

Detailed schedule of the 12th Int. Conf. on Big Data and Artificial Intelligence
(BDA 2024), December 17-20, 2024. University of Hyderabad.

December 17 (Day - 1) - Workshop Day

Venue: G-9 (Ground floor), Zakir Hussain complex

Workshop title: **GenAI-Driven Big Data Innovations in the Edge-Cloud Continuum (gAI-BDEC2-2024)**

Chair: Dr. Chinmaya Kumar Dehury, University of Tartu, Estonia

09:00 – 9:30	Registration
09:30 – 10:30	Keynote - 1 : Beyond Innovation: Where GITA Converge to Redefine Our Planet-Centric Future. Prof. Vishwas Chavan, EarthSight Foundation
10:30 – 10:45	Tea break
10:45 – 11:45	Keynote - 2 : From Concept to Implementation : Navigating the Journey to HyperAutomation in real time Network and Cloud Operations. Dr. Shivananda R Poojara, Solution Architect- Cloud and Edge Computing, Airowire Networks Private Limited
11:45 – 12:15	Paper presentation : Enhancing Facial Emotional Recognition: A Comparative Analysis of CNN and ViT Models for Improved Accuracy and Robustness. Sowjanya Ramisetty, Gayatri Mantri, M V Kamal, Jaypal Medida, P Srinivasa Rao, Rafath Samrin and Gone Neelakantam
12:15 – 13:15	Technical Panel Discussion : Secure, Reliable, and Ethical Generative AI Implementation - An Industry Perspective. Tathagata Chakrabarty, Senior Consultant, TCS (Moderator), Mr. Bala Prasad Peddigari (Principal Consultant, TCS), Mr. Edwin Anand (Senior Consultant, TCS)
13:15 – 13:30	Closing ceremony
13:30 – 14:30	Lunch break

December 18 (Day - 2) - BDA 2024, Main Conference

G-9 (Ground floor), Zakir Hussain complex

08:30 – 09:00	Registration
09:00 – 09:45	Inaugural session – Welcoming participants by Satish Srirama (General Chair), Address by the VC, UoH, and Address by the IIITH Director
09:45 – 10:45	Keynote talk by Prof. Giuliano Casale (Imperial College London) on “ Optimizing Real-Time Data Processing: Balancing Resource Constraints and Quality-of-Service ”, Chair: Prof. Siba K. Udgata
10:45 – 11:00	Tea break
11:00 – 12:30	Session – 1 (Graph Analytics), Chair: Prof. Rage Uday Kiran
12:30 – 13:00	Invited talk by Sailesh Patra (AI Consultant, Cognida.ai) on “ AI in Procurement - Order Automation ”, Chair: Prof. Satish Narayana Srirama

13:00 – 14:00	Lunch break
14:00 – 15:30	Session – 2 (Image Classification), Chair: Prof. Atul Negi
15:30 – 15:45	Tea break
15:45 – 17:45	Session – 3 (Health-Care Analytics), Chair: Prof. Srinivasa Rao Battula

F-9 (First floor), Zakir Hussain complex

10:45 – 13:00 14:00 – 14:30	Tutorial 1 by Mayuri Mehta (Sarvajanik College of Engineering and Technology, Surat, Gujarat, India) on topic “Self-Supervised Learning: A Next Step in AI to Learn Representations from Unlabeled Data Generating Implicit Labels”
14:30 – 17:30	Tutorial 2 by Vengadeswaran (IIIT Kottayam) and ShajulinBenedict (IIIT Kottayam) on topic “Deploying a Scalable Cloud Infrastructure for Big data Management Challenges and Research Issues”

Session – 1 (Graph Analytics)

