

The Future of Engineering Education
Parallel Sessions I

Teaching Sustainability in Engineering Education

Time: 2 April 2020, 11am – 1pm

Venue: Congress Centre Darmstadtium

Abstract

Universities of Science and Technology play a crucial role in preparing students to address sustainability challenges, including SDGs. This session with KTH, Aalto University and other CLUSTER members discusses new course contents and ways of teaching related to sustainability, sharing experiences from leading experts in the field. We will also examine how the learning outcomes related to sustainability are being formulated, assessed and communicated. In the panel, fishbowl method is being used. Anyone from the audience can join the panel with the presenters.

As a result, we will share impactful teaching methods and portray the sustainably skilled engineer of the future.

Keywords and concepts

Education for sustainable development (ESD), engineering education, teaching approaches, sustainability, outreach, research-oriented learning, Sustainable Development Goals (SDGs), UN Agenda 2030, Conceiving-Designing-Implementing-Operating (CDIO), Sustainability Literacy Test (SuLiTest), Challenge driven education (CDE), Problem-Based Learning (PBL)

Programme

- 11.00-11.20** Vice President Department of Sustainability, [Göran Finnveden](#), KTH
Introduction – *how are we integrating sustainability into engineering education*
- 11.20-11.40** Associate Professor [Anders Rosén](#), KTH Global Development Hub,
“North-South collaboration on challenge-driven education”
- 11.40-12.00** Professor [Gustavo R. S. Assi](#), University of São Paulo, Polytechnic School, Department of Naval Architecture & Ocean Engineering
“Introducing reflections on the Philosophy of Technology in an undergraduate course: case study “Carbon capture and storage in offshore salt caverns”
- 12-12.20** Associate professor [Marko Keskinen](#) and University teacher/Programme coordinator [Meeri Karvinen](#), Water and Environmental Engineering, Aalto School of Engineering
“Integrating and measuring sustainability skills of technology students? Case water and environmental engineering.”
- 12.20-13.00** Presentations will be followed by a panel, moderated by Vice President, Education [Petri Suomala](#), Aalto University

Participating in the session planning

Aalto University and KTH Royal Institute of Technology

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Chair of [Nordic Sustainable Campus Network](#)

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