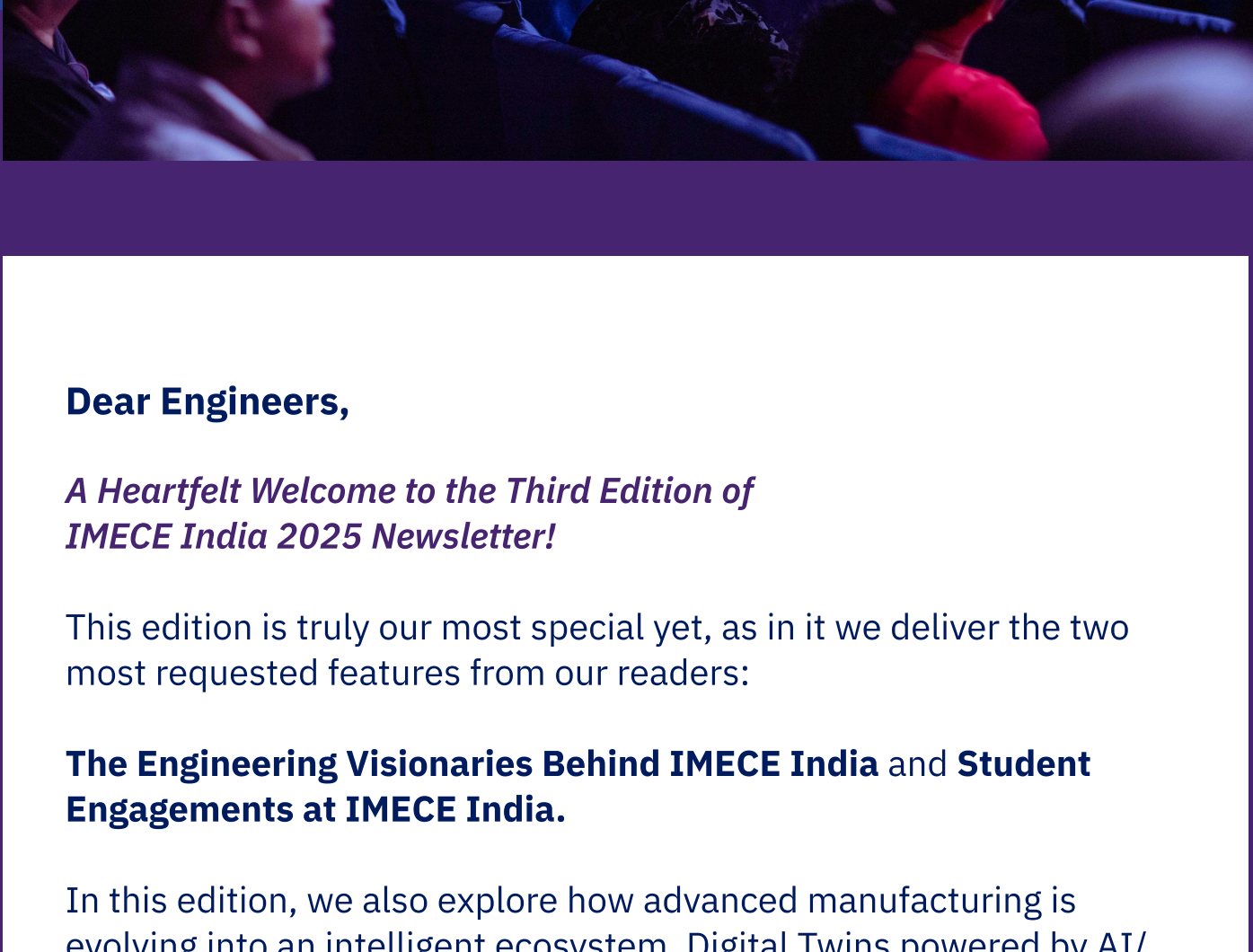


# Where Engineering Disciplines Intersect and Innovation Begins

## #IMECEIndia2025



**Dear Engineers,**

*A Heartfelt Welcome to the Third Edition of  
IMECE India 2025 Newsletter!*

This edition is truly our most special yet, as in it we deliver the two most requested features from our readers:

**The Engineering Visionaries Behind IMECE India and Student Engagements at IMECE India.**

In this edition, we also explore how advanced manufacturing is evolving into an intelligent ecosystem. Digital Twins powered by AI/ML predict and optimize production before physical creation, advanced materials and 3D printing technologies materialize impossible designs, and robotics and cyber-physical systems drive production with unprecedented precision and adaptability.

