#### Day-0 Program Schedule of Workshops July 17, 2025 (Thursday) Venue: Aryabhatta block, IIIT-Bangalore

08:30 - 09:30 Registration Infront of A106 09:30 - 10:30 Workshop-1 Workshop-2 TEA BREAK 10:30 - 10:45 Infront of A307 10:45 - 13:00 Workshop-1 (cont.) Workshop-2 (cont.) 13.00 - 14.00 LUNCH BREAK Grand Stairs, Ramanujan block 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<sup>nd</sup> Indo-French Workshop on "Scalable A307 Technologies for Real-time Event Analysis and Management" (STREAM) Website: https://streamspan.univnantes.io/n/workshop2/ Workshop-2. Beyond Generation – Advanced AI A304 Techniques for Stimuli Design, Conducting Interviews, and Generating Synthetic Data for Research Website: https://sites.google.com/view/beyondgeneration Workshop-3. Workshop On Novel Algorithms, A304 Models, Libraries and Tools for Achieving Sustainability and Energy Efficiency in Computing Paradigms Website: https://international-workshopffout1ebt.vercel.app/

#### 13th International Conference on Big Data and AI (BDA2025) July 18-20, 2025: Main Conference Program (Venue: Ramanujan Block, IIIT-Bangalore)

Time		Doom
		K00III
08.30 - 09.00	Registration (desk will be open throughout till afternoon)	Ramanujan
		block
		Reception
09.00 - 09.10	Welcome and formal inauguration of the BDA 2025 Conference	R-103
	1 Commonial Lamp Lighting	
	2. Welcome address by the General Chair, <b>Prot. Srinath Srinivasa</b>	
	3. Opening remarks by IIIT-B Director, <b>Prof. Debabrata Das</b>	
	4. Brief note from <b>honorary chairs</b> highlighting the vision, legacy, and	
	future goals of BDA	
09.10 - 09.30	Joint Statement from the BDA Conference	R-103
	<u></u>	
	1 Overview of the conference structure and statistics by <b>Prof Krishne</b>	
	1. Over view of the conference structure and statistics by 1101. Kristina Doddy (IIIT Hydenabad)	
	Course and the second and the second se	
	2. Summary of accepted papers and program themes by <b>Dr. Rajeev</b>	
	Gupta (Microsoft, India) / Dr. Deepak Padmanabhan (Queen's	
	University Belfast, UK)	
	3. Workshop highlights: key sessions and participation by <b>Dr. Navneet</b>	
	Goyal (BITS Pilani)	
	4. Tutorial summaries and engagement metrics by Dr. Sudarsun	
	Santhiappan (IIT madras)	
	5 Industry track summary: talks papels and collaborations by <b>Dr</b>	
	A tul Kumar (IBM India)	
	Atui Kumai (1014, 111atu)	
00.20 10.20	Variate talk by Drof Vegee Simmbon USe Deveelure	D 102
09.30 - 10.30	Keynole luik by Froi. Fogesn Siminian, IISC, Denguluru	K-103
	<b>Bio:</b> Yogesh Simmhan is an Associate Professor in Computational and Data	
	Sciences at the Indian Institute of Science, Bangalore. His research focuses	
	on scalable software, algorithms, and applications for distributed systems,	
	including Cloud and Edge Computing, Temporal Graph Processing, and	
	Scalable Machine Learning for Big Data and IoT. He has published over 100	
	peer-reviewed papers and received several awards, such as the Swarna	
	Javanti Fellowshin (2019) and IEFE TCSC Award for Excellence in Scalable	
	Computing (2020) Dr. Simmhan holds a Ph.D. from Indiana University and	
	computing (2020). Dr. Simmian holas a 1 n.D. from Inatana University and	
	is a Distinguishea Member of ACM and the IEEE Computer Society. He	
	serves on the ACM India Executive Council and as an Associate Editor for	
	leading journals.	
	<i>Title</i> : AI on the Edge: Challenges and Opportunities	
	Abstract: Edge accelerators have exponentially grown in their compute	
	canabilities forming a first-class commuting fabric that extend to the cloud	
	as well. This is of particular interest given the growing use of MI workloads	
	as well. This is of particular interest given the growing use of ML Worklouds	
	jor 101 auta generatea in the field. In this talk, we will examine the	
	opportunities and challenges of modelling and optimizing edge accelerator	
	platforms such as Nvidia Jetsons for ML workloads. It will explore our	
	experiences with both single edge devices with heterogeneous accelerators.	

