

CALL FOR PAPERS

Special Section on

AI and Big Data Analytics in Biology and Medicine

Aims and Scope

As more and more data are generated from modern biology and medicine, AI and big data analytics play a more important role in helping derive meaningful and logical conclusions in biology and medicine. Understanding the biological and medical data will help in answering important questions of life on earth, finding solutions for global health problems and can even help in solving problems like drug design and disease diagnosis. Not only is this information generated from biology and medicine very detailed, it also possesses unique properties such as low quality data, big data size, different complex formats, high dimensionality, many duplications and a lot of noises, and so on; all of them require a special skill set or unique tools to analyze and interpret. Thus, a lot of researches using AI and big data analytics on biological and medical data are becoming very popular and hot topics in the computer science research community.

To this end, we need to study and develop AI and big data analytics technologies that can cope with these special biological and medical data. Due to these unique properties of these data, traditional AI and big data analytics methods and tools are no longer suitable to handle them. Therefore, specialized AI and big data analytics algorithms need to be developed to satisfy the conditions existing in these data and requirements in these two fields. This special section of JCST journal papers will focus on technologies and solutions related, but not limited to:

- AI methods for biological and medical data
- Big data analytics methods for biological and medical data
- Applications using AI and big data analytics for biological and medical data
- AI in COVID-19
- Deep learning with MRI, CT and X-Ray images
- Analytical tools for Biology and Medicine
- Performance evaluation of existing algorithms and tools
- Computer aided drug design
- Genome-wide association study (GWAS)
- Electronic health data analysis
- Analysis of biological sequences, structures and networks

Besides original research papers, submissions of high-quality survey papers, and papers on tools, systems, or applications are also welcome.

Schedule

Submission due: July 31, 2020

First Revision/Reject Notification: October 9, 2020

Final decision: December 18, 2020

Camera-Ready: December 28, 2020

Expected Publication: March 2021

Submission Procedure

All submissions must be done electronically through JCST's e-submission system at:

<https://mc03.manuscriptcentral.com/jcst> with a manuscript type: "**Special Section on AI and Big Data Analytics in Biology and Medicine.**"

Guest Editors

Yi Pan, Georgia State University, USA

Jian-Xin Wang, Central South University, China

De-Shuang Huang, Tongji University, China

Fa Zhang, Institute of Computing Technology , Chinese Academy of Sciences, China