

13th International Conference on Big Data & AI (BDA2025)

July 17 – 20, 2025

Venue: IIIT-Bangalore

Bengaluru - 560100, Karnataka, India

Website: <https://bda2025.iiitb.net/>

Day-1
Program Schedule of Workshops
July 17, 2025 (Thursday)
Venue: Aryabhata block, IIIT-Bangalore

08:30 - 09:30	Registration	
09:30 - 10:30	Workshop-1*	Workshop-2**
10:30 - 10:45	TEA BREAK	
10:45 - 13:00	Workshop-1 (cont.)	Workshop-2 (cont.)
13.00 - 14.00	LUNCH BREAK	
14:00 - 15:30	Workshop-1 (cont.)	Workshop-3***
15:30 - 15:45	TEA BREAK	
16:45 - 17:30	Workshop-1 (cont.)	Workshop-3 (cont.)
*Workshop-1: 2 nd Indo-French Workshop on “Scalable Technologies for Real-time Event Analysis and Management” (STREAM) **Workshop-2: Novel Algorithms, Models, Libraries and Tools for Achieving Sustainability and Energy Efficiency in Computing Paradigms ***Workshop-3: Beyond Generation – Advanced AI Techniques for Stimuli Design, Conducting Interviews, and Generating Synthetic Data for Research		

13th International Conference on Big Data and AI (BDA2025)

II. July 18-20, 2025: Main Conference Program
(Venue: Ramanujan Block, IIIT-Bangalore)

18 July 2025 (Friday)

08.30 - 09.00	Registration (desk will be open throughout till afternoon)		
09.00 - 09.10	<i>Welcome and Inauguration</i> by Prof. Srinath (General Chair), Prof. Debabrata Das, and the Honorary Chairs		
09.10 - 09.30	<i>Joint Statement from the BDA Conference</i> by Prof. Krishna Reddy, PC Chairs (Dr. Rajeev/Dr. Deepak), Workshop Chairs (Workshop Highlights), and Tutorial & Industry track Chairs (Tutorial Sessions and Industry Track Programs)		
09.30 - 10.30	<i>Keynote talk</i> by Prof. Yogesh Simmhan, IISc, Bengaluru		
10.30 - 11.00	TEA BREAK		
11.00 - 12.30	Paper Presentation Session-1	Paper Presentation Session-2	
	(5 regular papers, 20 min each)	(5 regular papers, 20 min each)	
12.45 - 14.00	LUNCH BREAK		
14.00 - 15.00	<i>Invited talk</i> by Dr. Prasad Deshpande, Databricks, Bengaluru		
15.00 - 15.45	Short Paper Presentation Session-A (4 papers)	Tutorial-1*	Sponsored Tutorial
15.45 - 16.15	TEA BREAK		
16.15 - 17.45	Short Paper Pres. Session-A (cont.)	<i>Tutorial 1</i> (cont.)	<i>Sponsored Tutorial (cont.)</i>
19:00 - 20:00	<i>BDA Steering Committee meeting</i>		
20.00 - 22.30	DINNER (invited members only)	Steering and Organizing committee	

		meeting
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* Tutorial on “Big Graph Mining with LLM: Techniques, Architecture, and Applications”

19 July 2025 (Saturday)

09.15 - 09.30	<i>Welcome and Today's highlight</i> (by Prof. Srinath & Dr. Rajeev)		
09.30 - 10.30	<i>Keynote talk</i> by Prof. Biplav Srivastava, University of South Carolina		
10.30 - 11.00	TEA BREAK		
10.30 - 12.45	Paper presentation Session-3	Paper presentation Session-4	
	(5 regular papers, 20 min each)	(5 regular papers, 20 min each)	
12.45 - 14.00	LUNCH BREAK		
14.00 - 15.00	<i>Keynote talk</i> by Dr. Kalika Bali, Microsoft Research India		
	Industry track	Short Paper Presentation Session-B	Tutorial-2**
15.00 - 15.45	<i>Invited Talk 1: "Data: The AI Enabler - A Practitioner's Perspective" by Dr. Sameep Mehta, IBM Research.</i>	<i>Invited talk</i> by Dr. Manas Gaur, University of Maryland Baltimore County	<i>Tutorial 2</i>
15.45 - 16.00	TEA BREAK		
16.00 - 16.45	<i>Invited Talk 2: “Cloud Database Systems: Challenges and Opportunities” by Dr. Karthik Ramachandra, Microsoft</i>	<i>Short Paper Presentation</i> (cont.)	<i>Tutorial 2 (cont.)</i>
16:45 - 17.45	<i>Industry Panel Discussion – Dr. Sameep Mehta, Dr. Karthik Ramachandra and Dr. Shourya Roy (Moderator: Dr. Atul Kumar)</i>	(4 papers – 15 min each)	<i>Tutorial 2 (cont.)</i>
18:30 - 21.30	BANQUET DINNER		

