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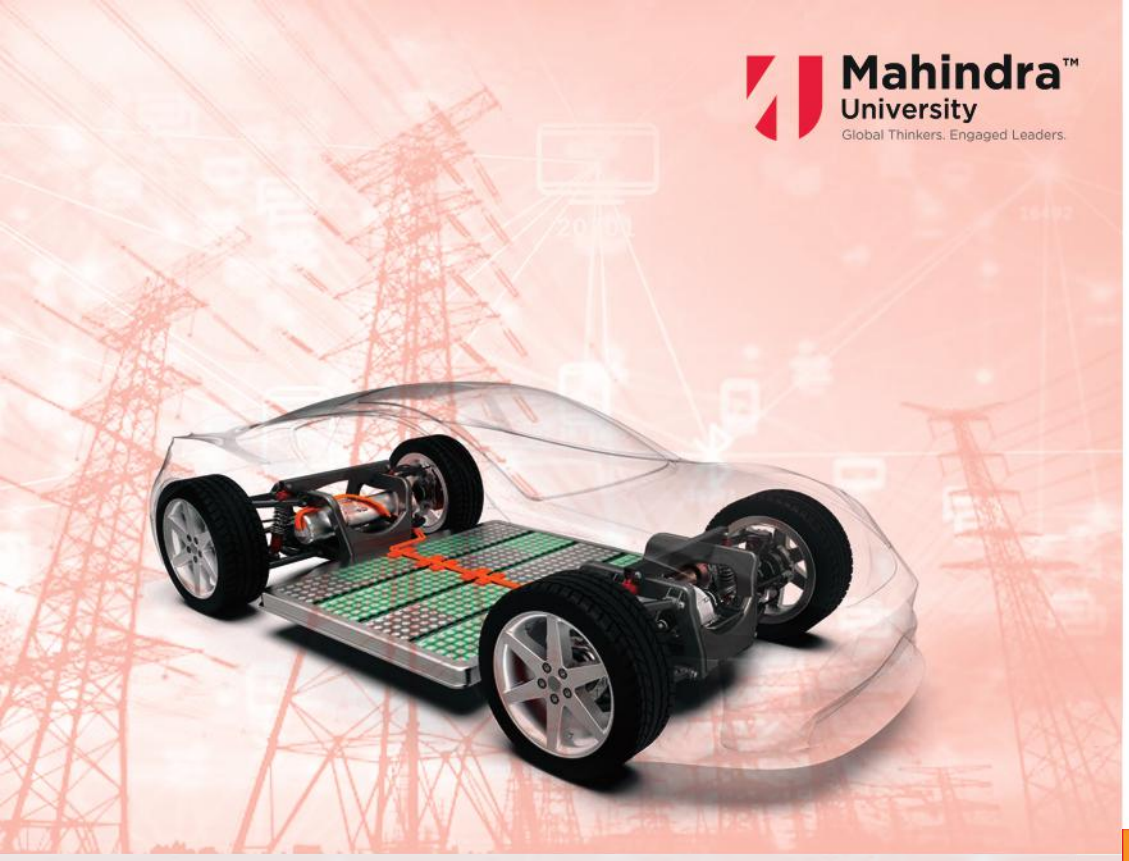

THE FIRST

International Conference on

Cyber Physical Systems, Power Electronics, and Electric Vehicles

Sep 28 - 30, 2023

ABOUT CONFERENCE

The First International Conference on **Cyber physical Systems, Power Electronics and Electric Vehicles - ICPEEV 2023** will be held at Mahindra University, Hyderabad, India, from Sep-28th to 30th -2023. The objective of this conference is to provide a platform and opportunities for researchers, scientists, scholars and engineers to exchange their research experiences and share new ideas to promote their research progress in the field of IoT, Cyber Physical Systems, Power Electronics, Electric Vehicles and Vehicle Engineering with the discussion on practical issues, challenges encountered as well as solutions adopted.
The conference will consist of keynote lectures by invited experts and technical paper presentations by practitioners. We invite submission of papers from all areas of Power Electronics, Power Systems, Electric vehicles, Battery charging, and Computational Intelligence in these domains, which form the theme of this conferenc

