	Day 1, Session 1: AI for Accelerated Materials Development		
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1	Interpretable Machine Learning Approach of Local Scour Prediction around Twin Bridge Piers	Debanik Ghosh, Research Scholar, Dept. of Civil Engineering, IIT Kharagpur Dr. Manish Pandey, Assistant Professor, Dept. of Civil Engineering, IIT Kharagpur	debanik.ce.24@kgpian.iitkgp.ac.in
2	Application of Hybrid AI Models for Accurate Prediction of Scour Depths under Submerged Vertical Jet	Sai Guguloth, Research Scholar, Department Civil Engineering, NIT Warangal Dr. Manish Pandey, Assistant Professor, Department Civil Engineering, IIT Kharagpur	mpandey@civil.iitkgp.ac.in
3	LLM Meets Diffusion: A Hybrid Framework for Crystal Material Generation	Subhojyoti Khastagir, Indian Institute of Technology, Kharagpur Kishalay Das, Indian Institute of Technology, Kharagpur Pawan Goyal, Indian Institute of Technology, Kharagpur Seung-Cheol Lee, Indo-Korea Science and Technology Center, Bangalore Satadeep Bhattacharjee, Indo-Korea Science and Technology Center, Bangalore Niloy Ganguly, Indian Institute of Technology, Kharagpur	skhastagir.24@kgpian.iitkgp.ac.in
4	Design of high strength steel using machine learning techniques	Rajani Jaiswal, Itishree Mohanty, Saurabh Kundu, Shiv Brat Singh	mona041093@iitkgp.ac.in
5	Intelligent Distributed Edge Resource Orchestration for Real-Time SaaS Systems in 5G+	Aakashjit Bhattacharya, Arnab Sarkar from the Advanced Technology Development Centre, IIT Kharagpur, India	aakashjit.bhattacharya021@kgpian.iitkgp.ac.in
6	An Efficient Iterative Beam Search for Human-Robot Collaborative Assembly Line Balancing	Suraj Meshram1, Sanket Jaipuriar1, Arnab Sarkar1, Arijit Mondal2 1Indian Institute of Technology, Kharagpur and 2Indian Institute of Technology, Patna	suraj_meshram@kgpian.iitkgp.ac.in
7	A Discrete Partial Charging Enabled Dynamic Programming Strategy for Optimal Fixed-Route Electric Vehicle Charging	Dipankar Mandal, IIT Kharagpur Arnab Sarkar, IIT Kharagpur Arijit Mondal, IIT Patna	dipankarmandal@kgpian.iitkgp.ac.in
8	Quantum Circuit Design using Complex-Valued Neural Network in Stiefel Manifold	Sayan Manna (Final Year Dual Degree Student) , Department of AI, IIT Kharagpur; Prof. Mahesh Mohan M R, Department of AI, IIT Kharagpur	sayan2003@kgpian.iitkgp.ac.in
9	Minimizing Backbone Ethernet Traffic for Enabling Inter-zonal Messages in Software-Defined Vehicles	Ashiqur Rahaman Molla (Dept. of AI, IIT Kharagpur), Ram Mohan Kota (Dept. of computer science, IIITDM Kancheepuram), Jaishree Mayank (Dept. of computer science, Indian Institute of Technology (Indian School of Mines), Dhanbad), Arnab Sarkar (ATDC, IIT Kharagpur), Arijit Mondal (Dept. of computer science, IIT Patna), Soumyajit Dey (Dept. of computer science, IIT Kharagpur)	ashiqur.rahaman@kgpian.iitkgp.ac.in

10	DP-based Optimal UAV Routing and Charge Scheduling for Real-time Consignment Delivery	Sreyashi Mukherjee, Sachin Yadav, Dipankar Mandal, Arnab Sarkar ATDC, IITKGP, Civil Engg, IITKGP, Centre for Artificial Intelligence, IITKGP, ATDC, IITKGP	sreyashi1995@kgpian.iitkgp.ac.in
11	A Machine Learning Framework for Driver Risk Prediction and Workload Estimation along Highways	Sayanton Mohanta and Dr Madhumita Paul Department of Civil Engineering, Indian Institute of Technology, Kharagpur	sayantonmohanta.24@kgpian.iitkgp.ac.in
