



ISWC'09

ISWC'09, the thirteenth annual International Symposium on Wearable Computers, is the premier forum for wearable computing and issues related to on-body and worn mobile technologies. ISWC'09 will bring together researchers, product vendors, fashion designers, textile manufacturers, users, and related professionals to share information and advances in wearable computing. ISWC'09 explicitly aims to broaden its scope to include cell phones and cell phone applications, as they have become the most successful wearable computer to date.

ISWC'09 invites to submit original work in one or more of the following formats: full papers, notes, posters, late breaking results, demonstrations, videos, tutorials and workshops. As already successfully performed in the past, this year's ISWC also invites for a contest of wearable system designs, encouraging academic and industrial design, media and art authorities to submit conceptual work in a creative, inspiring, innovative and future oriented style.

For first time, ISWC'09 will publish adjunct proceedings, which will include the late breaking results, video papers, demonstrations, design papers of selected workshops.

#### Wearable Systems

- Wearable system design, wearable displays and electronic textiles
- Wearable sensors, actuators, input/output devices and power management systems
- Interaction design, industrial design of wearable systems
- Wearable sensor networks for sensing context-awareness, activity or cognitive state
- Software and service architectures, infrastructure based as well as ad-hoc systems
- Operating systems issues related to wearable computing, including issues such as dependability, fault-tolerance, security, trustworthiness and power management
- Networks, including wireless networks, on-body networks, and support for interaction with other wearables, pervasive and ubiquitous computing systems or the Internet
- Cooperative wearables, ensembles of wearable artifacts, coordination or wearables
- Techniques for power management and heat dissipation, and manufacturing issues

#### Usability, HCI and Human Factors in Wearable Computing

- Human factors issues with and ergonomics of body worn computing systems
- User modeling, user evaluation, usability engineering of wearable systems
- Systems and designs for combining wearable and pervasive/ubiquitous computing
- Interfaces, including hands-free approaches, speech-based interaction, sensory augmentation, haptics, and human-centered robotics
- Social implications, health risk, environmental and privacy issues
- Wearable technology for social-network computing, visualization and augmentation
- Experience design

#### Applications of Wearable Systems

- Wearable systems in consumer, industrial, work, manufacturing, environmental, educational, medical, sports, wellness, health care and ambient assisted living domains
- Wearable systems in culture, fashion and the arts
- Smart clothing, for people with disabilities, and for elderly enablement
- Use of wearable computers as components of larger systems, such as augmented reality systems, training systems and systems designed to support collaborative work
- Formal evaluation of performance of wearable computer technologies, and comparisons with existing technologies

#### Mobile Phones as Wearables

- Mobile applications designed for / delivered through cell phones
- Cell phone services, cell phone designs, cell phones as personal computers
- Cell phone technologies, e.g. combining short and long range radios, multimedia streaming
- Extending cell phone hardware e.g. sensing, novel IO modalities, embeddings
- Cell phone interaction, cooperative cell phones, grids and clouds of cell phones
- Studies based on cell phone deployments (especially large scale)

#### CONFERENCE COMMITTEE

##### Conference Co-Chairs

Alois Ferscha (University of Linz, AUT),  
Gerfried Stocker (Ars Electronica Center Linz, AUT)

##### Program Committee Co-Chairs

Paul Lukowicz (University of Passau, GER)  
Kent Lyons (Intel Research, USA)

##### Finance Chair

Gabriele Kotsis (University of Linz, AUT)

#### TECHNICAL PROGRAM COMMITTEE

Oliver Amft (ETH Zurich, SUI)  
Michael Beigl (TU Braunschweig, GER)  
Leah Buechley (MIT, USA)  
Lucy Dunne (Un. of Minnesota, USA)  
Steve Feiner (Columbia University, USA)  
Jennifer Healey (Intel, USA)  
Holger Kenn (Microsoft EMIC Aachen, GER)  
Cornel Klein (Siemens CT SE 2 Munich, GER)  
Tom Martin (Virginia Tech, USA)  
Kenji Mase (Nagoya University, JPN)  
Rene Mayrhofer (University of Vienna, AUT)  
Joe Paradiso (MIT, USA)

