



MBSE SUMMIT 2025

Theme : Conquering Complexity with Simplicity: The MBSE Advantage



13 - 14 June, 2025



PCCOE, Pune, Maharashtra

PROGRAM BOOK



In association with PCCOE

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INTRODUCTION

We are pleased to welcome you to the MBSE Summit 2025, the flagship event of the INCOSE India Chapter, scheduled for June 13–14, 2025, in Pune, Maharashtra. This year's summit is themed "Conquering Complexity with Simplicity: The MBSE Advantage", emphasizing the transformative role of Model-Based Systems Engineering (MBSE) in addressing the growing complexity of modern systems.

Pune, known for its vibrant ecosystem of engineering, manufacturing, and digital innovation, is an ideal host city for this prestigious gathering. Home to leading automotive, aerospace, and IT companies, as well as top academic and research institutions, Pune fosters a collaborative environment that aligns perfectly with the goals of the summit.

The MBSE Summit 2025 will bring together over 300 delegates from diverse sectors including Aerospace & Defence, Space, Automotive, Manufacturing, Healthcare, and Academia. Attendees will engage in a rich program of keynotes, peer-reviewed paper presentations, workshops, and panel discussions, all centered around the application and evolution of MBSE in the context of emerging technologies.

This summit is more than just a conference—it is a platform for networking, knowledge sharing, and collaboration. Whether you're a seasoned systems engineer, a researcher, a student, or a technology leader, the MBSE Summit offers valuable opportunities to connect with peers, learn from experts, and contribute to shaping the future of systems engineering in India.

Over the years, the MBSE Summit has evolved significantly. From its virtual beginnings in 2020 to its first in-person event in 2023, the summit has consistently adapted to the changing landscape. Each edition has built upon the last, expanding its reach and impact. The journey includes:

- 2020: First Summit – Virtual
- 2021: MBSE and Safety Summit – Virtual
- 2022: MBSE and AI Summit – Virtual
- 2023: MBSE Summit with AOSEC – First face-to-face event post-COVID, held in Bengaluru
- 2024: MBSE and AI Summit – Hyderabad
- 2025: MBSE Summit – Pune

We invite you to be part of this exciting chapter in the MBSE Summit's journey. Join us in Pune to explore the latest innovations, share your insights, and help drive the future of systems engineering forward.

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CONFERENCE ADVISORY BOARD



Dr. Yogananda Jeppu



Dr. Ramakrishnan Raman



Ms. Stueti Gupta



Mr. Mudit Mittal

CONFERENCE CHAIR



Dr. Nikhil Joshi



Mr. Prasanna Ramamurthy

ORGANIZING COMMITTEE



Mr. Sharad Rayguru



Dr. Amrita Francis



Mr. Akshay Vidap



Ms. Neha Tiwari

TECHNICAL COMMITTEE



Dr. Devanandham Henry



Mr. Srimannarayana Myla



Ms. Arpita Srivastava



Mr. Atul Kashid

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Mr. Sandip Gaikwad



Dr. Upendra Kanta Maurya



Ms. Aparna Kansal



Mr. Pradip Salunkhe

SPONSORSHIP COMMITTEE



Mr. Yatin Jayawant



Mr. Manikantha Reddy

MARKETING COMMITTEE



Ms. Neha Tiwari



Mr. Samyak Mangesh Jain

VENUE GUIDE



1. **Entrance Gate**
2. **Architectural Building (Registration Area, Auditorium, Lunch/Dinner)**
3. **Mechanical Building (LRDC Hall, Seminar Hall, 9305-Classroom)**
4. **Open Ground/Lawn**
5. **Railway Bridge**

VENUE GUIDE

Event Place	Location
Registration Desk	Ground Floor, Architectural Building
Sponsor Stalls	Ground Floor, Architectural Building
Main Hall (Plenary Sessions)	Auditorium, Architectural Building (5th Floor)
Hall 1 - Track 1 (Paper/Presentations)	LRDC Hall, Mechanical Building (4th Floor)
Hall 2 - Track 2 (Paper/Presentations)	Seminar Hall, Mechanical Building (5th Floor)
Hall 3 - Track 3 (Paper/Presentations)	9305-Classroom, Mechanical Building (3rd Floor)
Lunch and Dinner	Ground Floor, Architectural Building
Refreshment (Tea and Coffee)	Day 1 Morning: Auditorium (5th Floor) Open Area, Architectural Building
	Day 1 Afternoon : Ground Floor, Architectural Building
	Day 2: Ground Floor, Architectural Building

AGENDA - DAY 1 (13TH JUNE 2025)

Time	Session	Venue
08:30 - 09:30AM	Registration	Ground Floor
	Inaugural Function	
09:30 - 09:45AM	Lamp lighting & National Anthem	Auditorium
09:45 - 10:00AM	Welcome Address by Ms. Stueti Gupta, Secretary, INCOSE Global	
10:00 - 10:20 AM	Systems Engineering: Nurturing Talent and Tapping Local Potential by Dr. Narendra Deore, Dean PCCOE, Pune India	
10:20 - 10:30AM	MOU Signing Ceremony PCCOE and INCOSE India	
10:30 - 11:00AM	Keynote by Chief Guest Mr. David Long, Director for Strategic Integration, INCOSE Global	
11:00 - 11:20AM	Short Break	
	Plenary Sessions	
11:20 - 12:00PM	Conquering complexity through MBSE - An Aerospace Perspective by Mr. CS Adishesha, Senior Technical Fellow (Systems), Director-Technology & Innovation, Collins Aerospace	Auditorium
12:00 - 12:30PM	Navigating Complexity: AI & MBSE by Dr. Ramakrishnan Raman, Senior Chief Engineer – Eaton, INCOSE Fellow, ESEP	
12:30 - 01:00PM	Navigating the Systems Engineering Landscape with Arcadia & Capella: A Pragmatic Approach by Mr. Bharathkumar Balaji, Obeosoft.	
01:00 - 02:20PM	Lunch and Networking	Ground Floor, Arch. Building
	Technical Papers and Presentations	
02:20 - 04:00PM	Day 1 - Track 1	LRDC Hall
	Day 2 - Track 2	Seminar Hall
04:00 - 04:30PM	Tea Break and Networking	Ground Floor