Full papers

1. Paper id: 89, Monachary Kammari (University of Hyderabad)*; Durga Bhavani S (University of Hyderabad), **“Adaptive Temporal Random Walks for Graph Representation”**
2. Paper id: 29, Aditi Seetha (MNIT); Jitendra Parmar (VIT University)*; Satyendra singh chouhan (MNIT Jaipur); Emmanuel Shubhakar Pilli (MNIT Jaipur); Abhinav Jain (IIIT KOTA), **“DisEvD: A Benchmark Dataset for Disruptive Event Identification from Online Social Network”**
3. Paper id: 103, Sandhya Rani A (University of Hyderabad)*; Ashwitha G (University of Hyderabad); Swarupa K Rani (University of Hyderabad), **“SDG HHAG Framework: Homogeneous and Heterogeneous Attributed Graphs”**

Session – 2 (Image Classification)

Full papers

1. Paper id: 11, Bhupathi Vishva Pavani (Amrita Vishwa Vidyapeetham); Thanmai Gaddam (Amrita Vishwa Vidyapeetham); Rimjhim Dr. Singh (Amrita vishwa vidyapeetham)* **“Efficient Detection of Acute Lymphoblastic Leukemia in Microscopic Blood Cell Images”**
2. Paper id: 58, Avni Mishra (Jawaharlal Nehru University)*; Ramesh Kumar Agrawal (JAWAHARLAL NEHRU UNIVERSITY); Pinki Kumari (Jawaharlal Nehru University) **“Neutrosophic Clustering Method with Local Spatial Information for Dermoscopic Image Segmentation”**
3. Paper id: 111, Madhuri Gadwal (University of Hyderabad)*; Atul Negi (University of Hyderabad) **“DLMLP with elastic-net regularization for hyperspectral image classification”**

Session – 3 (Health-Care Analytics)

Full paper

1. Paper id: 104, Ravi Tiwari (Mahindra University); Shabnam Samima (Mahindra University)*; Tauheed Ahmed (Mahindra University) **“GCN-MLP Framework for EEG-Based Vigilance Estimation for Variable Data Length”**

Short papers

2. Paper id: 24, Purnanand Prasad (Silicon University); Prakash Sahu (International Institute Of Information Technology, Naya Raipur); Vishnu Prasad Verma (IIIT Naya Raipur)*; Santosh Kumar (Dr.S P Mukherjee International Institute of Information Technology) **“Deep Learning Framework for Early Diagnosis of COPD and Respiratory Diseases using Lung Sound Analysis”**
3. Paper id: 38, Sontaga Forane (North-West University); Absalom E Ezugwu (North-West University)*; Kevin Igwe (University of Johannesburg) **“Evaluating the Cultural Sensitivity of Large Language Models in Mental Health Support: A Framework Inspired by Ubuntu Values”**
4. Paper id: 72, Satansu Mohanty (Indian Institute of Information Technology, Sri City); Chandra Mohan Dasari (Indian Institute of Information Technology, Sricity)* **“Explainable Graph Neural Networks to identify potential atoms and chemical bonds of drug candidates from drug target interactions”**
5. Paper id: 94, Divyasri S R (Hindustan Institute of Technology and Science)*; Rama Prasath A (Hindustan Institute of Technology and Science) **“Enhancing Cardiovascular Disease Prediction Among Middle-Aged Individuals Using Reinforcement Learning Dynamic Ensemble Selection with Customizable Actions and Exploration-Exploitation Balance”**

December 19 (Day - 3)

G-9 (Ground floor), Zakir Hussain complex

08:30 – 09:00	Registration
09:00 – 10:00	Keynote talk by Prof. Rajkumar Buyya (University of Melbourne, Director CLOUDS lab) on “Neoteric Frontiers in Cloud, Edge, and Quantum Computing”
10:00 – 10:15	Tea break
10:15 – 11:45	Session – 4 (Big Data Analytics)
11:45 – 13:15	Session – 5 (Applications-1)
13:15 – 14:15	Lunch break
14:15 – 15:30	Panel talk on Title: How will our everyday lives change as Big Data unites with AI/ML? with 1. Prof. Chakravarthy Bhagvati (Moderator) 2. Prof. D. V. L. N. Somayajulu (Director, NIT Manipur) 3. Prof. V. Ravi (IDRBT) 4. Mr. Srinivas Jandhyala (formerly in IBM) 5. Dr. J. V. R. Sagar (Sc-H, DRDO and former Director, ANURAG) 6. Prof. Upendranath Sharma Chakravarthy (UTA, Arlington)
15:30 – 15:45	Tea break
15:45 – 16:30	Invited talk by Asoke Talukder (Co-Founder & CSO ARAI Solutions) on “AI, 6G, and Cognitive Graphs in Autonomous Smart World”
16:30 – 18:00	Session – 6 (eLearning)

