

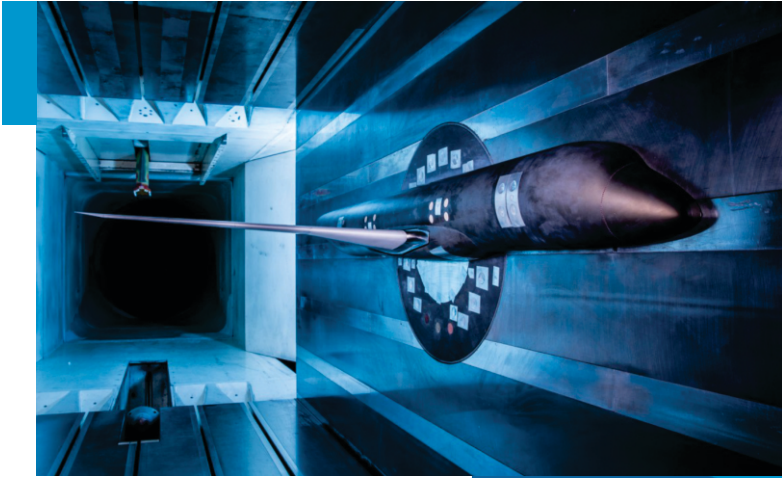
*First Information Brochure*

# 37<sup>TH</sup> NATIONAL CONVENTION OF AEROSPACE ENGINEERS

## NATIONAL SEMINAR ON ADVANCES IN INNOVATION IN AEROSPACE ENGINEERING

@ November 23 & 24 | 2024

Venue: Birla Institute of Technology, Ranchi



**Organized By**



**The Institution of Engineers (India)**

Jharkhand State Centre

Under Aegis of Mechanical Engineering Division Board, IEI

**In Association With**



**Birla Institute of Technology**

Mesra, Ranchi - 835215, Jharkhand ([www.bitmesra.ac.in](http://www.bitmesra.ac.in))

## About The Institution of Engineers (India)

The Institution of Engineers (India) or IEI is the largest multidisciplinary professional body that encompasses 15 engineering disciplines and gives engineers a global platform for sharing professional interest. IEI has membership strength of above 0.8 million. Established in 1920, with its headquarter at 8 Gokhale Road, Kolkata-700020, IEI has served the engineering fraternity close to a century. During this period of time, IEI has been inextricably linked with the history of modern-day engineering.

In 1935, IEI was incorporated by Royal Charter and remains the only professional body in India which has been accorded this honour. Today, its quest for professional excellence has given it a place of pride in almost every prestigious and relevant organization across the globe. It provides a vast array of technical, professional and supporting services to the Government, Industries, Academia and the Engineering fraternity, operating through its 125 Centres located across the country and 6 overseas chapters. Besides, IEI has bilateral agreements with about 31 international bodies and membership of another 8 international bodies of the developed nations across the globe.

Being recognized as a Scientific and Industrial Research Organisation (SIRO) by the Department of Scientific and Industrial Research, Ministry of Science and Technology, Government of India, IEI promotes the cause of research and development by providing Grant-in-Aid support to undergraduate, post graduate students and PhD Research Scholars of Engineering Institutions and Universities.

IEI has been recognized as Scientific and Industrial Research Organization (SIRO) by the Ministry of Science & Technology, Government of India and besides conducting its' own research, provides Grant-in-Aid to UG/PG/PhD students of Engineering institutes and Universities.

IEI holds the International Professional Engineers (IntPE) Register for India under the global International Professional Engineers Alliance (IntPEA). The institution also awards the Professional Engineers (PE) Certification.

IEI in collaboration with Springer regularly publishes peer-reviewed international journal in five series, namely, Series A, Series B, Series C, Series D and Series E covering fifteen engineering disciplines.

## About Jharkhand State Centre

The Ranchi Sub-Centre of The Institution of Engineers (India) founded on 23rd July 1961 and over the years, the sub-centre was upgraded to Local Centre on 5th August 1983 and elevated to State Centre on 30th March 2001 after the creation of Jharkhand State. This centre was always striven to increase its various activities so as to cater fully the needs of the engineering fraternity at Ranchi. This centre has been actively engaged in articulating various technical matters, and on the engineer's role in society and as managers. In addition to various technical activities, this centre has been actively associated in organizing cultural programmes by the wives of the members (EWA) to inculcate bond among members and their families. All Statutory Days such as Engineers day, World Water Day, World Telecommunication and Information Society Day, World Environment Day, etc. are celebrated every year with family members.

From a little hut to a campus with a three storied building, two conference halls, each capable of seating 100 people, office, library, guest an auditorium for 300 people, 3 classroom for continuous education has been an impressive journey. This has been possible only due to the dedicated contributions of esteemed members, State Government, Public Sector Undertakings and Private Sector Organisations.

Jharkhand State Centre has been designated as 'A' category centre by The Institution of Engineers (India) with around 6000 corporate members and 7500 student members. This centre has been adjudged as 'Best Centre' for All Round Performance in the years 2007-08, 2008-09, 2010-11, 2015-16, 2016-17 and 2017-18 by The Institution of Engineers (India). Jharkhand State Centre has received All India Beat Technician Chapter Award for last four years in a row i.e. 2016-17, 2017-18, 2018-19 and 2019-20.

