

13th - 14th December, 2023 Ramaiah Institute of Technology, Bengaluru



INDIA

The American Society of Mechanical Engineers® ASME®

From the Conference Chair

Greetings! Welcome to the ASME India AM 3D Aero 2023 Technical Conference.

The first ASME India AM3D Aero Conference was held in Bengaluru in Dec 2022 and was successful in bringing together professionals from OEMs, industry, academia, research labs, and student community over a two day event that covered various aspects of the emerging field of additive manufacturing with an emphasis on aerospace. Building on the success of 2022, we are pleased to invite you to the second edition of this conference and Expo. This shall again be held in Bengaluru during Dec 13-14, 2023. The goals of the conference remain the same: providing a common platform to bring together various stakeholders, knowledge sharing, providing new connections and networking opportunities, highlighting current and emerging trends in science, technology, design, practice, and application development. It would also provide greater awareness about needs and current efforts on standards and regulatory requirements, and deliberate about opportunities and challenges associated with supply chain development and wider absorption of the emerging technologies.

It doesn't need to be stated, but additive manufacturing is vital to advanced manufacturing and is a transformative technology enabling mass customization of products through self-learning environments. It offers considerable design flexibility and leads to substantial saving of time and cost in the industrial parlance particularly in aerospace and defense sectors. In contrast to other industries, aerospace and strategic sector like defence have very stringent and unique set of requirements relating to materials, manufacturing, reliability, inspection, regulatory, traceability, and business considerations relating to production systems, supply-chain, etc.

The technical program of the 2023 conference comprises of a series of invited talks and submitted presentations providing in-depth account of various topics covering industry challenges, needs and best practices, academic research, supply-chain considerations, and development trends in materials, manufacturing, equipment, certification, education, and sustainability. The technical program is supplemented by posters and exhibits on emerging R&D efforts within multiple players including OEMs in the aerospace and AM end users community, AM service providers, AM modeling and simulation resources, hardware developers etc., within various scientific and industrial organizations. This conference series maps with and benchmarks the high-value additive technologies into the industrial ecosystem supporting the aerospace and defence sectors. This conference also marks the formation of an **ASME Additive Manufacturing Advisory Group in India.** This group currently comprises of AM practitioners from leading OEMS in the Aerospace & Defense industry, top research organizations and premier academic institutes and is set to expand and soon launch engagement activities in an ongoing manner.

We look forward to your active participation and support in the upcoming conference.



Dr. Om Prakash Conference Chair Boeing India



Prof. NVR Naidu Conference Co-Chair Principal RIT, Bengaluru



Prof. Shantanu Bhattacharya Conference Co-Chair Professor, IIT, Kanpur

AM 3D AERO 2023 Bengaluru

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GVMM Chair & Professor Department of Mechanical Engineering Indian Institute of Technology Kanpur

Mr. Shripathi V Senior Manager Technical & Business Development Indo Pacific, MSC Software Hexagon, Bengaluru

Mr. Yathiraj Kasal General Manager & Head Wipro3D, Wipro Enterprises Bengaluru

Conference Structure

- Technical Presentations
- Industry Exhibition
- Keynote Talks
- Pre Conference Workshops
- Poster Session

- Panel Discussion
- Industrial Tour
- Cultural Evening
- Conference Dinner

Pre-Conference Workshops

- Roadmap to Success with Metal AM
- Surface Roughness on 3D Printed surfaces: measurement techniques
- Microscopy on 3D powders and printed surfaces
- Titanium metallurgy and machinability for traditional and additive manufacturing
- Wright Flyer Model Workshop*
- Additive Thinking*
 - (* under consideration)

Pre-conference workshops will be held on **12th December, 2023.** For details and registration fee, please visit the conference website.