Cliff Randell (University of Bristol, GBR)  
Daniel Roggen (ETH Zurich, SUI)  
Joachim Schaper (SAP Walldorf, GER)  
Bert Schiele (TU Darmstadt, GER)  
Dan Siewiorek (Carnegie Mellon University, USA)  
Asim Smailagic (Carnegie Mellon University, USA)  
Mark Smith (KTH, SWE)  
Thad Starner (Georgia Tech, USA)  
Bruce Thomas (University of South Australia, AUS)  
Kristof Van Laerhoven (TU Darmstadt, GER)  
Roy Want (Intel Research, USA)  
Jamie Ward (Lancaster University, GBR)

IMPORTANT DATES	Submissions (firm!)	Not. of Acceptance	Final Version / CR
Papers & Posters	March 30, 2009	May 11, 2009	June 15, 2009
Video Papers	June 3, 2009	June 17, 2009	July 7, 2009
Late Breaking Results	June 3, 2009	June 29, 2009	July 7, 2009
Design Contest	June 3, 2009	June 17, 2009	July 7, 2009
Demos	July 13, 2009	August 3, 2009	August 10, 2009

ISWC'09 will be held from September 4-7, 2009 in Linz (Austria). Tutorial/Workshops September 4, Doctoral Colloquium September 4, Main Conference September 5-7, 2009.

#### SUBMISSIONS

www.iswc.net

##### Full Papers

Regular paper submissions must present original, highly innovative, prospective and forward-looking research in one or more of the themes given above. Full papers must break new ground, present new insight, deliver a significant research contribution and provide validated support for its results and conclusions. Successful submissions typically represent a major advance for the field of wearable computing, referencing and relating the contribution to existing research work, giving a comprehensive, detailed and understandable explanation of a device, system, study, theory or method, and support the findings with a compelling evaluation and/or validation. Each paper must be submitted as a single PDF file in IEEE Computer Science Press 8.5x11 inch two-column format (not longer than eight pages in length). Accepted regular papers will be included in the printed conference main proceedings and presented in the paper sessions. Submissions to ISWC'09 must not be under review by any other conference or publication during the ISWC review cycle, and must not be previously published or accepted for publication elsewhere.

##### Notes and Posters

Notes (not longer than four pages in length) and posters (not longer than two pages in length) must report new results and provide support for the results, as a novel and valuable contribution to the field – just like full papers. Notes are intended for succinct work that is nonetheless in a mature state ready for inclusion in archival proceedings. Posters are intended to present very concise, yet focused and significant research results. Both notes and posters will be held to the same standard of scientific quality as full papers, albeit for a shorter presentation, and must still state how they fit with respect to related work, and provide a compelling explanation and validation. Notes and posters must be submitted as single PDF file in IEEE Computer Science Press 8.5x11-inch two-column format. Accepted notes and posters will be published in the conference main proceedings. Notes will be presented in the paper sessions of the conference, posters will be presented at the conference poster and demonstration session.

##### Late Breaking Results

This submission format aims at presenting very topical issues and late breaking application oriented results in all areas of wearable computing. Just like regular papers, late breaking results should present directing research, but in a very focused and compact format. Late breaking results are not understood as short papers condensed into less page space, but are intended to present pointed results at a high level of technicality. LBR submissions can gain from an "extended submission deadline" (June 3, 2009), and should be formatted in Springer LNCS single column format, not exceeding 8 pages). They will undergo a scientific reviewing process managed by the LBR program committee under the steering of the LBR chairs (Daniel Roggen, Lucy Dunne, Rene Mayrhofer). Accepted LBRs will be presented at the conference, and will be published in the "Advances in Wearable Computing" book of the OCG (adjunct proceedings), accompanying the conference proceedings.

