

EJEE Special Issue: Early Career Engineers and the Development of Engineering Expertise

Theme description

As contemporary engineering practices evolve over time, engineering education providers face the increasingly complex challenge of preparing future engineering professionals. Trevelyan (2007) claims that a better understanding of engineering practice is needed to improve students' preparedness to work in engineering, and this claim has received substantial empirical support (Brunhaver, Korte, Barley, & Sheppard, 2018). Research focusing on early career engineers has the potential to provide significant insight which could enhance engineering education provision, however there is a paucity in the research associated with this phase of the engineering career.

There are multiple benefits to engineering education and engineering education research which can be gained from studies focusing on early career engineers and engineering practice. For example, such research can aid in bridging the gap between 'school-engineering' and 'work-engineering' (Huff, Zoltowski, & Oakes, 2016; Johri & Olds, 2011), and an increased understanding of engineering practice can impact the efficacy of engineering education research itself through increased ecological validity.

To this end, in this special edition of the European Journal of Engineering Education, we are seeking papers which focus primarily on early career engineers. While research associated with any aspect of engineering education relative to the early stages of a professionals' career are welcome, there are a number of topics of particular interest including:

- Transitioning from engineering education into working life
- Experiences and challenges faced by early career engineers
- Supporting early career engineers in the workplace
- Early career engineers' professional development
- Developing expertise in engineering practice
- Definitions and misconceptions regarding engineers and engineering practice
- The perceived relevance of engineering education for employability and professional expertise
- Engineering career pathways
- Methods and methodological implications associated with researching early career engineers

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Relevant supporting literature

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Guest editors

Dr. Jeffrey Buckley, KTH Royal Institute of Technology & Athlone Institute of Technology, jbuckley@kth.se

Emeritus Prof. James Trevelyan, The University of Western Australia, james.trevelyan@uwa.edu.au

Prof. Christine Winberg, Cape Peninsula University of Technology, winbergc@cput.ac.za

Submission process and deadlines

30 September 2019 – Last date for submission of extended abstracts: maximum 500 words outlining the background/context, research question/hypothesis/purpose, and study design/method.

1 November 2019 – Notification of reviewer feedback and invitation to submit full paper.

1 August 2020 – Last date for submission of full papers. Contributions are fully peer reviewed to ensure they conform to the high standards of the journal before they are accepted for publication.

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