

Special Track Proposal Format

2nd International Conference on Advances in Artificial Intelligence for Society (ICA2S-2026)

Organized by **Indian Institute of Information Technology Bhopal, India**
In collaboration with **University of Vizja, Warsaw, Poland**

1. Title of the Special Track

AI Innovations in Healthcare: Intelligent Systems for Diagnosis, Prediction, and Personalized Medicine

2. Track Description

Artificial Intelligence (AI) is rapidly transforming the healthcare ecosystem by enabling intelligent, data-driven solutions for diagnosis, treatment planning, and patient management. With the increasing availability of medical data from imaging systems, wearable devices, and electronic health records, AI techniques such as machine learning, deep learning, and large language models are playing a critical role in enhancing clinical decision-making and improving patient outcomes.

This special track focuses on recent advancements in AI-driven healthcare technologies, emphasizing innovative methodologies and real-world applications. It aims to bring together researchers and practitioners working on medical image analysis, disease prediction, healthcare informatics, bioinformatics, and intelligent clinical systems. The track also highlights emerging areas such as explainable AI, federated learning for privacy-preserving healthcare, and AI-enabled telemedicine solutions.

By fostering interdisciplinary collaboration, this track seeks to address key challenges including data scarcity, model interpretability, robustness, and ethical considerations in healthcare AI. The goal is to explore scalable, efficient, and trustworthy AI solutions that can support next-generation healthcare systems and improve global health outcomes.

4. Topics of Interest

Topics include but are not limited to:

1. AI in Medical Imaging and Diagnostics
2. Deep Learning for Disease Detection and Classification
3. AI for Brain Tumor and Neuroimaging Analysis
4. Predictive Analytics for Healthcare and Disease Forecasting
5. Explainable and Trustworthy AI in Healthcare
6. Federated Learning and Privacy-Preserving Healthcare Systems
7. AI in Wearable Devices and Remote Patient Monitoring
8. Natural Language Processing for Clinical Text and EHRs
9. AI for Personalized Medicine and Treatment Planning
10. Intelligent Healthcare Systems and Clinical Decision Support
11. AI in Drug Discovery and Genomics
12. Robotics and AI in Surgery and Rehabilitation

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5. Special Track Organizers

Name: Prof. Haewon Byeon

Designation: Professor

Department: Worker's Care & DigitalHealth Lab, Department of Future Technology

Institution: , Korea University of Technology and Education, No. 1600 Chungjeol-ro, Cheonan 31253, South Korea

Country: South Korea

Email: bhwpuma@naver.com

ORCID (optional): <https://orcid.org/0000-0002-3363-390X>

Co-Organizer (if any):

Name: Rajit Nair

Designation: Senior Assistant Professor

Department: School of Computing Science, Engineering, and Artificial Intelligence

Institution: VIT Bhopal University,

Country: India

Email: Rajit.nair@vitbhopal.ac.in

ORCID (optional): 0000-0002-4564-0920

6. Contact Information

Primary Contact Person: **Prof. Haewon Byeon**

Email: bhwpuma@naver.com

Phone (optional):