



ADVANCEMENTS IN PROPULSION SYSTEMS FOR NEXT-GEN AEROSPACE VEHICLES

NAPC 2027

NAPC 2027 marks the sixth edition of the National Aerospace Propulsion Conference, a flagship biennial event themed 'Advancements in Propulsion Systems for Next-Gen Aerospace Vehicles'.

This prestigious gathering explores cutting-edge innovations in sustainable, high-performance propulsion for aircrafts, drones, eVTOLs, hypersonics, and reusable rockets.

NCABE & NAPC

The National Council for Air Breathing Engines was founded in 1992 as a trust to provide a forum and stimulus to the R&D activities in the field of aerospace propulsion in the country. The trust held the first National Conference on Air-Breathing Engines (NCABE) in Bangalore in 1992 and since then, NCABE has been a well-attended major technical event held at different aerospace institutions across the country. NCABE serves as the Indian complement for the International Conference on Air Breathing Engines (ISABE).

The National Aerospace Propulsion Conference (NAPC) is a national conference dedicated to aerospace propulsion technologies. Two of the popular conference series, National Propulsion Conference (NPC) and NCABE, were merged to result in NAPC. This biennial conference, being conducted under the auspices of NCABE trust, is intended to bring together the entire propulsion community spanning the industry, academia and the research labs from across the country. The conference is an ideal opportunity to showcase one's research activities with peers and also foster future collaborations through networking.

MECHANICAL AND AEROSPACE ENGINEERING, IIT HYDERABAD

The Department of Mechanical and Aerospace Engineering was established to unify the strengths of both fields and advance innovation in science and technology. Driven by visionary leadership and a dedicated, diverse team, the department has rapidly expanded and excels in interdisciplinary research, particularly in combustion and propulsion. Specialized laboratories and collaborative faculty support pioneering work across fundamental and applied areas, preparing students for future challenges in mechanical and aerospace engineering.



4th to 6th JANUARY 2027



CONVENTION CENTER | IIT HYDERABAD



Organized by

Mechanical & Aerospace Engineering
Department, IIT Hyderabad

Under the auspices of

National Council for Air Breathing Engines
(NCABE)

Convener

Dr. K Gnanaprakash

Co - Conveners

Dr. Vishnu R Unni
Dr. S K Karthick

PLENARY TALKS

NAPC-2027 will feature plenary talks by eminent scientists, researchers, and industry experts from leading aerospace organizations, research laboratories, academia, DRDO, ISRO, and industries. These talks will highlight recent advancements, emerging technologies, challenges, and future directions in aerospace propulsion and related fields. The plenary sessions will provide participants with an excellent opportunity to gain insights from distinguished experts and interact with leaders driving innovation in propulsion technologies.

CALL FOR PAPERS

Prospective authors are invited to submit original technical papers to NAPC-2027 that have not been published or submitted elsewhere for publication or presentation. Authors should prepare their manuscripts in accordance with the NAPC-2027 paper template available on the conference website. All submitted papers will undergo a rigorous double-blind peer review process by the conference review committee to evaluate their technical quality, originality, and relevance to the conference themes. Accepted papers will be included in the official conference proceedings, which will be published online through the NAPC-2027 conference website.

The paper submission and review process for NAPC-2027 will be managed through the Microsoft Conference Management Toolkit ([Microsoft CMT](#)) platform. Authors are required to submit their manuscripts electronically through the CMT portal, the link for which will be provided on the conference website. Detailed information regarding paper submission guidelines, manuscript templates, important dates, review procedures, and author instructions will be regularly updated on the conference website. For further queries and communication related to paper submissions, authors may contact the organizing committee at: napc2027@mae.iith.ac.in

IMPORTANT DATES

Abstract submission deadline	: 15-08-2026
Communication of abstract acceptance	: 31-08-2026
Submission of full-length paper	: 30-09-2026
Communication of full paper acceptance	: 15-11-2026
Submission of camera-ready manuscript	: 15-12-2026
Registration closes	: 25-12-2026

Verticals

Gas Turbine Propulsion

- ✓ Intakes and Nozzles
- ✓ Combustors
- ✓ Rotor Dynamics
- ✓ Heat Transfer and Blade cooling
- ✓ Fuels: SAF, H₂, alternate
- ✓ Combustion dynamics
- ✓ Turbo-machinery (Compressors/Fans & Turbines)

Rocket Propulsion

- ✓ Solid propulsion
- ✓ Liquid propulsion
- ✓ Hybrid propulsion
- ✓ Electric propulsion and Ion propulsion
- ✓ Green propulsion
- ✓ Propellants
- ✓ Thermal Management
- ✓ Combustion instability

