Learning Strategies and Experiments for Transdisciplinary Engineering Education

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Objective of the session

A workshop is proposed to explore improvements in engineering education leveraging advances in model-based engineering, digitally instrumented teamwork, and sociotechnical analytics.

Summary of the activities

Participants will learn about recent research on engineering teamwork and its relevance to teaching engineering students. The need for learning objectives on distributed and digital teamwork will be discussed given recent trends and the future of engineering practice. Examples from recent courses demonstrate the approach with two challenges, one in infrastructure and another in aerospace domains. The workshop will conclude with discussion of barriers and gaps that remain, and research and demonstrations of merit to the engineering education community.

Expected outcomes

Participants will learn about recent advances in teaching engineering for complex systems. Peer learning and planning will lead to collaboration for future student workshops and experiments from ISTE related universities.

Target audiences

Those who teach universities undergraduate, graduate, and professional education student in engineering.

TE2023 Related Topics

- Team Working
- Engineering Education