

## CALL FOR PAPERS IEEE Sensors Journal Special Issue on *Advances and Current Trends in Sensing Physiological Parameters for Human Wellness and Patient Monitoring*

Sensor technology and advanced sensing systems are today experiencing a radical transformation which is affecting the way to conceive daily life. Public and private services for healthcare, homecare and telemedicine applications are some examples of possible application fields of sensors and transducers. Sensors and sensing systems may improve the quality of patient life by providing more and more efficient public services for better living and healthcare.

It is expected that in the next future, healthcare system and people will make an extensive use of sensors and transducers to gain understandings on patients' status during daily living activities and during diagnostic and surgical procedures. Advanced sensing systems and smart transducers will have a fundamental role in the life habits of the next future.

However, several perspectives and open research problems have to be investigated such as transducers development, signal treatment, standardized communication protocols, security, architecture, technology, reliability, maintenance, accuracy, management. Research and development have an important task to improve performances and features of sensing systems by including issues such as green communication, reliability assurance, high accuracy and system maintenance.

The present Special Issue aims at presenting and highlighting the advances and the latest novel and emergent technologies, best practices, implementations, applications and even innovative research outcomes concerning the design and the development of sensors, sensor networks, emerging biosensors, and wearable sensors for monitoring patients' status in different scenarios (e.g., during diagnostic and therapeutic procedures, during daily live activities and during rehabilitation programs, among others). It will provide a forum for the research community to share advances and new ideas in sensing technologies.

The Guest Editors encourage submission of papers addressing smart transducers and sensors related to this specific application field. Original research contributions, tutorials, and review papers are even encouraged. Manuscripts should provide content to be accessible to general audiences working in the field of sensors and sensing systems.

**This call invites significant contributions in the field of sensors and sensing systems dedicated to advances and new trend in the field on, but not limited to, the following topics:**

- Smart transducers and sensors for patient monitoring
- Advances in sensing systems for diagnosis
- Multisensor data fusion models
- Traceability and calibration of distributed sensing grids in Ambient Assisted Living solutions
- Distributed and networked sensors for rehabilitation programs
- Sensors for Homecare and Healthcare solutions
- Transducers and sensors for therapeutic treatments
- Sensing and imaging for non-invasive diagnosis
- Sensor signal, image and video processing techniques
- Sensor-based machine vision and automation for surgery
- Biosensors and bio-chemical sensors for health monitoring
- IoT-based sensors and sensing systems for homecare solutions
- Wearable sensors for daily living activities

### Submission Guideline

All manuscripts shall undergo the standard IEEE Sensors Journal peer review process. All manuscripts must be submitted online, via the *IEEE Manuscript Central*<sup>TM</sup>, see <https://mc.manuscriptcentral.com/sensors>. When submitting, please indicate in the "Manuscript Type" roll down menu, and also by e-mail to Ms. Lauren Young, [lyoung@ieee.org](mailto:lyoung@ieee.org), that the paper is intended for the "Advances and Current Trends in Sensing Physiological Parameters for Human Wellness and Patient Monitoring" Special Issue. Authors are particularly encouraged to **suggest names of potential reviewers** 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://ieee-sensors.org/sensors-journal/>.

### Schedule

- **Submissions deadline:** May 31, 2020
- **Author notifications:** July 31, 2020
- **Final manuscripts due:** September 30, 2020
- **Expected Publication date:** December, 2020

### Guest Editors

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