IEEE TBioCAS Special Issue -

Wearable and Flexible Integrated Sensors for Screening, Diagnostics, and Treatment
(Extended Deadline: July 15, 2019)
(WISEDT19)

CALL FOR CONTRIBUTIONS

Emerging flexible and wearable physical sensing devices create huge potential for many vital healthcare and biomedical applications including artificial electronic skins, physiological monitoring and assessment systems, and therapeutic and drug delivery platforms etc. Monitoring of vital physiological parameters in hospital and/or home conditions has been of tremendous interests to doctors and healthcare practitioners for a long time. Physiological signals are important indicators of the vital signs of human health, and real-time monitoring of physiological signals can predict, diagnose, and potentially prevent life threatening conditions, such as for stroke, cancers, cardiovascular disease, hypertension, diabetes, neural disorder, chronic pain, obesity, etc. Furthermore, a real-life long-term monitoring of health could quantify the impact of treatment at home care. The IEEE Transactions on Biomedical Circuits and Systems (TBioCAS) will publish a Special Issue devoted to Wearable and Flexible Integrated Sensors and Systems. The goal of this special issue is (i) to provide a roadmap of circuits and systems for wearable and flexible sensor device; (ii) to encourage cross-disciplinary collaboration in this emerging research field; and (iii) to report the state-of-art development of these circuits and devices with translational potential into the clinics. This special Issue brings together members of our communities to broaden their knowledge in emerging areas of research at the interface of the life sciences and the circuits and systems engineering.

Manuscripts describing original circuits/systems and bio validation (experimental or clinical) as well as reviews of emerging directions are solicited for this special issue, covering a range of biomedical and healthcare sensor related topics, including but not limited to:

- Low-power, Low-noise Circuits for Wearable Sensors
- Wireless Integrated Sensor Microsystems and Circuits
- Highly Sensitive and Specific Sensor Interface Circuits and Signal Processing
- Artificial Intelligence Circuits for Sensor Reasoning, Classification and Decision
- Power Management and Energy Harvesting Circuits for Wearable and Flexible Devices
Flexible Sensor Interface Circuits and Systems
Portable Biomedical Sensing and Imaging Circuits and Systems
Hybrid Biofeedback and Closed-Loop Systems
BioMEMS and Lab-on-Chip Sensor Interface Circuits and Systems
Smart Packaging for Wearable and Flexible Devices
Comfortable Home Monitoring Sensor Circuits and Systems

The manuscript for TBioCAS must be submitted online using the IEEE TBioCAS manuscript template and "Information for Authors", via the IEEE Manuscript Central found at the following Website address: https://mc.manuscriptcentral.com/tbcas. Authors should select the Special Issue manuscript titled “WISEDT19” instead of “Regular Paper”. The length of a manuscript must follow IEEE format (template can be found on TBioCAS website). For any information, please contact Prof. Yuanjin Zheng at the following Email address: yzheng@ntu.edu.sg. In addition, you can contact the other editors as indicated below.

**Extended Important Dates:**

Submission of manuscript deadline: **July 15, 2019**
Acceptance / major-revision-resubmission / rejection notifications: August 15, 2019
Revised manuscripts due: September 15, 2019
Final acceptance: October 2, 2019
Publication: November 1, 2019

**Guest Editors:**

- Yuanjin Zheng (Nanyang Technological University, Singapore), yjzheng@ntu.edu.sg
- Maysam Ghovanloo (Georgia Institute of Technology, USA), mgh@gatech.edu
- Benny P.L. Lo (Imperial College London, UK), benny.lo@imperial.ac.uk
- Mohamed Atef (Assiut University, Egypt), moh_atef@aun.edu.eg
- Hanjun Jiang (Tsinghua University, China), jianghanjun@tsinghua.edu.cn