



## **Call for Papers**

### **SPECIAL ISSUE ON**

## **Engineering Education as a Moral Practice: Curricular and Pedagogical Innovations for Character and Professional Formation**

### **Guest Editors**

#### **Olga Pierrakos, Ph.D.**

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Engineering education plays a central role in preparing future professionals to design, build, and sustain systems that shape society. While traditionally framed as a technical and scientific endeavor, there is growing recognition that engineering practice is inherently moral. Engineers routinely make decisions under uncertainty, constraint, and competing values—decisions that require not only technical competence, but also judgment, responsibility, courage, humility, and ethical leadership. However, across engineering education, many of the most consequential failures—both in practice and in preparation—are not failures of technical knowledge alone, but failures of character and professional judgment. Although ethics education is well established, it is often treated as a discrete or compliance-oriented component of the curriculum rather than as a foundational and developmental dimension of engineering formation.

This special issue seeks to advance a more integrated and practice-oriented perspective: engineering as a moral practice and engineering education as a formative moral enterprise. In alignment with the mission of the *International Journal of Engineering Education*, this issue will focus particularly on educational practice—including curricular design, pedagogy, assessment, and implementation strategies that cultivate both technical excellence and character development. We invite contributions that move beyond abstract or compliance-based approaches to ethics and instead offer empirical, design-based, and evidence-informed innovations that can be implemented and adapted across engineering programs.

This special issue aims to bring together engineering education researchers, educators, philosophers, learning scientists, and practitioners to advance a coherent and rigorous body of

work that positions character and professional formation as central—not peripheral—to engineering education. By emphasizing actionable educational practices, this issue seeks to support the design of engineering programs that prepare graduates not only to solve technical problems, but to exercise wise judgment and contribute responsibly to society.

### **Topics of Interest Include (but are not limited to)**

- Curricular models that integrate character and virtue development across engineering programs (beyond standalone ethics courses)
- Pedagogical approaches that support moral and professional formation (e.g., experiential learning, cognitive apprenticeship, design-based learning)
- Assessment methods for ethical decision-making, judgment, and character development (e.g., situational judgment tests, performance-based assessment)
- Connections between ABET outcomes, professional identity formation, and character development
- Instructional strategies that cultivate responsibility, resilience, humility, courage, and ethical leadership in engineering students
- Implementation studies of curricular or co-curricular innovations aimed at professional formation
- Faculty development approaches for teaching engineering as a moral and professional practice
- Institutional, cultural, and governance factors that support or constrain character-centered engineering education
- Case studies of engineering programs that have redesigned curricula to integrate technical and moral formation
- Industry-informed perspectives on the role of character and judgment in engineering practice and how education can better prepare graduates

### **Submission Guidelines**

Submissions should align with IJEE's emphasis on engineering education practice and implementation, and may include:

- Empirical research studies
- Design-based research and curricular innovation papers
- Evidence-based teaching practice reports
- Assessment and evaluation studies
- Integrative reviews with clear implications for practice

Submissions are to be sent by e-mail in MSWord (.docx) to the guest-editors of the Special Issue: Dr. Olga Pierrakos: [pierrao@wfu.edu](mailto:pierrao@wfu.edu), Dr. Jessica Koehler: [koehlerj@wfu.edu](mailto:koehlerj@wfu.edu), and Dr. Siobhan Oca: [siobhan.rigby@duke.edu](mailto:siobhan.rigby@duke.edu).

### **Important Dates**

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| ● Submission of extended abstracts (approximately 2 pages): | September 20, 2026 |
| ● Notification of reviewers' feedback:                      | November 20, 2026  |
| ● Full manuscript submission:                               | February 20, 2027  |
| ● Notification of reviewers' feedback:                      | April 20, 2027     |
| ● Final manuscript submission:                              | June 20, 2027      |

### **Additional Information**

General information and author guidelines are available at the IJEE website:

<https://www.ijee.ie>