AGENDA - DAY 1 (13TH JUNE 2025)

Time	Session	Venue
	Plenary Sessions	
04:30 - 05:00PM	System Engineering: From Requirements to Architecture to Simulation by Mr. Gaurav Dubey, Consulting Application Engineer, MathWorks	Auditorium
05:00 - 06:00PM	Panel Discussion: MBSE Adoption across Industries	
	Moderator: Ms. Neha Tiwari (Boeing)	
	Panelists: Mr. Prasanna (Collins), Mr. Kiran Jacob (Dassault Systems), Mr. Shailesh Agrahari(Philips), Mr. Mudit Mittal (BlueKei), Dr. Manas Bajaj (Intercax)	
06:00 - 06:30PM	Overview of TLI program by Mr. David Long, INCOSE Global	
06:30 - 06:40PM	Event Announcements	
	Cultural Event followed by Gala Dinner	
07:00 - 09:00PM	Dinner	Ground Floor

AGENDA - DAY 2 (14TH JUNE 2025)

Time	Session	Venue
08:30 - 09:00AM	Registration	Ground Floor
	Plenary Sessions	
09:00 - 09:15AM	Welcome Address by Dr. Nikhil Joshi, Enterprise Architect, HCL Technologies Limited	Auditorium
09:15 - 09:45AM	Model Based Systems and HIL Automation for Avionics Development by Mr. Maruti Venkata, Scientist, DRDO	
09:45 - 10:15AM	CATIA Cyber-Systems MBSE Framework: Empowering Digital Engineering by Mr. Kiran Jacob, Industry Process Consultant Senior Manager, Dassault Systèmes	
10:15 - 10:45AM	Weaving Enterprise Intelligence: Digital Thread + AI shaping the future of digital engineering by Mr. Manas Bajaj, Co-founder, and Chief Systems officer at Intercax, USA	
10:45 - 11:15AM	Tea Break and Networking	Ground Floor
	Talk, Technical Papers and Presentations	
11:15 - 11:30AM	Track 1: Transforming Product Development with MBSE-Enabled Digital Engineering by Mr. Vishal Naik Bolnekar, Ansys India	LRDC Hall
11:15 - 11:30AM	Track 2 - Bridging the Gap: Aligning Systems Thinking with Engineering Execution by Mr. Ashirbad, CM Excellence	Seminar Hall
11:30 - 12:50PM	Day 2 - Track 1 Morning	LRDC Hall
11:30 - 12:50PM	Day 2 - Track 2 Morning	Seminar Hall
01:00 - 02:30PM	Lunch	Ground Floor, Arch Building
	Technical Papers and Presentations	
02:30 - 03:40PM	Day 2 - Track 1 Afternoon	LRDC Hall
	Day 2 - Track 2 Afternoon	Seminar Hall
	Day 2 - Track 3 Afternoon	9305 - Classroom
03:40 - 04:10PM	Tea Break and Networking	Ground Floor

AGENDA - DAY 2 (14TH JUNE 2025)

Time	Session	Venue
	Plenary Session	
04:10 – 05:10PM	Panel Discussion: Building Talent for Tomorrow's MBSE Needs	Auditorium
	Moderator: Ms. Aparna Kansal (Boeing)	
	Panelists: Dr. Yogananda Jeppu (Boeing), Dr. Devanandham Henry (Mahindra University), Dr. Ranga Gunti (Tata Motors), Dr. Amrita Francis (PCCOE), Mr. Tamilselvan (Philips)	
05:10 – 05:25PM	Recognition for Best Paper and Paperless Presentation	
05:25 – 05:50PM	Closing Remarks by Dr. Yogananda Jeppu, Boeing	
06:00 – 07:00PM	INCOSE India Working Group Meetings	Auditorium

AGENDA - DAY 3 (15TH JUNE 2025)

SEP Paper Exam

Moderator	Mr. Srimannarayana Myla, Ms. Aparna Kansal	
Time	Session	Venue
09:30 – 10:00 AM	Entry into Exam Hall	Exam Hall
10:00 – 12:30 PM	SEP Exam	

PAPERS AND PRESENTATIONS

Day 1 - Track 1 (LRDC Hall, Mech Building, 4th Floor)

Time	ID	Title and Authors	Category	Duration
02:30 – 03:00PM	4	Enabling Blockchain Adoption in Aviation MRO via MBSE–Driven Operational Analysis Author: Prabhudutta Dash	Paper Presentation	30 mins (20 mins+10 mins Q&A)
03:00 – 03:30PM	6	AI–Assisted Traceability Link Suggestion in MBSE for Medical Devices using NLP Author: Poorva Tiwari	Paper Presentation	30 mins (20 mins+10 mins Q&A)
03:30 – 03:50PM	3	Model Based Safety Analysis of Regenerative Braking System using STPA within Arcadia–Capella: A mission centric approach. Author(s): Bharathkumar Balaji, Ketaki Patwardhan and Bharathkumar Balaji	Paper–less Presentation	20 mins (15 mins + 5 mins Q&A)
03:50 – 04:10PM	32	Adopting MBSE to enhance the FMEA Process Author(s): Sakshi Gulgulia, Bhoommikha S and Kiran Jacob	Paper–less Presentation	20 mins (15 mins + 5 mins Q&A)

