ICL2025 Special Session Call for Papers

Virtual Laboratories and Makerspaces (VLabSpace)

Overview

Virtual laboratories (including online and remote laboratories) and makerspaces have emerged as innovative educational environments, providing flexibility in terms of place, time, and individual learning pace. They not only facilitate access to complex, real-world experimental setups but also enhance creativity and hands-on experience through virtual prototyping and collaborative making activities. Prominent examples include widely-used platforms such as the VISIR Remote Lab developed by Blekinge Tekniska Högskola (BTH), as well as various virtual makerspaces that enable collaborative experimentation and prototyping across institutions internationally.

Especially relevant for Universities of Applied Sciences, virtual laboratories and makerspaces effectively promote technology-enhanced, mobile, and collaborative learning approaches. They ensure practical, application-oriented education, fostering creativity, problem-solving skills, and potentially enhancing student motivation and satisfaction.

In this special session, we welcome proposals highlighting best-practice examples and experiences with virtual laboratories (covering online and remote labs) and makerspaces, showcasing a broad spectrum of hardware and software solutions as well as pedagogical approaches.

Topics

This special session aims at presenting the latest developments in virtual laboratories and makerspaces, exchanging new ideas, and discussing open research questions and future directions. Original contributions that provide novel applications, studies, and experiences related to this topic are very welcome. Potential topics include, but are not limited to:

- Online and Remote Lab platforms
- Didactic aspects and methods
- Student support systems & Target groups
- Reservation systems
- Experiences and student's feedback
- Sustainability of virtual vs. physical labs
- Efficient use of hardware and infrastructure
- Makerspaces

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