# REV2021 Special Session Call for Papers

#### **Title**

Special Session: Mixed Reality in Learning Environments

### Acronym

MIRELE '21

#### Overview

Mixed Reality, used as the overarching term for both augmented and virtual reality technologies, has become a common concept over the last decade. Not only the gaming industry uses Mixed Reality to make users feel more immersed in computer games, but also many industrial enterprises have discovered the use of Mixed Reality technology for staff training and further education. According to the Gartner Hype Cycle for Emerging Technologies of 2019, Mixed Reality is no longer seen as an emerging technology, but has risen to the stage of productivity.

Over the last years, Universities have discovered Mixed Reality as an interesting new technology to foster teaching and learning processes, too. However, university lecturers often struggle to introduce such new technologies into their lectures, even though it might be easier than expected. Oftentimes, a lack of knowledge about both the technical implementation procedures and suitable fields of application deter the lecturers from making a first step into Mixed Reality usage for education purposes.

The special session MIRELE '21 is designed to focus on successful examples of Augmented, Virtual, and Mixed Reality applications in teaching and learning settings of engineering sciences. We invite researchers to submit manuscripts on experiences with Mixed Reality learning environments. The session aims at both practical experiences and empirical research results using qualitative or quantitative data. The session aims to goes beyond a simple presentation of technical set ups, but encourages researchers to present their first-hand experiences, empirical research results, and practical transferable insights on benefits and challenges with Mixed Reality in learning environments.

### **Topics**

- Applications & Experiences
- Augmented Reality
- Collaborative Work in Virtual Environments
- Cross-Reality Applications
- Human Machine Interaction & Usability
- Mixed Reality
- Virtual Engineering
- Process Visualization

- Virtual Control & Measurements
- Virtual & Crowd Sensing
- Teleservice & Tele-Diagnosis
- Telerobotic & Telepresence
- Teleworking Environment
- Virtual Instrumentation
- Virtual Reality
- Virtual Laboratories

# **Program Committee**

## Chair(s)

- Valerie Varney (née Stehling), TH Cologne, Germany, valerie.varney@th-koeln.de
- Dominik May, University of Georgia, USA, dominik.may@uga.edu

#### **Members**

- Kyle Johnsen, University of Georgia, USA, kjohnsen@uga.edu
- Tobias Ortelt, TU Dortmund University, Germany, tobias.ortelt@tu-dortmund.de
- Anja S. Richert, TH Cologne, Germany, anja.richert@th-koeln.de
- Nina Schiffeler, RWTH Aachen University, Germany, Nina.Schiffeler@ima.rwth-aachen.de