

# THE INSIGHT INTO 3D PRINTING & ADDITIVE MANUFACTURING TECHNOLOGY



# 3D PRINTING INSIGHT



#### PRESIDENT'S REPORT



Dear Members & Patrons,

We are pleased to present the February 2025 issue of 3D Printing Insight, a collaborative effort between the Additive Manufacturing Society of India (AMSI) and the Indian Women in 3D Printing (IW3DP). This edition highlights AMSI's vision to establish India as a global hub for additive manufacturing, focusing on:

- MADE IN INDIA MADE FOR THE WORLD: Developing industry-grade AM machines, materials, and software for global markets.
- Enhance 3D Printing Applications: Expanding AM across aerospace, space, defense, healthcare, and automotive sectors.
- <u>Skilling and Upskilling:</u> Providing industry-driven training in AM, Industry 4.0, and digital twin technologies.
- **Mentoring and Incubation:** Supporting startups and innovators in the AM domain.
- **Global Networking:** Strengthening partnerships through conferences and technology showcases.

#### Join Us at AMNEXT-25!

We invite you to AMNEXT-25, the 14th International Conference & Expo on 3D Printing and Additive Manufacturing Technologies, scheduled for September 11-12, 2025, at The Lalit Ashok, Bengaluru, India.

Conference Highlights:

- Digital Twin Experience Zone
- DfAM & Simulation Software
- Reverse Engineering & Digital Manufacturing
- Aerospace, Space & Defense Innovations
- Healthcare Innovations in 3D Printing

We thank our corporate, academic partners & esteemed members for their continuous support. Let's collaborate to drive the future of additive manufacturing!

Sincerely,

Dr. L. Jyothish Kumar

President, AMSI



### 3D PRINTING Insight



### **CHAIRWOMAN'S REPORT**



Dear Esteemed Members, Partners, and Supporters, As we embrace the boundless possibilities of 2025, I am filled with immense pride and excitement for the transformative journey we are undertaking together through the Indian Women in 3D Printing Society (IW3DP). The February edition of 3D Printing Insight not only reflects our collective achievements but also sets the stage for a year of groundbreaking collaboration, learning, and empowerment in additive manufacturing (AM).

A Year of Connection and Collaboration

Networking lies at the heart of innovation. This year, we are amplifying opportunities to connect, share knowledge, and build lasting partnerships that transcend borders and disciplines. Our collaboration with the Additive Manufacturing Society of India (AMSI) for AMNEXT-25 (September 11–12, Bengaluru) is a testament to this vision. This premier event will be featuring:

- Expert-led workshops on emerging technologies like AI-driven AM, digital twins, and industrial IoT.
- Startup and R&D pavilions, where pioneers will showcase disruptive solutions.

 Panel discussions on aerospace, healthcare, and defense applications, highlighting women-led innovations.

I urge each of you—whether you're a student, educator, industry professional, or entrepreneur—to join us at AMNEXT-25. Let's leverage this platform to forge alliances, spark dialogues, and co-create the future of AM.

Empowering the Next Generation

The resounding success of Envision 3D, our student design challenge, has reaffirmed the incredible potential of young minds in AM. The creativity and technical prowess displayed by participants inspire us to push boundaries further. We prepare for the next edition which will be hosted in association with SRM University, Chennai. Let's continue to nurture this ecosystem where talent thrives.

None of this would be possible without your unwavering support. To our academic partners, corporate members, and volunteers—thank you for believing in our mission. Let's keep breaking barriers and setting new benchmarks.

Let's make 2025 a year where innovation meets inclusivity, and where every voice in AM is heard and celebrated.

With enthusiasm and determination,

Best Regards

Dr. Kavya Shree K

Chairwoman, Indian Women in 3D Printing Society



### **ORGANIZATION UPDATES**

#### ADDITIVE MANUFACTURING SOCIETY OF INDIA

### Visit to Laser Metal 3D Printing Facility at PDEU, Gandhinagar



Dr. L. Jyothish Kumar, President of the Additive Manufacturing Society of India (AMSI), recently visited the Laser Metal 3D Printing Facility at Pandit Deendayal Energy University (PDEU), Gandhinagar, Gujarat. The visit provided valuable insights into the advanced capabilities of the facility and explored opportunities for collaborative research and knowledge exchange in the field of additive manufacturing.



During the visit, he witnessed 3D printing applications in the biomedical domain, including the fabrication of cranial implants using metal 3D printing technology. The visit emphasized the potential for advancing biomedical innovations through additive manufacturing.



### **ORGANIZATION UPDATES**

### **ADDITIVE MANUFACTURING SOCIETY OF INDIA**

### Participation in Indian Ceramics Asia 2025, Gandhinagar



Dr. L. Jyothish Kumar, President of the Additive Manufacturing Society of India (AMSI), participated in Indian Ceramics Asia 2025, a premier technology show held in Gandhinagar, Gujarat. During the event, he engaged in insightful discussions with Dr. Robert Schonberger, Global Industry Lead, Messe München, Germany, exploring future collaborations and advancements in ceramic 3D printing technologies.





