

Virtual Environments 2017

ICAT - EGVE

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Welcome from the General Chairs

It is our great pleasure to welcome you to ICAT-EGVE, the merger of the 27th International Conference on Artificial Reality and Telexistence (ICAT) and the 22nd Eurographics Symposium on Virtual Environments (EGVE). This year we are excited to host this prestigious event at the University of South Australia in the city of Adelaide, Australia and would like to offer attendees a warm welcome.

ICAT-EGVE represents two of the oldest international conferences on Artificial Reality and Virtual Environments, with a history stretching back over twenty years each. Together they provide a great opportunity for researchers to meet with old friends, make new connections and discuss the latest state-of-the-art technologies and developments in Augmented Reality, Virtual Reality, Mixed Reality, 3D User Interfaces and Telexistence.

This year we had submissions from all over the world with a good diversity of topic areas. Accepted papers were rigorously reviewed by the community to ensure only the highest quality publications were accepted. The final program includes 33 long and short paper presentations from a total of 64 submissions. In addition, the conference will have 17 posters and 12 hands-on interactive demonstrations. The breadth and quality of the content reflect the dynamic and innovative research that is advancing knowledge of the field in exciting new directions.

We are very lucky this year to be able to have a keynote speech by Dr. Thad Starner, one of the pioneers of Wearable Computing and founder of the Google Glass research effort. The conference also includes a social program with a visit to the famous Barossa Valley and Penfolds winery to enable attendees to sample some of the food and wine that South Australia is famous for.

A conference such as this involves a significant amount of work, so we offer our sincere thanks to all the people who have made this year's conference possible: the authors and participants, the program committee and reviewers, steering committee and the publishers.

Mark Billingham
Ross T. Smith
ICAT-EGVE 2017 General Co-Chairs

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Keynote

Small, Lightweight and Fast: A Future of Mobile AR and Wearables

Thad Starner

Abstract

The reality-replacing AR systems promoted in film and science fiction are both impractical and undesirable. In the course of 25 years of researching and living with mobile AR, my experience has shown that fashion, head weight, eyebox, speed of access, and social perception have proven more important than spatial resolution and field-of-view. Wearable computers with lightweight, small field-of-view, head-worn displays will enable compelling mobile augmented reality applications much sooner and be better accepted by the average consumer. In this talk I will present unexpected uses of wearables - systems that augment intellect and the senses; assist communication between humans and animals; allow control through silent speech and brain interfaces; and even teach wearers manual skills such as playing the piano without active attention. In the process, I will make the case that compelling applications can be made with lightweight systems that are on the verge of being possible in today's market.

Short Biography

Thad Starner is a wearable computing pioneer, having worn a computer with a head-up display in his daily life since 1993. Dr. Starner is a Professor of Computing at Georgia Tech and a Technical Lead on Google Glass. He is a founder of the annual ACM International Symposium on Wearable Computers, now in its 21st year. Dr. Starner has produced over 500 papers and presentations on his research and has 75 issued United States utility patents. He was elected to the CHI Academy in 2017 and is always looking for a good game of table tennis.