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The faculty of ICT, University of Malta, Msida, Malta Department of Computer Science and Engineering, National Institute of Technology Raipur, India

- 1. Title of the Special Session: Application of Machine Learning and Deep Learning for medical diagnosis.
- 2. Details of Session Chair and Co-Chair:
 - a) Session Chair: Dr. Arpit Bhardwaj, Associate Professor, Department of Computer Science and Engineering, Mahindra University, Hyderabad (Telangana)
 - b) Session Co-Chair: Dr. Dheeraj Rane, Associate Professor, Department of Computer Science and Engineering, Indore Institute of Science and Technology, Indore (M.P.)
- 3. Aims & Scope (Theme of Session):

This special issue is focussing for novel works in the area of Machine Learning and Deep Learning for medical diagnosis. Health care is one of the most important areas of concern among researchers of all countries. One of the major transformations that distinguishes the era of our life is the great availability of data sometimes unstructured and not labelled. Health care industry can leverage the difficulties and advancement of machine learning and artificial intelligence. We are looking for papers that demonstrate how the proposed approach can be applied to medicine, medically oriented human biology, and health care, usually through an experimental examination. They must also make a comparison with previous studies and address characteristics of originality explicitly.

- 4. Subtopics: Topics include (but are not limited to) following:
 - Computational intelligence in bio- and clinical medicine;
 - AI-based clinical decision making;
 - Medical knowledge engineering;
 - Knowledge-based and agent-based systems;
 - Intelligent and process-aware information systems in healthcare and medicine;
 - Natural language processing in medicine;
 - Data analytics and mining for biomedical decision support;
 - New computational platforms and models for biomedicine;
 - Intelligent exploitation of heterogeneous data sources aimed at supporting decision-based and data-intensive clinical tasks;
 - Intelligent devices and instruments;
 - Automated reasoning and meta-reasoning in medicine;
 - Machine learning in medicine, medically-oriented human biology, and healthcare;
 - Deep learning in medicine

- AI and data science in medicine, medically-oriented human biology, and healthcare;
- AI-based modelling and management of healthcare pathways and clinical guidelines;
- Models and systems for AI-based population health;
- AI in medical and healthcare education;
- Methodological, philosophical, ethical, and social issues of AI in healthcare, medically-oriented human biology, and medicine.

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