



CALL FOR PAPERS

SPECIAL ISSUE ON

**ENGINEERING EDUCATOR DEVELOPMENT: PRE-SERVICE, IN-SERVICE,
AND LIFELONG LEARNING**

Guest Editor

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Engineering education is experiencing unprecedented transformation driven by technological innovation, industrial change, sustainability, and evolving workforce expectations. While considerable research has focused on engineering curricula, instructional innovation, and student learning outcomes, the development of engineering educators themselves has received comparatively limited attention. As engineering education continues to evolve, engineering educators are expected not only to possess disciplinary expertise but also to integrate pedagogical knowledge, industrial experience, interdisciplinary collaboration, curriculum leadership, and educational innovation into their professional practice.

Despite its importance, research on engineering educator development remains fragmented across different educational sectors and career stages. In many countries, relatively few students aspire to become engineering teachers, particularly in secondary and vocational education, as engineering graduates are often attracted by more competitive salaries and career opportunities in industry. Consequently, the preparation of future engineering educators has become an increasingly important yet underexplored issue. Furthermore, research on in-service engineering educators has frequently been subsumed within the broader field of STEM education, resulting in limited attention to the distinctive competencies, professional identities, and developmental needs of engineering educators. In higher education, engineering faculty members are expected to balance excellence in research, teaching, industry engagement, and academic service; however, studies have primarily emphasized research productivity and teaching effectiveness, while comparatively little attention has been devoted to their long-term professional development, leadership, mentoring, career trajectories, and lifelong learning as educators.

These challenges highlight the need to reconsider engineering educator development as a comprehensive and coherent field of inquiry. This special issue invites theoretical, empirical, and practice-oriented studies that examine how engineering educators are recruited, prepared, supported, and continuously developed across secondary,

vocational, and higher education. By bringing together diverse perspectives on teacher education, professional development, faculty development, and lifelong learning, this special issue seeks not only to advance research on engineering educators but also to establish **Engineering Educator Development** as an emerging field within engineering education research.

Topics of interest include, but are not limited to:

- Pre-service engineering teacher education
- Recruitment and retention of engineering educators
- Professional development of engineering educators
- Faculty development in engineering education
- Engineering educator competencies
- Engineering educator identity and career development
- Lifelong learning of engineering educators
- Engineering pedagogy and instructional innovation
- Industry–education partnerships for engineering educators
- Mentoring and leadership development
- Professional learning communities
- Policies and institutional support for engineering educator development
- Comparative and international studies on engineering educator development

Important Deadlines

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| ● Extended abstract (around 2 pages) | December 31, 2026 |
| ● Notification of Reviewers' feedback | April 30, 2027 |
| ● Submission of manuscripts | August 31, 2027 |
| ● Notification of Reviewers' feedback | October 31, 2027 |
| ● Submission of final manuscripts | December 31, 2027 |

Submissions are to be sent by email in MSWord to Prof. Pao-Nan Chou at pnchou@mail.npust.edu.tw

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