

Preliminary Call for Papers

ISWC 2013, the 17th annual International Symposium on Wearable Computers, is the premier forum for wearable computing and issues related to on-body and worn mobile technologies. ISWC brings together researchers, product vendors, fashion designers, textile manufacturers, users, and related professionals to share information and advances in wearable computing.

ISWC invites submissions on everything related to computing on the body: on-body sensing and sensor networks, wearables for professional use, mobile healthcare, or entertainment; wearable-wearer interaction, and “on-the-go” uses of mobile devices and systems. Submissions can be full papers, notes, or posters, and are due early April 2013.

Areas of Interest

From Mobile to Wearable

- Wearable system design, wearable displays
- Smart-textiles technologies, textile sensing and feedback
- Wearable sensors, actuators, input/output devices
- Hardware and software aspects of power management
- Manufacturing aspects in wearables and smart-textiles
- Wearable sensor networks, networks including wireless networks, on-body networks, and support for interaction with wearables, pervasive and ubiquitous computing systems or the Internet, communication channels, multimedia streaming
- Software and service architectures, infrastructure based and ad-hoc systems, operating systems, dependability, fault tolerance, security, trustworthiness
- Wearable apps designed for / delivered through smartphones
- smartphones services, smartphones designs, smartphones as personal wearables
- Smart phone technologies with a wearable impact, e.g. combining devices
- Extending smartphones hardware with sensing or novel IO modalities
- Smartphones interaction, cooperative smartphones or wearables, grids and clouds of smartphones, ensembles of wearable artifacts, coordination of wearables

Information processing, methods, tools

- Context recognition methods, including location awareness, activity recognition, cognitive-affective states recognition, and social context recognition
- Adaptivity, personalization, customization and lifelong learning in activity recognition
- Robust, fault-tolerant, opportunistic & power-aware methods
- Context-awareness through big data, web-mining and cloud computing
- Data fusion, sensor synergies, advanced machine learning and reasoning for context awareness
- Automating the design of activity recognition chains
- Smart or automated data annotation techniques
- Modeling, simulations, and tools supporting science
- Formal evaluation of performance of wearable computer technologies

Usability, HCI and Human Factors

- Interaction design, industrial design of wearable systems
- Human factors, acceptance, ergonomics
- User modeling, user evaluation, usability engineering, user experience design
- Systems and designs for combining wearable and pervasive/ubiquitous computing
- Explicit and implicit interfaces, including hands-free approaches, speech-based interaction, sensory augmentation, haptics, and context-aware interfaces
- Societal implications, health risk, environmental and privacy issues
- Wearable technology for social-network computing, visualization and augmentation

Applications of wearables

- Wearables in consumer markets and for entertainment, ...
- Wearables in the industry, in manufacturing, in offices, for the mobile worker, in construction, ...
- Wearables for teaching and education
- Environmental sciences, urbanism, and architecture
- Wearables and smart-clothing in medicine, wellness, health-care, to support disabilities, and enable the elderly
- Wearables enabling ambient assisted living
- Wearables in psychology, social sciences
- Human-robot interactions
- Wearables in culture, fashion and the arts, sports and music
- Wearables in crowds, wearables sensing and influencing collective behaviors
- Integrating wearables into larger systems, such as augmented reality systems, training systems and systems designed to support collaborative work
- Studies based on large cell phone deployments

EyeWear Computing (special category)

- Cutting edge HMD devices, novel optical design methods
- Eyewear mounted sensors, actuator systems, impact studies
- Input/output devices and Interaction design for eyewear based systems, enabling applications
- Eyewear computing for healthcare
- Human factors issues with, and ergonomics of, eyewear systems

Submissions

Each full paper, note, or poster must be submitted as a single PDF file in IEEE Computer Science Press 8.5×11 inch two-column format: full papers not longer than eight pages in length, notes not longer than four, posters not longer than two. All accepted submissions will be included in the printed conference main proceedings. Full papers and notes are presented in the paper sessions. Submissions to ISWC 2013 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. See also the **ISWC Author Guide** at <http://www.iswc.net/iswc13>.

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.

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.

Reviewing Process for Papers, Notes, Posters

ISWC 2013 adopts a double-blind process for full papers, notes and posters. Authors' names and their affiliations must not be revealed or mentioned anywhere in the submission. At least two members of the Program Committee and a set of external expert reviewers will review submitted papers. At a physical PC meeting, the committee will select those papers, notes, and posters to be presented at ISWC 2013.

Contact us!

For more information, visit the ISWC 2013 website at:

<http://www.iswc.net/iswc13>