#### **18 July 2025 (Friday)**

	and distributed clusters of e	dge devic	es and	d cloud, to support diverse	
	workloads from UAVs to federated learning. We will examine methods that				
	help enhance performance metrics such as training throughput, inference				
	latency and energy efficiency under constrained conditions. We will also				
	discuss future research challenges of edge and cloud resources in the LLM				
10.30 - 11.00	era with agentic Al	TEA BRE	ΔK		Lobby
11.00 - 12.30	Paper Presentation Session	n_1	Pane	Presentation Session-?	Lobby
11.00 12.50	(R103)		1 apc	(R101)	
12.45 - 14.00	LUNCH BREAK		Ramanujan		
					block
					basement
14:00 - 15:00	Invited talk by Dr. Prasad Des	hpande, D	atabri	icks, Bengaluru	R-103
	<b>Bio</b> : Prasad Deshpande is a Senior Staff Software Engineer at Databricks based in Bengaluru, India, joining the company in May 2023. He has extensive expertise in data management research, development, strategy, and technical leadership. Prasad holds a B.Tech. in Computer Science & Engineering from the Indian Institute of Technology Bombay (1990-1994) and completed his M.S. and Ph.D. in Computer Sciences with a focus on Database Systems and OLAP at the University of Wisconsin, Madison (1994- 1999). He has received notable honors including the Best People Manager Award at IBM India/SA, membership in the IBM Academy of Technology, and being named an ACM Distinguished Scientist. His career includes significant roles at IBM, Google, and other tech firms before joining Databricks				
15.00 - 15.45	<b>Title</b> : Fueling Enterprise AI through robust Data Ingestion <b>Abstract:</b> Companies are rapidly adopting AI solutions like Large Language Models (LLMs) and Retrieval-Augmented Generation (RAG) to enhance employee productivity, business efficiency, and customer experience. However, generic pre-trained models often underperform compared to models fine-tuned or augmented with specific enterprise data. To unlock the full potential of AI, ingesting data from various applications and databases into a centralized Lakehouse is crucial. This talk will explore the challenges of building robust data pipelines for this purpose. We'll delve into the complexities of handling diverse APIs, incremental ingestion, application behavior, rate limits, and data access controls, with specific considerations for unstructured data. We'll also discuss strategies to overcome these hurdles and establish a foundation for scalable and efficient AI deployments within an organization.				
	Session-A (4 papers)	(R103	)	(R105)	
	(R102)				
15.45 - 16.15		TEA BRE	AK	a 17 - 14	Lobby
16.15 - 17.45	Short Paper Pres. Session-A	Tutorial	1	Sponsored Tutorial (cont.)	
Tutorial 1*	(cont.) Big Graph Mining with I I Me	(cont.)		rchitactura and Applications	R 103
1 0101141-1	explores how large language i	nodels (LL	Ms $C($	an advance traditional graph	11-105
	mining tasks such as node classification, link prediction, and community detection, particularly on massive graphs. While conventional methods struggle with scalability and adaptability, LLMs bring new capabilities through semantic reasoning, pattern recognition, and code generation. Emerging research shows that LLMs can solve simple graph problems				