PAPERS AND PRESENTATIONS

Day 1 - Track 2 (Seminar Hall, Mech Building, 5th Floor)

Time	ID	Title and Authors	Category	Duration
02:30 – 03:00PM	21	An MBSE Framework for Type Certification of Unmanned Aircraft Systems Author: Apurva Joshi	Paper Presentation	30 mins (20 mins+10 mins Q&A)
03:00 – 03:30PM	28	Towards SMARTer Requirements: An AI-Based Approach for Requirements Quality Author(s): Sharmila K A and Ramakrishnan Raman	Paper Presentation	30 mins (20 mins+10 mins Q&A)
03:30 – 03:50PM	9	Simplifying Assurance: A Traceable, Integrated Review Mechanism for SysML-Based Models Author(s): Deepak Mitra and Ganesh Chavan	Paper-less Presentation	20 mins (15 mins + 5 mins Q&A)
03:50 – 04:10PM	10	Realizing the Digital Thread: Verifying SysML Architecture through PLM Integration Author(s): Shweta Pandey and Ganesh Chavan	Paper-less Presentation	20 mins (15 mins + 5 mins Q&A)

PAPERS AND PRESENTATIONS

Day 2 - Track 1 (LRDC Hall, Mech Building, 4th Floor)

Time	ID	Title and Authors	Category	Duration
Morning				
11:30 – 12:00PM	2	A Survey-Based Framework: Assessing Effectiveness and Efficiency in MBSE Deployment & Methodology Author(s): Shivam Panigrahi, Suchetan Mummigatti, Nicky Harries O S, Girish Umadi, Anurag Tripathi Vidap, Monali Dutta and Vijayalaxmi Metgud	Paper Presentation	30 mins (20 mins+10 mins Q&A)
12:00 – 12:30PM	15	An Integrated Model-Based Safety Analysis of Stall Warning and Protection Systems: FHA, FTA, and STPA in an Aviation Certification Context Author(s): Dr. Manju Nanda, Umayr Jahagirdar and Neelakanta Erabhovi	Paper Presentation	30 mins (20 mins+10 mins Q&A)
12:30 – 12:50PM	33	Enhancing Requirements Quality Using GenAI: A Practical Path to Getting the Math Right Author(s): Gaurav Dubey and Vamshi Kumbham	Paper-less Presentation	20 mins (15 mins + 5 mins Q&A)
Afternoon				
02:30 – 03:00PM	16	A Model-Based Systems Engineering Workflow for Development and Certification of an ARINC 653-Compliant Hypervisor Author(s): Dr. Manju Nanda, Umayr Jahagirdar and Neelakanta Erabhovi	Paper Presentation	30 mins (20 mins+10 mins Q&A)
03:00 – 03:20PM	35	Bridging the Gap between Strategic Decisions and Engineering Execution through a MBSE Approach Author(s): Rahul Konidena and Suvigya Gupta	Paper-less Presentation	20 mins (15 mins + 5 mins Q&A)
03:20 – 03:40PM	17	Unlocking MBSE Value: A Maturity-Based Approach to Organizational ROI Author(s): Kiran Jacob	Paper-less Presentation	20 mins (15 mins + 5 mins Q&A)

PAPERS AND PRESENTATIONS

Day 2 - Track 2 (Seminar Hall, Mech Building, 5th Floor)

Time	ID	Title and Authors	Category	Duration
Morning				
11:30 – 12:00PM	36	Approach of Product line of Product Lines for Complex Aerospace Systems Development. Author(s): Sandesh Puranik, Mohan Mishra, Masood Ahmed Mohammed and Dinesh Kushwaha	Paper Presentation	30 mins (20 mins+10 mins Q&A)
12:00 – 12:30PM	25	FMEA Representation In MBSE For Aerospace Systems: A Python Based Extraction Approach Author(s): Ayyalasomayajula V R K Koundinya, S Upendra Kumar, Pavan Kumar Nuthikattu, Shilpa Agarwal and Shikha Chittora	Paper Presentation	30 mins (20 mins+10 mins Q&A)
12:30 – 12:50PM	31	Integrated MBSE Workflow for Automotive Seat Ventilation System Author(s): Archana B S, Sohail Khazi and Kiran Jacob	Paper-less Presentation	20 mins (15 mins + 5 mins Q&A)
Afternoon				
02:30 – 03:00PM	30	MBSE-Driven Engineering Excellence: Uniting ASPIICE Rigor with MBPLE for Variant Management Author(s): Ketaki Patwardhan and Somesh Taywade	Paper Presentation	30 mins (20 mins+10 mins Q&A)
03:00 – 03:20PM	43	Model-Based Test Solution for Automotive Inverter ECU Using NI Tools Author(s): Rashme Sr	Paper-less Presentation	20 mins (15 mins + 5 mins Q&A)
03:20 – 03:40PM	42	Model-Based Systems Engineering for Hospital Management Services Author(s): Prajakta Ghawate, Veena Waghmare and Aditi Rade	Paper-less Presentation	20 mins (15 mins + 5 mins Q&A)

PAPERS AND PRESENTATIONS

Day 2 - Track 3 (9305-Classroom, Mech Building, 3rd Floor)

