

Annual Conference of the IEEE Industrial Electronics Society (IECON 2021)

Special Session on

“Technology and Sustainability in the Artificial Intelligence-enabled Cyber-Physical Systems (AI-CPSs)”

Organized by

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Call for Papers

Theme:

This Technology and Sustainability in the Artificial Intelligence-enabled Cyber Physical Systems (AI-CPSs) session addresses recent developments in the area of artificial intelligence in the context of cyber-physical systems from a technical, business and social/ ethical perspective.

Through its data-driven predictive analytics and capacity to assist in decision-making in highly complex scenarios and distributed (industrial) environments, the advances in AI bring new opportunities to realize the vision of sustainable CPSs in different domains and achieve sustainable impact in society. The main goal of this session is to bring together researchers and practitioners to exchange ideas, present and discuss their most recent achievements and lessons learned addressing challenges in this field.

Topics of interest include, but are not limited to:

- Methods and frameworks for AI-enabled CPSs
- Strategies and strategic decisions for ensuring sustainability in the AI-enabled CPSs and their implications, e.g., concerning performance improvement, optimal resources utilization, semantic models of computation, time-sensitive operations
- Tools and technologies for the AI-enabled CPSs, with application in different domains, e.g., autonomous driving, manufacturing, digital healthcare, smart grid, smart city, education

- Key performance indicators and performance analysis for AI-enabled distributed industrial environments
- Rational decision making and ethical aspects of AI-enabled CPSs
- Security, trust and privacy in the AI-enabled CPSs
- Societal implications of the AI-enabled CPS, e.g., autonomous driving, robotics
- Engineering and management aspects of the AI-enabled CPSs
- AI-enabled CPSs transparency and explainability

Submissions Procedure: All the instructions for paper submission are included in the conference website: <https://attend.ieee.org/iecon-2021/>

Deadlines:

Full paper submission:	June 25, 2021
Paper acceptance notification:	July 30, 2021
Camera-ready paper submission:	Aug. 27, 2021