Special Issue

Transformer-Based Deep Learning in Medical Imaging and Healthy Sensors

Message from the Guest Editors

Transformer based deep learning models, originally introduced for natural language processing, have recently shown significant potential in the field of medical imaging and healthy sensors. Depending on the core architecture of the self-attention mechanism, transformer-based models enable to weigh the importance of different parts of the input data dynamically and excel at capturing long-range dependencies. Therefore, transformers are able to understand complex structures in medical images and has been applied to various medical imaging tasks, including medical imaging sensors. The application of transformer-based models in medical imaging and healthy sensors is rapidly advancing. Transformers are expected to play an increasingly important role in improving diagnostic accuracy, accelerating medical image processing workflows, and personalizing treatment plans, thereby driving a comprehensive revolution in medical imaging technology. This special issue aims to compile original research to report the recent findings in apply transformer-based deep learning models in medical imaging and healthy sensors.

Guest Editors

Dr. Steve Ling

Department of Electrical and Data Engineering, University of Technology Sydney, Sydney 00099F, Australia

Dr. Juan Lyu

College of Artificial Intelligence, Tianjin University of Science and Technology, Tianjin 300457, China

Deadline for manuscript submissions

25 December 2025

Sensors

an Open Access Journal by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed

mdpi.com/si/209390

Sensors
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
sensors@mdpi.com

mdpi.com/journal/sensors

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Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro
Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 Bari, Italy

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