18:30 – 19:30	Cultural program
19:30 – 22:00	Banquet dinner

F-9 (First floor), Zakir Hussain complex

10:15 – 18:00	Tutorial 3 by G. Victor Daniel (Anurag University, Hyderabad) on topic “Mastering ETL and Data Pipelines with Big Data from Basics to Advanced Techniques”
---------------	---

Session – 4 (Big Data Analytics)

Full papers

1. Paper id: 32, Sreenivasu Mirampalli (University of Hyderabad); Rajeev Wankar (University of Hyderabad); Satish N Srirama (University of Hyderabad)* **“Dynamic Deployment of Serverless Data Pipeline on Fog Nodes”**
2. Paper id: 51, Prasad Bhavana (University of Hyderabad)*; Vineet Padmanabhan (University of Hyderabad); Wilson Naik Bhukya (University of Hyderabad) **“Matrix factorization of large scale data using block based approach and GPU acceleration”**
3. Paper id: 106, Bhagirath K (CDAC Noida)*; Dheeraj Pant (CDAC Noida); Abhishek Tiwari (CDAC Noida); Vivek Khaneja (CDAC Noida) **“Advanced HLS for Reconfigurable Image Processing in Big Data Systems”**

Session – 5 (Applications-1)

Full papers

1. Paper id: 49, Sharia Arfin Tanim (American International University-Bangladesh(AIUB)); Rubaba Binte Rahman (American International University-Bangladesh); Kazi Tanvir (Vellore Institute of Technology); Md. Sayem Kabir (American International University-Bangladesh); Tasnim Sultana Sintheia (American International University-Bangladesh); Md Saef Ullah Miah (AIUB)* **“Explainable Detection and Analysis of Cauliflower Leaf Diseases”**
2. Paper id: 93, Zsófia Katona (University of Amsterdam); Seyed Sahand Mohammadi Ziabari (University of Amsterdam)*; Fatemeh Karimi Najadasl (University of Amsterdam) **“MARINE: A Computer Vision Model for Detecting Rare Predator-Prey Interactions in Animal Videos”**
3. Paper id: 121, Charan Marrimanu Teja (Madanapalle Institute of Technology and Science)*; Arjun Chakravarthi Pogaku (Madanapalle Institute of Technology and Science) **“A Novel Multi-Task Learning Framework for Predicting Traffic Congestion”**

Session – 6 (eLearning)

Short papers

1. Paper id: 13, Praveen Singh Thakur (Malaviya National Institute of Technology Jaipur)*; Mahipal Jadeja (Malaviya National Institute of Technology Jaipur); Satyendra singh chouhan (MNIT Jaipur); Santosh Singh Rathore (ABV-IIITM Gwalior) **“Evaluating Deep Learning Embedding Techniques for Code Smell Detection”**
2. Paper id: 66, Binu John (SCMS SCHOOL OF ENGINEERING & TECHNOLOGY KARUKUTTY)*; Varun G Menon (SCMS SCHOOL OR ENGINEERING AND TECHNOLOGY); Mainak Adhikari (Indian Institute of Science Education and Research

Thriuvanthapuram) **“FedNorm: Optimised Federated Learning Strategy using Hybrid Regularisation Norm”**

3. Paper id: 90, Yash Kumar Sharma (University of Hyderabad)*; Akshay Badola (University of Hyderabad); Vineet Padmanabhan (University of Hyderabad); Wilson Naik (University of Hyderabad); Abdul Sattar (Griffith University) **“Efficient Self-Supervised Contrastive Learning with Representation Mixing”**
4. Paper id: 120, Tilottama Goswami (Vasavi College of Engineering)*; Gummalla Bhavana (S&P Global); Anirudh (Capital Quant Solutions); Leena Reddy (Vasavi College of Engineering); K Ram Mohan Rao (Vasavi College of Engineering) **“Smart E-learning Development Tool using Generative AI and Retrieval-Augmented Approach”**

