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IEEE Sensors Journal Special Issue on  
Next-Generation Smart Body Sensor Networks (BSN): from Autonomic Body Sensors to  
Cognitive Body Sensor Network Ecosystems

Body sensor networks have originally emerged as a potential disruptive technology for continuous physiological and behavioral monitoring of users. After more than one decade of their introduction, researchers have addressed a number of important research challenges. However, further progress needs to deal with more innovative concepts focusing on autonomic, cognitive, and smart BSNs at each level of the BSN architecture: sensors, devices, networking, middleware, multi-sensor data processing and fusion, systems, data and semantics. The scope of the proposed special issue is to seek the latest research findings on the analysis, definition, implementation, and testing of innovative solutions (hardware, models, architectures, signal processing) at sensor, system, and systems-of-systems level aimed at the design and development of cognitive BSN ecosystems. Next generation of BSN systems (namely BSN 2.0) will be also synergistically merged with Internet of Things (IoT) technology to foster several application domains: healthcare, fitness & wellness, smart cities, smart factories, on-field emergency management systems, etc.

It is intended that this Special Issue of the IEEE Sensors Journal will show the state-of-the-art in the next generation of smart Body Sensor Networks focusing in particular on novelty in the field of sensors. Original research contributions, tutorials and review papers are sought in Smart BSNs-related areas including (but not limited to):

- Design, implementation and testing of novel wearable and implantable sensors for BSNs
- Design, implementation and testing of systems in IoT Environments (Smart Home, Smart Healthcare, Smart Logistics and Transportation, Smart City, Smart Emergency, etc.) involving novel smart body sensors.
- Novel architectures for autonomic, cognitive and/or cooperative BSNs and sensor platforms
- Efficient signal processing embedded into smart wearable and implantable sensors
- Software-defined body sensors and networks
- Virtualisation of body sensors and networks

Solicited and invited papers shall undergo the standard IEEE Sensors Journal peer review process. All manuscripts must be submitted on-line, via the IEEE Manuscript Central™, see <http://mc.manuscriptcentral.com/sensors>. When submitting, please indicate in the "Manuscript Type" roll down menu, and also by e-mail to Ms. Lauren Young, [l.young@ieee.org](mailto:l.young@ieee.org), that the paper is intended for the "SMART-BSN" Special Issue. Authors are particularly encouraged to suggest names of potential reviewers for their manuscripts in the space provided for these recommendations in Manuscript Central. For manuscript preparation and submission, please follow the guidelines in the Information for Authors at the IEEE Sensors Journal web page, <http://www.ieee-sensors.org/journals>.

Deadlines:

- Manuscript Submission: April 30, 2018
- Notification of Acceptance: August 30, 2018
- Final Manuscript published in IEEE Xplore: October 31, 2018

Guest Editors:

**Lead GE, Giancarlo Fortino**  
DIMES - University of Calabria  
Italy  
[g.fortino@unical.it](mailto:g.fortino@unical.it)

**Ye Li**  
Shenzhen Institutes of  
Advanced Technology,  
Chinese Academy of  
Sciences, China  
[ye.li@siat.ac.cn](mailto:ye.li@siat.ac.cn)

**Mehmet Yuce**  
Monash University  
Melbourne Australia  
[mehmet.yuce@monash.edu](mailto:mehmet.yuce@monash.edu)

**Roozbeh Jafari**  
Texas A&M University  
USA  
[rjafari@tamu.edu](mailto:rjafari@tamu.edu)