

As a premier IEEE conference, ICIEA is ranked in the **Top 15% of the Best Conferences** in the field of Electrical and Electronics Engineering in 2023 ([www.research.com](http://www.research.com)). ICIEA is also ranked as a **Class A Conference** by the Chinese Association of Automation (CAA), as listed in CAA official website (<http://www.caa.org.cn/article/290/3225.html>).

The 20<sup>th</sup> IEEE Conference on Industrial Electronics and Applications (ICIEA 2025) will be held on 03-06 August 2025, in Yantai, Shandong, China. The Conference is organized by the IEEE Industrial Electronics Chapter of Singapore, Shandong University, Harbin Engineering University, Anhui University, and the IEEE Singapore Section. The IEEE Industrial Electronics Society is both the financial and technical sponsor of the event.

IEEE ICIEA provides an inclusive platform for scientists, researchers, and industrial practitioners from around the world to present the latest technological advancements and discuss future directions and trends in Industrial Electronics. **The proceedings of past ICIEAs have all been included in the IEEE Xplore database and indexed by EI Compendex.**

Authors are invited to submit full papers describing original research work in areas including, but not limited to:

**Artificial Intelligence:** Generative AI, Sustainable AI, Resilient and safe AI, LLMs, VLMs, Embodied intelligence, Physics-driven deep learning, Machine learning, Knowledge representation, Reasoning, AI for X, AI agents, Natural language processing, Speech recognition, Object recognition

**Control and Systems:** Adaptive & intelligent control, Hybrid control, Digital control, Robust control, Nonlinear systems & control, Process control, Networked control, Cooperative control, Cyber-physical Systems

**Energy and Environment:** Energy management, Energy distribution, storage & recovery, Alternative & green energy, Waste management & recycling, Intelligent micro-grids, Renewable energy, Demand management

**Industrial Informatics:** Diagnosis & prognosis, predictive maintenance, Networked embedded controllers, Multi-agent systems, Fuzzy systems, Genetic algorithm, Data mining, IoT, Distributed computing, Cloud/edge computing

**Marine Intelligent Equipment:** Marine equipment condition monitoring, Health management, Prognostics, Fault diagnosis, Anomaly detection, Smart maintenance, Ship systems, Marine machinery, Marine vessels

**Power Electronics:** Power devices & components, Electrical machines & drives, Power quality control, FACTS, PFC, STATCOM, Harmonic analysis & compensations, Switching circuits & power converters, Motors and drives, Smart grid, Distribution generation & electrical vehicles, Wireless power transmission, Energy harvesting

**Robotics:** Robotics foundation models, Humanoid, Robotic vision, SLAM, LIDAR, Sensor fusion, Actuators, Motion planning and control, Robot-human collaboration, Remote operation, Autonomous mobile robot, human-robot skill transfer, AI for robotics, Generative design & optimization of robotics systems

**Signal and Information Processing:** Computational imaging, Image & video processing, Computer vision, Data processing, Estimation & identification, Remote sensing, Information fusion, Brain computer interface, Signal transforming & filtering, Digital system design & structures, Optimization techniques.

**Special Sessions:** Special Sessions are an integral part of the ICIEA technical program. Proposals are invited for special sessions focused on topics of great relevance to the ICIEA conference. Prospective organizers should submit proposals to one of the Special Session Chairs: Dr. Xing Zhu ([zhuxing@hotmail.com](mailto:zhuxing@hotmail.com)), Prof. Weihai Chen ([whchenbuaa@126.com](mailto:whchenbuaa@126.com)), Prof. Qianwen Xu ([qianwenx@kth.se](mailto:qianwenx@kth.se)), Prof. Yonggang Zhang ([zhangyg@hrbeu.edu.cn](mailto:zhangyg@hrbeu.edu.cn)), Prof. Weilin Li ([wli907@nwpu.edu.cn](mailto:wli907@nwpu.edu.cn)), Prof. Yiqi Liu ([ee\\_617@nefu.edu.cn](mailto:ee_617@nefu.edu.cn)), Prof. Rongwu Zhu ([rzhu@hit.edu.cn](mailto:rzhu@hit.edu.cn)), Prof. Guidong Zhang ([guidong.zhang@gdut.edu.cn](mailto:guidong.zhang@gdut.edu.cn)), Prof. Zhihong Man ([zman@swin.edu.au](mailto:zman@swin.edu.au)), Prof. Mingyi He ([myhe@nwpu.edu.cn](mailto:myhe@nwpu.edu.cn)).

**Best Paper Awards:** The best paper awards will be presented at the conference. The winners will be selected by the Award Committee based on both technical contents of the paper and the author's on-site presentation. Winners need to be physically present at the conference banquet to receive the awards.

**Paper Submission:** Please submit full papers to the conference website at <http://www.ieeeicicia.org>. All submitted papers should be in the form of .pdf or .ps file and are to be limited to a maximum length of 6 pages (Letter size, single space, Times Roman of font size 10, two columns format), including figures, tables and references. Please use the template which is available from the website.

In addition to the technical sessions, **KEYNOTE ADDRESSES** and **DISTINGUISHED LECTURES** will be delivered on the State-of-the-Art in various tracks of Industrial Electronics.

### Important Dates:

<b>Deadline for Full Paper submission</b>	<b>15 Feb 2025</b>
<b>Deadline for Special Session Proposals</b>	<b>15 Feb 2025</b>
<b>Notification of Acceptance</b>	<b>31 Mar 2025</b>
<b>Deadline for Camera Ready Manuscript Submission</b>	<b>30 Apr 2025</b>
<b>Deadline for Authors' Registration</b>	<b>31 May 2025</b>

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