

**Title:**

Artificial Intelligence in Smart Medicine

Abstract:

Nowadays, the traditional medicine face with numerous more and more serious challenges, such as complex information analysis, innovative therapeutic research, treatment cost affordability and so on. The Artificial Intelligence (AI) integrate the strengths of big data, algorithm and interconnect architecture to be one of the most efficient, omnipotent, ambitious but controversial themes in all aspects of society. Therefore, as a phenomenal innovation, it is necessary to study the possibility and effectiveness of employment of AI in medicine.

In this workshop, we attempt to research and reconstruct the topic *Artificial Intelligence in Smart Medicine* in several hot spots, which include medical data high performance processing and analysis with AI, various kinds of medical treatment improvement with AI, innovative functional medical equipments with AI and informatization medicine architecture with AI. Furthermore, we also concern about the research about privacy, security and management of medicine data , which are the foundation for smart medicine. Centrally, we set up the dedicated module for ethics discuss about AI utilization restriction in medicine action.

By organizing such a workshop we hope to contribute to fill a gap in current research on AI-related techniques in medicine

Scope and Topics:

Potential topics include but are not limited to:

- ✧ Artificial intelligence in medical signal processing
- ✧ Artificial intelligence in clinical medicine
- ✧ Artificial intelligence in aided diagnosis
- ✧ Artificial Intelligence in telemedicine
- ✧ Artificial Intelligence in wearable and implantable devices
- ✧ Artificial Intelligence in medical database management
- ✧ Artificial Intelligence in medical data privacy and security issues
- ✧ Artificial Intelligence and medical ethics



Program Committee Chairs:



Zhaohua Ding, Vanderbilt University , USA
zhaohua.ding@vanderbilt.edu
<https://engineering.vanderbilt.edu/bio/zhaohua-ding>

Zhaohua Ding received his M.S. degree in computer science from The Ohio State University, and the Ph.D. degree in biomedical engineering from The Ohio State University. He is currently services as an associate professor in the Vanderbilt University Institute of Imaging Science, Vanderbilt University. His primary research interests include image theory and engineering application, so far his research funded totaled \$10 million by the U.S. *department of health and human services*. He served on peer reviewer for several academic journals, such as *IEEE Transaction on Medical Imaging*, *NeuroImage* and *Magnetic Resonance in Medicine*. He has already published more than 200 high cited papers, especially one paper published in *IEEE Transaction on Image Processing* with 1000 plus citations and won the annual best paper award for IEEE signal processing society.

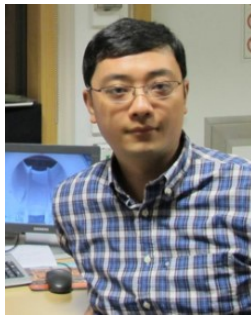


Jiliu Zhou, Chengdu University of Information Technology , China
zhoujl@cuit.edu.cn
<http://jsjxyen.cuit.edu.cn/info/1018/1095.htm>

Jiliu Zhou received BSc degree in Electronic and Computer Science from Sichuan University in 1985, MSc degree in Electronic and Computer Science from Tsinghua University in 1988, PhD degree from Sichuan University in 1999. He was promoted full professor in 1999 at Sichuan University, and now associated with Sichuan University and Chengdu University of Information Technology as professor. He has



published more than 200 journal papers, and now is the director of Collaborative Innovation Center for Image and Geospatial Information.



Xi Wu, Chengdu University of Information Technology , China
wuxi@cuit.edu.cn
<http://jsjxyen.cuit.edu.cn/info/1018/1094.htm>

Xi Wu is the professor in School of Computer Science, Chengdu University of Information Technology. He is also the deputy director of Collaborative Innovation Center for Image and Geospatial Information of Sichuan Province, P.R. China. His primary research area is the development of novel methods for analysis of imaging data. He has been also involved in cognitive studies cooperated with Computational intelligence since 2008 when he joined the Sichuan University and Vanderbilt University Institute of Imaging Science, Vanderbilt University for Ph.D. study. In 2012, Dr. Wu was with Oxford Centre for Functional MRI of the Brain, University of Oxford as a research intern.



Program Committee:

Jian Liu, University of Science and Technology Beijing, China

Liangbo Xie, Chongqing University of Posts and Telecommunications, China

Wei Zhe, Civil Aviation Flight University of China, China

Jing Yin, Chongqing University of Technology, China

Rui Zhang, Zhengzhou University, China

Songyang Zhang, Southwest University of Science and Technology, China