1st Workshop on Personalized Health & Intelligent Workplaces Transforming Ergonomics (pHIWtE'18)

La Sapienza Università di Roma
Rome, Italy, June 25-28, 2018

Work-related disorders and diseases have significant consequences for society at many levels including healthcare total expenditure. Muscle-skeletal disorders and burnout depression are common conditions resulting from un-healthy or hazardous working scenarios. The most common approach to avoid harmful working lifestyle is prevention by design, i.e. designing the work environment for a healthy and safe job execution. Assessing risks at job stations and designing work environments to minimize hazard have traditionally been done by visual observation by occupational health experts, ergonomists. Such observations and assessments are often unreliable and ergonomist experience dependent leading to evaluations far from optimal.

In this context, use of pervasive technology, ubiquitous computing and p-health monitoring provide a key toolset to transform a common working scenario into a healthy intelligent workplace. Thus, smart textiles enabling intelligent biomedical clothing and micro-electronics integrated in wearables devices and the recent proliferation of IoT systems have facilitated the integration of pervasive sensitive services into the environment. These, together with AmI techniques and Big Data, have facilitated the proliferation of p-Health monitoring: pervasive and personalized. Advances in development of inertial measurement units, activity and heart-rate sensing health watches, HR T-shirts and HR chest straps and their wide presence even as consumer electronics products have opened a new arena for monitoring the physical workload and posture of different limbs. These sensors can be used to complement the visual assessments by ergonomists, gather epidemiologic data and even provide prompt feedback and virtual coaching. The big data analysis on generated epidemiologic data can provide evidence based limits to prevent work-related diseases. In addition, trend analysis of individual data and advances in Interaction Design and AmI augment the environment for personalized feedback and interventions.

Transformation of a work environment into a careful, even healthy, intelligent workplace as deployment platform for p-Health services may support not just ergonomists, employee and employers but also society in general. In this sense, this enhancement of the workplace may even contribute to a paradigm shift (away from hospital toward personalized care by following final users in all daily life areas) which is required for ensuring the long-term sustainability of a significantly challenged healthcare system.

Submission Guidelines

All papers must be original and not simultaneously submitted to another journal or conference. All submissions must adhere to the IOS Press format with a length of at least 6 but no more than 10 pages. Papers should be submitted through the EasyChair portal (Submission link).

Important Dates

- Paper submission deadline: 1 March 2018
- Notification of acceptance: 5 April 2018
- Final version submission: 15 April 2018
- Workshop date: 25 or 26 June 2018

List of Topics

- Requirement specification
- Activity recognition
- User acceptance
- Activity-centered design
- Human-centered design
- Digital Ergonomics
- Pervasive Sensitive Services
- Visualization
- User-centered Security
- Big Data and Data analysis
- Process mining
- Context adaptation and variability
- Wearables and IoT services
- Testing
- Validation

Committees

Co-Chairs
- Prof. Fernando Seoane, Karolinska Institutet (*fernando.seoane@ki.se*)
- Dr. Mario Vega-Barbas, KTH-Royal Institute of Technology (*mariovb@kth.se*)

Program committee
- Professor Jörgen Eklund, KTH-Royal Institute of Technology, Sweden
- Professor Kaj Lindecrantz, University of Borås, Sweden
- Assoc. Prof. Iván Pau, Universidad Politécnica de Madrid, Spain

Venue

The conference will be held within **The 14th International Conference on Intelligent Environments - IE'18** at the DIAG [Department of Computer, Control and Managment Science and Engineering] at "La Sapienza Università di Roma".

Sponsors

This workshop is sponsored by EIT-Health and organized in the context of the We@Work EIT-Health project.