	<ul> <li>Jramed in natural language but often fatter on complex or large-scale graphs. These limitations are being addressed by prompting strategies that guide the model through structured reasoning or task decomposition. Some approaches also leverage the model's ability to generate executable code, enabling interpretable and generalizable solutions without heavy supervision. This tutorial combines conceptual insights with a hands-on session to help participants understand and apply LLMs in graph mining at scale.</li> <li>Speakers.</li> <li>Dr. Apurba Das Assistant Professor in the Department of Computer Science and Information Systems at BITS Pilani, Hyderabad Campus. He holds a B.E. in Computer Science from BESU Shibpur, an M.Tech from the Indian Statistical Institute, Kolkata, and a Ph.D. in Computer Engineering from Iowa State University. His research focuses on graph algorithms, dynamic and streaming graphs, graph-based machine learning, cybersecurity, and large-scale graph analytics.</li> <li>Dr. Prajna Devi Upadhyay. Assistant Professor in the Department of Computer Science and Information Systems at BITS Pilani Hyderabad Campus, India. She earned her Ph.D. from IIT Delhi and was previously a postdoctoral researcher at Inria Saclay, France. Her research focuses on</li> </ul>	
Sponsored Tutorial**	<ul> <li>Information extraction, retrieval, and knowledge graphs.</li> <li>Advanced machine learning-driven geospatial data analysis can significantly aid Sustainable Development Goals (SDGs), but challenges like limited data availability and lack of interoperability hinder its full potential. The National Geospatial Policy 2022 addresses this by proposing a centralized National Geospatial Data Registry (NGDR) and a Unified Geospatial Interface (UGI) for standardized data access and exchange. The Integrated Geospatial Datasharing Interface (GDI) advances this vision by providing a standardized platform that integrates diverse spatial data sources and tools, promoting seamless data sharing, interoperability, and efficient access. GDI serves as a critical Digital Public Infrastructure with controlled access, supporting innovation and consistent data standards. This session will showcase GDI through live demos, sandbox features, and real-world use cases, all developed in-house.</li> <li>Speakers:</li> <li>Mr. Joel Joy. Data Scientist I passionate about AI, with expertise in Applied Machine Learning and Deep Learning. Focused on solving real-world problems and advancing innovation in AI and data science.</li> <li>Dr. Linda Theres. Senior Software Engineer - Geospatial with over a decade of experience in GIS and remote sensing. Specializes in machine learning for urban studies and spatial analytics across agriculture, forestry, urban planning, and disaster management. Published researcher.</li> <li>Dr. Jyotirmoy Dutta. Director and Principal Scientist at the Centre of Data</li> </ul>	R-105
	industry, and research, leading major government-funded projects of national importance.	
Participants	may leave after their sessions. Later sessions are reserved for committee me	mbers only.
19:00 - 20:00	BDA Steering Committee meeting	<b>R-308</b>