December 20 (Day - 4)

G-9 (Ground floor), Zakir Hussain complex

08:30 – 09:00	Registration
09:00 – 10:00	Keynote talk by Prof. Santanu Chaudhury (IIT Delhi) on “Document AI: Perspectives & Future”
10:00 – 10:15	Tea break
10:15 – 11:45	Session – 7 (Data Science)
11:45 – 13:00	Invited talk by Rajeev Gupta (Principal Applied Researcher, Microsoft) on “Scalable Entity Extraction using LLMs and SLMs: Challenges and Implementation”
13:00 – 14:00	Lunch break
14:00 – 15:30	Session – 8 (Prediction and Forecasting)
15:30 – 15:45	Tea break
16:00 – 16:30	Closing session

F-9 (First floor), Zakir Hussain complex

10:15 – 13:00	Tutorial 4 by Vishnu S. Pendyala (San Jose State University, California, USA) on topic “Social and Environmental Implications of the AI boom”
14:00 – 16:00	Tutorial 5 by Kamalakar Karlapalem (IIIT-Hyderabad), P. Radha Krishna (NIT Warangal) and Satyanarayana R Valluri (Databricks Inc., California, USA) on topic “Data Fabric: Enabling Technologies and Applications”

Session – 7 (Data Science)

Full papers

1. Paper id: 14, Amey Shinde (The University of Texas at Arlington); Viraj Sabhaya (The University of Texas at Arlington); Kevin Farokhrouz (The University of Texas at Arlington); Fariba Irany (University of North Texas); Ali Khan (University of North Texas); Sanjukta Bhowmick (University of North Texas); Abhishek Santra (The Department of Computer Science and Engineering, University of Texas at Arlington)*; Sharma Chakravarthy (University of Texas at Arlington) **“MLN-geeWhiz: Supporting Complex Data Analysis Including Visualization”**

2. Paper id: 50, Adamy Shyam (University of Delhi); Kavita Kanwar (National Institute of Technology, Warangal); Vikas Kumar (University of Delhi)*; Venkateswara R Kagita (NIT Warangal) **“gCDR: A group aided cross-domain recommendation framework”**
3. Paper id: 101, Navpreet (Thapar institute of engineering and technology)*; Rajendra Kumar Roul (Thapar Institute of Engineering and Technology); Dr. Rinkle Rani (Thapar University) **“CKELM: Unified Approach to Parking Space Classification for All Weather Types”**

Session – 8 (Prediction and Forecasting)

Short papers

1. Paper id: 25, Navadersh S (Indian Institute of Information Technology Kottayam); Vengadeswaran Shanmugasundaram (Indian Institute of Information Technology Kottayam)* **“An Efficient Predictive Big Data Analytics for Supply Chain Demand Forecasting through Ensemble Learning”**
2. Paper id: 31, Jayanth Talabathula (VIT-AP University); Manimaran A (VIT-AP UNIVERSITY)* **“Enhanced Stock Price Prediction with DES-ED-Bi-GRU Using Smooth Maximum Unit Activation Function”**
3. Paper id: 52, Leelavathy B (Vasavi College of Engineering)*; Krm rao (Vasavi college of engineering); Khateeb Mohammed Zahid Parvez (Vasavi college of engineering); Bathini Ajay Goud (Vasavi college of engineering) **“Real-Time Pothole Detection System: A Deep Learning Approach with Single Shot Detector”**
4. Paper id: 60, Akansha Singh (IIIT-Lucknow)*; Dr. Soumendu Chakraborty (IIIT Lucknow); Mainak Adhikari (Indian Institute of Science Education and Research Thriuvanthapuram) **“Data Analysis with Model Explainability for Air Quality and Pollution Prediction of Urban Areas in Edge Networks”**