## #IMECEIndia2025

## Advanced Manufacturing

### Where Intelligence Meets Ingenuity

What if every machine in your factory could think, learn, and evolve?

The industrial revolution has gotten smarter. Today's manufacturing floor is not an assembly line but a living organism. Digital neurons

fire across interconnected systems and create intelligence that transforms raw materials into products.



01

## The Digital Oracle

Even before a single screw is turned, your product has already lived a thousand lives. Digital Twins powered by AI/ML don't just simulate - they prophesy. They whisper warnings of stress fractures, optimize material flows, and reveal performance secrets hidden in mountains of Data Analytics. In Semiconductor Manufacturing, this digital oracle operates at the atomic level. Even one misplaced electron can cause consequences worth millions of dollars.

***"We engineer the micro-world, powering tomorrow's intelligent manufacturing with precision."***



**Dr. Nihar Ranjan Mohapatra**

Professor, Electrical Engineering, IIT Gandhinagar and  
Track Chair, Advances in Semiconductor Manufacturing

***"Building the brains of modern factories demand ultimate precision: our track explores cutting-edge semiconductor fabrication and control."***



**Dr. Murugeswaran Surulivel**

Associate Vice President, Insemi Technology Services and  
Track Chair, Advances in Semiconductor Manufacturing

But the puzzle remains:  
***How do you bridge this digital perfection  
with physical reality?***

02

## The Materializers of Dreams

Additive Manufacturing & 3D Printing are the modern alchemists that turn digital gold into physical treasure. They are reality engines that make impossible geometries and 4D materials that reshape themselves like origami masters, responding to environmental whispers.

Smart materials can think, adapting their properties to their conditions.

***"Additive Manufacturing is bridging the lab-to-industry gap and the industry-academia collaboration is key to unlocking its full potential. Let's innovate together!"***



**Dr. Surya Kumar S**

Professor, Department of Mechanical &  
Aerospace Engineering, IIT Hyderabad  
Track Chair, Additive Manufacturing & 3D Printing

***"Materials are the backbone of innovation.  
We engineer smart, adaptive materials along with  
manufacturing technologies"***



**Prof. Raghu V. Prakash**

Professor, Department of Mechanical  
Engineering, IIT Madras and Track Chair,  
Advanced Materials and Manufacturing Technologies

***"From 4D printing to intelligent composites, advanced materials redefine what's possible. Our track explores the very future of fabrication."***



**Dr. Dheepa Srinivasan**

Dean, Office of Research & Innovation, MS Ramiah  
University of Applied Sciences and Track Chair,  
Advanced Materials and Manufacturing Technologies

03

## The Orchestrated Symphony

Intelligent Assembly Lines powered by Robotics & Automation transcend programming and become collaborative consciousness. Autonomous Mobile Robots navigate chaos with precision, while Cyber Physical Systems conduct this industrial symphony in real-time, where each harmony is optimized for maximum impact.