12	3D Gravity-Magnetic Modelling of Banded Iron Formations in the Singhbhum Craton, India: Possible Source of Natural Hydrogen	Anish Mishra and Dr. Chandra Prakash Dubey Department of Geology and Geophysics IIT KGP	mishanish24.24@kgpian.iitkgp.ac.in
13	SCAN: Secure CAN Framework by using Deep Learning	Sumansmita Rout, Ayantika Chatterjee ATDC, IIT Kharagpur, West Bengal, India	rout.sumansmita@kgpian.iitkgp.ac.in
14	CNN-based probabilistic stability analysis of a tunnel in spatially varying rock mass	Pratishtha Mishra, Research Scholar, Department of Civil Engineering, IIT Kharagpur Dr. Debarghya Chakraborty, Associate Professor, Department of Civil Engineering, IIT Kharagpur	pratishtham22@kgpian.iitkgp.ac.in
15	NEUROMORPHIC CORES FOR BIDIRECTIONAL SPIKING NEURAL NETWORK IN TSMC 65nm TECHNOLOGY	Tamal Chowdhury, Research scholar at E&ECE Department, IIT KHARAGPUR Pradip Mandal, Professor at E&ECE Department, IIT KHARAGPUR	tamalchowdhury27@kgpian.iitkgp.ac.in
16	Categorization of Zn-Pb deposits based on sphalerite geochemistry: An ensemble model approach	1. Arkodeep Sengupta, Department of Geology and Geophysics, Indian Institute of Technology Kharagpur, West Bengal, India 721302 2. Kamal Lochan Pruseth, Department of Geology and Geophysics, Indian Institute of Technology Kharagpur, West Bengal, India 721302 3. Ritesh Chandra Tewari, School of Electrical and Electronics Engineering, Nanyang Technological University, Singapore 639798	arkodeepsg@iitkgp.ac.in
17	Accelerating catalytic experimentation of water gas shift reaction using machine learning models	Sathish Kumar C and Koustuv Ray Department of Chemical Engineering IIT Kharagpur	koustuv@che.iitkgp.ac.in
18	Machine Learning Interatomic Potentials for Lithium-ion Solid-State Battery Electrolytes: A Moment Tensor Potential Approach	Ujjwal Kesharwani, Vinay Maithani, Sankha Mukherjee	ujjwal07.24@kgpian.iitkgp.ac.in

19	Department of Industrial & Systems Engineering: AI for Science & Technology Workshop	Dr. Subhajit Sidhanta, Assistant Professor, Industrial & Systems Engineering; Dr. Sayak Roychowdhury, Assistant Professor, Industrial & Systems Engineering; Dr. Akhilesh Kumar, Associate Professor, Industrial & Systems Engineering; Prof. Mamata Jenamani, Professor, Industrial & Systems Engineering; Prof. Jhareswar Maiti, Professor, Industrial & Systems Engineering	subhajit@iem.iitkgp.ac.in
20	Physics-Informed Neural Network Based Reduced Order Modeling of Complex Droplet-morpho dynamics	Aditi Mahajan, Amogh Joshi, Dr. Priyam Chakraborty, and Prof. Suman Chakraborty Department of Mechanical Engineering, Department of Computer Science and Engineering, Department of Artificial Intelligence, Indian Institute of Technology Kharagpur, 721302 India.	aditiraju.24@kgpian.iitkgp.ac.in
21	Constraint-Aware Weighted Graph Construction and Multi-Algorithm Pathfinding for Multi-Floor Indoor Navigation	Anik Dwivedi, Dr. Subhajit Sidhanta	anikdwivedi8055@kgpian.iitkgp.ac.in
22	Latent Diffusion Pretraining for Crystal Property Prediction	Shrimon Mukherjee & Indian Association for the Cultivation of Science, India Kishalay Das & Indian Institute of Technology Kharagpur, India Partha Basuchowdhuri & Indian Association for the Cultivation of Science, India Pawan Goyal & Indian Institute of Technology Kharagpur, India Niloy Ganguly & Indian Institute of Technology Kharagpur, India	shrimon26t@kgpian.iitkgp.ac.in
