

National Technology Day 2024 Report

Event Title

Industry Day on Digitization, conducted as part of the National Technology Day 2024

Objective

To disseminate the diverse research & developmental activities carried out at IIT Bombay in the area of digitization, aimed at encouraging collaborations between academia and the industry, facilitating discussions on emerging trends in technology and addressing societal challenges through innovative solutions.

Event Details

The Office of the Dean R&D organized several lectures by IITB faculty members on May 11, 2024, in Room 23, 2nd Floor, VMCC.

The event had two sessions where the presentations in the morning session showcased the cutting-edge digitalization capabilities at IIT Bombay across various domains such as IoT, smart manufacturing, image processing, robotics, process monitoring, security, etc., while the ones in the afternoon session highlighted use cases of past successful interactions with the industry.

Visits to labs like Microstructural Mechanics and Micro-forming Laboratory, Hybrid Additive Manufacturing Laboratory, and Embedded Control Lab were arranged to provide the participants with a glimpse of the infrastructure at the Institute.

During this event, NASSCOM CoE announced the launch of the 3rd edition of the Smart Manufacturing Research Conclave (SMRC) Program, dedicated to nurturing research, innovation, and collaboration within the industry 4.0 ecosystem in the country.

An email invitation was sent to select Industry personnel for their active participation in attending this event.

Speaker & Presentation Details

- 1. Prof. Prasanna Gandhi, Mechanical Engineering, IIT Bombay**
Talk title: Research Activities in Digital Systems for Industrial Applications



2. Prof. Maryam Shojaei Baghini, Electrical Engineering, IIT Bombay

Talk title: Digitization - Sensor & ASIC (Application Specific Integrated Circuits) System



3. Prof. Mani Bhushan, Chemical Engineering, IIT Bombay

Talk title: Digitization - Process System Engineering (PSE) Group in Chemical Engg.



4. Prof. Manjesh Hanawal, Industrial Engineering and Operations Research, IIT Bombay

Talk title: Research activities at Technocraft Centre for Applied Artificial Intelligence (TCA2I)



5. Prof. Arpita Sinha, Systems & Control Engineering, IIT Bombay

Talk title: Autonomous Robots and Multi-robot Systems (ARMS)



6. Prof. Sachin Patwardhan, Chemical Engineering, IIT Bombay

Talk title: Optimal Control of Steel Annealing Furnace



7. Prof. Virendra Singh, Electrical Engineering, IIT Bombay

Talk title: Research in Cybersecurity, AI, and Cyber Physical Cognitive Systems



8. Prof. Biplab Banerjee, Centre of Studies in Resource Engineering, IIT Bombay

Talk title: Industry-Academia Collaboration in Computer Vision and AI



9. Prof. Ganesh Ramakrishnan, Computer Science & Engineering, IIT Bombay

Talk title: Data Efficient Machine Learning and Applications to GenAI/LLMs



10. Prof. Asim Tewari, Mechanical Engineering, IIT Bombay

Talk title: Digital Transformation: A Journey from Digitization to Digitalization



11. Prof. Amit Sethi, Electrical Engineering, IIT Bombay

Talk title: Towards Precision Oncology Using Machine Learning on Medical Images



12. R&D Ecosystem at IIT Bombay by Dean R&D



13. Launch of Smart Manufacturing Research Conclave (SMRC) by NASSCOM CoE



Key Outcomes

The series of talks showcased the institute's diverse research activities in digitization, highlighting its breadth and depth of expertise. Valuable insights were shared on effectively navigating project stages to ensure impactful outcomes, emphasizing the importance of project management strategies. Additionally, the talks elaborated on the procedure for initiating industrial projects, providing clarity and guidance for potential collaborators.

The visit to the labs provided an enriching learning experience for attendees. It offered a firsthand opportunity to witness the practical applications of the digitization research discussed in the talks.

The active participation and inquisitive questions during the Q&A sessions reflected a keen interest among researchers in partnering with IIT Bombay, indicating promising prospects for future collaborations in digitization research.

Participants

60 attendees

Some Glimpses



Event Flier


Center of Excellence-IoT & AI
A HEIR Initiative with Govt. of Karnataka, Haryana, Gujarat & AP

IIT Bombay
Industry Day on Digitization
as part of World Technology Day



Date: May 11, 2024
Venue: Room 23, 2nd Floor, Victor Menezes Convention Centre (VMCC), IIT Bombay

About the Event

Rapid advances in artificial intelligence (AI) and machine learning (ML) are transforming the manufacturing landscape. Industry 4.0 envisages integrating digital technologies, AI and ML with industrial processes to achieve the broader goals of improved safety, sustainability, and production excellence.

Focused on promoting research, innovation, and collaboration in Digitalization, the Industry Day aims to bring together faculty at IIT Bombay and practitioners from the Industry to explore the latest developments and best practices in this area.

The event will feature two sessions. One of the sessions will showcase the cutting-edge digitalization capabilities at IIT Bombay across various domains such as IoT, smart manufacturing, etc. The second session will highlight use cases of past successful interactions with the industry. The talks will additionally elaborate on the procedure for initiating industrial projects at IIT Bombay and discuss aspects of successfully navigating various project stages to ensure impactful outcomes.

Visit to select IIT Bombay labs will give a glimpse of the infrastructure we have at the Institute.

During this event, in collaboration with NASSCOM CoE, we will announce the launch of the 3rd edition of Smart Manufacturing Research Conclave (SMRC) Program, dedicated to nurturing research, innovation, and collaboration within the Industry 4.0 ecosystem in the country.

Industry Segments of Target



1 Understand about successful strategies and models for collaboration with IITB

2 Improve key performance indicators like productivity, efficiency, quality metrics, customer satisfaction, etc.

3 Learn emerging trends and innovative solutions

Format of Event

- Talks on Digitization Research & Case Studies
- Interaction b/w Speakers & Industry Participants
- Lab Visits & Prototype Demos
- Brainstorming Session
- Launch of NASSCOM CoE's SMRC Program



Who Should Attend

- ♣ Chief Information Officers
- ♣ CEOs & Technology Heads
- ♣ Strategy Officers
- ♣ Technical Cadre involved in Digitization

Max. Seats: 40 (Free Registration)
Registration Deadline: 7th May 2024

How to Participate?
Register here: <https://rb.gv/weh64d>

Contact: dean.rnd.office@iitb.ac.in

Organized by the Office of Dean R&D, IIT Bombay
Program Schedule: <https://rb.gv/b0icvk>

Event Poster


INSTITUTION'S INNOVATION COUNCIL
(Ministry of Education Initiative)


Center of Excellence-IoT & AI
A HEIR Initiative with Govt. of Karnataka, Haryana, Gujarat & AP



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as part of
National Technology Day 2024

May 11, 2024
Venue: Room no. 23, Second floor,
Victor Menezes Convention Centre (VMCC)

Event Themes



Organised by Office of Dean (R&D), IIT Bombay