

## Registration Fee

It is recommended that all registration is done online through our website: [www.ncae2020.in](http://www.ncae2020.in) and the Registration Fee has to be submitted online latest by October 15, 2020. This will cover the Proceedings, Souvenir and Registration Kit, besides Lunch, Dinner and Refreshments. The registration fee details are as follows:

Sponsored Delegates from Industries	₹5000+ 18% GST
Delegates from R & D Organisations and Academic Institutes	₹3500+ 18% GST
Corporate Members of IEI (Individual)	₹2000+ 18% GST
Students	₹1000+ 18% GST

(After September 30, 2018, an additional amount of ₹500/- to be paid as late fee).

The registration fee is to be paid through **SBI Collect** and the following details would have to be furnished:

Code	2020/001
Title	"34th National Convention of Aerospace Engineering on the theme Advances in Aerospace Engineering"
Duration	November 09-10, 2020
Participants Category	IITK Students
	NON IITK Students
	IITK Faculty
	NON IITK Faculty
	Industry Participant
Fees + 18% GST *IITK Faculty & Students pay only course fees	Others
Name of Participants	
Name of Institute/Organization	
Fee	
Remarks	

\*Complete details for SBI collect procedure is available at the conference website: [www.ncae2020.in](http://www.ncae2020.in)

## Paper Submission

Paper would be submitted through the easychair portal. Please use the link below:

<https://easychair.org/cfp/ncae2020>

## National Advisory Committee

**Chairman: Er. Narendra Singh, FIE, President, IEI**  
**Co-Chairman: Prof R M Vasagam, FIE, Chairman, ASDB, IEI**  
**Convener: Prof. Debi Prasad Mishra, FIE**

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Prof K K Ghosh, FIE, Member, ASDB, IEI	Dr. Satish Kumar, Director, NIT, Kurukhetra

### Organising Committee

**Chairman** Prof. J R Kumar, FIE, KSC IEI  
**Co-chairman** Prof. Debi Prasad Mishra, FIE  
**Secretary** Er. Rajat Khare  
**Convener** Dr. Abhishek  
**Co-convener** Dr. Mangal Kothari

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Prof. Sanjay Kumar  
Dr. Alakesh Mandal  
Dr. Deepak Giri  
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Dr. G. M. Kamath		

### Address for Communication

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The Institution of Engineers (India)

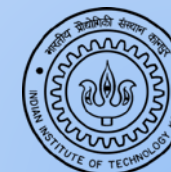
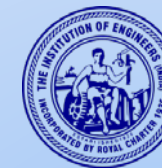
A Century of Service to the Nation

Thirty-Fourth National Convention of Aerospace Engineers  
and  
National Conference on

**"Advances in Aerospace Engineering"**

**November 7-8, 2020**

**IIT Kanpur**



Organized by

The Institution of Engineers (India)

Kanpur Local Centre

Under the aegis of

**Aerospace Engineering Division Board, IEI**

Venue:

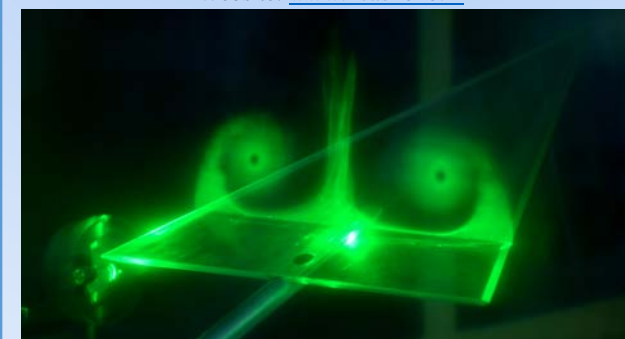
Outreach Auditorium

Indian Institute of Technology Kanpur

Kanpur-208016

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Thirty-Fourth National Convention of Aerospace Engineers  
and  
National Conference on  
**Advances in Aerospace Engineering**  
November 7-8, 2020  
IIT Kanpur

The National Convention of Aerospace Engineers is the apex technical activity of Aerospace Engineering Division. National Convention gives a platform to engineers, technologist, scientist, academician and related stake holders to come together and discuss technical innovations in the field of Aerospace Engineering for possible collaboration for the benefit of society. This year National Convention will be organized on 7-8<sup>th</sup> November 2020 at IIT Kanpur on theme “Advance in Aerospace Engineering” which includes:

- a. Vikram Sarabhai Memorial Lecture
- b. Invited Talks
- c. Technical Exhibition showcasing innovations in Aerospace Engineering.