Time	ID	Title and Authors	Category	Duration
Afternoon				
02:30 - 02:50PM	29	AI-Driven Ontology Modelling for Enhanced Model-Based Systems Engineering (MBSE) Author(s): Shadab Hossain	Paper-less Presentation	20 mins (15 mins + 5 mins Q&A)
02:50 - 03:10PM	7	A Case Study on System Change Impact Analysis: A Generic Approach Author(s): Sankalp Kumar, Prerana Kulkarni	Paper-less Presentation	20 mins (15 mins + 5 mins Q&A)
03:10 - 03:30PM	44	Building a Spacecraft Digital Thread with SysML v2 Author(s): Manas Bajaj, Siddharth Miglani	Paper-less Presentation	20 mins (15 mins + 5 mins Q&A)

MESSAGE FROM INCOSE LEADERS



Mr. Ralf Hartmann

INCOSE President

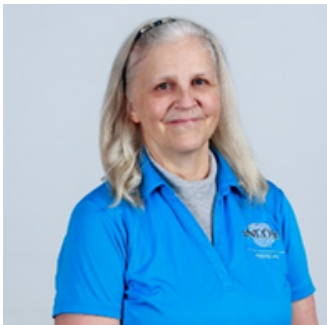
The 2025 MBSE Summit marks six years of excellence, and the INCOSE India Chapter has once again delivered an outstanding program. This event celebrates the growing impact of Model-Based Systems Engineering and the vibrant community driving it forward. My heartfelt thanks to all the leaders, members, and contributors in India. Your dedication shines through. I'm confident participants will leave inspired, better connected, and energized to shape the future of systems engineering.



Mr. Michael D. Watson

INCOSE President-Elect

I am thrilled that it is time for the MBSE Summit in Pune, India. I wish the delegates well on their journey in exploring applications and advancements in MBSE and hope these enable improvements in their workplaces as they return home. Have a great Summit!



Ms. Alice Squires

INCOSE Treasurer

Are you ready to take your MBSE to the next level? Join the MBSE Summit 2025 in Pune on June 13-14. Marking the sixth annual summit, the MBSE Summit 2025 is a "go-to" event for MBSE novice to expert to stay up to date with leading edge MBSE trends and best practices. I have heard nothing but good things about this annual event. Safe travels!



Mr. David Long

INCOSE Director, Strategic Integration

The successful implementation, deployment, and adoption of model-based systems engineering is essential as we create the future for systems engineering practitioners, our discipline, and our greater contribution to society. The 2025 MBSE Summit reflects INCOSE India's continuing commitment to advancing this strategic topic and building the community of practice to shape the journey forward.



Mr. Steve Records

INCOSE Executive Director

India is one of INCOSE's most important and growing geographies and MBSE continues to be the topic that generates the most interest across SE. A huge thank you to all of the INCOSE leaders, speakers, and sponsors in planning and executing this conference. Special thanks to all of the INCOSE members for your continued membership and support

MESSAGE FROM CONFERENCE BOARD



Dr. Yogananda Jeppu

Technical Fellow and Systems Architect
Boeing, INCOSE ESEP

Model-Based Systems Engineering (MBSE) is key to building complex systems, especially in today's AI-driven world where defining clear boundaries and interactions is critical. INCOSE India has been actively promoting MBSE through industry-academia engagement and MTech programs. What began during the pandemic has now grown into a national movement—offline in Hyderabad last year, and now in Pune. The enthusiastic response reflects the momentum MBSE is gaining across sectors. I'm excited to be part of this community and to collaborate on solving real-world challenges using MBSE for India.



Dr. Ramakrishnan Raman

Senior Chief Engineer – Eaton,
INCOSE Fellow, ESEP

Welcome to the INCOSE India MBSE Summit 2025.

It is great to see the summit bring together professionals, researchers, and leaders driving the digital transformation of engineering through MBSE. MBSE is rapidly becoming a foundational approach for how we engineer complex systems in a digitally connected, AI-enabled world. The boundaries of what's possible with MBSE are expanding rapidly. I'm excited about the conversations ahead—about the hard-earned lessons, emerging practices, and bold ideas that will shape the direction of the systems engineering community. Wishing all the summit delegates an enriching and learning experience.

MESSAGE FROM CONFERENCE BOARD



Ms. Stueti Gupta

Co-Founder and Director at BlueKei Solutions
INCOSE Secretary Global

I am proud to witness the INCOSE India Chapter once again bringing together the community through the MBSE Summit—an annual flagship event! The consistent effort to host this summit reflects the chapter's unwavering commitment to building awareness, capability, and leadership in Model-Based Systems Engineering across India. Model-Based Systems Engineering (MBSE) is transforming the way complex systems are designed, analyzed, and managed. It is a critical enabler for developing future-ready, resilient, and efficient systems in today's fast-evolving technological landscape. Whether you're deepening your expertise or just beginning your MBSE journey, we hope this summit inspires new ideas, fosters valuable connections, and empowers you to drive transformation in your organizations.



Mr. Mudit Mittal

Co-Founder and Director, BlueKei Solutions,
INCOSE India President

The MBSE Summit had a humble beginning in 2020, during the height of the COVID-19 pandemic. It was born out of a collective need to connect—virtually—when physical gatherings were not possible. With limited resources but driven by passion, a dedicated team of Systems Engineers, supported by mentors, successfully launched the inaugural summit. Since then, it has grown into our flagship event.

Strategically, the MBSE Summit serves as a vital platform to bring together professionals from diverse industries and geographies, fostering a unified systems engineering community. To promote inclusivity and regional representation, the hosting location rotates across the country each year.

The summit welcomes participation from a wide range of sectors, including Aerospace & Defense, Automotive, Medical Devices, and more. We also place strong emphasis on ecosystem development, actively collaborating with academic institutions and professional societies to benefit the wider community.

Whether you are a student, faculty member, early-career professional, or seasoned expert, the MBSE Summit offers a space to both learn and contribute. Join us for two enriching days of knowledge sharing and networking—because in systems engineering, we grow stronger together.