Poster Session

Topics:

- Additive Technology for Aerospace Applications with case study
- Advance Materials & Manufacturing Process
- Design for Additive Manufacturing (DfAM)
- Simplified Testing and Certification



Technical Presentation Tracks

Track No.	Title	Description	Track Chair	
1	Current and Emerging Trends in Machine Development for AM	New machines for AM, AM systems with monitoring and feedback control, power sources, sensors, instrumentation, multi- technology systems, hybridization of AM processes	Dr. Venkata Reddy Professor, Dept of Mech & Aerospace Engg, IIT Hyderabad	
2	Research Trends in AM Processes	Current and new processed for AM, advancements, optimization, efficient and sustainable processes		
3	Materials of AM	Feedstock development, alloy design and development, material forms for AM, niche materials, composites, recycling of materials	Dr. Harshal N. Mathur Founder, Pecan Research Solutions	
4	Modeling & Simulation of AM	Predictive modelling for AM, Modelling of thermal, mechanical, microstructure, material process physics.	Dr. Srikanth Bontha Associate Professor, Dept of Mech Engg, NIT Suratkal	
5	Digital Trends in AM	Data analytics, AI & ML, digital twins, data security, digital labels	Mr. Shripathi V Senior Manager, MSC Software, Hexagon	
6	Design Paradigms for AM	Design for AM vis-à-vis conventional processes, topological optimisation, lightweight, biomimetic design, auxetic structures, etc	Mr. Madhava Koteshwara Associate Technical Fellow, Structures Technology, Boeing India	
7	Characterization & Benchmarking of AM Parts	Characterization and performance - mechanical, metallurgical, electrical etc, inspection methodology, benchmarking and quantification	Mr. K S Manoj Head Business Development, Carl Zeiss India	
8	Post-build processing of AM parts	Post-processing of AM parts (e.g. heat treatment, HIP, surface treatment, machining)	Dr. Ravi Shankar Associate Professor, Dept of Mech Engg, IIT Tirupati	
9	Standards, Qualifications & Certification	Quality control, AM standards, safety and handling protocols, certification	Dr. M. Shyamsunder Co-founder and Chief Scientific Advisor, Azeriri Pvt Ltd; Vice President, Indian Society for NDT (ISNT)	
10	Applications and Impact	Aerospace, engines and structures, in-space manufacturing, UAVs, drones, energy utilization in and using AM, use cases of AMDr. Anil Kumar DGM, MPA/MME, VSSC/ISRO		
11	Manufacturing and Supply Chain	calability, manufacturing models, current eeds for developments, supply chain and art authentication, decentralization, iteroperability Dr. Shantanu Bhattacha Professor, Dept of Mech Engg, IIT Kanpur		
12	Emerging Trends in AM	4D printing, smart materials, functional materials, shape memory alloys, deployable structures, engineered materials, printable sensors and energy storage, others.	Dr. Poonam Sundriyal Assistant Professor, Dept of Mech Engg, IIT Kharagpur	

Abstract submissions are open

Please visit conference website to submit your abstract

Exhibition Opportunities

Stall Space 3m x 3m - INR 1,00,000

Stall Space 3m x 3m (Premium) – INR 1,20,000

Stall Space 5m x 5m – INR 1,80,000

The above mentioned exhibition stall charges are inclusive of 2 complimentary delegate passes in case of 3m x 3m stall and 3 complimentary delegate passes in case of 5m x 5m stall.

10 % early bird discount on expo bookings before 15th September, 2023.

Sponsorship

Benefits	Platinum	Gold	Silver	Bronze	Lunch Per Day	Track
Denents	INR 10,00,000	INR 7,50,000	INR 5,00,000	INR 3,00,000	INR 5,00,000	INR 1,50,000
Conference Registration	15	10	5	3	8	2
Exhibition Space	\checkmark	\checkmark	\checkmark	-	-	-
Logo on conference website, Brochure, Conference Backdrop	~	✓	~	✓	~	✓
Promotional material in conference kit	✓	×	-	-	✓	-
LOGO at the Registration Desk	\checkmark	\checkmark	-	-	-	-
Advertisement in Conference Souvenir	1 Full Page	1 Full Page	1 Half Page	-	-	-

Additional Sponsorship Opportunities

Conference Kit Sponsor - INR 3,00,000

3 complimentary delegate passes, Branding on kit and Inserts in conference kit.

Lanyard and Badge Sponsor - INR 1,50,000

2 complimentary delegate passes, Branding on badges and Inserts in conference kit.

Registration Fee

Registration Type	ASME Member	Non-Member		
Professional	7,500	10,000		
Faculty	3,000	4,000		
Student	2,000	2,500		

• Students must upload ID during registration.

• Early registration is recommended as the seats are limited.

• For other terms and conditions please refer to the conference website.

GST applicable on all sponsorship, exhibition and registration fees mentioned above.

Glimpses of AM 3D AERO 2022







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