Special Issue Call for Papers
Smart Healthcare Services and Technology-Driven Healthcare Systems

Description: The healthcare industry is in an era of rapid technological advancements worldwide. The next-generation of health information technologies and medical devices are being rapidly adopted, which has had a significant impact on safety, quality, costs, and access in healthcare. Meanwhile, Industry 4.0 has promoted the use of new technologies such as wearable sensors, virtual reality, artificial intelligence, and blockchain. The adoption of these new technologies not only makes it possible to collect large amounts of high-frequency data, but also enables new service offerings, such as electronic visits for primary care, telemedicine for specialty care, and tele-ICU for critical conditions. These technology-enabled service innovations allow healthcare systems to provide patient-centric and high-value services. Entering the new era of technology-driven healthcare 4.0, the industry is faced with unprecedented challenges and opportunities. To survive and thrive, healthcare organizations need to understand the dynamics of the new social-technical systems, and approach the design, policy, and operational challenges from a systems perspective and with a data-to-decision mindset.

Within this context, this special issue invites submissions that address these emerging issues in healthcare from both academia and industrial practice. We invite researchers, clinicians, scientists, and engineers to submit their innovative work on related topics in the fields of operations research, human factors, medical decision-making, health informatics, and health policy.

Potential topics include, but are not limited to the following two categories.
Category I: Innovative models and methods
- Stochastic and optimization models for healthcare delivery innovations
- Empirical methods to evaluate system and behavioral changes due to new technologies
- Socio-technical systems models for technology design and implementation
- Ubiquitous user monitoring methods to improve health and healthcare delivery
- Human Factors Engineering models and methods for analysis of healthcare work in the context of next-generation health technologies and services

Category II: Emerging healthcare applications
- Intelligent medical devices, such as robots
- Mobile healthcare, including new apps with wearable sensors
- Intelligent referral and triage systems
- Internet hospital and electronic visits
- Payment structure design for novel delivery systems
- Real-time monitoring and response to infectious disease spread

Submissions:
All papers should be submitted through the journal's ScholarOne online submission website (mc.manuscriptcentral.com/uhse). During the online submission process, please indicate that the submission is for this special issue. There will be a prompt for this at the submission website.

Key dates:
Deadline for Submission: July 1, 2020.
Completion of 1st Round Review: September 1, 2020.
Completion of 2nd Round Review: December 1, 2020.
Final Decision: February 1, 2021.
Expected Publication: Fall 2021.

Guest Editors:
For any inquiry about this special issue, please contact the Special Issue Editors below:
Bjorn Berg, University of Minnesota-Twin Cities, USA, (bberg@umn.edu)
Nicole E. Werner, University of Wisconsin- Madison, USA, (nwerner3@wisc.edu)
Christian Wernz, Virginia Commonwealth University, USA, (cwernz@vcu.edu)
Xiaolei Xie, Tsinghua University, China, (xxie@tsinghua.edu.cn)
Xiang Zhong, University of Florida, USA, (xiang.zhong@ise.ufl.edu)