MESSAGE FROM CHAIR



Dr. Nikhil Joshi

Enterprise Architect,
HCL Technologies Limited

While MBSE is being increasingly regarded as the answer to developing and managing complex systems, it is also a term that inspires various disparate ideas and perspectives. The MBSE local chapter working group India has been actively engaging professionals and students in various activities that can help test and develop their understanding of MBSE.

The MBSE Summit aims to give a further opportunity to share your work, learn from others, and network with peers and experts in the field. The organizing team has worked conscientiously to build a program that covers different topics from industries and academia, that would be of interest to novice as well as experienced participants. I wish all participants will have an interesting and enlightening time at the Summit.



Mr. Prasanna Ramamurthy

Technical Fellow – Systems Engineering, Connected Aviation Solutions
Collins Aerospace

MBSE Summit – a flagship annual technical event of the INCOSE India chapter started in the year 2020 – has been garnering great support from the industry and academia over the years. This is a reflection of the significance the Systems engineering discipline and Model Based Systems Engineering (MBSE) have been gaining thanks to the increasing complexity of the products and technologies. The 2025 edition of MBSE Summit is very special for the INCOSE India chapter for many reasons. It's the first major technical event happening in Pune in many years bringing together system engineering practitioners cutting across the industrial landscape of Pune and India. Going beyond the industry, the venue sponsor, Pimpri Chinchwad College of Engineering (PCCOE), Pune stand as a testimony to the growing academic interest towards systems engineering education. The effort and dedication of the organizing committee towards the event is highly commendable. The event is packed with a broad menu of events with industry experts discussing the best practices and future challenges of MBSE adoption in the industry. Eagerly looking forward to be a part of this festival of Systems Engineers!

SPEAKER PROFILES

Speaker / Panelist	Profile
 Mr. David Long Chief Engineer for Digital Engineering, Systems Engineering Research Centre (Speaker)	David brings over three decades of experience in advancing systems engineering practices across global organizations. He has worked extensively with both government and commercial sectors, guiding them in adopting and integrating modern engineering methods and tools. As the founder of Vitech, David pioneered the development of industry-leading systems engineering software such as CORE™ and GENESYS™, helping teams design and manage next-generation systems. His leadership and technical expertise have significantly influenced the evolution of model-based and digital engineering. A recognized thought leader, David is a frequent keynote speaker and workshop facilitator at international conferences, where he shares insights on systems engineering foundations, model-based approaches, and the future of engineering systems. He co-authored A Primer for Model-Based Systems Engineering, a widely respected resource in the field. An INCOSE Fellow and Expert Systems Engineering Professional, David served as INCOSE President (2014–2015) and currently holds the role of Director for Strategic Integration. He also mentors emerging leaders through INCOSE's Technical Leadership Institute. David holds degrees in Engineering Science and Mechanics and Systems Engineering from Virginia Tech.
 Dr. Narendra Deore Dean, PCCOE, Pune (Speaker)	"Dr. Narendra R. Deore is a distinguished academic and researcher with extensive experience in mechanical and aerospace engineering. He holds a Ph.D. in Aerodynamics from the Indian Institute of Technology Bombay, an M.E. in CAD/CAM & Automation from VJTI Mumbai, and a B.E. in Mechanical Engineering from NMU Jalgaon. Currently serving as the Dean, Research and Development at Pimpri Chinchwad College of Engineering (PCCoE), Pune, Dr. Deore has also held key roles such as Board of Studies (BoS) Member at Savitribai Phule Pune University (SPPU) formerly known as University of Pune and Head of the Mechanical Engineering Department. His academic journey is marked by a strong commitment to bridging the gap between academia and industry through collaborative research and innovation. Notably, he played a pivotal role in the introduction of the Honors Program in Systems Engineering at both SPPU and PCCoE, helping to align academic offerings with emerging industry needs. Dr. Deore's research interests span computational fluid dynamics (CFD), combustion modeling, and thermal systems. He has led and contributed to numerous sponsored projects funded by prestigious bodies like SERB-DST, AICTE, and Dassault Systèmes La Fondation. His work includes the development of miniature liquid fuel combustors, liquid immersion cooling systems for EV batteries, and automation in thermocouple manufacturing. With a career that includes roles in academia and industry, including at IIT Bombay and Zeus Numerix, Dr. Deore brings a unique blend of theoretical expertise and practical insight. He is also actively involved in mentoring postgraduate students and fostering innovation through interdisciplinary research."