### Theme & Objective

Aerospace engineering is always the spearhead of technological breakthrough being one of the engineering fields with the highest technological activity. The continual progression nourishes the other engineering fields and societies. The field of aerospace engineering and aviation is witnessing a dramatic change with emergence of some disruptive ideas such as personal aerial vehicles (eVTOL), distributed electric propulsion, unmanned aerial systems (UAS), rockets for interplanetary flights etc. At the same time the classical areas continue to challenge researchers to come up with airplanes with enhanced performance along with the reduced fuel consumption, possibly by increasing usage of composite materials for aircraft and coming up with better engines. Advanced structural health monitoring system is the need of the hour. Robust and fault tolerant flight control systems, payloads, communications, level of autonomy, regulations, safety, risk analysis assessment, airworthiness, certification issues, operational constraints, standardization are some of the challenges to be faced and overcome for their full utilization.

The convention would also give the participants an opportunity to learn about the state-of-the-art developments in various branches of aerospace engineering through various keynote invited talks on both the days. Therefore, it would be a great opportunity for all students of aerospace and relate fields to participate in this convention.

Hence there is a requirement of smart and environment friendly cutting-edge technologies which will pave the way towards full integration of UAS with manned aviation and into the respective national airspace. Keeping all these areas in view, department of aerospace engineering, IIT, Kanpur along with Institution of Engineers (India) is proposed to be organized along with 34<sup>th</sup> National Convention of Aerospace Engineers and National conference on “Advances in Aerospace Engineering” with following themes:

#### Themes for the conference includes, but is not restricted to:

- **Aerodynamics**
  - Unsteady Aerodynamics
  - Low Reynolds Number Aerodynamics
- **Flight mechanics and control**
  - Multiagent / swarm systems
  - Control of autonomous aerial systems
- **Aerospace Structures, Dynamics and Aeroelasticity**
  - Structural health monitoring
  - High performance composite structures
- **Propulsion**
  - High efficiency propulsion systems
  - Combustion
- **Design of Manned and Unmanned Aerial Systems**
- **VTOL Systems**

### Call for Papers

Prospective authors are invited to submit manuscripts reporting original unpublished research and recent developments in the topics related to the theme of the National Convention but not limited to subthemes listed above. The technical papers can be submitted online through the conference website: [www.ncae2020.in](http://www.ncae2020.in)

### Scheduled Dates

Last Date for Submitting Full Papers	<b>July 31, 2020</b>
Intimation of Acceptance	<b>Sept 15, 2020</b>
Opening of Registration	<b>Sept 16, 2020</b>

### About Aerospace Engineering, IIT Kanpur

Established in 1964, Aerospace Engineering department is a premier teaching and research centre today. The department is engaged in engineering science instruction, in-flight laboratory work, aerodynamic testing, and indigenous design and fabrication of advanced facilities and instruments. The department specializes in aerodynamics, flight mechanics, propulsion, and aerospace structures and has been involved in carrying out cutting edge fundamental and applied research in the area of aerospace engineering through external funding from ARDB, ISRO, DST, DRDO, HAL, NAL, IFCPAR, MHI, P&W etc.

### 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 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 conducts Section A & B Examinations in various engineering disciplines (popularly known as AMIE examination), the successful completion of which is recognized as equivalent to Degree in appropriate field of Engineering of recognized Universities of India by the Ministry of Human Resources Development, Government of India. Every year large number of candidates appear for these exams.

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 IEI Kanpur Centre

The Kanpur centre of the Institution of Engineers (India) was established in 1967 and is located presently in HBTI East campus. The then Kanpur Local Centre which was started with about 35 corporate members and about 10 graduate members now has become a full-fledged Local Centre of about 1290 corporate members and over 9100 Technician/ Senior Technician (student) members within its jurisdiction. The Kanpur Local Centre of the Institution of Engineers (India) has continued its activities with the leadership of council members and contributed their mite to the development of Local Centre in various spheres. This Centre has opportunity of having eminent engineers in the Engineering fields