

AI Impact 2023 Workshop Agenda

Time	Event	Venue
Day 1, Friday, April 28		
10:00 am	CMinDS Inauguration	CMinDS Office, 4 th Floor, Kanwal Rekhi Building, IIT Bombay
10:30 am	Registration	Victor Menezes Convention Centre (VMCC), IIT Bombay
11:00 am	Welcome <i>Prof. Sunita Sarawagi, CSE, IIT Bombay</i>	B. Nag Auditorium, VMCC
11:05 am	Opening remarks <i>Prof. Subhasis Chaudhuri, Director, IIT Bombay</i>	
11:15 am	Inaugural remarks by Chief-Guest <i>Dr. Samir Kamat, Secretary DD (R&D), Chairman DRDO</i>	
11:30 am	Donor Recognition by Dean ACR <i>Prof. Ravi Gudi, IIT Bombay</i>	
12:00 noon	CMinDS Achievements <i>Prof. Sunita Sarawagi</i>	
12:20 pm	Keynote: Manufacturing and AI: The road ahead <i>Dr. Ambica Rajagopal, Chief Data Officer, Michelin</i>	
12:50 pm	Keynote: Data Science for Sustainability <i>Prof. Milind Sohoni, CSE, IIT Bombay</i>	
1:20 pm	CMinDS Programs and vote of thanks <i>Prof. Manjunath</i>	
1:25 pm	Lunch, networking and poster exhibition	Ground Floor Foyer, VMCC
AI Impact Workshop Technical Sessions		
2:15 pm	AI/ML in Defense & Security (session 1) <i>Chaired by Prof. Manjesh Hanawal, IE, IITB</i>	B. Nag Auditorium, VMCC
2:15 pm (parallel session)	ML/DL Foundations <i>Chaired by Prof. Abir De, CSE, IITB</i>	Seminar hall
3:45 pm	Tea break with Poster exhibition	Ground Floor Foyer, VMCC
4:15 pm	AI/ML in Defense and Security (session 2) <i>Chaired by Prof. Manjesh Hanawal</i>	B. Nag Auditorium, VMCC
6:00 pm	Day-1 of AI Impact workshop concludes	

Day 2, Saturday, April 29

9:00 am	Keynote: Scaling Laws of Large Language Models and NLP Research Challenges in the post GPT-4 world <i>Dr. Monojit Choudhury, Microsoft Research</i>	B. Nag Auditorium, VMCC
9:30 am	NLP and Speech Technologies <i>Chaired by Prof. Preethi Jyothi, CSE, IITB</i>	
10:45 am	Tea break with poster exhibition	Ground Floor Foyer, VMCC
11:15 am	RL and Multi-agent AI <i>Chaired by Prof. Harshad Khadilkar, AE, IITB</i>	B. Nag Auditorium, VMCC
1:00 pm	Lunch	Ground Floor Foyer, VMCC
2:15 pm	AI/ML in Engineering and Manufacturing <i>Chaired by Prof. Alankar Alankar, ME, IITB</i>	B. Nag Auditorium, VMCC
4:00 pm	Tea break and poster exhibition	Ground Floor Foyer, VMCC
4:30 pm	Image and Video Processing <i>Chaired by Prof. Biplab Banerjee, CSRE, IITB</i>	B. Nag Auditorium, VMCC
6:00 pm	Day-2 of AI Impact workshop concludes	

AI IMPACT 2023 TECHNICAL SESSION DETAILS

Time	Talk	Venue
Day 1, Friday, April 28		
AI/ML in Defense & Security Chaired by Prof. Manjesh Hanawal, IEOR, IIT Bombay		
2:15 pm	Keynote 1 <i>Vice Admiral Rajaram Swaminathan, Director General Naval Projects, Indian Navy</i>	B. Nag Auditorium, VMCC
2:45 pm	Implementation of AI in Defence Systems as well as in Smart and Safe cities <i>Mr. Jayanth Patil, L&T Defence</i>	
3:15 pm	TIH-IoT: Enabling Trust in IoT Innovative Technologies <i>Mr. Kiran Shesh, TiH, IIT Bombay</i>	
3:30 pm	Tea break with poster exhibition	
4:00 pm	Keynote 2 <i>Rear Admiral Sanjay CDM, Indian Navy Commandant, College of Defence Management, Indian Navy</i>	

4:30 pm	Autonomous Vehicles: A journey from prototype to product <i>Dr. Apurva Joshi, Indrones Solutions</i>	B. Nag Auditorium, VMCC
4:55 pm	Information Warfare and AI <i>Mr. Atul Kabra, EclecticIQ</i>	
5:20 pm	Initiatives of Research Park at IIT Bombay <i>Prof. Swaroop Ganguly, PiC, IITB Research park</i>	
5:40 pm	Potential Areas for Application of ML in Maintenance Planning of Military Assets <i>Prof. Makarand Kulkarni, MechE, IIT Bombay</i>	

ML/DL Foundations (parallel with AI/ML in Defense)