## **Regular/Short paper presentation detailed schedule**

	Room R-103			
	Regular Paper Sess	ion-1		
	(Language Understanding and	Interactive AI)		
Session chairs: Dr. Rajeev Gunta and Dr. Tulika Saha				
Paper-ID	Title	Authors		
28	Long-context Non-factoid Question	Ritwik Mishra Raiiy Ratn Shah		
20	Answering in Indic Languages	Ponnurangam Kumaraguru		
65	CommuteQA: Visual Question	Anwar Shaikh Prakrit Garg		
	Answering for Bus Transport	Mahisha Ramesh: Ritwik Kashvap:		
		Raghava Mutharaju; Rajiv Ratn Shah		
89	IndLaw-QA: Fine-tuned LLMs with	Aayush Badoni; Divyansh Anand		
	RAG for Indian Legal QA	Singh; Kapil Vuthoo; Shivansh		
		Singh; Sonia Khetarpaul; L Venkat		
		Subramaniam		
5	Generative AI-Driven Continuous	Snehali Biswas; Aman Sagar; Suchi		
	Monitoring and Management of Diabetes	Kumari; Abhishek Soni		
	(leans toward interactive generative AI)			
	Room R-101			
	Regular Paper Sess	ion-2		
	(Learning Paradigms and O	ntimizations)		
	Session chairs: Dr. Deenak Padmanabha	n and Dr. Uttam Kumar		
20	Enhancing Credit Dick Prediction Using	A ditya Phardwai: Pahin Chauhan		
39	Stacked Ensemble and Quantum	Autya Bhaluwaj, Koolii Chauliali, Ajay Kumar		
	Approaches on PySpark	Ajay Kullia		
53	Label Learn Enhance: Multimodal	Prithvirai Naik		
55	Large Language Models-Assisted	1 Innivitaj Ivaik		
	Annotation and Optimized Classifier			
	Training for Retail Outlet Image Quality			
	Assessment			
22	Fusion-Based Reduced Variation	Akansha Tyagi: Padmanabhan Rajan		
	Representations for Acoustic Scene	, , , , , , , , , , , , , , , , , , , ,		
	Classification			
75	A Two-Level Indexing Scheme for	P Shiridi Kumar, Uday Kiran Rage;		
	Extracting Frequent Patterns with GPUs	Krishna Reddy Polepalli		
	from Symbolic Sequence Data			
106	Robust Spoken Language Identification	Shubham Sharma; Shilpa Chandra;		
	for Indian Languages Using Phonetic	Padmanabhan Rajan		
	Representations			
	Room R-102			
	Short Paper Sessio	on-A		
	(Deep Learning Architecture as	nd Adaptations)		
25	Forecasting Indian Stock Market Prices	Rajesh Kumar; Suchi Kumari;		
	Using Deep Learning Models	Kartikeya Pydi; Laxmi Raavi		
43	Transformers vs CNNs in Wheat Disease	Falisha Umaiza; Abdul Omeez;		
	Prediction: Performance Evaluation and	Manali M; Sambhavi T; Purvika GP		
	Prescriptive Insights			
62	Deep Learning Framework Using CNN-	Shreea Bose; Granth Bagadia;		
	BiLSTM for Anomaly Detection in	Arundhati Bajaj; Chittaranjan Hota		
	WBANs			
71	Real-Time Plant Disease Classification	Siva Rama Kumar D		
	Using EfficientNetB3: A Deep Learning			
	Approach for Agricultural Productivity			

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

### July 18-20, 2025: Main Conference Program

(Venue: Ramanujan Block, IIIT-Bangalore)

Time		Room
09.15 - 09.30	Welcome and Today's highlight (by Prof. Srinath & Dr. Rajeev)	R103
09.30 - 10.30	Keynote talk by Prof. Biplav Srivastava, University of South	R103
	Carolina	
	<b>Bio.</b> Biplav Srivastava is a professor of computer science at the	
	AI Institute at the University of South Carolina. Previously, he	
	was at IBM for nearly two decades in the roles of a Research	
	Scientist, Distinguished Data Scientist and Master Inventor.	
	Biplav is an ACM Distinguished Scientist, AAAI Senior	
	Member, IEEE Senior Member and AAAS Lesnner Fellow for Public Engagement on AL (2020-2021) Dr. Suivestrue is	
	Public Engagement on AI (2020-2021). Dr. Srivasiava is	
	interested in endoling people to make rational decisions despite	
	limited resources by augmenting their cognitive limitations with	
	technology. He is exploring new approaches for goal-oriented	
	ethical, human-machine collaboration via natural interfaces	
	using domain and user models, learning, and planning. He is a	
	co-inventor of over 50 patents and co-author of over 150 peer-	
	reviewed papers.	
	<i>Title.</i> Towards Sustainable Communities with Big, Open, Data	
	and Group Recommendations Promoting User Trust	
	Abstract. Communities around the world are facing challenges	
	aue to their growing population and shrinking resources. The	
	inter-alsciplinary field of Smart City, also known as	
	computational sustainability, has been exploring unit-univen solutions for societal challenges for decades demonstrating	
	many promising prototypes Moreover the past decade has been	
	a great time for computing due to the ranid advances and	
	availability in data. compute resources and analytical methods	
	like Artificial Intelligence (AI) and Large Language Models	
	(LLMs). However, the reality is that we are still far from	
	tackling pressing societal problems involving human	
	sustainability and wellbeing, including nutrition, exercises,	
	collaboration, water, traffic. Why? In most cases, after	
	promising initial prototypes, progress appears stalled in terms	
	of realized improvement at scale and wider solution adoption.	
	The barriers for this have been structural governance issues as	
	well as technology limitations. In this talk, we will focus on the	
	harriers First we will discuss a shift in perspective from one	
	technological aspects and how one may overcome persistent barriers. First, we will discuss a shift in perspective from one-	