** Tutorial on “From PDF to FAIR Knowledge: Extracting Scientific Knowledge from Research Articles to Build an Open Research Knowledge Graph”

20 July 2025 (Sunday)

09.15 - 09.30	<i>Welcome and Today's highlight</i>	Prof. Srinath & Prof. Deepak P
09.30 - 10.30	<i>Keynote talk</i> by Mr. K. Anvar Sadath Chief Executive Officer, KITE	
10.30 - 11.00	TEA BREAK	
11.00 - 12.00	Short Paper presentation Session-C (4 short papers, 15 min each)	Short Paper presentation Sess.-D (4 short papers, 15 min each)
12:00 - 12:45	Closing ceremony (Prof. Srinath and Prof. Krishna Reddy/Other steering committee members)	
12.45-14.00	LUNCH BREAK	

Regular/Short paper presentation detailed schedule

Day-2		
Regular Paper Session-1 (Friday 18 July) (Language Understanding and Interactive AI)		
Paper-ID	Title	Authors
28	Long-context Non-factoid Question Answering in Indic Languages	Ritwik Mishra, Rajiv Ratn Shah; Ponnurangam Kumaraguru
65	CommuteQA: Visual Question Answering for Bus Transport	Anwar Shaikh, Prakrit Garg; Mahisha Ramesh; Ritwik Kashyap; Raghava Mutharaju; Rajiv Ratn Shah
89	IndLaw-QA: Fine-tuned LLMs with RAG for Indian Legal QA	Aayush Badoni; Divyansh Anand Singh; Kapil Vuthoo; Shivansh Singh; Sonia Khetarpaul; L Venkat Subramaniam
14	A Novel Approach to Emoji-Based Communication in Real-Time Video Chat Application	Alice Kanchan; Sneha M, Jobin Francis; Neha Singhal
5	Generative AI-Driven Continuous Monitoring and Management of Diabetes (leans toward interactive generative AI)	Snehali Biswas; Aman Sagar; Suchi Kumari; Abhishek Soni
Regular Paper Session-2 (Friday 18 July) (Learning Paradigms and Optimizations)		
39	Enhancing Credit Risk Prediction Using Stacked Ensemble and Quantum Approaches on PySpark	Aditya Bhardwaj; Robin Chauhan; Ajay Kumar
53	Label, Learn, Enhance: Multimodal Large Language Models-Assisted Annotation and Optimized Classifier Training for Retail Outlet Image Quality Assessment	Prithviraj Naik
22	Fusion-Based Reduced Variation Representations for Acoustic Scene Classification	Akansha Tyagi; Padmanabhan Rajan
75	A Two-Level Indexing Scheme for Extracting Frequent Patterns with GPUs from Symbolic Sequence Data	P Shiridi Kumar, Uday Kiran Rage; Krishna Reddy Polepalli
106	Robust Spoken Language Identification for Indian Languages Using Phonetic Representations	Shubham Sharma; Shilpa Chandra; Padmanabhan Rajan
Short Paper Session-A (Friday 18 July) (Deep Learning Architecture and Adaptations)		
25	Forecasting Indian Stock Market Prices Using Deep Learning Models	Rajesh Kumar; Suchi Kumari; Kartikeya Pydi; Laxmi Raavi
43	Transformers vs CNNs in Wheat Disease Prediction: Performance Evaluation and Prescriptive Insights	Falisha Umaiza; Abdul Omeez; Manali M; Sambhavi T; Purvika GP
62	Deep Learning Framework Using CNN-BiLSTM for Anomaly Detection in WBANs	Shreea Bose; Granth Bagadia; Arundhati Bajaj; Chittaranjan Hota
71	Real-Time Plant Disease Classification Using EfficientNetB3: A Deep Learning Approach for Agricultural Productivity	Siva Rama Kumar D

