





2020 IEEE INTERNATIONAL WORKSHOP ON

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ETROIND4.0&loT

CNR - NATIONAL RESEARCH COUNCIL HEADOUARTERS - Piazzale Aldo Moro

~~~~~ CALL FOR PAPERS for the Special Session on **GENDER-INSPIRED APPROACHES TO THE** in Engine **DESIGN OF INNOVATIVE MEASUREMENT** SYSTEMS AND INT APPLICATIONS

Italy Section Affinity Group

Recent outstanding progress in intelligent materials formulation, sensors technology, sensors networks development and IoT widespread diffusion, paved the way to the design of complex systems monitoring physical, physiological, behavioural parameters of several different categories of end-users. To what extent are the gender-based differences taken into account when designing such systems? Relevant gender-related design aspects include: wearability for wearable systems, user interfaces, measurements reference parameters, sensor placement, personal data management and usage, etc.

Moreover, user interaction with these systems goes well beyond the simple sensors interface and may underlie gender-bias that should be avoided. Gender may influence the way the subject approaches the system, in terms of acceptance, tolerability, inclination to share personal data, and so on.

Sponsored by the WIE AG IEEE Italy Section, this special session encourages submissions about how the design of measurement systems and IoT applications may deal with gender-related issues and their implications, in order to share views, approaches and best practices.

MAIN TOPICS

Topics include, but are not limited to:

- · Best practices in accounting gender diversity by design
- · Gender-based different approaches to the interaction with physical and virtual systems
- Gender-inspired models for the design of interactive technology
- · Gender-driven design practices in on-body measurements, wearable devices and IoT
- Gender diversity and inclusivity in sensor technology, interfaces and measurements
- · Practical guidelines for designing gender-aware sensors and wearables (e.g. automatic gender recognition)
- Strategies and practices to avoid gender bias in system design, machine learning and artificial intelligence algorithms in IoT applications
- Gender-based information management for collecting, processing, distributing and sharing measured data
- Measurements and data to inform gender research in medicine, social sciences, product design, etc.

ORGANIZERS



Paola Saccomandi

Politecnico di Milano, Italy

Cristina Emilia Costa

MetroInd4.0&IoT 2020

Fondazione B. Kessler. Italv

Monica La Mura University of Salerno, Italy



Dajana Cassioli University of L'Aquila, Italy





