



IEEE-ICELIE 2024

11th IEEE International Conference on E-Learning in Industrial Electronics

November 3-6, 2024,

Sheraton Grand Chicago Riverwalk, Chicago, USA



CALL FOR PAPERS

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ICELIE 2024 is an educational conference co-located with the IECON 2024 conference, the flagship conference of the IEEE Industrial Electronics Society, which is independent in terms of key topics. The main objective of the events is to discuss the new didactic methods and teaching/learning technologies that ensure efficient training in the field of industrial electronics.

Like all areas of engineering, engineering education is undergoing major changes. Education has been transformed by COVID, and the demand for online laboratory measurements has increased. The new challenge is the integration of AI-based tools into the educational process, the fruitful application of chatbots and machine learning algorithms in learning and engineering problem solving.

Recently, the project-based approach, which focuses on real engineering tasks, has become widespread, but at the same time, AI tools have emerged that can partially or completely solve many project tasks. These applications can shorten the problem-solving process, but increase the importance of professional control, as AI based tools might provide incorrect solutions.

Papers are invited that address current challenges in engineering education in terms of content development, didactics and technology. Lectures dealing with the methodology of knowledge transfer in the field of industrial electronics are welcome.

Effective teaching requires the identification of key knowledge elements and engineering competencies, and the development of new approaches to teaching methodology.

Participants registered for ICEILE will be able to attend all IECON presentations, including keynotes, and the Gala Dinner will be a joint event of the two conferences. Each conference will publish its own proceedings.

The topics of IEEE-ICELIE 2024 that will be addressed in this conference will include, but are not limited to:

New Approaches and Standards in Engineering Education: Curriculum development, content management. Digital libraries, online sources. Didactics in engineering education. Self-learning, learner autonomy, collaborative learning. Teaching science with an engineering approach. Model-based and data-based system description and design. STEM competences. Educating the educators.

Project- and Problem-based Learning in Industrial Electronics: Adaptation of real-world projects into the curriculum. Projects that span the entire engineering education process. Curriculum projects and experiences. Working in teams. Industry relevance through practical projects.

Remote Laboratories, Internet-Based Measurements, Virtual Laboratories: Simulation/emulation vs. physical experimentation. E-Learning laboratories hardware and software. Simulated communities; Online mentoring; Personalization; Corporate training. Innovative online assessment tools and techniques.

Online learning, E-learning: Content engineering. Internet based systems. Navigational aspects. Virtual spaces; Ubiquitous learning; Mobile E-Learning applications. Pervasive E-Learning. Multi-agent technology in web-based education. Semantic social networks. Community discovering in social learning systems. Exploitation of social structures in e-learning.

Assessing E-Learning: Organization of E-Learning, Cost models. E-marketplace for higher education. Remote collaboration strategies, effectiveness and outcomes of E-Learning, use of data analytics for learner performance evaluation, integrity of assessment, effective feedback in digital formats. Assessment methods for virtual project work.

AI-Based Intelligent Agents in E-Learning: The role and impact of AI-based intelligent agents like chatbots and virtual assistants in the e-learning environment. Design, implementation, and effectiveness of AI tools. Integration of AI agents into existing learning platforms. Personalized tutoring, real-time assistance. Ethical considerations in AI-based education.

E-Learning technologies: Architecture, multimedia and hypermedia. Intelligent devices. Mobile communications, mobile/wireless networks, satellite technologies. User-centered device interfaces. Adaptive student-device interaction, E-Learning and intelligent agents. Wearable devices, ubiquitous E-Learning. Web 3.0 and social computing for learning. Social software for collaborative learning, multimedia environments. Security issues.

Accepted papers will be submitted for inclusion into IEEE Xplore subject to meeting IEEE Xplore's scope and quality requirements. Participants are automatically subscribed to the ICEILE and IECON conference and receive both conference proceedings for a single registration fee. The Organizing Committee of ICEILE 2024 looks forward to welcoming you to Sheraton Grand Chicago Riverwalk, Chicago, USA

Important dates:

Full Paper Submission: April 15, 2024

Acceptance Notification: June 10, 2024

Final Submission and Registration: July 1, 2024

Conference dates: November 3-6, 2024

