Session Title: Recent Trends and challenges in Artificial Intelligence , Biomedical Science and Healthcare Informatics for Society 5.0 using New Age Technologies

Contact information of the Organizer

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OBJECTIVES: New Age Technology for society 5.0 approach is the rapidly emergent technology in Computer Engineering and medical domains is among the best application challenges, providing future benefits in improved disease predictions system and medical diagnoses system. New age Technology can predicts different patterns associated with diseases and physical condition of patient by analyzing large available healthcare patient dataset. New Age Technology can help increase healthcare access in developing countries and predicting correct diagnosis and treatment for various diseases. Biomedical and health care informatics applies principles of computer science and engineering to the advancement of public health, patient care and health professions education. This multidisciplinary field works on healthcare information technologies (HIT), and involves the computer, cognitive, and social sciences.

This aims to explore the theoretical as well as technical research outcomes on all the aspects of new age technology in biomedical science and health informatics. New Age Technology for society 5.0 approach can improve the accuracy of treatment and health outcomes through information gathering and processing through algorithmic processes. These includes medical image diagnosis, Robotics surgery, biomedical imaging, personalized medicine, Electronics Health Record and Disease prediction and diagnosis.

The Session addresses its numerous Concepts, issues, and challenges and develops the conceptual and technological solutions for predicting the correct disease and diagnosis using machine learning approach in medical domain.

Recommended Topics: Topics to be discussed in this Session include (but are not limited to) the following:

- Biomedical Imaging Techniques using New age Technology.
- Deep Learning-based mechanism for medical diagnosis.
- A survey of various existing systems and applications of Biomedical engineering in society 5.0
- Evolutionary algorithms and Optimization in the field of biomedical engineering in smart healthcare
- Medical image processing for abnormality recognition
- E-health system in society 5.0
- Storage and Compression of medical-related data for society 5.0
- Big data Analytics in the biomedical system for Healthcare 4.0
- Health monitoring through IoT in Healthcare 4.0
- Handling and analysis of multidimensional imaging in society 5.0

- Semantic technology in Biomedical engineering in Healthcare 4.0
- Computing techniques in healthcare 4.0
- Semantic modelling for Industry in healthcare 4.0 applications
- Design and development of IoT-based e-Health Ontologies in healthcare 4.0
- Role of Connected objects in Healthcare Semantic Models
- Semantic models for sensor data representation in Healthcare 4.0
- Vision, Challenges and concepts for IoT and Semantic Web in e-Health
- Introduction of intelligent technologies in healthcare 4.0
- Future scope of intelligent technologies in healthcare 4.0
- Privacy preserving integration of healthcare data
- Data Science with AI/ML for medical imaging, diagnosis and drug discovery
- Data Science with AI/ML for Covid-19
- Effects of COVID-19 on primary healthcare in 4.0
- Blockchain technology in Biomedical Engineering.
- Novel approaches and feasibility study of robotic surgery.
- Artificial intelligence in diagnosis and prognostic
- Biomedical Signal & image processing
- Tele-medicine (e-health, m-health)
- Natural Language Processing in Medical Science
- Outcome based model for early symptom detection in Pandemic

Special Session Chairperson Details

Dr. DilipKumar Jang Bahadur Saini graduated from Watumull Institute of Electronic Engineering And Computer Technology, Mumbai University, Mumbai in 2004, Master's degree with specialization in Computer Science and Engineering from Savitribai Phule Pune University, formerly University of Pune in 2014 and PhD (Computer science and Engineering) from Sathyabama Institute of Science and Technology, Chennai. Presently working as Associate Professor in Department of Computer Science and Engineering (Cyber Security), School of Engineering, Dayananda Sagar University Harohalli, Bengaluru India . He has a Distinguished record of publication in academic journals with more than 55 papers in International level Journals and Conferences, Editorial board member/reviewer of International/National Journals. Published 5 Book, 7 Book Chapters, 5 Funded Projects and 30 patent at the academic level.

Areas of Research: Artificial intelligence, Machine learning, Natural language processing,

Human–computer interaction, Cyber Security

Experience: 21 years

Research profile:

- https://scholar.google.com/citations?user=IwJsvd4AAAAJ&hl=en
- https://www.webofscience.com/wos/author/record/3263852
- https://www.scopus.com/authid/detail.uri?authorId=57533703600
- https://orcid.org/0000-0002-7608-8788
- https://vidwan.inflibnet.ac.in/profile/274879