

Editorial

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This special issue of R&E-SOURCE, entitled “All Learning Paths Lead to Knowledge”, has been prepared under the editorial guidance of Roman Hrmo and Lucia Krištofiaková, both affiliated with DTI University. The aim of this issue is to present and disseminate current trends, research findings, and practical perspectives in engineering pedagogy, thereby contributing to the ongoing development of educational theory and practice in technical disciplines. To effectively fulfil their professional roles, encompassing teaching, training, and the comprehensive development of learners, educators must possess a solid command of their subject matter, appropriate pedagogical preparation, and a broad base of general knowledge. In this context, the Internationale Gesellschaft für Ingenieurpädagogik (International Society for Engineering Education – IGIP) plays an important role in advancing and institutionalising engineering pedagogy. IGIP was founded in 1972 at the University of Klagenfurt by Professor Adolf Melezinek. The establishment of engineering pedagogy as a distinct academic discipline represented a significant milestone, as it introduced the first systematic scientific integration of engineering sciences and pedagogical theory. Already in the 1970s, questions related to European integration in education and the development of standardised profiles for educators were recognised as key priorities in teaching, training, and learning. Engineering pedagogy has since developed into an interdisciplinary scientific field, combining insights from pedagogy, psychology, and the technical sciences to improve the effectiveness and quality of education in technical domains. The central focus of engineering pedagogy is the body of knowledge required to prepare educators responsible for teaching future engineers in technical disciplines. In this regard, IGIP actively supports scientific research and coordinates and promotes international cooperation and initiatives in engineering education. The contributions included in this special issue address a broad range of topics related to contemporary challenges and developments in engineering and technical education. These include teacher education, engineering education, emerging trends in subject didactics, accreditation processes, curriculum development, quality assurance in education, technical teacher training, key competencies, the integration of social sciences into engineering education, information and communication technologies in education, talent development, lifelong learning, as well as problem situations and challenges in educational practice.

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