

# TSI: 4<sup>th</sup> International Workshop on the Tangible Space Initiative

<http://www.tangible-space.org/2007>

A Workshop in conjunction with the 6<sup>th</sup> IEEE International Symposium on Mixed and Augmented Reality (ISMAR)

Nov. 13, 2007, Nara, Japan

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## Important Dates

Submission Deadline:  
**October 05, 2007 (Extended)**  
Acceptance Notification:  
October 15, 2007  
Final Version due:  
October 26, 2007  
Workshop:  
November 13, 2007

## Sponsors.

Korea Institute of Science and  
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## Workshop Overview

The objective of this workshop is to facilitate intellectual exchange on current research activities towards building next-generation interaction spaces. Human-computer interaction (HCI) research problems surfacing in the fields of virtual and augmented reality, ubiquitous or pervasive computing, and robotics and computer vision have so far largely been tackled in separate research communities. Given major advancements and increased maturity within the individual research areas, it appears fruitful to discuss combined approaches within a unifying perspective toward the next-generation interaction space. To this end, we initiated the Tangible Space Initiative (TSI), a multi-campus international research program funded by KIST for the next 10 years. We have identified three components that form mutually cooperative but distinct areas in TSI: tangible interface (TI), responsive cyberspace (RCS), and tangible agents (TA). TI mainly provides the interface between the human and the cyberspace. RCS is a virtual space that is responsive to user situation and intentions. TA are physical agents that can perform physical interaction on behalf of the cyberspace. TI has been a major focus of Mixed, Augmented, and Virtual Reality research, RCS has been a main focus of research in simulated environments and artificial intelligence, and TA has been a main focus of robotics, computer graphics, and computer vision. The organizing committee solicits papers drawing on theory and methods toward the next-generation interaction space in these diverse research communities. It also encourages prospective workshop participants to identify research directions in their individual fields that can be profitably combined to form a new cooperative approach for next-generation interaction spaces.

## Call For Papers

We invite researchers from academia and industry to submit their position papers, which are expected to contain a clear statement of their vision of next generation interaction environments, or specific embodiments of such. The submitted papers will be refereed by the Program Committee. Paper selection will be based on originality, ability to stimulate discussion, and presentation quality. Relevant topics include but are not limited to:

- Multi-Modal Mixed Reality Interfaces
- Tangible Augmented Reality
- Collaborative Tangible Interfaces
- Story-based interaction
- Tangible Avatars
- Reconfigurable interaction spaces
- Context modeling and reasoning
- Context-aware interaction in immersive and mobile interaction spaces
- Ontology-based approaches to semantic level interaction
- Instrumenting and organizing large smart spaces
- Service-oriented realtime middleware architectures
- Context-based vision
- Sensor fusion for indoor GPS
- Simultaneous localization and mapping (SLAM) for mobile interaction

## Submissions

Papers may be submitted in two formats: 2-page extended abstracts or up-to-8-page full papers in [IEEE Computer Society TCVG format](#). Accepted submissions will be included in the workshop proceedings. Selected full-papers will be invited to be published in the book of TSI best paper collection. A submission should be complemented by a short bio of the author(s).

## Contact

Please contact the organizers at [tsi\\_chairs@list.cs.ucsb.edu](mailto:tsi_chairs@list.cs.ucsb.edu) if you have any questions about participating in the workshop.