

# Call for Papers

## PFG – Journal of Photogrammetry, Remote Sensing and Geoinformation Science

### Special Issue **VIRTUAL & AUGMENTED REALITY 06/2019**

Due to the rapid technological development, virtual reality (VR) is becoming an accessible and important tool for many applications in science, industry and education. Furthermore, due to recent advances in hardware and software technology, virtual reality is becoming ubiquitous and accessible for the general public as several companies brought low-cost high-quality head-mounted systems to the market. Being immersed in a 3D environment offers numerous advantages, especially for the presentation of geographical data that is usually depicted in 2D maps or pseudo 3D models on the monitor screen. However, many applications are designed for video games and, only recently, more and more other disciplines deploy VR. So far, VR has successfully been used for virtual surgery, virtual therapy, flight and vehicle simulations, cultural heritage and many others.

Augmented reality is the computer-aided expansion of the perception of reality by combining reality and virtuality. However, augmented reality is often only understood as the visual representation of information, i.e. the addition of computer-generated additional information or virtual objects to images or videos by means of superimposition. The decisive criterion is the superimposition of reality by virtual content in real time with a continuous adaptation to the point of view of the user. Augmented reality will be used in practically all areas of everyday life.

Since VR and AR are very much related to geo-science application due to 3D modelling and positioning, the editorial board of the journal **PFG - Journal of Photogrammetry, Remote Sensing and Geoinformation Science** therefore intends to publish a special issue **VIRTUAL & AUGMENTED REALITY** in the issue 6/2019.

Interested scientists and users are cordially invited to contribute to this issue by submitting an article on the latest developments, practical applications, investigations and research results.

Contributions on the following topics are welcome:

- Innovative VR/AR applications, case studies
- AR/VR design guidelines and standards
- Human - Computer interface design
- Innovative VR/AR devices, approaches and algorithms
- Navigation in VR
- Game Engines
- Serious games (gamification) and collaborative interactions
- Assessment of VR applications, performance comparisons
- User-oriented visualizations of VR/AR models
- VR-/AR-applications in education
- AR user interfaces

Submitted articles must not have published in or be submitted for other professional journals. Conference papers must be substantially revised prior to submission.

The manuscripts must be written in English or German according to the current author's instructions. They may not contain more than twelve printed pages and must be submitted online (<https://www.editorialmanager.com/pfge/default.aspx>).

#### Guest editors

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#### Deadlines

After the online submission of the manuscripts an anonymous review process will be undertaken. The accepted articles will be published in the issue 06/2019. The following deadlines must be observed:

Deadline for online submission of manuscripts: 01. September 2019

Announcement of the acceptance of the submitted manuscripts: 15. November 2019

Publication of the special issue: 15. December 2019