Proceedings of the 1st International Conference on Computational Techniques in Data Science

19-20 December 2025, Chandigarh, India

IICTDS 2025

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Preface

We are pleased to present the proceedings of the First International Conference on Computational Techniques in Data Science (IICTDS 2025), held on December 19–20, 2025 at NMIMS Chandigarh Campus. The conference was conceptualized as an international platform to bring together researchers, academicians, industry professionals, and practitioners to exchange knowledge, share innovative ideas, present emerging research findings, and deliberate on recent advancements in computational techniques and their diverse applications in data science. The conference aimed to foster interdisciplinary collaboration and promote research that addresses contemporary challenges through intelligent computational approaches.

The conference received an enthusiastic response from the research community, with a total of 353 papers submitted from diverse domains and geographic regions. After a rigorous peer-review process, 112 papers were accepted for oral presentation, including four invited papers, with 77 out of them included in the proceedings. The technical program of the conference was structured around four major conference tracks: Track 1 Artificial Intelligence; Track 2 Machine Learning; Track 3 Data Science; and Track 4 Interdisciplinary Applications. These tracks were further enriched by focused sub-themes including Advances in Intelligent Computing: Emerging Techniques and Real-World Applications; Emerging Trends in AI and ML-Based Healthcare Recommendation Systems; Next-Generation Data Science: Challenges and Opportunities; Machine Learning for Agriculture, Healthcare, and Multimedia; AI, Security, and Edge Computing for Smart and Pervasive Systems. IICTDS 2025 was further distinguished by three eminent keynote speeches delivered by Professor Karmeshu, School of Computer & Systems Sciences, Jawaharlal Nehru University (JNU), New Delhi, India; Dr Sachin Bhardwaj, Fontys University of Applied Sciences, Netherlands; and Mr. Larry C. Pickett, Carnegie Mellon University (CMU), United States. Their insightful talks provided valuable perspectives on theoretical foundations, applied research, and industry-driven innovations in AI, machine learning, and data science.

The successful organization of this inaugural conference would not have been possible without the guidance, encouragement, and support of several distinguished individuals and dedicated committees. We express our profound gratitude to our Honourable Chancellor, Shri Amrish Bhai Patel, our Honourable Vice-Chancellor, Professor Ramesh Bhatt, and our esteemed Pro Vice-Chancellors, Professor Sharad Mhaiskar, Professor Meena Chintamaneni, and Dr Abhishek Ranjan, for their visionary leadership, continuous encouragement, and invaluable institutional support. We also extend our sincere appreciation to the Steering Chairs, Professor Koteswararao Anne and Professor Jyotsna Singh, for their invaluable guidance and continuous support. We also express our sincere appreciation to the Advisory and Technical Program Committee Members Professor G. Sahoo, Professor Mohamed Tawhid, Professor H. M. Gupta, Professor Kehar Singh, Professor Ming Dong, Professor D K Yadav, Professor Kapil Sharma, Professor Amita Rani, Professor Yashwant Singh, Dr Tej Singh, Dr Sahil Sharma, Dr Gagangeet Aujla, Dr Apurba Das, Dr Ajay Dev Nehra, Dr Pradeep Kumar Singh, Dr Arpan Kumar Kar, Dr Srabjit Singh, Dr Sudeep Tanwar, Dr Sujan Kumar Saha, Dr Pardeep Kumar, Dr Aditya Bakshi, Dr Tej Singh, and Dr Sahil Sharma for curating a high-quality technical program and guidance. The peer-review process, which is central to maintaining the academic rigor of the conference, was efficiently managed by Dr Ashish Mogra, Dr Ajay Kumar, Dr Aastha Gupta, Dr Ranvir Singh Panwar, and Mr. Pankaj Manohar Gulhane. Their dedication ensured a fair, thorough, and timely review of all submissions. The efforts of the Publication Committee, Dr Preetjot Kaur, Ms. Harsimran, and Ms. Sukhwant Kaur are gratefully acknowledged for preparing the conference proceedings.

We firmly believe that IICTDS 2025 has provided a vibrant platform for knowledge sharing, collaboration, and innovation in computational techniques and data science. We hope that the research contributions presented in these proceedings will inspire further research and foster meaningful collaborations. We also look forward to the continued growth and success of future editions of the IICTDS conference.

Dr Yugal Kumar

Dr Jagpreet

Conference Chairs IICTDS 2025

NMIMS Chandigarh Campus, India

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