General Chair Message

Betty Mohler
Max Planck Institute for Biological Cybernetics, Germany

Torsten W. Kuhlen
RWTH Aachen University, Germany

Matthias Bues
Fraunhofer IAO Stuttgart, Germany

Evan Suma Rosenberg
University of Southern California, USA

[Honorary] Martin Göbel
FH Bonn-Rhein-Sieg, Germany

It is our great pleasure to welcome you to the 25th IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR), the premiere international conference focused on research in these domains! This year the name of the conference changed since the highly successful 12-year IEEE Symposium on 3D User Interfaces is brought back into the main VR conference. It is a tremendous honor to host the conference in Reutlingen on its first return to Germany since 2005. Reutlingen is situated nicely with respect to our research institutes, the city has the charm of a southern German town, and the recently built (2013) Stadthalle and concert venue has a professional team that is experienced in conferences highlighting innovation in technology. This venue has enabled us to create a large program both in scientific content and in terms of demonstration and exhibit space.

Reflecting the increasing interest and significance of research in virtual reality and 3D user interfaces, the conference once again received a record number of submissions this year. A total of 178 submissions were submitted to the Journal Paper track from which 29 were accepted as articles to IEEE Transactions on Visualization and Computer Graphics (TVCG) resulting in an acceptance rate of 16.3%. All of these will be presented at the IEEE VR 2018 conference, along with 6 additional invited papers that were published in IEEE TVCG during the past year. An additional six submissions (3.4%) were recommended for a regular issue of TVCG as major revisions with reviewer continuity. A total of 316 submissions were submitted to the Conference Paper track (72 were resubmissions from the Journal Paper track) from which 65 were accepted as conference papers resulting in an acceptance rate of 20.6%. All of these will be presented at the IEEE VR 2018 conference. Considering both the Journal and Conference Paper track and excluding re-submissions we have an acceptance rate of 22.3%.

In addition to the research papers, the conference will feature a variety of thought-provoking presentations, demonstrations, and technical content. We continue the tradition of having a Doctoral Consortium on the first two days of the conference. On Sunday and Monday, we have a total of 6 Tutorials and 11 Workshops. Workshops and Tutorials will be running in parallel such that attendees can decide between five to six options at all times. For the main VR conference, a total of 124 Posters and 21 Research Demonstrations will have three days of public, unsupervised viewing, plus two sessions when attendees will be able to contact and discuss with authors. Two fast forward sessions are scheduled in order to show all attendees what posters have to offer. The conference will feature four expert-led Panels on engaging topics, including Virtual Reality for interdisciplinary applications, Social Mixed Reality, VR/AR in support of application domains, and the future impact of neuroscience and cognitive psychology on virtual environments. We are also happy to announce that the Video showcase will have 14 videos (360 and standard) and along with the supplemental material from the technical papers will be on display throughout the conference. The 3DUI contest is now part of the main VR conference and will be highlighted with a public tournament just before the Banquet.

We are extremely pleased to welcome four distinguished speakers for the keynote talks. Albert “Skip” Rizzo from USC is a world-renown expert in the use of virtual reality for therapy and has been promoting VR4Good. As a director at the Max Planck Institute for Intelligent Systems, Katherine J. Kuchenbecker leads an interdisciplinary team that invents compelling haptic interfaces for touching virtual and remote environments, studies human haptic interaction, and endows autonomous robots with an astute sense of touch. Oliver Riedel from the University of Stuttgart is a pioneer in virtual prototyping and has been invited to give a look back on 25 years of VR in Industry. Helmut Hobmaier from Audi AG has over 30 years experience with virtual and physical prototyping and visualization and will talk about their use in the automotive industry. Finally we have an Invited Technical Talk this year from Robert Menzel, NVIDIA.

This year, as of the early-bird registration date, we have 13 Exhibitors & Sponsors who will be highlighted both during the Exhibitors Lunch as well as before the banquet Wednesday evening. We have two gold sponsors: VICON and Digital Projection, one silver sponsors: ART and eight bronze: Haption, MiddleVR, VR-ON, VISCON, BARCO, WorldViz and Disney Research. Finally, we have one non-profit sponsor, namely the Computer Network Information Center: Chinese Academy of Sciences, and one Research Demo sponsor, KUKA.

For many of us, IEEE VR is the annual social gathering among colleagues and friends in this research community. This year’s conference shifted its starting date to Sunday...
and the first night will be free for people to meet in smaller groups for dinner. On Monday and Tuesday evenings attendees will be transported to the nearby Max Planck Institute for Biological Cybernetics one night, and the Fraunhofer IAO Institute the other night for lab tours, research demonstrations, and receptions. Finally, we continue the tradition of a conference banquet on Wednesday evening highlighting one of our keynote talks, award announcements from the IEEE Visualization and Graphics Technical Committee (VGTC) and the best dissertation award.

This conference was made possible through the tireless efforts of numerous volunteers. Our organizational team is in total 60 members. 90 individuals served on the International Program Committee and International Conference Paper Committee, where many of them served on both committees which resulted in weeks of reviewing numerous papers. We would like to express our sincere gratitude to all who served on the VR 2018 organizing committees, steering committee, and international program committees, as well as to all reviewers of the program content. In particular, we would like to recognize the Paper Program Chairs: Kiyoshi Kiyokawa, Frank Steinicke, Bruce Thomas, Greg Welch and the Conference Paper Program Chairs: Robert J. Teather, Maud Marchal and Takuji Narumi who had an extremely challenging task of managing the large number of submissions and selecting this year’s papers. The smooth operation of the conference is made possible with the assistance of over 30 student volunteers; we commend them for their efforts. We would like to express a very special thank you to Meghan Haley for coordinating the paper publishing process, digital content and preparing the program as well as to Michelle Ocampo who served as our Conference Planner from IEEE Computer Society. We are happy to have a cooperation with the German Association for Electrical, Electronic and Information Technologies (VDE ITG) and specifically grateful to Christian Gross, Gueorgui Markov, and Hatice Altintas for their support and excellence in event management. A special thank you to Beate Fülle and Stephanie Bertenbreiter for their expertise in conference management, press relations, and overall efforts as local arrangement chairs. Finally, a special thank you to steering committee member Bernd Fröhlich who provided crucial support and advice with regard to organizing this conference in Germany.

We would also like to acknowledge the support from IEEE, the IEEE Computer Society, the Max Planck Institute for Biological Cybernetics, the Fraunhofer Institute for Industrial Engineering, and our sponsors. Finally, we are grateful to everyone who is attending and actively participating in the conference. We hope that you will find VR 2018 to be engaging, insightful, informative, and, last but not least a fun conference for all!