

Advanced Aerospace Materials: Processing and Characterizations

23 – 27th July 2025



Chief Patron

Prof. Anupam Shukla, Director

Patron

Prof. P.V. Bhale, HoD, DoME

Sponsored by

अनुसंधान नेशनल रिसर्च फाउंडेशन

Anusandhan National Research Foundation

In Collaboration with

Department of Mechanical Engineering

Workshop Key Topics

This workshop on 'Advanced Aerospace Materials: Processing and Characterizations' is scheduled from July 23rd to 27th, 2025, in Offline mode at SVNIT Surat. This comprehensive program will cover various topics, from fundamental science to advanced technologies in Manufacturing processes and materials Science. The key objectives are to:

- Overview of Aerospace Materials: Evolution from Past to Future
- Material Selection and Requirements for Aerospace Structures and Engine Components.
- Processing Techniques for Aerospace Materials: Solidification processing, additive manufacturing, incremental forming, hydroforming, impact metal forming, and tailor blanks, Innovative Machining Processes: LBM, EBM, ECM, ChM, EDM, MAF, DG, and Hybrid Machining of Aerospace Materials like super alloys, alloys of Ni and Ti, Ph Steels, and composites, etc.
- Microstructural and Mechanical Characterization, such as Fatigue, Creep, Fracture Toughness, Formability in Aerospace components.
- Explore material mechanics, simulation, and modeling in the context of the manufacturing of aerospace components.
- Analyze the impact of tribological behavior and leverage data science in manufacturing processes.

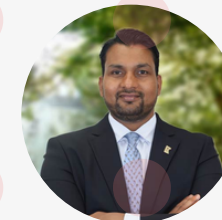
Resource Persons/Speakers:



Dr. Ravi Kumar Varma
Scientist F, ISRO



Dr. Umacharan Singh Y
DGAQA, Ministry of Defence



Dr. Ajit Kumar, NAMTECH



Prof. H K Raval
SVNIT Surat



Prof. S Kumar
SVNIT Surat



Prof. Harshit Dave
SVNIT Surat

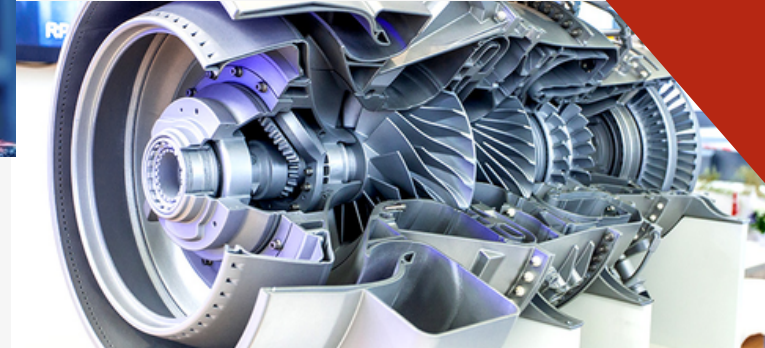


Dr. Archit Srivatava
Hindalco Industries



Prof. V Bhadeka, PDEU





About SVNIT Surat and Department

The institute was originally established in 1961 as Sardar Vallabhbhai Regional College of Engineering & Technology and was elevated to the status of a National Institute of Technology on October 4, 2002. SVNIT stands as one of the country's premier engineering institutions, having produced numerous exceptional engineers who have made significant contributions both in India and abroad. The institute offers six undergraduate programs, nineteen postgraduate programs, and a Ph.D. program across various engineering and applied science disciplines. The Department of Mechanical Engineering, founded in 1961, is supported by a team of highly qualified and dedicated faculty members with expertise in diverse specializations.

About the Workshop:

This workshop seeks to:

- Equip participants with in-depth domain knowledge and practical skills, fostering industry connections for real-world application.
- Facilitate practical learning by bridging academic theories with real-world applications, fostering stronger connections between academia and industry.
- Develop leadership and teaching skills, empowering participants to guide and inspire the next generation of learners and professionals.
- Promote continuous professional development, ensuring participants can stay ahead in their fields and contribute to community and nation-building efforts.

Who can Attend:

This workshop is open to faculty members, research scholars, postgraduate scholars, UG and PG students from all institutions, as well as industry professionals.

Course Outcomes:

Upon successful completion of this workshop, participants will be able to:

- Identify key research problems within the Manufacturing and Materials Processing field to undertake aerospace-focused projects.
- Grasp the fundamentals of numerical modeling and mechanics in advanced manufacturing processes and apply them to address research challenges in aerospace applications.

Venue:

Institute Guest House, SVNIT Surat Campus

Important Dates:

- Last date registration : **17th July 2025**
- Confirmation email: **17th July 2025**
- Workshop Dates: **23-27th July 2025**

Registration link:

<https://shorturl.at/Jnry3>



Registration Details:

Registration fee*: 800/-
(Mandatory for Registration)

The non-refundable registration fee covers course materials, access to all sessions, laboratory usage, and a working lunch and refreshments. Accommodation at the Institute Guest House may be provided on a payment basis.

The registration fee should be paid only by ONLINE TRANSFER to the account of:

Bank Account Name : **Director,**
SVNIT-CCE

SBI Account No. : **37030749143**

Bank Name : **State Bank of India**

IFSC: **SBIN0003320**

Branch : **SVRCET Branch,**

Ichchanath, Surat- 395007, Gujarat



Contact Information

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