23	Integrating Artificial Intelligence with Physical Writing Instruments: A Paradigm Shift in Human-Computer Interaction	Lisban Hanahaga, M.tech @ RMSoEE	lisban2525@kgpian.iitkgp.ac.in
24	Automated fracture characterization for rapid risk management and CO2 storage optimization in CCUS applications	M Quamer Nasim, Paresh Nath Singha Roy, Saswati Paul	paulsaswati.24@kgpian.iitkgp.ac.in
25	AI-Driven Property Price Forecasting for Urban Governance	1. Joyita Naskar – Research Scholar, Indian Institute of Technology Kharagpur 2. Dr Shreyas Bharule – Assistant Professor, Indian Institute of Technology Kharagpur	joyitanaskar.24@kgpian.iitkgp.ac.in
26	3D Shape Completion using Multi-resolution Spectral Encoding	Pallabjyoti Deka, Saumik Bhattacharya, Debashis Sen, and Prabir Kumar Biswas. Presenter: Krishnendu Ghosh	dsen@ece.iitkgp.ac.in
27	MATERIAL SCREENING AND CATALYST DEACTIVATION RATE ANALYSIS IN PROPANE DEHYDROGENATION (PDH) USING ML TECHNIQUES	Aditya Raj Kaushik, AFFILIATIONS: Department of Chemical Engineering "Indian Institute Of Technology, Kharagpur”	adityaraj001@kgpian.iitkgp.ac.in
28	QUANTUM BORN MACHINES FOR COMPLEX DISTRIBUTION LEARNING	Abhinav Krishnann T K, Indranil Hazra Subir Chowdhury School of Quality and Reliability	aktk.24@kgpian.iitkgp.ac.in

29	Development of Neural Networks based Interatomic Potentials (Allegro) for Lithium-ion based Solid-State Battery Electrolytes	Archisman Bera, 5th Year Dual-Degree Student, Metallurgical and Materials Engineering, Indian Institute of Technology Kharagpur Vinay Maithani, PhD Researcher, Metallurgical and Materials Engineering, Indian Institute of Technology Kharagpur Sankha Mukherjee, Professor, Metallurgical and Materials Engineering, Indian Institute of Technology Kharagpur	archismanbera@kgpian.iitkgp.ac.in
30	Hierarchical Reinforcement Learning in Chemical Engineering Process Intensification	Disha Mukherjee, Third year Undergraduate B.Tech student, Department of Chemical Engineering, IIT Kharagpur Koustuv Ray, Assistant Professor, Department of Chemical Engineering, IIT Kharagpur	dishamukherjee2004@kgpian.iitkgp.ac.in
31	Framework for Classification and Quantification of Distresses in Pavements using Machine Learning	Col. Karan Sharma(PG, Civil Engineering Department), Satyarth Kumar Keshri (UG, Civil Engineering Department), Kranthi Kumar Kuna (Associate Professor, Civil Engineering Department)	satyarthkeshri99@kgpian.iitkgp.ac.in
32	DATA-DRIVEN MODELING AND OPTIMIZATION OF WIRE ELECTRICAL DISCHARGE MACHINING (WEDM) PARAMETERS	Sagar Chandan, UG student Gobinda Chandra Behera, Research Scholar under Dr. Sankha Deb Dr. Sankha Deb, Associate Professor in Mechanical Engineering Department	sagar.chandan15@kgpian.iitkgp.ac.in
33	Data Driven Catalyst Design for CO2-assisted Oxidative Propane Dehydrogenation	Dev Tank and Prof. Nikita Dewangan	dtank5521@kgpian.iitkgp.ac.in
34	Reinforcement Learning for Disassembly Sequence Planning	Ayush Dubey, Gobind Chandra Behera	ayushdubey@kgpian.iitkgp.ac.in
35	Health monitoring of EVs – Integration of AI-enabled chipsets and smart BMS for ensuring high safety, longevity and charging cycles	Lalit Bharti, Rahul R, Debabrata Mandal and Amreesh Chandra Department of Physics, Indian Institute of Technology Kharagpur, Kharagpur, INDIA – 721302	lalitbharti0@kgpian.iitkgp.ac.in
36	Shepherding Active Particles using Reinforcement Learning	NA	NA