Dr. Tongning Wu

Professorate engineer, Deputy Director, AI Research Institute,
China Academy of Information and Communications Technology (CAICT)
Email: wutongning@caict.ac.cn

Educational Background

Université Paris-Est, Marne-la-Vallée, France
Ph.D. in électronique, traitement du signal, 2009
China Academy of Telecommunication Technology
M.S. in Communication and Information System, 2005
Tianjin University
B.A. in Biomedical Engineering, 2002

Careers in Industry

China Academy of Information and Communications Technology
Deputy Director of the Artificial Intelligence Research Institute, 2009 - Present

Academic Services

Bioelectromagnetics Committee of the Chinese Society of Biomedical Engineering
Director Designate, 2023-Present
International Telecommunication Union (ITU)
Vice Chair of ITU-D Study Group 2 on Digital Transformation, 2022 - Present
World Health Organization (WHO)
Expert with the Task Group on Radiofrequency Fields and Health Risks, 2021 - Present
The Bioelectromagnetics Society
Member of the Board of Directors, 2021
International Commission on Non-ionizing Radiation Protection (ICNIRP)
Member of Scientific Expert Group, 2018-Present
Annals of Telecommunications(2018) and Frontiers in Public Health (2021)
Guest Editor
Reviewers for 20+ international journals including IMA

Researches and Publications

Machine Learning in Medical Image Processing and Medical Physics

Developed the first Chinese anatomical computational models representing various age groups and generated the first deformable anatomical human models, utilizing a range of deep-learning techniques. These models have been instrumental in numerous numerous medical physics applications. Close cooperation with many hospitals and R&D centers to apply AI/ML techniques to various imaging modalities and medical applications, as MRI/fMRI, X-ray, CT, EEG, fNIRS, pathological images, TMS. Developed the first nanosecond pulse ablation system in China as the chief engineer and the system has been put into clinical trial.

Projects

Standardization

Engaged in the international standardization efforts within the IEEE and IEC on electromagnetic safety.

Established the national radiofrequency exposure standard system in China, which comprises one limit (GB 21288-2007/2022) and 32 assessment standards, encompassing measurement and numerical simulation.

Funding

Coordinated numerous projects funded by a variety of sources, including the National Natural Science Foundation of China (NSFC), the Ministry of Science and Technology, the Ministry of Industry and Information Technology, and the French ANSES, totally amounting $10 million.

Awards and Honors

First recipent of the first-class award from the China Inspection and Testing Society, the second-class award from the Chinese Society for Stereology.

Fellow of the Institution of Engineering and Technology (FIET, 2023-)

Senior Member of the Institute of Electrical and Electronics Engineers (SM IEEE, 2022-)

Publications

In total 123 citable documents in Google Scholar.

Citation: 1250, H index: 21.