Revolutionizing Diagnostic Imaging: The Impact of AI and Machine Learning on Image Analysis
Two Days International Workshop Funded by Anusadhan National Research Foundation (ANRF), Govt. of India

Sambalpur University Institute of Information Technology (SUIIT) is an autonomous technical institute of Sambalpur University, established in Odisha in 2010 to offer quality IT education, research, and holistic development in fields like CSE, ECE, EEE, focusing on innovation, research, and creating a skilled workforce, known for its affordable fees and strong placement focus within the university's campus.

Key Aspects of SUIIT:

- **Establishment & Affiliation**: A constituent unit of Sambalpur University, approved by the Odisha Govt. in 2010, operating on the lines of IIITs.
- **Academic Focus**: Provides UG & PG programs in CSE, ECE, EEE, emphasizing IT and allied fields with a multidisciplinary approach, incorporating humanities and management.
- **Holistic Learning**: Offers a blend of technical skills with co-curricular, extracurricular, and intellectual activities, fostering innovation and creativity.
- **Infrastructure:** Features well-equipped labs, classrooms, library, and dedicated hostel facilities for boys and girls at nominal costs.
- **Accreditation:** Holds 'A' Grade from NAAC and AICTE approval for its programs.
- **Research & Development:** Aims for research excellence in IT, leveraging the university's extensive academic background.
- **Placement Support**: Has a dedicated placement cell providing internship and job assistance, with notable packages achieved by students.
- **Unique Features**: Known for its relatively low fee structure among self-financing institutes and its integration within the main university campus.

Artificial intelligence (AI) and machine learning (ML) are profoundly revolutionizing diagnostic imaging by enhancing accuracy, efficiency, and personalization in patient care. These technologies serve as intelligent assistants to medical professionals, helping them interpret vast amounts of data with greater speed and precision.

Key Learnings from this Workshop

- Based on the general themes in the field, a workshop on this topic would likely yield the following key takeaways:
- Augmentation, Not Replacement: The consensus is that AI will not replace radiologists but will rather act as a powerful augmentative tool, creating a human-AI hybrid approach that outperforms either alone.
- Importance of Data and Validation: The performance of AI models is heavily dependent on the quality, quantity, and diversity of the data they are trained on. Rigorous validation using diverse, real-world datasets is crucial for generalizability and safe clinical deployment.
- Addressing Ethical and Regulatory Challenges: Successful integration requires navigating significant challenges related to data privacy (e.g., HIPAA compliance), algorithmic bias, transparency ("black box" problem), and establishing clear regulatory frameworks for accountability in case of errors.
- Need for Education and Collaboration: Healthcare professionals, especially radiologists and radiographers, require specialized training and education in AI fundamentals to effectively use and trust these new tools. Collaboration between AI developers, clinicians, and regulatory bodies is essential for smooth and safe integration into clinical practice.
- Future Focus on Integrated Solutions: Future advancements will likely focus on multimodal fusion (combining data from various sources like images and EMRs) to provide a holistic view of patient health, and developing more transparent, explainable AI systems.

Venue
Sambalpur University Institute of Information Technology (SUIIT), Jyoti Vihar, Burla, Sambalpur, Odisha, India

Dates
14th -15th February, 2026

www.suiit.ac.in

Call for Paper: All accepted paper will publish in Wiley-Scrivener as Book Chapter (Scopus Indexed)

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CALL FOR PAPER

The call for papers on "Revolutionizing Diagnostic Imaging: The Impact of AI and Machine Learning on Image Analysis" can focus on several key areas:

- **AI Algorithms and Techniques:** Explore various machine learning models and algorithms being used in image analysis, such as convolutional neural networks (CNNs), reinforcement learning, and natural language processing for interpreting imaging data.
- **Clinical Applications:** Discuss practical applications of AI in diagnostic imaging, including radiology, pathology, and ophthalmology, highlighting specific case studies where AI has improved diagnostic accuracy or efficiency.
- **Integration and Workflow:** Examine how AI tools are being integrated into existing diagnostic workflows, and the challenges and benefits of such integration.
- **Data Handling and Management:** Address the importance of data quality, dataset diversity, and the ethical implications of using large datasets for training AI models.
- **Regulatory and Ethical Considerations:** Discuss the regulatory landscape surrounding AI in healthcare, including compliance issues, data privacy, and ethical use of AI.
- **Future Trends and Innovations:** Speculate on future developments in AI and machine learning in diagnostic imaging, including emerging technologies and research trends.
- **Interdisciplinary Collaborations:** Encourage submissions that highlight partnerships between AI technologists, clinicians, and researchers to advance the field of diagnostic imaging.
- **Challenges and Limitations:** Identify the technical, clinical, and ethical challenges faced in the adoption of AI in diagnostic imaging, and propose potential solutions.
- This scope can guide contributors in emphasizing the transformative potential of AI in enhancing diagnostic imaging while navigating the complexities involved in its implementation.

KEYNOTE SPEAKER

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Submit Your Paper

https://forms.gle/XTLwwEBBxPyxca7n8

Who Can Attend

The workshop on "Revolutionizing Diagnostic Imaging: The Impact of AI and Machine Learning on Image Analysis" welcomes a diverse audience from various backgrounds and academic levels, including:

1. Healthcare Professionals
2. Researchers and Academics
3. Medical Technologists
4. Data Scientists and Engineers
5. Researchers and Academics
6. Data Scientists and Engineers
7. Students and Trainees:
   - Undergraduate Students (UG):
   - Postgraduate Students (PG):
   - Ph.D. Scholars

Account Details

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REGISTRATION

https://forms.gle/jJ46ms3bmnhPVTPx5

Registration Fee

1. For Author of Paper-Rs. 2,900/- (with Conference Kits)
2. For Participant- Rs.900/- (with Conference Kits)
3. For participants Rs. 500/- (without conference Kits)

The registration fee includes High Tea and Lunch for all categories.

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Nearby Visiting Places

Maa Samaleswari Temple

Hirakud Dam

Debrigarh Wildlife Sanctury