ICICC-2025
8th International Conference on Innovative Computing and Communication

ORGANISED BY: SHAHEED SUKHDEV COLLEGE OF BUSINESS STUDIES, UNIVERSITY OF DELHI, NEW DELHI IN ASSOCIATION WITH NATIONAL INSTITUTE OF TECHNOLOGY PATNA & UNIVERSITY OF VALLADOLID SPAIN

On

14-15 FEBRUARY 2025.

************** CALL FOR PAPERS **************

SPECIAL SESSION ON

Advanced Computer Vision, Data Analytics and Decision Support Techniques in Biomedical Computing

SESSION ORGANIZERS:

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SESSION DESCRIPTION:

This session, titled "Advanced Computer Vision and Decision Support Techniques in Biomedical Computing," explores the transformative impact of computer vision and decision support systems in the field of biomedicine. As the healthcare industry increasingly adopts digital and data-driven approaches, computer vision plays a crucial role in automating the analysis of medical images, improving diagnostic accuracy, and expediting the treatment process. The integration of decision

support systems further empowers healthcare professionals by providing timely, data-backed insights, enabling more informed decision-making that enhances patient outcomes and operational efficiency. This session brings together leading researchers, technologists, and healthcare practitioners to discuss innovations in biomedical computing, where advanced computing techniques like deep learning, neural networks, and image recognition are reshaping diagnostics, surgical planning, and personalized treatment plans. Topics will include the latest advancements in algorithms designed for processing complex medical images, such as MRIs, CT scans, and X-rays, and how these innovations improve accuracy while reducing cognitive load on practitioners. Speakers will also highlight the role of decision support tools in synthesizing patient data across multiple sources to guide decisions in real time, particularly in critical care and oncology. The session will address pressing challenges such as ensuring data privacy, managing large datasets, and reducing bias in model predictions to meet ethical and regulatory standards in healthcare. Attendees will gain insights into practical applications of computer vision in clinical settings, successful case studies where decision support systems have positively impacted diagnostics and patient care, and emerging trends that point to future integration of AI-driven insights within electronic health records (EHR) and telemedicine platforms. This conference aims to foster cross-disciplinary collaboration, paving the way for continued innovation and improvement in biomedical computing, ultimately enhancing the standard of care in global healthcare.

RECOMMENDED TOPICS:

Topics to be discussed in this special session include (but are not limited to) the following:
- Convolutional Neural Networks (CNNs)
- Explainable AI (XAI) in Clinical Decision Support
- Transfer Learning
- Data Augmentation Techniques
- Graph Neural Networks (GNNs)
- Federated Learning
- Reinforcement Learning
- Generative Adversarial Networks (GANs)
- Object Detection Algorithms
- Feature Engineering
- Ontology and Knowledge Graphs
- Natural Language Processing (NLP)
- Sparse Learning
- Explainability and Bias Mitigation
- Edge AI and On-Device Inference
- Self-Supervised Learning
- Biomedical Signal Processing
- Interpretable Machine Learning
- Data Fusion Techniques
- Meta-Learning in Few-Shot
- Time-Series Forecasting
- Ensemble Learning

SUBMISSION PROCEDURE:

Researchers and practitioners are invited to submit papers for this special theme session on **[Advanced Computer Vision, Data Analytics and Decision Support Techniques in Biomedical Computing]** *on or before* **[30th November 2024]**. All submissions must be original and may not be reviewed by another publication. INTERESTED AUTHORS SHOULD CONSULT THE

CONFERENCE'S GUIDELINES FOR MANUSCRIPT SUBMISSIONS at https://icicc-conf.com/paper_submission. All submitted papers will be reviewed on a double-blind, peer review basis.

NOTE: While submitting paper in this special session, please specify [**Advanced Computer Vision, Data Analytics and Decision Support Techniques in Biomedical Computing**] at the top (above paper title) of the first page of your paper.

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