### 19 July 2025 (Saturday)

	off data-driven problem solving to incremental solution evolution based on increasing complexity considerations of data, methods and adoption based on trustworthy human-AI interaction. Then, we will use the specific instances of group recommendation for the AI method (that suggests groups, aka sets, bundles, of items to users based optimizing a combination of short and long term objectives over a time horizon), and robustness and fairness for trust. We will illustrate that more	
	trustworthy, effective, solutions could be built via early case studies in collaboration (human-human teaming) and behavioral adherence (for nutrition in meals and physical activity) using domain-specific open often big data The talk	
	will also demonstrate the ULTRA team recommendation tool	
10.20 11.00	and the ARC tool for Blackbox AI assessment.	T 11
10.30 - 11.00	IEA BREAK Paper presentation Session 3 Paper presentation Session 4	Lobby
10.30 - 12.43	(R103) (R101)	
12.45 - 14.00	LUNCH BREAK	Ramanujan block
14.00 - 15.00	Kevnote talk by Dr. Kalika Bali, Microsoft Research India	R103
	<b>Bio.</b> Dr. Kalika Bali is a Senior Principal Researcher at Microsoft Research India, working at the intersection of AI, NLP, speech, and inclusive technology. Her research focuses on developing multilingual tools for low-resource languages, aiming to make technology accessible to diverse and underrepresented communities. She is part of Project VeLLM— an initiative to build inclusive large language models that work across languages and cultures—and also explores the societal impact of generative AI, with a particular focus on gender and bias in technology. A strong advocate for speech and language technologies for Indian languages, she believes such innovations can transform access and opportunity for millions. <b>Title.</b> Multilingual and Multicultural AI: Towards Inclusive and Responsible Intelligence	
	Abstract. This talk delves into the principles, challenges, and opportunities involved in developing AI systems that are genuinely multilingual and culturally aware. As AI technologies increasingly influence global interactions, addressing the linguistic and cultural biases embedded in data, models, and evaluation frameworks becomes crucial. By drawing on examples from projects like Sanmati, Kahaani, and Pariksha, the talk underscores how participatory design and community- centric approaches can reveal nuanced biases and promote inclusive development. Additionally, it examines the role of synthetic datasets such as Updesh and benchmarking efforts like Samiksha in assessing AI across diverse languages and	

