



Dr. Sun Guangmin

Department of Digital and Intelligent Technology | Professor

Biography

Dr. Sun Guangmin is originally from Shanxi and is a Professor and Doctoral Supervisor at Beijing University of Technology. He received his bachelor's degree from Beijing Institute of Technology, his master's degree from Nanjing University of Science and Technology, and his doctorate from Xidian University. He previously served as a Visiting Professor at Brunel University in the United Kingdom. Dr. Sun's research interests include artificial intelligence, pattern recognition, neural networks and image processing. He has served as Principal Investigator for more than ten research projects, including projects under the National High-Tech R&D Programme of China (863 Programme) and the National Natural Science Foundation of China. Dr. Sun has published over 120 academic papers, more than 80 of which have been indexed by SCI/EI. He also holds a number of patents and software copyrights and has received honours including Outstanding Young Key Teacher of Beijing and a ministerial-level Scientific and Technological Progress Award.

Professional Qualifications

Senior Member of the Chinese Institute of Electronics; Member of the Electronic Measurement and Instrumentation Branch of Chinese Institute of Electronics; Director of the Embedded Instruments and Systems Technology Branch of the China Instrument and Control Society.

Employment History, including Postdoctoral Appointments

- Aug 1982 – Aug 1988 Engineer, Xi'an 206 Research Institute
- Mar 1991 – Aug 1993 Lecturer, Nanjing University of Science and Technology
- Apr 1997 – Mar 2024 Professor and Doctoral Supervisor, Beijing University of Technology
- Feb 2004 – Jan 2005 Visiting Professor, Brunel University, United Kingdom

Education

- Sep 1978 – Mar 1982 Bachelor's Degree in Electronic Engineering, Beijing Institute of Technology
- Sep 1988 – Mar 1991 Master's Degree in Electronics and Information Systems, Nanjing University of Science and Technology
- Sep 1993 – Mar 1997 Doctoral Degree in Electronics and Information Systems, Xidian University

Research Interests

Artificial intelligence, pattern recognition, artificial neural networks, machine learning, image processing and signal processing.

Teaching

Academic special-topic project teaching and dissertation supervision.

Social Service

- Reviewer for journals including *Acta Electronica Sinica*, *Journal on Communications*, *Journal of Electronics & Information Technology*, *Chinese Journal of Scientific Instrument* and *JCST*.
- Review expert for projects funded by the National Natural Science Foundation of China, international cooperation projects of the Ministry of Science and Technology, and doctoral programme funds of the Ministry of Education.

Honours and Awards

Outstanding Young Key Teacher of Beijing and a ministerial-level Scientific and Technological Progress Award.

Research Achievements

Publications

Selected recent publications are as follows:

- [1] Zhang Junjie, Sun Guangmin*, Zheng Kun, et al. SSGNN: A Macro and Microfacial Expression Recognition Graph Neural Network Combining Spatial and Spectral Domain Features. *IEEE Transactions on Human-Machine Systems*, 2022, 52(4): 747-760. (SCI, JCR Q1)
- [2] Zhang Zhongxiang, Sun Guangmin*, Zheng Kun, et al. TC-Net: A Joint Learning Framework Based on CNN and Vision Transformer for Multi-Lesion Medical Images Segmentation. *Computers in Biology and Medicine*, 2023, 161: 106967. (SCI, JCR Q1)

[3] Mazhar Sarah, Sun Guangmin*, et al. AUnet: A Deep Learning Framework for Surface Water Channel Mapping Using Large-Coverage Remote Sensing Images and Sparse Scribble Annotations from OSM Data. *Remote Sensing*, 2022. (SCI, JCR Q1)

[4] Bai Yunkun, Sun Guangmin*, Li Yu, et al. Comprehensively Analyzing Optical and Polarimetric SAR Features for Land-Use/Land-Cover Classification and Urban Vegetation Extraction in Highly-Dense Urban Area. *International Journal of Applied Earth Observation and Geoinformation*, 2021, 103: 102496. (SCI, JCR Q1)