### **ORGANIZATION UPDATES**

### ADDITIVE MANUFACTURING SOCIETY OF INDIA

### Recognition for Expert Contribution at AMSI Expert Technology Talk Series – March 2025



AMSI proudly recognizes Dr. Achyut Trivedi, Chairperson, National Additive Manufacturing Centre-West, Ganpat University, Gujarat, for his valuable contribution to the AMSI Expert Technology Talk Series – March 2025 Edition.

Dr. Trivedi delivered an insightful session on "Application of Artificial Intelligence in Additive Manufacturing," highlighting the transformative role of Al in advancing additive manufacturing technologies. His expertise and thought leadership provided significant knowledge to industry professionals, researchers, and enthusiasts in the field.

As a token of appreciation, AMSI has presented Dr. Trivedi with a Certificate of Appreciation, acknowledging his efforts in fostering innovation and knowledge sharing in the additive manufacturing ecosystem.

We extend our gratitude to Dr. Trivedi and look forward to future collaborations that drive technological advancements in the industry.





### 14th International Conference + Expo **Printing & Additive Manufacturing** Technologies - AM 2025

11 - 12<sup>th</sup> September 2025 The Lalit Ashok, Bengaluru, INDIA

### **Call for Papers**

We invite researchers, academicians, professionals and industry experts to contribute and share their knowledge, experiences and research outcomes at the International Conference on 3D Printing and Additive Manufacturing Technologies - 2025.

The conference aims to exchange ideas and explore innovative solutions for academic & industry applications.

### **Submission Guidelines**

- The paper should be in IEEE format, and should not exceed 7 pages.
- The full paper should include the title of the paper, author's name, author's affiliation, email ID, corresponding other details, etc., with font size 12, font style -Times New Roman, line space of 2 points, headings - 12 + Bold.
- Papers must be in PDF FORMAT.
- All the submitted conference papers will be peer-reviewed by the experts.
- The accepted papers will be published in the International Journals.

### Paper submission details

Email your submissions to:

am@amsi.org.in

www.amsi.org.in





# 14<sup>th</sup> International Conference + Expo Printing & Additive Manufacturing Technologies - AM 2025

11 - 12<sup>th</sup> September 2025 The Lalit Ashok, Bengaluru, INDIA

### **Highlights of**

### amnext - 25



Showcase of Advanced AM Technologies: Hardware, Software, and Materials



**Expert Keynotes and Insightful Panel Discussions** 



**Hands-On Interactive Workshops** 



Networking to Build the AM Ecosystem



Start-up & R&D Pavilion for Innovation Display



Design & 3D Printing Competitions with Awards



**Buyer-Seller Networking Meetings** 

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# amnext-25 ADVANCING 3D PRINTING TOGETHER

14<sup>th</sup> International Conference + Expo on 3D Printing & Additive Manufacturing Technologies

11 - 12 September 2025 The Lalit Ashok, Bengaluru, INDIA

### "Unlocking Potential with 3D Printing Skill Enhancement"

- Design for Additive Manufacturing
- 3D Printing & Industrial Application
- Artificial intelligence (AI) & Machine learning (ML)
- Industrial Internet of Things (IIoT)
- Digital Twin & Reverse Engineering

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# Digital Twin Experience Zone @ amnext 25

- Digital Twin, Reverse Engineering & Digital Manufacturing
  - Digital Twin & Integration Software Platform
  - 3D Scanner Hardware for Reality Capture & Reverse Engineering Software
  - Software for Design (DfAM) & Simulation
- AR & VR Innovation Hardware & Software
- ➤ Al/ ML in Additive Manufacturing, Statistical Tools
- Smart Digital Reality: Innovation, 3D Printing & Automation

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# 3D Printing Applications in Aerospace, Space & Defence

- Additive Manufacturing for light weight, fuel efficient, critical structural aircraft and spacecraft parts.
- Laser Powder Bed Fusion & Direct Energy Deposition for Multimaterial Space & Aircraft parts
- Additive Manufacturing for Maintenance, Repair & Overall (MRO) using Advance Metal Material
- Qualification & Certification Process of 3D Printed parts in Aerospace,
   Space & Defence

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# 3D Printing Applications in Healthcare

- 3D Medical Printing for Dental Applications
- Bio-Printing Artificial Organs & Tissues
- Improved Surgical Results with 3D Printed Tools and Custom Implants in Ceramic, Plastic, and Metals
- Customized Medical Devices
- Medical 3D Printing Hardware & Software Solutions

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**National Institute of** Engineering, Mysore



Vellore Institute of Technology













#### **TECHNOLOGY PARTNERS**

























### **MEDIA PARTNERS**













### **INDIAN WOMEN IN 3D PRINTING**

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Vellore Institute of Technology



Dayanand Sagar College of Engineering





National Institute of Engineering, Mysore



NITTE Meenakshi Institute of Technology



BMS College of Engineering



Vidya Vardhaka College of Engineering

#### **CORPORATE MEMBERS**



