

# Einladung zur Ringvorlesung „Simulationswissenschaften“

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Freitag, 21. Juni 2024, Seminarraum 106a(T2), D5, TU Clausthal, 13:30 Uhr

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spricht über das Thema

## **Evaluation of Virtual and Mixed Reality Technologies in Helicopter Simulation**

### Inhalt des Vortrags:

Helicopters, because of their vertical take-off and landing capability, are an important vehicle for demanding missions such as search and rescue operations and transportation into confined areas. Therefore, training is essential to minimize the risk of helicopter missions due to human error. To date, more and more simulation is used for helicopter training where typically certified full-flight simulators are utilized. The use of simulation has several advantages. Challenging and risky tasks can be practiced in a safe environment. At the same time, the operational costs of a helicopter can be saved. Likewise, training scenarios can be simulated that cannot be trained in reality, such as a tail rotor failure. However, the use of simulation for training does not only have advantages. For example, simulation training can cause simulation sickness. Also, the lack of simulation fidelity can hinder transfer of training. With innovative technologies, there are new opportunities for helicopter simulation to increase the fidelity of the simulation. In this presentation it is discussed to which extent Virtual Reality (VR), Mixed Reality (MR) and Augmented Reality (AR) technologies can be used as visual system in the helicopter simulation environment. The aim is to increase the immersion of the helicopter simulation and thus enhancing the learning effect and transfer of training. In a piloted study an AR (with see-through display), MR and VR (monitor-based display) setup is compared to conventional helicopter simulation at a research simulator.

**Gäste sind herzlich willkommen.**

Der Vortrag findet in folgendem Gebäude statt:

**Seminarraum 106a(T2)**  
**Institut für Informatik, Hörsaal Gebäude (D5)**  
**Albrecht-von-Groddeck-Straße 7**  
**38678 Clausthal-Zellerfeld**



Online-Teilnahme:

Alternativ ist auch eine Online-Teilnahme über BigBlueButton möglich. Besuchen Sie dazu die folgende Adresse:

<https://webconf.tu-clausthal.de/rooms/xsr-sty-qwm-a8j/join>