	contexts. The session will highlight the significance of culturally			
	contextual AI and the necessity of governance frameworks that			
	reflect the lived realities of users in the Global South.			
15.00 - 17.45	Industry track	Short Paper	Tutorial-2**	
	(D102)	Presentation	(D105)	
	(R103)	Session-B (D101)	(R105)	
15 00 - 15 45	Invited Talk 1: "Data: The AI	Invited talk <sup>+</sup>	Tutorial 2	
10.00 10.10	Enabler - A Practitioner's	by <b>Dr</b>	1 1101 111 2	
	Perspective" by <b>Dr. Sameen</b>	Manas Gaur.		
	Mehta. IBM Research.	University of		
		Marvland		
		Baltimore		
		County		
15.45 - 16.00	TEA I	BREAK		Lobby
16.00 - 16.45	Invited Talk 2: "Cloud	Short Paper	Tutorial 2	
	Database Systems: Challenges	Presentation	(cont.)	
	and Opportunities" by	(cont.)		
	Dr. Karthik Ramachandra,			
	Microsoft			
16:45 - 17.45	Industry Panel Discussion –	(4 papers –	Tutorial 2	
	Dr. Sameep Mehta, Dr.	15 min each)	(cont.)	
	Karthik Ramachandra and			
	Dr. Dr Kedar Kulkarni			
	(Reliance Industries)			
	Moderator: Dr. Atul Kumar			
	IBM Research			
Invited talk <sup>+</sup>	Speaker bio. Dr. Manas Gaur	is an Assistant	Professor at the	R101
	University of Maryland Balt	imore County	(UMBC) in the	
	Department of Computer Se	cience, where	he directs the	
	Knowledge-infused AI and	Inference L	ab (KAI <sup>2</sup> -Lab).	
	Recognized as an AAAI New F	Faculty Award r	ecipient in 2023,	
	Dr. Gaur has established himse	elf as a pioneer	ing researcher in	
	Neurosymbolic Artificial Int	elligence. Dr.	Gaur is also	
	authoring an upcoming book of	n "Knowledge-I	nfused Learning"	
	with Cambridge University Press, further solidifying his			
	position as a leading voice in trustworthy and explainable			
	artificial intelligence. Before	joining acade	emia, Dr. Gaur	
	gainea valuable inaustry expension	rience as a ser	nor AI Research	
	sciencisi di sumsung Research	nrestigious Ala	enter una servea n Turing Institute	
	in the IIK He earned his PhI	) from the Artit	ficial Intelligence	
	Institute at the University of So	uth Carolina in	2022. where Dr	
	Amit Sheth advised him after	completing hi	s bachelor's and	
	master's degrees at Delhi Techi	nological Unive	rsity in India. Dr.	
	Gaur's research excellence h	as been suppo	rted by multiple	
	prestigious fellowships, includi	ng the Eric and	d Wendy Schmidt	
	Data Science Fellowship and	Dataminr AI	for Social Good	
	Fellowship, and his work has	earned best pa	per awards from	

	IEEE Internet Computing and IEEE Intelligent Systems. He currently serves as Co-Chair of the International Semantic Web Conference (ISWC), Associate Editor of ACM Transactions on Computing for Health, Organizer of Workshop on Knowledge- infused Learning, and Advisor to multiple startups in India and the US.	
	<i>Title.</i> Neurosymbolic Generative AI for Social Good	
	Abstract. Contemporary generative AI systems demonstrate remarkable capabilities across creative and technical domains. They compose symphonies, debug complex software, and engage in sophisticated philosophical discourse. Yet these same systems exhibit significant limitations in humanity's most pressing applications. They struggle with personalized mental health interventions, environmental crisis prediction, and accessible trustworthy legal services for populations. This performance disparity illuminates a critical knowledge gap in current AI development. Recent research has identified a fundamental "discrepancy between a model's internal understanding and the knowledge required for coherent, personalized conversations" in multi-turn dialogues. While these models excel in well-documented domains with abundant training data, they lack the specialized knowledge representations and contextual grounding required for high- stakes social applications. The resulting systems often produce outputs that are misaligned with user needs, potentially unsafe for vulnerable populations, and prone to reproducing training data rather than adapting to sensitive contexts. This talk examines the fundamental challenges underlying this knowledge gap and explores Neurosymbolic AI as a method for developing	
	grounded and instructible AI systems that can effectively serve	
Tutorial 2**	From PDF to FAIR Knowledge: Extracting Scientific Knowledge from Research Articles to Build an Open Research Knowledge Graph.	R105
	Austract. Due to timiled structure, it is challenging for machines to access and process scientific knowledge. Scientific knowledge graphs have emerged as a potential solution for this issue. However, building such a knowledge graph demands significant manual effort and expertise in the respective domains, making the process time-consuming and cumbersome. Despite advancements in digital accessibility to scientific knowledge over recent decades, scholarly communication is still based on documents and managed by document repositories. The Open Research Knowledge Graph (ORKG, https://orkg.org/) as a FAIR Supporting Service, tackles the current challenge by offering research communities an easily accessible and	
	sustainably managed infrastructure. It serves as a framework	