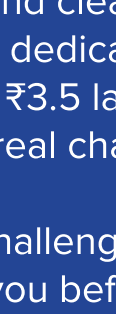
***"We bring automotive engineers, AI, software engineers, cognitive AI, embedded system and electronics engineers to build 'software defined vehicles'. This basically shifts intelligence embedded in the hardware to software which opens a lot of new possibilities."***



**Mr. Rajkumar Sadeenandam**

Global Head of Smart Connected Products, IoT  
& Digital Engineering Business Unit, TCS and  
Track Chair, Cyber Physical Systems + AI / ML

***"CPS is the nervous system of Industry 4.0.  
AI transforms data into intelligent action,  
making factories truly autonomous."***



**Dr. Vijendran Venkoparao**

Chair Professor/Principal Investigator,  
IIT Palakkad Technology II-Hub Foundation (IPTIF) and  
Track Chair, Cyber Physical Systems + AI / ML

***"Robots are the manpower in the smart factory. We engineer their intelligence, enabling seamless and collaborative production."***



**Mr. Ramalingam Venkatesan**

Deputy General Manager Product Development,  
Caterpillar India Engineering Solutions and  
Track Chair, Robotics & Automation

***"We build intelligent collaborators. Our track explores advanced robotics, creating flexible, responsive, and autonomous manufacturing systems."***