##### Video Papers

Submissions (deadline June 3, 2009) are invited to present novel wearable computing systems, devices or just designs, or demonstrate innovative styles of interaction or usability of those systems – in a lively format: as a video. Video clips should be no longer than 8 minutes and be accompanied by a 4 page (or approx. 2000 words) written summary. Video paper submissions should be formatted in Springer LNCS single column format, and not exceeding 4 pages). Accepted video papers will be published in the "Advances in Wearable Computing" book of the OCG, accompanying the conference proceedings. The author(s) of a video are expected to present a brief introduction at the conference, while all full videos will be presented during the ISWC'09 night show – a special event in the frame of the 30<sup>th</sup> anniversary of the Ars Electronica Festival. Video papers will be published in the ISWC'09 adjunct proceedings, all video clips will be presented in the ISWC'09 Video DVD.

##### Reviewing Process for Papers, Notes, Posters, LBRs and Video Papers

ISWC'09 will adopt a double-blind process for full papers, notes and posters – as well as for late breaking results and video papers. Authors' names and their affiliations must not be revealed or mentioned anywhere in the submission. Please refer to the paper submission link at the conference website (www.iswc.net). Questions about the papers, notes and posters should be directed to progchair@iswc.net, about late breaking results submissions to lbrchair@iswc.net, and about video papers to videochair@iswc.net.

##### Demos

Demonstrations provide an opportunity to show research prototypes and works-in-progress to colleagues for comment in a relaxed atmosphere. Both independent demonstrations and those accompanying accepted papers and posters are welcome. Demonstrations will not be published in the main conference proceedings, but will be included in the adjunct proceedings. Accommodations (power, space, etc...) will be limited, so participants should plan to be mobile and self-supported. To apply to perform a demonstration, please submit (i) a one-page summary that describes what you plan to demonstrate, including a 200 word abstract and (ii) a photo or diagram to be included in the demonstration handout alongside the abstract (minimum size 640 x 480 pixels) to demonstrations@iswc.net by Monday July 13, 2009. Only the abstract will be included in the "Advances in Wearable Computing" book (adjunct proceedings), the rest of the summary will be used to judge the quality of the submission.

##### Design Contest

Participating at the ISWC design contest is a great opportunity to showcase your product or prototype to the leaders in wearable computing. The design contest will take place during the conference banquet dinner on Sunday, September 6, 2009 and can be used to demonstrate your "smart gadgets" (plan to be mobile and self-supported). Contributions are encouraged from all areas of wearable computing, from technologies to textiles, from potential employers to product vendors. Please submit your proposals (a one-page summary describing your prototype, including a 200 word abstract and photos/videos) to designcontest@iswc.net at the latest by Wednesday June 3, 2009. Direct questions related to the Design Contest to designcontest@iswc.net.

##### Tutorials and Workshops

Workshop proposals should be submitted in PDF format via E-mail to workshops@iswc.net by February 1, 2009. The workshops will provide a forum to discuss topical aspects of wearable computing in focus groups. State of the art tutorials will be presented by experienced, distinguished presenters. The workshops and tutorials will take place on Friday, September 4 2009 (a day before the main conference). (workshops@iswc.net, tutorials@iswc.net)

##### Doctoral Colloquium

The purpose of the colloquium is to offer PhD students and candidates, interested in the wearable/mixed and augmented reality fields, an opportunity to present their ideas and research plans in an international, agile and renowned audience of junior and senior researchers and developers in the wearable computing field. Thesis position papers (5 pages including all figures and bibliography) are solicited relating a problem statement, methodological approach, potential for innovation and expected contribution to the international wearable computing literature. Accepted submissions will be presented during the colloquium and will be included in the ISWC'09 adjunct proceedings. The doctoral colloquium will take place on Friday, September 4, 2009 (a day before the main conference). Authors will also be expected to present a poster of their work during demonstration session at ISWC (September 6, 2009). Further information can be obtained from the conference website www.iswc.net or from doctoralcolloquium@iswc.net.

##### PUBLISHING

The ISWC'09 Proceedings will be published by IEEE Computer Society Press as print proceedings, and on-line via IEEE Xplore Digital Library (approval pending). The ISWC'09 Adjunct Proceedings will be published by the OCG, an ISBN carrying publisher, in the book "Advances in Wearable Computing".