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# IUI'12

Proceedings of the 17th International Conference on  
**Intelligent User Interfaces**

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# IUI 2012 Chairs' Welcome

It is our great pleasure to welcome you to the 2012 ACM International Conference on Intelligent User Interfaces – IUI’12 and to Lisboa, Portugal. Starting in 1993, IUI is now on its 17th edition and has established itself as the premier venue for reporting outstanding research and development on intelligent user interface. The IUI series continues to be the principal forum for the meeting of the Human-Computer Interaction (HCI) and the Artificial Intelligence (AI) communities. This gives rise to unique, creative, interdisciplinary contributions. This year's meeting showcases those topics, with works covering innovations in mobile interfaces, collaboration technology, affective interfaces, multimodal interfaces, pen interfaces, haptic and gesture interfaces, multi-touch interfaces, speech interfaces, gaze-based interfaces, tabletop interfaces, health applications, entertainment applications, adaptive narratives and theater, sports and in-vehicle applications, geographic applications, social media interfaces, educational interfaces, sketch recognition, human-robot interfaces, personalization and assistive technologies, end-user programming, ubiquitous and smart environments, location-aware interfaces, recommender interfaces, persuasive interfaces, web-based interfaces and agent-based interfaces.

Building on previous years' success, the IUI 2012 call for papers attracted 134 full paper submissions and 78 short paper submissions. To ensure the highest possible quality we assembled a team of 48 senior program committee members and 367 reviewers. This guaranteed that every submission had at least three reviews plus one meta-review. This was followed by a rebuttal phase, keeping the procedure started two years ago. We believe that this process has guaranteed the highest quality possible for this year technical program and we would like to thank all the senior program committee members and reviewers for their hard work in making sure the most relevant works were selected. Through this very thorough review process we were able to accept 18 full papers, 15 short papers and 16 poster presentations, meaning an acceptance rate of 13% for full papers, 16% for oral presentations and 23% for combined oral and poster presentations.

In addition to the full and short papers presentations and poster presentations, IUI will also feature a Demonstrations session for which 18 submissions were accepted from a total of 26 submissions.

This year, the IUI programme includes three notable invited speakers sharing their innovative work and experiences with the conference participants: Alex 'Sandy' Pentland from the MIT Human Dynamic Lab, Christopher Bishop from Microsoft Research and Takeo Igarashi from the University of Tokyo.

In order to foster the growth of the community, IUI 2012 will feature for the first time in the IUI series a Doctoral Consortium. Its success can be measured by the 12 high quality submissions received. Doctoral Consortium students will also be able to exhibit their work to the main conference audience in the poster session, thus promoting their insertion into the IUI community. We would also like to thank the conference sponsors and supporters that made it possible to provide financial support for Doctoral Consortium attendees and other students participating in the conference.

Nine full-day workshops will take place at IUI 2012 covering diverse trending topics in the IUI area: Activity Context Representation: Techniques and Languages; Developing Intelligent User Interfaces for e-Accessibility and e-Inclusion; Context-awareness in Retrieval and Recommendation (CaRR 2012); 3rd Workshop on Semantic Models for Adaptive Interactive Systems (SEMAIS); Scent and Scensibility; User Modeling from Social Media; 2nd Workshop on Interacting with Smart Objects;

2nd Workshop on Location Awareness for Mixed and Dual Reality (LaMDa'12); 1st International Workshop on Ubiquitous Personalization (UP'2012).

IUI 2012 continues and extends the cooperation with the ACM Transactions on Interactive Intelligent Systems (TiiS). Besides the streamlined processing of journal submissions based on IUI 2012 papers, IUI 2012 will feature a special session where authors of recently accepted articles for the ACM TiiS will spotlight key contributions of their work. It is our conviction that it will benefit greatly every member of the IUI community. We would like to thank Anthony Jameson and John Riedl, the Editors in Chief of TiiS, for their cooperation.

The organisation of IUI 2012 is a team effort and, besides the contributions of all Chairs and the Program committee members, a team of volunteers worked very hard to make it a reality. We are very grateful to everyone who helped managing the different aspects of the conference and contributed to its success. We would like to extend our thanks to Daniel Kim of Red Whale for assisting with the Conference web site, and Lisa Tolles of Sheridan Printing Company for the preparation of the proceedings.

Finally, we acknowledge the support of the ACM through its special interest groups SIGART and SIGCHI. We also wish to thank our corporate supporters RedWhale Software, Microsoft Research and IBM Research, and the institutional support of the National Science Foundation.

We hope that you find this an innovative and interesting program, and that the conference will provide you with the opportunities to meet other researchers and practitioners with whom you can share ideas and cooperate in the future. We're looking forward to see you in Lisboa!

**Carlos Duarte  
and Luís Carriço**  
*IUI'12 General Chairs*

**Joaquim Jorge, Sharon Oviatt,  
and Daniel Gonçalves**  
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**SIGCHI**

ACM Special Interest Group on Artificial Intelligence

Corporate  
Supporters:



**RedWhale Software**



**Microsoft Research**

## IBM Research

**IBM Research**

Institutional  
Supporter:



**National Science Foundation**

In Cooperation  
With:



**Interaction-Design.org**