Speaker / Panelist	Profile
 Ms. Stueti Gupta Co-Founder and Director at BlueKei Solutions (Speaker)	Stueti Gupta is the Co-Founder and Director at BlueKei Solutions. Stueti has 17+ years of experience in both industry and academia. She is committed to advance the digital engineering practices in APAC across various industry verticals. With formal systems engineering methods and principles she wants to empower decision makers to establish the digital fabric of engineering data from conceptualization to use and maintenance of the product and through its entire lifecycle. She received her dual degree from BITS Pilani in M.Sc. Physics and B.E. Mechanical. She has completed two masters in Mechanical Design Engineering, one from BITS Pilani and second from Cornell University, USA. To strengthen her interests in systems engineering, Stueti received formal training on Systems Design and Management from Massachusetts Institute of Technology, Cambridge. Stueti is purpose driven systems engineer, technology leader and STEM advocate. She has delivered various technical talks, on importance of Systems Engineering and MBSE to academia and industry in India. Stueti is an active volunteer and associated with various not-for-profit communities like INCOSE, Bureau of Indian Standards, Society of Women Engineers (SWE), Lean2Lead, Mentor at Mentor Together. She is the founder of SWE in Pune and has been instrumental in initiating chapters across the country in various cities. She received Distinguished New Engineer Award in 2016 and Local Most Engaged Advocate Award in 2020 from SWE. She is very active in International Council on Systems Engineering (INCOSE) both in local and global initiatives and is the immediate past President of India Chapter.
 Mr. CS Adishesha Senior Technical Fellow (Systems), Director-Technology & Innovation Collins Aerospace, an RTX Business (Speaker)	In his current role Adi is responsible for driving technical Innovation and research initiatives across Global Engineering Centers India, Poland, and Puerto Rico. Over 32 years in the industry, Adi has contributed to the country's most prestigious programs like INSAT-II missions of 'SRO, Anti-Ballistic Missile Defense programs (Prithvi, Dhanush and Area Defense Interceptors) of DRDO in the capacity of systems Manager, Deputy Project Director, and Deputy Mission Director before he took leadership roles in Honeywell and Philips. Adi earned a Master's from BITS, Pilani (On campus program) and a Bachelor's from Bangalore University. He is an Associate Fellow of AIAA, Sr. Member of IEEE, and Fellow of Institute of Engineers (India), Member of RTCA & SAE standards committees, and reviewer for AIAA, IEEE, PED, INCOSE & SAE international Journals. He has 25 patents, 2 Trade Secrets, 24 peer reviewed publications and Co-authored a Book titled "Integrated Aircraft Health Management for Beginners". Driving Innovation & intrapreneurial culture at Collins Aerospace, Adi has mentored & led inventors to file over 1100 patents (India & USA) and 150 Trade Secrets and led over 80 technology maturations across India, Poland & Puerto Rico. He is recognized with several awards for technical leadership, Product development and Innovation, including – DRDO award for Path breaking Research & Technology development in 2006. Adi is the first Technical Fellow to be recognized by Collins Aerospace outside the US & Europe. Adi's current interests include introducing new age technologies like Smart sensors, AI/ML, Data Analytics, Prognostic Health Management and MBSE process, for defense, space and aerospace applications.

Speaker / Panelist	Profile
 Dr. Ramakrishnan Raman Senior Chief Engineer – Eaton, INCOSE Fellow, ESEP (Speaker)	Ramakrishnan Raman is currently Senior Chief Engineer at Eaton. He received B.Tech and MS degrees from IIT Madras, and Ph.D. from IIIT–Bangalore. He is INCOSE Certified Expert Systems Engineering Professional – ESEP and has been awarded as Fellow of INCOSE. He is also a certified Six Sigma Black Belt, an IEEE Distinguished Lecturer and Fellow – Indian Society of Systems for Science & Engineering (ISSE). He has to his credit several publications in refereed international conferences & journals on complex systems architecture design and artificial intelligence – machine learning and has also received best paper awards. He is active in professional societies, including IEEE, INCOSE and SAE, and has held leadership positions in these societies, and has received multiple awards for his contributions. He currently is the Co-Chair of INCOSE AI Systems Working Group. He has also served as Technical Committee Chair for many prestigious conferences including INCOSE International Symposium, IEEE CONECCT and SAE AeroCON. At Eaton, he oversees the Chief Engineers Office for Systems Engineering, providing critical systems engineering technical leadership spanning industrial and electrical sectors, and drives systems engineering methodologies, processes & practices. Prior to joining Eaton, he was Fellow at Honeywell Aerospace. While at Honeywell, he was instrumental in the systems engineering of complex systems across multiple domains including industrial automation systems, building control systems, process control systems and aerospace.
 Mr. Bharathkumar Balaji Business Development, Obeo (Speaker)	Bharathkumar Balaji works in Business Development at Obeo India, focusing on the strategic promotion and adoption of Model-Based Systems Engineering (MBSE) with Eclipse Arcadia–Capella. With a technical background in multi-domain multi-physics modeling and simulation applied to aerospace systems, he bridges engineering and business, supporting Indian OEMs in integrating open-source MBSE tools into their workflows. Previously active in research and industry roles in Germany, including at the Technical University Munich, his expertise spans system architecture, control systems, and cross-domain engineering processes.

Speaker / Panelist	Profile
 Mr. Gaurav Dubey Consulting Application Engineer MathWorks (Speaker)	Gaurav Dubey is a Consulting Application Engineer in MathWorks and specializes in the fields of Model-Based Design and System Engineering workflows, Implementation, verification and validation, and certifications for safety-critical applications. Gaurav works closely with engineers across industries to help them in adoption of Model-Based Design, and Model-Based System Engineering workflows. Gaurav brings more than 19 years of experience in embedded system development for automotive and aerospace applications. Gaurav holds a master's degree in instrumentation engineering and a master's degree in electronics and communications.
 Mr. Maruti Venkata Scientist, DRDO (Speaker)	Maruti Venkata is a seasoned scientist with over 20 years of experience in the design, development, simulation, validation, and certification of avionics software and embedded real-time systems. His expertise spans model-based software engineering (MBSE), component-based software engineering (CBSE), and automatic code generation. Currently serving as Project Director for Project AMODA, he leads the development of a model-driven framework for design, simulation, and automatic C code generation tailored for avionics applications. His work includes integrating domain-specific component libraries and board support packages for platforms like ZynQ, ARM, and PowerPC. Maruti is currently pursuing a Ph.D. in Computer Science and Engineering at IIT Hyderabad, focusing on program analysis, parallel programs, and code compliance. He holds an M.Tech from IIT Madras and a B.Tech from Acharya Nagarjuna University. His technical toolkit includes C, C++, Python, LLVM, Clang, and tools like Altair Embed and MATLAB-Simulink. Beyond his professional pursuits, Maruti is an avid reader with a personal library of over 2,000 books, reflecting his deep interest in philosophy, fiction, and technology. His research interests include safety-critical systems, fault-tolerant architectures, and the application of AI/ML in embedded systems.