TOPICS

Cyber Physical Systems (CPS)

- AI and Machine Learning for CPS including Safe Autonomy
- Safety and Resilience for CPS
- Architectures and Networking for CPS
- Software platforms and systems for CPS
- Human-machine interactions
- Sensing and monitoring
- Security, trust, and privacy in CPS

IoT

- IoT applications to CPS EVs, Power apparatus and systems.
- Artificial Neural Networks, Fuzzy Systems and Hybrid Systems
- Computational Intelligence and Evolutionary Computation
- Data Communication, Computer Network and Security & Forensic
- Decision Support and Recommender Systems
- Data Mining, Knowledge Discovery, and Knowledge Management
- Image Processing and Pattern Recognition
- Information Technology and Computer Education
- Other topics related to ICT and its Applications

Power Electronics

- Analysis, control, and design of power converters, electrical machines and drives
- Emerging converter topologies, modeling, simulation, and control
- Design and applications of wide band gap power electronic devices (SiC, GaN)
- Motor drive technologies for industrial applications
- Power converters for EV chargers and power-train
- Battery management systems, emerging storage technologies and fuel cells
- Health monitoring, predictive maintenance of electrical machines, and power converters
- Power converters for renewable energy integration at distribution levels
- Grid-forming and grid-following controls
- Grid-connected energy storage systems and their control
- Demand-side management and ancillary services for large-scale integration of renewables
- EV charging technologies and their impact on grid operation
- Policy, grid code, and regulatory framework for renewable nergy integration, and operation

Topics related to Electric Vehicles

- Battery technologies and Battery management system (BMS)
- Alternate technologies for Electric Vehicles such as hydrogen fuel cell
- Supercapacitors, ultracapacitors, electric double layer capacitors (EDLC)
- Energy harvesting (regeneration, kinetic energy recovery systems (KERS), regenerative braking, photovoltaics etc.)
- Light electric vehicles (LEV)
- MicroEVs, cars, buses etc.
- Pure electric vehicles
- Electric aircraft
- Military, police and security vehicles
- Autonomous vehicles for land, water and air

Renewable Energy Systems

- Renewable power generation and clean energy technologies
- Battery, hydrogen, and fuel cell storage system
- Power converters for renewable energy integration at transmission and distribution levels
- Grid-forming and grid-following controls, grid-connected energy storage systems and their control.
- Demand-side management and ancillary services for large-scale integration of renewables
- Flexibility, inertial control
- Stability and power quality issues
- EV charging technologies and their impact on grid operation
- Policy, grid code, and regulatory framework for renewable energy integration, and operation

VLSI

- VLSI applications to EVs, Power Systems, or Power Electronics
- Embedded Systems Hardware: HW/SW co-design, SoC, multi-core systems, board level hardware, HW security, Internet-of-Things (IoT) devices, sensors/actuators, displays.
- Embedded Systems Software: Operating systems, firmware, algorithms, middleware, runtimes, parallelization, virtualization, software for low power, security, reliability, real-time support, emerging applications (e.g., automotive, telematics, analytics).
- FPGA and Reconfigurable Systems: FPGA architecture and FPGA circuit design, CAD for FPGA, FPGA prototyping, FPGA-based accelerators.
- Wireless Systems: Sensor networks, low-power wireless systems, wireless protocols, wireless power delivery.
- Embedded Case Studies: Practical and industrial tools, methodologies, designs in various application areas: wireless, medical, networking, multimedia, automotive, controls, etc.

Key Dates

Paper Submission Deadline
31st March, 2023

Decision Notification
15th June, 2023

Final Paper Submission
15th July, 2023

Early Bird Registration
30th July, 2023

Committee

Chief Patron
Prof. Yajulu Medury
Prof. B. P. Pal

Technical Program Committee Chairs
Prof. Bhuvaneswari Gurumoothy
Prof. Ram Mohan Vemuri

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