For more details please visit: [www.ieijscjharkhand.org](http://www.ieijscjharkhand.org)



## About BIT Mesra

Birla Institute of Technology, Mesra was established by the great Philanthropist Industrialist Late B. M. Birla in 1955. At present, The Institute is offering various under graduate, post graduate, and Ph.D. programs in various disciplines of technology as well as five Year Integrated M. Sc. programs. The institute has an excellent placement record. There is a constant process of up gradation and innovativeness in the academics which has resulted in bagging prestigious industrial and consultancy projects in the recent past.

For details, please visit [www.bitmesra.ac.in](http://www.bitmesra.ac.in)

## Themes and Sub-themes

Recent developments made towards the development of Space missions, Indigenous Launch vehicles, Aircrafts, Missiles, Weapon Systems, Platforms and Allied Equipment for our Defence Services at leading organisations such as Aeronautical Development Agency (ADA), Hindustan Aeronautics Limited (HAL), National Aerospace Laboratories (NAL), Defence Research and Development Organisation (DRDO) and Indian Space Research Organisation (ISRO) calls for more active participation of Industries and Academic Institutions. The expertise available in our country is being utilized by several other nations as well.

The progress in these areas can be well recognized by the successful flight tests of Tejas, GSLV, PSLV, NAG, Agni-V, SRE, RLV, micro aerial vehicles, Scramjet engine tests, etc.

Technical Sessions during the Convention will give the opportunity to the delegates to exchange and disseminate their ideas on the following broad areas :

- Aerodynamics
- Aerospace Structures and Materials
- Aircraft and Rocket Propulsion
- Space Missions
- Ground testing Facilities
- Flight Dynamics, Guidance and Control
- Fuels and Propellants
- Quality, Safety and Reliability
- Reusable Launch Vehicles and Reentry Capsules
- Trajectory and Orbit determination
- Hypersonic Research areas
- Related Aerospace & Rocket Technologies



## Call for Papers

All interested participants are requested to contribute technical/ research papers and case studies detailing concept, innovation, idea or practical experiences for oral as well as poster presentation. Each paper should begin with a synopsis of about 200 words and preferably within 3000 words excluding figures, tables and references. A brief bio-data (not more than half a page, affixing a photo) of the author(s) should accompany the paper.

Last date for abstracts Submission  
Abstract Acceptance  
Receipt of Full Length Paper  
Acceptance of Full Paper  
Registration

31<sup>st</sup> August 2024  
15<sup>th</sup> September 2024  
15<sup>th</sup> October 2024  
31<sup>st</sup> October 2024  
10<sup>th</sup> October 2024



### Proceedings

The Invited Lectures and Technical Papers will be published in Proceedings, which will be made available to the registered delegates. Papers will be included in the Proceedings, only when it is presented and the Registration Fee is paid in time.

### Registration

The registration fee for the Seminar will cover participation in Technical Sessions, Seminar Proceedings, Printed materials, Seminar kit, Lunch, Tea/coffee, Seminar Banquet, etc

Category of Delegate	Delegate
Delegates from Academia/Institutes	Rs. 5000 + 18% GST
Delegates from Industries	Rs. 3500 + 18% GST
Research Scholars and Students	Rs. 1500 + 18% GST
Corporate Members of IEI	Rs. 2000 + 18% GST

A late fine of Rs. 500 to be paid after 30 October, 2024

### Advertisement Tariff

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### Account Details

**"The Institution of Engineers (I), JSC"**, payable at Ranchi

Account Number : 480102050000259

Bank's Name : Union Bank of India

Branch : Shyamali Colony, Doranda, Ranchi

IFSC Code : UBIN0548014

## Venue

The Convention will be held at Birla Institute of Technology, Mesra, which is about 26 Km from Ranchi Airport and 16 Km from Ranchi Railway Station. Ranchi is connected to Delhi, Bombay, Bangalore and Kolkata by Air and all major cities by Rail. The Institute is situated amidst 780 acre of picturesque surroundings, having confluence of rivers and natural forest. The climate is expected to be dry during November and temperature will be in the range of 15° C to 27°C.

## National Advisory Committee

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## Organising Committee

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	Dr. S.Y. Jejurkar	

## Technical Committee

Chairman:	Dr. Ashoke Sharon, Dean of Faculty Affairs, MIT Mesra
Members:	Dr. Rajiv Kumar
	Dr. Shelly Biswas
	Dr. Partha Mondal
	Dr. Swarup Y. Jejurkar

## Address for Communication

### Dr. Sudip Das

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### Er. Harun Ansari

Honorary Secretary  
The Institution of Engineers (India)  
IEI Engineer Bhawan, Nepal Kothi Campus,  
Doranda, Ranchi  
Ph.: 0651-3510412  
E-mail: jharkhandsc@ieindia.org



# NATIONAL SEMINAR ON ADVANCES IN INNOVATION AEROSPACE ENGINEERING

**November 23 - 24, 2024, Ranchi**

To  
**The Organising Secretary**  
NCAE - 2024

Dear Sir,

The following persons may please be registered as delegates for participation in the above seminar to be held at Ranchi.

Sl No.	Name & Designation	Accompanying Spouse (Yes/No)	Category Registration (Organizational / Individual/ Educational Institute/Member IE(I)/ Student Member)	Payment Cheque/ Draft No. & Date	Enclosing Amount
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2.					
3.					
4.					
5.					
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