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**Special Issue on Artificial Intelligence in Automation for Healthcare Applications**

In recent years, significant advancements in technology and engineering and the rapidly changing market have generated numerous opportunities for innovation in automation for healthcare applications. A number of new challenges have emerged to apply and implement these innovations. Such opportunities and challenges have significantly expanded the scopes of traditional automation science and engineering for healthcare applications, especially with the integration of artificial intelligence. The goal of this special issue on artificial intelligence in automation for healthcare applications is to bring together researchers and practitioners from both academia and industry into a forum, to show the state-of-the-art research and applications in the general area of artificial intelligence in automation for healthcare applications, by presenting efficient scientific and engineering solutions, addressing the needs and challenges for integration with new technologies, and providing visions for future research and development. Because we are targeting at both theoretical soundness and practical importance of the papers, this special issue may risk not receiving enough high-quality papers. If that is the case, the proposed special issue will be reduced to a special section.

Topics to be covered include, but are not limited to:

- Artificial intelligence in human-computer interaction
- Artificial intelligence in medical device control
- Artificial intelligence in bio-signal processing and pattern recognition
- Intelligent wearable and assistive devices
- Artificial intelligence in medical imaging
- Artificial intelligence in health monitoring
- Robot-assisted rehabilitation/surgery robotics and diagnostics
- Biomedical circuit and system
- Artificial intelligence in biomedical bionics
- Artificial intelligence in medical records, clinical decision making, and virtual nursing assistants

**Important Dates**

- Paper submission deadline: 1st February, 2020
- Completion of the first round review: 1st May, 2020
- Completion of the second round review: 1st July 1, 2020
- Final submission due: 1st August, 2020
- Tentative publication date: 1st November, 2020

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### **Paper Submission**

All papers are to be submitted through the IEEE's Manuscript Central for Transactions on Automation Science and Engineering <http://mc.manuscriptcentral.com/t-ase>. Please select "Special Issue" under Manuscript Category of your submission. All manuscripts must be prepared according to the IEEE Transactions on Automation Science and Engineering publication guidelines <http://www.ieee-ras.org/publications/t-ase>. Please address inquiries to the lead guest editor [[zhangmm@sustech.edu.cn](mailto:zhangmm@sustech.edu.cn)].