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Virtual Reality and Augmented Reality


16th EuroVR International Conference, EuroVR 2019
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Proceedings

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Preface

We are pleased to present in this LNCS volume the scientific proceedings of EuroVR 2019, the 16th EuroVR International Conference, which took place in Tallinn, Estonia during October 23–25, 2019.

Prior to this year, the EuroVR conference was held at Bremen – Germany (2014), Lecco – Italy (2015), Athens – Greece (2016), Laval – France (2017), and London – UK (2018). This series was initiated in 2004 by the INTUITION Network of Excellence in Virtual and Augmented Reality, supported by the European Commission until 2008, and imbedded within the Joint Virtual Reality Conferences (JVRC) from 2009 to 2013. The focus of the EuroVR conferences is to present, each year, novel Virtual Reality (VR) up-to Mixed Reality (MR) technologies, including software systems, display technologies, interaction devices, and applications, to foster engagement between industry, academia, and the public sector, and to promote the development and deployment of VR/AR technologies in new, emerging, and existing fields.

This annual event of the EuroVR association (<https://www.eurovr-association.org/>) provides a unique platform for exchange between researchers, technology providers, and end users around commercial or research applications.

Along with the scientific track, presenting advanced research works (scientific full papers) or research work in progress (scientific poster papers) of this LNCS volume, several keynote speakers were invited to EuroVR 2019. Moreover an application track, subdivided into talk, poster, and demo sessions, was also organized for participants to report on the current use of VR or AV/AR/MR technologies in multiple fields.

Since 2017, EuroVR has been collaborating with Springer to publish the papers of the scientific track of our annual conference. To increase the excellence of this applied research conference, which is basically oriented toward new uses of VR or AV/AR/MR technologies, we have created a set of committees including a very nice International Program Committee (IPC).

In total, 16 scientific full papers were selected to be published in the scientific proceedings of EuroVR 2019, presenting original, unpublished papers documenting new research contributions, practice and experience, or novel applications in VR or AV/AR/MR. There were 11 long papers and five short papers selected from 46 submissions, resulting in an acceptance rate of 35%. In a double-blind peer-reviewing process, three members of the IPC with the help of external expert reviewers analyzed each submission. From the review reports, the IPC chairs took the final decision. The selected scientific papers are organized in this LNCS volume according to four topical parts: Immersive Interaction; Training, Teaching and Learning; Industrial Applications and Data Analysis; Perception, Cognition, and Evaluation.

Moreover, from this year, with the agreement of Springer, eight scientific poster papers have been selected to also be published in the scientific proceedings of EuroVR 2019, presenting work in progress or other scientific contributions, such as

ideas for unimplemented and/or unusual systems. Also based on a double-blind peer-reviewing process managed by the poster chairs and with the help of the IPC chairs, three of these scientific posters were selected out of eight submissions (acceptance rate of 37%), while the five other posters were accepted in poster format from the initial scientific paper submissions. All the papers of the accepted scientific posters are gathered in the last and dedicated part of this LNCS volume.

We would like to thank the members of the IPC, the additional reviewers, and the poster chairs for their insightful reviews, which ensured the high quality of the categories of papers selected for this volume of the Scientific proceedings of EuroVR 2019 proceedings. Furthermore, we would like to thank the general conference chairs, the application chairs, the demo and exhibition chairs, and the local organizers of EuroVR 2019.

We are especially grateful to Anna Kramer (Assistant Editor, Computer Science Editorial of Springer) and Volha Shaparava (Springer OCS Support) for their support and advice during the preparation of this LNCS volume.

September 2019

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