# REES & RCEE 2025

## "Transforming Engineering Education:

## Breaking Boundaries of Research and Practice"

### CATEGORIES OF PAPER

**Authors are invited to submit their work based on the categories below:**

- **Full Paper Submission**
  Authors submitting full papers will present their work in oral sessions and have it published in the conference proceedings.

- **Extended Abstract** (maximum 4 pages)
  Authors submitting extended abstracts will present their work in oral session but will not be included in the conference proceedings.

**All accepted full papers will be published in the conference proceedings which will be Scopus indexed and available at https://www.proceedings.com. Proceedings for past REES are available at https://reen.co/publications/**

## PAPER TRACKS

### SUBMISSION GUIDELINES

Authors are invited to submit their work in areas of interest (sub-themes) based on one of the following tracks:

### 1. Scholarly Research in Engineering Education (REES & RCEE)

The paper should explain a rigorous and scholarly study that has significant contribution to the advancement of engineering education. The paper should highlight research questions, theoretical framework, sound research methodology, research results and appropriate discussion.

### 2. Work-in-Progress in Engineering Education Research (REES & RCEE)

Similar to Track 1, the paper may not have the final research results but it opens up discussion for improving the research gap, theories, literature review and research methodology that provides significant contribution to engineering education.

### 3. Scholarly Experience Sharing in Engineering Education (REES & RCEE)

The paper should explain promising practice that is supported by research evidence, previous studies and theoretical framework in related teaching and learning method in engineering education.

### 4. Innovative Practice Sharing in Engineering Education (RCEE & RHEd)

The paper should explain how the innovative practice in engineering education helps to solve problems in teaching and learning of engineering students.

### 5. Scholarly Research in Higher Education (RCEE &RHEd)

The paper should explain a rigorous and scholarly study that has significant contribution to the advancement of higher education. The paper should highlight research questions, theoretical framework, sound research methodology, research results and appropriate discussion.

## AREAS OF INTEREST (SUB THEMES)

Based on the theme “Transforming Engineering Education: Breaking Boundaries of Research and Practice”, authors are invited to indicate one of the following areas of interest (sub-themes) in their submissions. The sub-themes are related and not mutually exclusive.

1. **Bridging Research and Classroom Practice in Engineering Education**
   - Exploring ways to translate engineering education research into effective teaching strategies and real-world classroom applications.
   - **Keywords:** Evidence-based teaching, pedagogical innovations, classroom interventions, student learning outcomes.
2. **Interdisciplinary Approaches to Engineering Education**
   - Encouraging collaboration between engineering and other disciplines to enhance student learning, problem-solving, and creativity.
   - **Keywords:** interdisciplinary project-based learning, cross-disciplinary collaborations, service-learnng
3. **Technology-Driven Innovations in Engineering Education**
   - Investigating the role of digital tools, AI, extended reality (VR/AR), and online learning in transforming engineering education.
   - **Keywords:** AI in education, digital learning environments, simulation-based learning, online and hybrid education.
4. **Enhancing Equity, Diversity, and Inclusion in Engineering Education**
   - Addressing systemic challenges to promote access and inclusivity in engineering programs worldwide.
   - **Keywords:** Inclusive pedagogy, gender diversity, accessibility in engineering education, social justice in education, women in engineering
5. **Sustainability and Ethics in Engineering Education**
   - Embedding sustainability and ethical responsibility in engineering curricula to prepare students for global challenges.
   - **Keywords:** Sustainable development goals (SDGs), ethics in engineering, responsible innovation, green technologies.
6. **Industry-Academia Partnerships for Future-Ready Engineers**
   - Strengthening collaborations between universities and industry to bridge the gap between academic research and workforce needs.
   - **Keywords:** Work-integrated learning, industry-driven curriculum, capstone projects, professional skills development.
7. **Reimagining Engineering Curriculum and Assessment Practices**

- Exploring competency-based education, alternative assessment methods, and new curriculum frameworks for modern engineering challenges.
- **Keywords:** Competency-based learning, formative assessment, authentic assessment, curriculum redesign.

8. **Lifelong Learning and Professional Development in Engineering**
   - Investigating strategies to equip engineers with continuous learning opportunities, reskilling, and upskilling pathways.
   - **Keywords:** Lifelong learning, micro-credentials, engineering faculty development, continuing education.
9. **Regional & Global Perspectives on Engineering Education Research**
   - Examining international trends, comparative research, and cross-cultural collaborations to address regional and global engineering education challenges.
   - **Keywords:** Internationalization, global mobility in engineering education, comparative studies, knowledge exchange.
10. **The Scholarship of Teaching and Learning (SoTL) in Engineering Education**
    - Advancing the research culture in engineering education by promoting scholarly teaching practices and faculty engagement in SoTL.
    - **Keywords:** Faculty-led research, teaching as research, scholarly teaching, action research in education.
11. **Leadership and Change Management in Engineering Education**
    - Exploring how leadership, institutional policies, and change management strategies can drive transformation in engineering education.
    - **Keywords:** Educational leadership, faculty development, institutional change, strategic planning, academic governance.
12. **Well-Being and Mental Health in Engineering Education**
    - Addressing the impact of academic pressures, workload, and learning environments on the well-being and mental health of students, educators and engineers.
    - **Keywords:** Student well-being, mental health support, stress management, resilience-building, holistic education, work-life balance for educators and engineers.