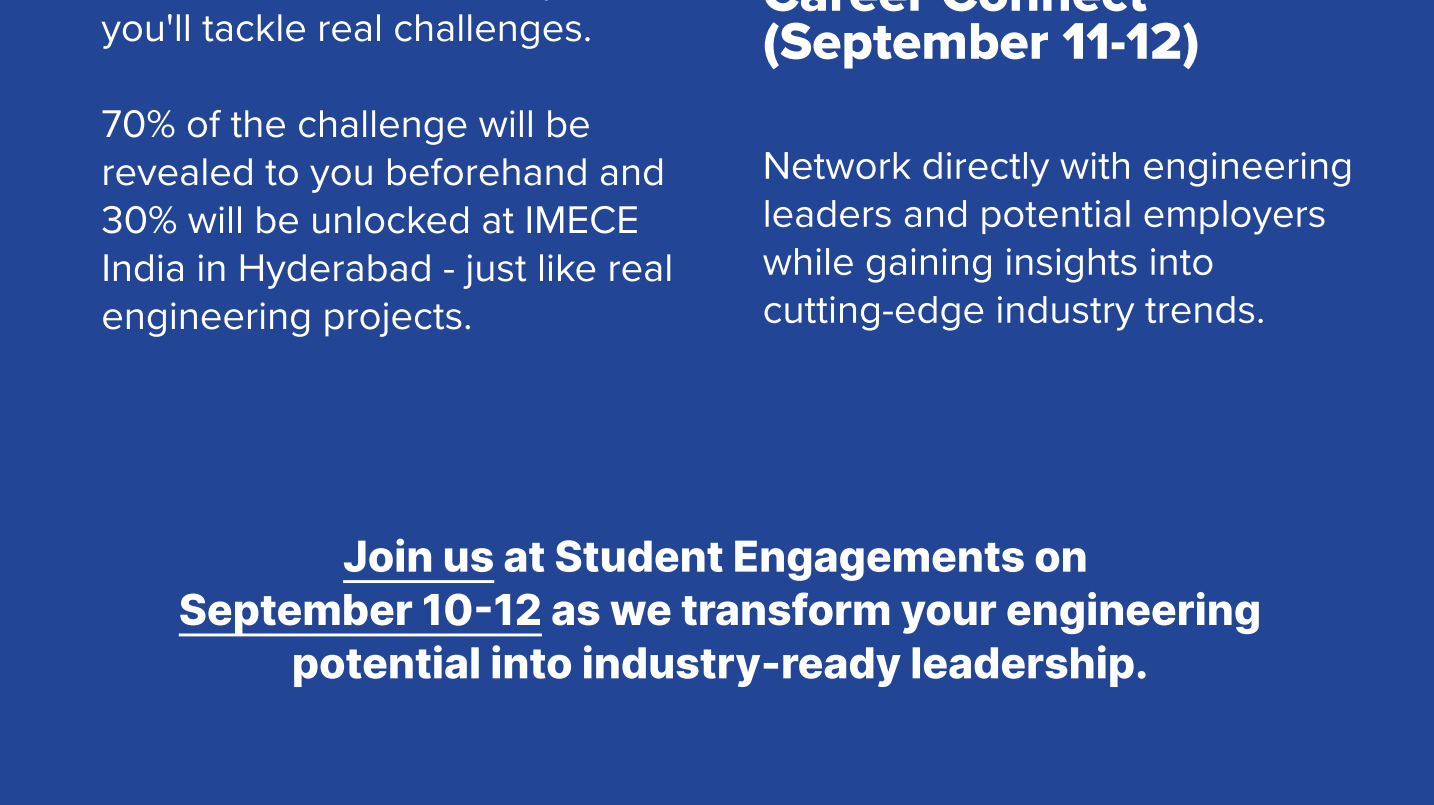


**Dr. Shital Chiddarwar**

Professor,  
Visvesvaraya National Institute of Technology and  
Track Chair, Robotics & Automation

Industries that will master this trinity of digital intelligence, material innovation, and autonomous orchestration will define the next decade.

***Are you ready to conduct your own  
industrial symphony?***



**Join researchers and engineers at IMECE India 2025  
and discover how modern industries are  
transforming through advanced manufacturing.**



## Student Engagements Sprint. Connect. Conquer.

IMECE India's Student Engagements transforms engineering students into industry-ready professionals through three career-defining experiences.



### Brain Bolt: The Engineer's Sprint (September 10)

A 6-hour high-energy innovation sprint where you will solve real industry challenges across 10 sectors including aerospace, healthcare, and clean energy. With insights from dedicated industry mentors and ₹3.5 lakh in prizes, you'll tackle real challenges.

70% of the challenge will be revealed to you beforehand and 30% will be unlocked at IMECE India in Hyderabad - just like real engineering projects.

### Build & Beyond Workshops (September 11-12)

Hands-on skill-building sessions led by industry experts, earning you official certificates for your professional portfolio.

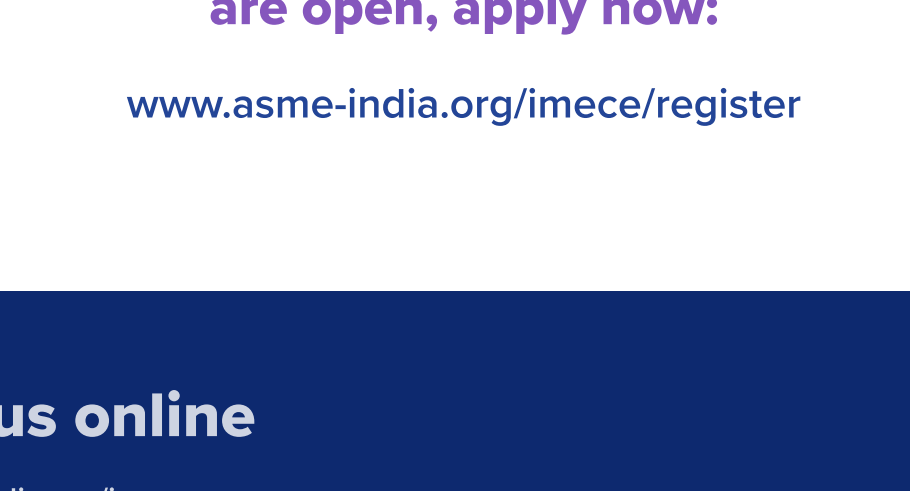
### Elevate ME: Career Connect (September 11-12)

Network directly with engineering leaders and potential employers while gaining insights into cutting-edge industry trends.

**Join us at Student Engagements on September 10-12 as we transform your engineering potential into industry-ready leadership.**

## Meet The Engineering Visionaries Behind IMECE India

Watch this special video to meet the visionaries whose relentless pursuit of engineering excellence is powering the first-ever IMECE in India.



IMECE India explores the latest advancements across 11 emerging and core technical tracks and shapes the future of engineering.

**#IMECEIndia2025 10–13 September 2025 | HICC, Hyderabad**



**Discover more about the IMECE India 2025 tracks on the official website:**

[www.asme-india.org/imece/tracks](http://www.asme-india.org/imece/tracks)



**Registrations are open, apply now:**

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