital circuits
- Energy harvesting
- Hardware DSP implementation
- Low power circuits
- RF circuits
- Sensing systems

Signal & Image Processing

Solid-State Devices and Nanotechnology

- Displays and Detectors
- High Frequency Devices and Circuits

- Integrated Photonics and Optoelectronics with Quantum Confined Heterostructures
- Materials for Solid State Electronic and Optoelectronic Devices
- Nanotechnology and Nano fabrication

# **Electrical Engineering**

- AI Applications in Power Systems
- Diagnostics & Condition Monitoring
- Distributed Generation
- Distribution Automation
- Electric Vehicles
- Electrical Machines and Transformers
- Electricity Market and Power System Economics
- Energy Efficiency
- Energy Management
- High Voltage Systems
- HVDC and FACTS Devices
- Load Forecasting
- Industrial Automation and Control
- Modeling and Simulation
- Power Electronics and Drives
- Power Engineering Education
- Power Quality (PQ)
- Power System Operation and Planning
- Power System Reliability
- Power Systems Control & Protection
- Renewable Energy
- Smart Grid Development
- Sustainable Energy Technologies
- Transmission and Distribution
- Wide Area Measurement Systems

### **Computer Engineering & IT**

- Computer /IT track
- Image processing
- Computer Vision
- Computer Network
- Mobile computing
- Embedded system
- Internet of things (IoT)
- Software Engineering
- Cryptography and Security
- Artificial Intelligence & Machine learning

- Algorithms
- Data Mining
- Cloud/Grid/Parallel/Distributed Computing
- Soft Computing
- Web and Internet Computing
- Natural Language Processing

# **Mechanical and Production Engineering**

### **Machine Design**

- Tribology
- Multibody Dynamics
- Mechanism

# **Thermal Engineering**

- IC engine
- Refrigeration and Air-conditioning
- Power Plant Engineering
- CFD
- Heat Transfer
- Non-conventional sources of energy

### **Manufacturing Engineering**

- Conventional and Non-conventional Machining
- Metal Joining Processes
- Foundry Technology
- Forming
- Additive Manufacturing

### **Mathematics and Humanities Science**

- Applied Mathematics and Engineering: Modelling, Computation, Analysis and Simulation
- Applied partial differential equations
- Differential equations, dynamical systems and their applications
- Fuzzy mathematics and its applications
- Geometry and its applications
- Approximation Theory
- Statistical methods in technical and economic sciences and practice
- Economically feasible technologies in the upcoming era.
- Challenges in start-ups and entrepreneurship development for the upliftment of backward areas.
- Alternative technologies for development and sustenance in the event of scarcity of basic resources.
- Functional Analysis and Operator algebra
- Recent trends in human rights.
- Innovation in the field of English language teaching methods and novel techniques applicable at engineering