	<ul> <li>for creating, curating, publishing, and utilizing FAIR scientific knowledge and aims to shape a future scholarly publishing and communication where the contents of scholarly articles are FAIR research data. ORKG provides libraries for Python and R that enable loading or producing ORKG content in computational environments. Additionally, ORKG features various generic services that make use of FAIR scientific knowledge. One of the prominent service is the ORKG contributions of selected articles. Other services include knowledge visualization, thematic reviews, and observatories as virtual spaces for knowledge organization.</li> <li><u>Speakers.</u></li> <li><b>Prof. Dr. Sören Auer</b>, Director TIB, Head of Research Group Data Science and Digital Libraries</li> <li><b>Dr. Sanju Tiwari</b>, Professor, Sharda University &amp; Researcher at TIB Hannover, Germany</li> <li><b>Dr. Fidel Jiomekong Azanzi</b>, Department of Computer Science, University of Yaounde</li> <li><b>Dr. Kheir Eddine Farfar</b>, TIB Hannover Germany</li> <li><b>Dr. Stocker Markus</b>, TIB Hannover Germany</li> <li><b>Dr. Jennifer D'souza</b>, TIB Hannover Germany</li> </ul>	
18:30 - 21.30	BANQUET DINNER	

# **Regular/Short paper presentation detailed schedule**

R103				
	Regular Paper Session-3 (Saturday 19 July)			
	(ML Frameworks and System-Level Inte	lligence)		
Paper-ID	Title	Authors		
79	End-to-End Modular Intelligence through Machine	Ravikant Ravikant,		
	Learning	Abhishek Sengupta; Ravi		
		Tanwar; Vijay Pandey;		
		Jayit Saha; Ashwini		
		Chandrashekharaiah		
84	Towards Building a Custom Foundation Model for	Deeksha Aggarwal; Sai		
	Crop Yield Estimation	ShrutiPrakhya; Uttam		
		Kumar		
86	CycleAware: A Machine Learning Framework for	Shreya Srikant; Shreya		
	Menstrual Phase Prediction and Athlete	Naveen; Aditya Verulkar;		
	Performance Tracking	Shrujan V; Chaitra N		
92	SiteSense: Optimizing Restaurant Site Selection	Anvitha Swaroop; Kritika		
	using a Comprehensive Data-Driven Framework	Prasad; Sonia Khetarpaul		
R101				

Regular Paper Session-4 (Saturday 19 July)					
	(Deep Learning Architectures and Model Design)				
90	Enhancing Ocular Disease Diagnosis: An Attention-	Bhargava BS; Sathiya			
	Guided CNN for Diabetic Retinopathy Detection	Narayanan			
	Using Vision Transformer-Derived Channel				
	Augmentation				
110	Spatial Attention-Enhanced Dual-Path Skip	Himanshi Srivastava,			
	Connection Siamese Network for Temporal Land	Uttam Kumar; Sai Shruti			
	Cover Change Detection using SAR	Prakhya			
	R101				
	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	Mandar Tabib			
	prediction at urban-scale for drone operations				
81	Structured Definitions and Segmentations for Legal	Mann Khatri, Mirza			
	Reasoning in LLMs: A Study on Indian Legal Data	Yusuf; Rajiv Ratn Shah;			
		Ponnurangam			
		Kumaraguru			
91	AgriLLM-India: Empowering Indian Farmers	Vijay Kumar Damera;			
	through Domain-Specific Large Language Models	Deepthi Kalavala			
	for Agricultural Knowledge and Decision Support	_			

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

### July 18-20, 2025: Main Conference Program

(Venue: Ramanujan Block, IIIT-Bangalore)