Ramjet/Scramjet/Detonation Engines

- ✓ Intakes
- ✓ Combustors
- ✓ Nozzles
- ✓ Thermal transport
- ✓ Fuels

Other Propulsion Concepts

- ✓ Electric motors, Fans, blades, ducts
- ✓ Tilt/VTOL concepts, Distributed propulsion, Control of electric vehicles
- ✓ Hybrid propulsion devices like RBCC, TBCC, Ramjet assisted rockets, GT-Electric, etc.
- ✓ Space propulsion
- ✓ Micro gas turbines
- ✓ Propulsion in other environments

Related Special Topics

- ✓ AI/ML in propulsion/combustion
- ✓ Computational Simulations and Modeling for propulsion applications
- ✓ Allied Applications of Gas-Turbine Engines
- ✓ Advanced Diagnostics and Instrumentation
- ✓ Ground and Flight Testing
- ✓ Stealth concepts
- ✓ Thermo-Structural/Vibration Analyses
- ✓ Advanced manufacturing for propulsion

Registration

All participants intending to attend the conference are required to complete the registration process. The conference will host a distinguished gathering of researchers, scientists, technologists, academicians, industry professionals, startup leaders, executives, and representatives from government organizations.

Authors of accepted papers must register promptly upon receiving the acceptance notification. Registration is mandatory for all delegates, except officially invited speakers.

Registered delegates will be entitled to

- ✓ Conference kit and materials
- ✓ Access to all technical sessions and keynote lectures
- ✓ Entry to exhibition halls
- ✓ Tea/refreshments during sessions
- ✓ Lunch on conference days
- ✓ Conference Dinner

Student	- INR 5000/-
Faculty / Govt R & D	- INR 12000/-
Industry	- INR 15000/-
	18% GST Extra

Payment info

Participants intending to register for NAPC-2027 are requested to complete the registration fee payment through online mode only.

The bank account details for payment are provided below:

Account Name:	IIT Hyderabad, Canara Bank, IITH Campus Branch, Kandi
Account Number:	120000769411
IFSC Code:	CNRB0003458
MICR Code:	500015066
Institute PAN No.:	AAAAI2661J

Participants are advised to retain a screenshot or transaction receipt after successful payment, as it will be required during the online registration process and for payment verification.

Committee Members

PATRONS

Dr. Samir V Kamat	<i>Secretary, DDR&D & Chairman, DRDO</i>
Dr. V Narayanan	<i>Secretary, Dept. of Space & Chairman, ISRO</i>
Prof. B S Murty	<i>Director, IIT Hyderabad</i>

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Dr. Mukesh Jain	<i>TD, HEMRL</i>

Sponsorship/Exhibition

We warmly invite industries, research organizations, startups, and technology partners to collaborate with NAPC-2027, a premier forum in aerospace propulsion bringing together academicians, researchers, scientists, and professionals. The conference provides an excellent platform to showcase technological advancements, exchange ideas, and strengthen collaborations between academia, research laboratories, and industry.

NAPC-2027 will also host an industrial exhibition featuring products, technologies, and services related to propulsion systems and allied aerospace sectors, offering valuable opportunities for networking and strategic partnerships.

Platinum Sponsor

Sponsorship – Rs. 5 Lakhs

- ✓ 5 Complementary Conference delegate Registration
- ✓ Prominent Logo placement on Conference Website
- ✓ Conference programme advertorial Feature (Company Logo + Website link)
- ✓ Dedicated time for presentation on Promotion

Gold Sponsor

Sponsorship – Rs. 3 Lakhs

- ✓ 3 Complementary Conference delegate Registration
- ✓ Prominent Logo placement on Conference Website
- ✓ Conference program advertorial Feature (Company Logo + Website link)

Silver Sponsor

Sponsorship – Rs. 1 Lakhs

- ✓ 1 Complementary Conference delegate Registration
- ✓ Prominent Logo placement on Conference Website
- ✓ Conference program advertorial Feature (Company Logo)

Additional Sponsorship Options

- ✓ Exhibition stall (10 ft x10 ft) : 0.60 lakh
- ✓ Banquet / Dinner Sponsorship : 5.00 lakh

Accommodation

Student Accommodation

Limited hostel accommodation at IIT Hyderabad campus will be available for student delegates and research scholars upon request, subject to availability on a first-come, first-served basis.

Institute Guest House Accommodation

The IIT Hyderabad Institute Guest House accommodation will be available for faculty members, industry delegates, invited speakers, and other participants upon request and subject to availability. Preference will be given to outstation delegates.

Detailed accommodation guidelines, booking procedures, and tariff details will be made available on the conference website.

How to reach IIT Hyderabad

Indian Institute of Technology Hyderabad is located at Kandi, Sangareddy, Telangana, along NH-65, approximately 15 km from Patancheru and well connected to Hyderabad city through road and public transport.

Contact Information

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Address:

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Kandi, Sangareddy – 502284
Telangana, India

Website: <https://mae.iith.ac.in/napc27>