Speaker / Panelist	Profile
 Mr. Prasanna Ramamurthy Technical Fellow – Systems Engineering, Connected Aviation Solutions Collins Aerospace (Panelist)	Prasanna is a systems engineering expert with specialization in Avionics and Military mission systems. In a career spanning over 21 years, he has worked for organization like DRDO, Airbus Defence and Space and Collins Aerospace. He has made significant contributions to DRDO's MiG-27 and Su-30 MI avionics upgrade programs and received "Performance excellence award" from DARE-DRDO for his contributions towards MiG-27 avionics upgrade programme. Currently, he is a Technical Fellow for Systems Engineering at Collins Aerospace, Bengaluru. At Collins, he is leading the development of technology and solutions in the areas of Advanced Air Mobility, Air Traffic Management, Wireless Sensor Networks and Integrated Vehicle Health Management (IVHM) system. Currently he is pursuing his PhD in Urban Air Mobility at Amrita Vishwa Vidyapeetham. He has 9 patents and many international publications to his credit. Prasanna plays active role in professional bodies like International Council for Systems Engineering (INCOSE), Society of Automotive Engineers (SAE) and Bureau of Indian Standards (BIS) and contributes towards developing industry standards. He is also serving as the Secretary of INCOSE India Chapter.
 Dr. Yogananda Jeppu Technical Fellow and Systems Architect Boeing, ESEP (Speaker & Panelist)	Dr. Yogananda Jeppu is a Technical Fellow at Boeing. He has over 37 years of experience in the field of Control System Design and Implementation, Simulation of Aerospace Systems, Verification and Validation of safety critical systems, Model Based Systems Engineering and Formal Methods. He is a BE in Electronics and Communication, from Mangalore University, and a Postgraduate in Missile Guidance and Controls from Pune University. He has a PhD in Certification of Safety Critical Control Systems using Model Based Techniques from IIT Bombay. He has several publications on Formal Methods, Randomized Testing, Orthogonal Array Testing, Model Based Systems Engineering, Missile Guidance and Control, Teaching, Algorithmically Intelligent Systems and Software Quality. He has been awarded US patents for innovations in UAV and Radar. He has been awarded by the Government of India for his contributions to the Indian LCA Flight Controls program and the Indian Integrated Guided Missiles Program. He has been awarded the INCOSE Systems Engineering Influencer Award 2023 for his contribution to MBSE in India. He is a Fellow of the Institution of Engineers India, and a Fellow of the Aeronautical Society of India. He has also a mention in the Limca Book of Records for his hobby – philately. He is on the technical committees of National Aerospace Laboratories, India. He started his career in 1987, working on Missiles and Indian LCA program with Defense R&D Organization. He is an IEEE Distinguished Lecturer. He is also an adjunct faculty at NITK Surathkal and MIT Manipal.

Speaker / Panelist	Profile
 Mr. Mudit Mittal Co-founder and Director, BlueKei Solutions (Panelist)	Mudit is a Co-founder and Director at BlueKei Solutions and President of the INCOSE India Chapter. He has over 17 years of industrial experience. He has worked on new product developments, innovation projects, robotics, modelling and simulations in the field of Automotive Electronics, Agriculture and Constructions equipment. He has been the Enterprise MBSE SME for John Deere prior to BlueKei and was responsible for driving enterprise-wide adoption of MBSE. During his career he has worked as a Systems Engineer in various capacities, and has driven SE for Innovation, Automotive Network Analysis and Management, System of System for Agriculture Solution Systems, Competency development and Digital Engineering adoption for large OEMs and Suppliers. Mudit has master's certificate in Systems Engineering from MIT, Massachusetts, and a masters in Embedded Systems from BIT Pilani. He is passionate about solving problems through Systems Engineering approach, automation and transitioning the industry from Document based Systems Engineering to Model based Systems Engineering with strong belief in Digital Continuity.
 Dr. Manas Bajaj Co-founder, and Chief Systems officer at Intercax, USA (Speaker & Panelist)	Dr. Manas Bajaj is the Co-Founder and Chief Systems Officer at Intercax where he leads product research and development including the Syndeia digital thread platform. Dr. Bajaj has 20+ years of experience in MBSE, PLM, ALM, Modeling and Simulation, Open Standards and APIs, leading projects with both commercial and government customers. Dr. Bajaj is the Co-Chair of the Systems Modeling API and Services FTF at OMG and a member of the SysML v2 leadership team. He was also a contributor to SysML v1 standard and an author for the OCSMP certification program. He was also a contributor to ISO 10303-210 (STEP AP210) standard for electromechanical systems. Dr Bajaj earned his PhD and MS in Mechanical Engineering from Georgia Tech, Atlanta and BTech in Ocean Engineering and Naval Architecture from IIT Kharagpur.