Time			Room
09.15 - 09.30	Welcome and Today's	Prof. Srinath & Prof. Deepak P	R103
09.30 - 10.30	highlightKeynote talk by Mr. K. AnvaKITEBio. CEO of Kerala InfiEducation (KITE), GovernmMCA, MBA, and LLB, he hadIT@School, Akshaya, and thethe first Indian to receive thefrom AECT (USA) in 2018Author of 8 publications,	ar Sadath Chief Executive Officer, rastructure and Technology for nent of Kerala. With degrees in us led major digital initiatives like e UNDP's eKrishi project. He was International Contributions Award for his work in digital education. including pioneering Malavalam	R103
	works on nanotechnology a columnist since 1999. He has academic and advisory bodie contributions to science, edu As CEO of KITE since 2016, projects: 45,000 Hi-Tech Cla KITES clubs, Samagra portau making Kerala's school e digitally inclusive.	nd cyber law, and a regular IT served on national and state-level s and received multiple awards for cation, and public administration. he has spearheaded transformative assrooms, 9000 robotic labs, Little l, and the First Bell digital classes, ducation fully FOSS-based and	
	<b>Title.</b> Are We Ready? Embrac Kerala's KITE Model	ring AI in Schools – Insights from	
	Abstract. As Artificial Inte education sector, critical que ethics, and alignment with education systems embrace a such platforms often oper- concerns about algorithmic b and loss of teacher agency. In ready?" becomes more re explores how Kerala, throug Infrastructure and Techno pioneering and responsible a With over 80 000 teachers	lligence (AI) rapidly enters the estions emerge about its readiness, pedagogical values. While many AI tools like ChatGPT or Gemini, ate as opaque systems, raising bias, misinformation, data privacy, a this context, the question "Are we elevant than ever. This keynote th its public agency KITE (Kerala logy for Education), offers a model for AI in school education. trained in ethical AI usage and	

20 July 2025 (Sunday)

	critical understanding, and AI		
	from Class 7 onward, the ap		
	equity, and transparency. The		
	subject in Class 10 and the		
	Software (FOSS) in over 15,00		
	model. Kerala's development of		
	engine, Samagra Plus AI, using Retrieval-Augmented		
	Generation (RAG) and curate		
	how AI can serve public e		
	highlights the readiness		
	technologically but ethically a		
	in schools		
10.20 11.00		т. 1.1	
10.30 - 11.00	I EA BREAK		Lobby
11.00 - 12.00	Short Paper presentation	Short Paper presentation	
	Session-C	Session-D	
	(R103)	(R101)	
12:00 - 12:45	Closing ceremony (Prof. Srinath and Prof. Krishna		R103
	Reddy/Other steering committee members)		
12.45-14.00	LUNCH BREAK		

# **Regular/Short paper presentation detailed schedule**

R103				
Short Paper Session-C (Sunday 20 July)				
(Fine-Tuning and Generative Modeling Techniques)				
Paper-ID	Title	Authors		
72	SLM4Offer: Personalized Marketing Offer	Vedasamhitha		
	Generation Using Contrastive Learning Based Fine-	Challapalli; Piyush		
	Tuning	Pratap Singh; Konduru		
		Venkat Sai; Rupesh		
		Prasad; Arvind Maurya;		
		Atul Singh		
73	Cross-City Next POI Prediction Using a Generative	Soma Bandyopadhyay;		
	Causal Method	Sudeshna Sarkar		
R101				
Short Paper Session-B (Sunday 20 July)				
74	Sadrusha: An Administrative Data Twin Framework	Apurva Kulkarni; Riya		
	for SDG-Aligned Decision Making	Patidar; Srinath Srinivasa		
83	Extensible Test Automation for Functional Testing of	Afnan Ahmad;		
	Low-Code ETL Workflows	Preetodeep Dev; Arup		
		Kumar Chattopadhyay;		
		Meenakshi D'Souza		
104	A Spark-Based Pipeline for Real-time Multi-faceted	Saravanan Selvam;		
	Analysis of Public Sentiment during the Indian	Deshana Vikas Shah		
	Recession			

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