Day-3		
Regular Paper Session-3 (Saturday 19 July) (ML Frameworks and System-Level Intelligence)		
Paper-ID	Title	Authors
79	End-to-End Modular Intelligence through Machine Learning	Ravikant Ravikant, Abhishek Sengupta; Ravi Tanwar; Vijay Pandey; Jayit Saha; Ashwini Chandrashekharaiiah
84	Towards Building a Custom Foundation Model for Crop Yield Estimation	Deeksha Aggarwal; Sai ShrutiPrakhya; Uttam Kumar
86	CycleAware: A Machine Learning Framework for Menstrual Phase Prediction and Athlete Performance Tracking	Shreya Srikant; Shreya Naveen; Aditya Verulkar; Shrujan V; Chaitra N
92	SiteSense: Optimizing Restaurant Site Selection using a Comprehensive Data-Driven Framework	Anvitha Swaroop; Kritika Prasad; Sonia Khetarpaul
87	Enhancing Ethereum Transaction Security Through Machine Learning Fraud Detection	Premanand V, Padma Swati N L; Vanshita Gupta S; Navya Sri Duddela
Regular Paper Session-4 (Saturday 19 July) (Deep Learning Architectures and Model Design)		
24	MPox AI: Hybrid Deep Learning and Generative AI-Driven Decision Support System for Early Monkeypox Detection	Jegatheeswaran T; Kousika N; Latha Maheswari T; Dharun C; Abhishek Girish
76	Deepfake Video Detection using LSTM and Restnext	Manamoy Banerjee; Shubham Sahu; Rohit Ravi
90	Enhancing Ocular Disease Diagnosis: An Attention-Guided CNN for Diabetic Retinopathy Detection Using Vision Transformer-Derived Channel Augmentation	Bhargava BS; Sathiya Narayanan
110	Spatial Attention-Enhanced Dual-Path Skip Connection Siamese Network for Temporal Land Cover Change Detection using SAR	Himanshi Srivastava, Uttam Kumar; Sai Shruti Prakhya
78	An Ensemble XGBoost-LSTM Approach for Agricultural Commodity Price Prediction Incorporating Weather and Market Data	Ritu Bhakal, Akankssha Anil; Sai Praneeth L; Leelambika KV
Short Paper Session-B (Saturday 19 July) (Domain-Specific AI Models)		
46	Agri Buddy: From Queries to Crops with a Context-Aware Agricultural Chatbot	Prasenjit Betal
60	Machine learning based wind and turbulence prediction at urban-scale for drone operations	Mandar Tabib
81	Structured Definitions and Segmentations for Legal Reasoning in LLMs: A Study on Indian Legal Data	Mann Khatri, Mirza Yusuf; Rajiv Ratn Shah; Ponnurangam Kumaraguru
91	AgriLLM-India: Empowering Indian Farmers through Domain-Specific Large Language Models for Agricultural Knowledge and Decision Support	Vijay Kumar Damera; Deepthi Kalavala

Day-4		
Short Paper Session-C (Sunday 20 July) (Fine-Tuning and Generative Modeling Techniques)		
Paper-ID	Title	Authors
68	Optimizing Speech Models with Freezing	Revanth Reddy Pasula
69	Unsupervised Neural Transcription of Percussive Audio: A Self Learning Approach	Revanth Reddy Pasula
72	SLM4Offer: Personalized Marketing Offer Generation Using Contrastive Learning Based Fine-Tuning	Vedasamhitha Challapalli; Piyush Pratap Singh; Konduru Venkat Sai; Rupesh Prasad; Arvind Maurya; Atul Singh
73	Cross-City Next POI Prediction Using a Generative Causal Method	Soma Bandyopadhyay; Sudeshna Sarkar
Short Paper Session-B (Sunday 20 July)		
74	Sadrusha: An Administrative Data Twin Framework for SDG-Aligned Decision Making	Apurva Kulkarni; Riya Patidar; Srinath Srinivasa
83	Extensible Test Automation for Functional Testing of Low-Code ETL Workflows	Afnan Ahmad; Preetodeep Dev; Arup Kumar Chattopadhyay; Meenakshi D'Souza
104	A Spark-Based Pipeline for Real-time Multi-faceted Analysis of Public Sentiment during the Indian Recession	Saravanan Selvam; Deshana Vikas Shah
107	CodeBuddy: Automated Code Generation and Compliance Engine	Ananya K A; Rukshana J; Abirami M

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