

Are you looking for a PhD Position in the field of Augmented and Virtual Reality? Is excellent research your passion? Do you like to work in a multi-cultural research-oriented environment? If so, we would like to meet you!

Researcher – PhD Candidate in the field of Biomedical Engineering (w/m/d)

Full-time (38,5h/W), Graz

Tasks:

A growing volume of data increasingly demands the ability to access data anytime and anywhere, to be digested, often by drawing from a collective expertise before making a decision. This raises two fundamental challenges: First, current analytics tools can only offer a peephole view into the data and are not suited for situational sense-making tasks. Second, geographic separation frequently makes it infeasible for all stakeholders involved to physically participate in the tasks analysis. **We are searching for a PhD Candidate to join a research team of 6 people working on "Data Driven Immersive Analytics". We will apply techniques of multimodal physiological monitoring and decoding to extend human performance in immersive environments.**

This project runs for 4 years. It counts the support of scientific collaborator TUG INE and will be jointly supervised by Prof. Gernot Müller-Putz and Prof. Eduardo Veas.

We are currently searching for a PhD candidate in the area of Biomedical Engineering. As part of our team, you will investigate methods to gather physiological signals and quantify diverse human factors of users working in immersive environments. You will be part of an interdisciplinary team working in areas of immersive visualization, digital twin data, embodied interaction, wearable displays, wearable sensors, machine learning, user experience and perceptual psychology.

Within our research team, you will investigate methods for multimodal physiological monitoring and decoding of aspects related to performance in immersive environments. To do so, you will apply a psychophysiological research approach aiming to elicit measurable effects in controlled experiments, you will design and study machine learning methods for automatic psychophysiological state decoding and deploy them to complement interaction in immersive environments.

You will investigate and design techniques and methods using modern wearable sensing technology, including eye-tracking, heart-rate, galvanic skin response, electroencephalogram (EEG), electromyography (EMG), among others., and research novel algorithms to extend our understanding of human performance with immersive technology. This is your chance to make the work of fiction a reality of the future!

Qualifications:

- Master's Degree in Biomedical Engineering, Computer or Information Science, or similar discipline
- Solid background in one of the following areas and willingness to work on the others: EEG and other biosignals, eye tracking, biosignal processing, statistical analysis, experimental design
- Technical understanding of and interest in immersive analytics and digital twins
- Ability to work independently, think out of the box, thrive in dynamic fast-paced environments
- Ability to work as part of a team, offer advice and receive feedback
- Excellent communication skills in English (knowledge of German is of advantage)

We offer:

- A unique opportunity for a financed research group
- Very good work-life balance (flexible working hours)
- Dynamic, creative and multi-cultural team and informal and stimulating working atmosphere

Under our collective agreement, the minimum gross salary for this full-time (38.5 h/W) position is € 2,971,50 per month (14 times a year). Higher compensation is possible, depending on your qualifications and experience. We are looking forward to your application at career@know-center.at.