Chaired by Prof. Abir De, CSE, IIT Bombay

2:15 pm	On learning mixture of linear regressions in the non-realizable setting <i>Prof. Avishek Ghosh, SysCon Engg, IITB</i>	Seminar Hall, VMCC
2:35 pm	Unsupervised Crowdsourcing with Accuracy and Cost Guarantees <i>Prof. Jayakrishnan Nair, EE, IITB</i>	
2:55 pm	Towards neural networks robust to distribution shifts <i>Dr. Praneeth Nethrapalli, Google Research</i>	
3:15 pm	Collaborative Online Learning <i>Dr. Prateek Jain, Google Research</i>	
3:35 pm	Online sampling algorithms for property estimation <i>Prof. Nikhil Karmachandani, EE, IITB</i>	
3:55 pm	Learning to predict in function spaces <i>Prof. P Balamurugan, Industrial Engg, IITB</i>	
4:10 pm	Tea break with Poster exhibition	

Day 2, Friday, April 29

NLP & Speech Technologies

Chaired by Prof. Preethi Jyothi, CSE, IIT Bombay

9:00 am	Keynote: Scaling Laws of Large Language Models and NLP Research Challenges in the post GPT-4 world <i>Dr. Monojit Choudhury, Microsoft Research</i>
9:30 am	Speech Prosody for Indian Spoken Language Applications <i>Prof. Preeti Rao, EE, IIT Bombay</i>
9:45 am	Data Efficient Machine Learning in operational NLP settings <i>Prof. Ganesh Ramakrishnan, CSE, IIT Bombay</i>

10:00 am	New Frontiers for Speech and Language Processing: An Indian Language Perspective <i>Prof. Preethi Jyothi, CSE, IIT Bombay</i>	B. Nag Auditorium, VMCC
10:15 am	An Assistant for Technical Interviewing <i>Dr. Indrajit Bhattacharya, TCS Research</i>	
10:45 am	Tea break with Poster exhibition	

RL and Multi-agent AI

Chaired by Prof. Harshad Khadilkar, Aerospace Engineering, IIT Bombay

11:15 am	Introduction <i>Prof. Harshad Khadilkar</i>	B. Nag Auditorium, VMCC
11:25 am	Motivating RL applications in digital marketing <i>Dr. Jayakumar Subramanian, Adobe Research</i>	
11:45 am	Risk-sensitive MDPs <i>Prof. Veeraruna Kavitha, Industrial Engg, IITB</i>	
11:55 am	RL for Chemical Reactions <i>Prof. Raghavan Sunoj, Dept of Chemistry, IITB</i>	
12:05 pm	Reconnaissance Blind Chess <i>Prof. Shivaram Kalyanakrishnan, CSE, IITB</i>	
12:15 pm	Learning for Human-Piloted and Autonomous Flight <i>Prof. Aditya Paranjape, TCS Research</i>	
12:25 pm	Robust planning and control of power networks <i>Prof. Mayank Baranwal, SysCon Engg, IITB</i>	
12:35 pm	Strategic Multi-Agent AI: Rendezvous of Economics and Computation <i>Prof. Swaprava Nath, CSE, IITB</i>	
12:45 pm	Learning from others: Statistical Learning from Strategic Action <i>Prof. Ankur Kulkarni, SysCon Engg, IITB</i>	
1:00 pm	Lunch with Poster Exhibition	

AI/ML in Engineering and Manufacturing

Chaired by Prof. Alankar Alankar, Mechanical Engineering, IIT Bombay

2:00 pm	Michelin in Motion with AI/ML & Use-case <i>Vijay Patnana & Rishab Sharma, Michelin India</i>
2:20 pm	Emerging Technologies in AI <i>Ameya Divekar, Michelin India</i>

2:40 pm	Accelerated thermodynamic calculations using neural network models <i>Prof. Abhijit Chatterjee, Chem Engg, IITB</i>	B. Nag Auditorium, VMCC
3:00 pm	Explainable physics-informed neural networks for PDEs <i>Prof. Amuthan Ramabathiran, Aerospace Eng, IITB</i>	
3:20 pm	Hybrid models for combining physics and ML approaches for predicting features in processed materials <i>Prof. Shyamprasad Karagadde, MechE, IITB</i>	
3:40 pm	ML for Material Design and Mechanics <i>Prof. Alankar Alankar, MechE, IITB</i>	
4:00 pm	Tea break with Poster Exhibition	B. Nag Auditorium, VMCC

Computer Vision and Image Processing

Chaired by Prof. Biplab Banerjee, CSRE, IIT Bombay

4:30 pm	Navigating the shift towards data centric AI in computer vision <i>Dr. Shuaib Ahmed, Mercedes Benz R&D India</i>	B. Nag Auditorium, VMCC
4:50 pm	Image and Video Editing via Manipulating Intermediate representations <i>Dr. Kuldeep Kulkarni, Adobe Research</i>	
5:10 pm	Fujitsu AI Technologies <i>Dr. Moyuru Yamada, Fujitsu Research India</i>	
5:30	TBD, <i>Dr. Ranjini Guruprasad, IBM Research</i>	
5:45 pm	Towards Precision Oncology using Machine Learning on Medical Images <i>Prof. Amit Sethi, EE, IITB</i>	
6:00 pm	Research on cross-domain cross-modal learning at the Deep Visual Computing Lab <i>Prof. Biplab Banerjee, CSRE, IIT Bombay</i>	
6:15 pm	AI Impact 23 Workshop Ends	

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