Special Issue

Advances in Sensing Technologies for Sleep Monitoring

Message from the Guest Editors

Sleep is a biological necessity and crucial to maintaining healthy mental and physical functioning. The increasing interest in monitoring and improving sleep behaviours has spurred the development of sensing technologies and devices in recent years. These devices can provide objective measures of sleep, which are less biassed than self-reported measures and are more economical and less labour-intensive to obtain compared to the current gold standard, polysomnography. Recent advances in sensing and digital health technologies and data science facilitate longitudinal monitoring of sleep and big data collection and analysis, providing great opportunities to explore the short- and long-term impact of sleep changes on health and wellbeing. Topics of interest include:

- Sensing technologies and Al algorithms for sleep monitoring;
- Novel data-driven approaches for sleep behaviour assessment;
- Digital health and remote monitoring frameworks that support effective implementation and deployment of data- and technology-driven approaches for sleep monitoring;
- Case studies on co-design, feasibility, usability, acceptance, and performance of sensing technology

Guest Editors

Dr. Mahnoosh Kholghi

Dr. Moid Sandhu

Dr. David Silvera-Tawil

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Sensors
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
sensors@mdpi.com

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Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro

Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 Bari, Italy

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