## Message from the ISMAR 2020 Workshop and Tutorial Chairs

Michele Fiorentino, Ph.D., Politecnico di Bari, Italy Rafael Radkowski, Ph.D., Iowa State University, USA

It is our great pleasure to introduce the workshops and tutorials of the 19th IEEE International Symposium on Mixed and Augmented Reality. We will remember this year for the COVID-19 outbreak and the associated decision to migrate the conference into the virtual realm. This decision required a new conference composition, asking for an engaging and innovative format; it also imposes new challenges to workshop and tutorial organizers. Despite this unique situation, we are honored to announce that the ISMAR community members proposed three workshops and seven tutorials, covering various topics addressing Augmented Reality, Virtual Reality, and Mixed Reality.

## Workshops

ISMAR workshops are interactive events that provide attendees with the opportunity to present and discuss focused research topics related to Augmented Reality, Virtual Reality, and Mixed Reality in the scope of Science & Technology and Arts, Media, & Humanities. We encouraged workshop organizers from the ISMAR community and other academic communities as well as from industry and public institutions to discuss interesting themes within the entire spectrum of ISMAR research. The workshops at ISMAR 2020 provide platforms for presentations of novel ideas, original research, work in progress, position papers, posters, and demos. A peerreview process was required to qualify workshop papers for inclusion in the ISMAR 2020 Adjunct Proceedings. We are delighted to have the following workshops at ISMAR 2020:

- W1. Towards Designing a Mobile Augmented Reality Learning Experience
- W2. Combining Mixed Reality and Brain-Computer Interfaces: Challenges and Opportunities
- W3. Merging Geospatial Technologies with Cross Reality in the context of smart manufacturing systems

## Tutorials

The purpose of the ISMAR tutorials is to expand the ISMAR community's knowledge and foster the next generation of researchers, developers, and artists in the fields of Augmented Reality, Virtual Reality, and Mixed Reality. Researchers and experienced developers proposed tutorials that target specific research and application areas as well as topics of general interest for the ISMAR community. The presenters are from both academia and industry. The following tutorials are presented at ISMAR 2020:

- T1 Understanding Outdoor Augmented Reality
- T2 Extended Reality and Smart Immersive Environments
- T3 Cognitive Aspects of Interaction in Virtual and Augmented Reality Systems
- T4 OpenARK Tackling Augmented Reality Challenges via an Open-Source Software Development Kit
- T5 TrackingExpert+An Open Source Library for Object Detection and Tracking
- T6 The Replication Crisis in EmpiricalScience: Implications for Human Subject Research in Mixed Reality
- T7 Storytelling for Cinematic Virtual Reality

We are confident that the new virtual format will disclose interesting advantages for exciting, inspiring, and high quality experiences at ISMAR 2020!