Speaker / Panelist	Profile
 Mr. Kiran Jacob Industry Process Consultant Senior Manager, Dassault Systèmes (Speaker & Panelist)	Kiran is Industry Process Consultant Senior Manager – Dassault Systèmes India Private Limited. He has over 20 years of experience in Systems Engineering and currently leads the Collaborative Systems Engineering solution offering at Dassault Systèmes. He collaborates with customers across diverse industries to support the adoption and implementation of CATIA Systems Engineering solutions. Before joining Dassault Systèmes, Kiran was with MathWorks, where he focused on the Control Design and Automation (CDA) domain for MathWorks products. He holds a Bachelor's degree in Electrical Engineering from Visvesvaraya Technological University (VTU), Karnataka, and a Master's degree in Automotive Electronics from Coventry University, UK. Kiran is an active member of the INCOSE India Chapter and holds the credential of INCOSE Certified Systems Engineering Professional (CSEP)
 Mr. Shailesh K. Agrahari Senior Director – Global R&D Leader, Philips Healthcare Innovation Center (Panelist)	Shailesh is a seasoned technology leader with over 24 years of global experience in the MedTech and Automotive sectors. At Philips Healthcare Innovation Center, Pune, he has led transformative roles including Global R&D Leader for Mobile Surgery and Head of Innovation & Systems for Image Guided Therapy. His expertise spans end-to-end innovation management, AI-driven product development, and digital transformation. Shailesh is known for building high-performing teams and driving strategic initiatives that deliver measurable impact across global markets. An Executive MBA Gold Medalist from SPJIMR and an alumnus of IIM Ahmedabad, University of Toledo, and NIT Calicut, Shailesh combines deep technical knowledge with strategic business acumen. He leads the Innovation Council at Philips Pune and actively fosters partnerships with hospitals, universities, startups, and engineering collaborators. His leadership continues to shape the future of healthcare innovation through operational excellence, stakeholder engagement, and a relentless focus on customer-centric solutions.

Speaker / Panelist	Profile
 Dr. Devanandham Henry Systems Engineering – Practitioner, Researcher, Educator, Consultant (Panelist)	Dr. Devanandham Henry graduated with a B.Tech. in Aeronautical Engineering from Madras Institute of Technology, Chennai, and started his career as a Scientist with the Aeronautical Development Agency, Bangalore. He worked on the design and development of the Air Force and Naval variants of the Indian Light Combat Aircraft, Tejas. He did his M.Tech in Aerospace Systems Engineering from IIT Bombay and then went to Stevens Institute of Technology, USA for a PhD in Systems Engineering where he also taught SE courses and worked on projects sponsored by the US Department of Defense. After returning to India, Dr. Deva became a systems engineering consultant with BlueKei Solutions Pvt. Ltd. He has trained and executed projects for industries in different domains and sectors. Dr. Deva currently leads the M.Tech. Systems Engineering program at Mahindra University, Hyderabad and continues his passion for teaching, learning, and interacting with students of all ages and backgrounds.
 Dr. Ranga Gunti Head – Capability Building, Tata Motors (PV-EV) (Panelist)	Dr. Ranga Srinivas Gunti is the Head - Capability Building at Tata Motors (PV-EV), responsible for " Engineering, Operations, Product, Digital and Skill Academies " Creating and Executing – Capability Building Strategies for electric, ICE, and hydrogen-based mobility. With over 23 years in Research & Product Development, he has extensive experience in the Automotive, Farm, and Marine industries. Dr. Gunti holds a Ph.D. from IISc Bangalore and a postgraduate degree from IIT Kharagpur and has received numerous awards and patents for his work in Product Design and Development. His research spans various domains including Computer Aided Engineering, AI-ML in Automotive Product Development, Generative AI for Business, and Cybersecurity. He has contributed significantly to public with 52 peer-reviewed papers, 12 international conference publications, and multiple book chapters. Additionally, Dr. Gunti, in his previous roles has developed vehicle and powertrain systems, contributing to lightweighting and design optimization. In addition to his current role at Tata Motors, he also serves as an Honorary - "Adjunct Faculty at Virginia Tech India, teaching Data Science and AI applied to Mobility Engineering, and mentors Ph.D. and MSc research students at IIT Madras in Automotive Lightweighting and Systems Engineering".

Speaker / Panelist	Profile
 Dr. Amrita Francis Professor and Researcher, PCCOE, Pune (Panelist)	Dr. Amruta Francis is a dedicated researcher and academic specializing in Computational Mechanics and Biomechanics, with a strong foundation in both linear and nonlinear Finite Element Methods. Her expertise spans advanced numerical techniques including Polygonal and Polyhedral Finite Element Methods, Smoothed Finite Element Methods, and Stochastic Finite Element Methods. With a Ph.D. in Computational Mechanics, an M.E. in Machine Design, and a B.E. in Mechanical Engineering, Dr. Francis brings a robust academic background to her research and teaching. Her work focuses on developing innovative computational models to solve complex engineering problems, particularly in the biomedical and structural domains. Dr. Amrita has contributed to the scientific community through numerous publications indexed in Google Scholar and Web of Science, reflecting her commitment to high-impact research. Her interdisciplinary approach integrates mechanics, mathematics, and computer science to address real-world challenges in engineering. She is also actively involved in mentoring students and collaborating on research projects that push the boundaries of simulation and modeling. Dr. Francis's work continues to influence the development of next-generation computational tools and methodologies in engineering science.
 Mr. Tamilselvan Sankaralingam Director Sustaining engineering Philips Health care innovation center Philips - Image guided therapy systems (Panelist)	Tamilselvan has over 2 decades of journey with Philips since 2004 in Singapore, Netherlands(Amsterdam) and Moved back to India in 2022. He has 5 patents as inventor that has ignited his engineering curiosity in bringing optimal solutions to address pain points and contribute to business growth trajectory in multiple business units of Philips from Steam irons, espresso coffee machines , premium shavers, electric toothbrush to addressing women's health challenges in India . Currently Tamilselvan leads Sustaining engineering activities with talented 150+ mechanical , electrical and System engineering for Image guided therapy solutions in raising the bar on Patient safety and quality , Business continuity with excellence and Delivering productivity end to end.

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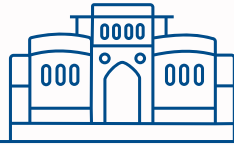
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