



# Bharath

INSTITUTE OF HIGHER EDUCATION AND RESEARCH  
(Declared as DEEMED-TO-BE-UNIVERSITY vide 3 of the UGC Act, 1956)

Learners Today. Leaders Tomorrow.



## SCHOOL OF AERONAUTICAL ENGINEERING

Organizing an  
International Conference  
on

### “Recent Advancements in Aeronautical & Aerospace Technologies”

▶▶▶▶ ICRAAAT-2024 ▶▶▶▶

Hybrid-Mode



On  
12<sup>th</sup> and 13<sup>th</sup> December 2024

Venue: School of Aeronautical Engineering,  
BIHER, Chennai, India

### ABOUT THE INSTITUTION

The first self-financing Engineering College in the name of Bharath Institute of Science and Technology (BIST) was started in Tamil Nadu in 1984 by Sri Lakshmi Ammal Educational Trust, established by an academic visionary, Dr. S. Jagathrakshakan. BIST was then brought under the ambit of Bharath Institute of Higher Education and Research (BIHER) declared as Deemed-to-be-University in January 2003. BIHER envisions and constantly strives to provide an excellent academic and research ambience to students and faculty members to inherit professional competence along with human dignity and transformation of community to keep pace with the global challenges to achieve holistic development.

### ABOUT THE SCHOOL OF AERONAUTICAL ENGINEERING

The School of Aeronautical Engineering (SoAE), established in 2012, initially launched with a B.Tech. program in Aeronautical Engineering, later expanding to include a B.Tech. in Aerospace Engineering in 2016. Both programs are accredited by the National Board of Accreditation (NBA). The curricula are designed to cover core areas, including Aerodynamics, Aerospace Structures, Propulsion, Aircraft and Spacecraft Systems, and Flight and Space Mechanics. It enables equip the students with advanced knowledge and skills for careers in the Aerospace and Defence sectors. The department has a team of highly qualified, dedicated faculty and advanced laboratory facilities, including high-performance computing resources with software like ANSYS, CATIA, and MIDAS NFX; a subsonic & supersonic wind tunnel; computer-controlled universal testing machines (UTM); a high-speed jet facility; grounded propeller and jet engine aircraft; a sectioned Tumansky R-13 jet engine; a piston engine; and a flight simulator.



### ABOUT THE CONFERENCE (ICRAAAT-2024)

The International Conference on Recent Advancements in Aeronautical & Aerospace Technologies (ICRAAAT-2024) gathers professionals, researchers, engineers, industrialists and academics from around the globe to explore the latest developments in aeronautical and aerospace technologies. This conference fosters knowledge sharing and collaboration, addressing critical challenges within the industry including wind/solar energy sectors. It offers valuable networking opportunities and serves as a platform for exchanging insights and expertise, significantly influencing the future of aviation, defence, wind turbine industries and other scientific exploration. The Conference includes a session exclusively offshore renewable energy by ORE Catapult, UK.

### CHIEF PATRONS:

Dr. S. Jagathrakshakan , Founder & Chairman  
Dr. J. Sundeeep Aanand , President, BIHER  
Dr. S. Swetha Sundeeep Aanand , Managing Director, BIHER

### PATRONS:

Dr. K. Vijaya Bhaskar Raju, Pro-Chancellor, BIHER  
Dr. M. Sundararajan, Vice-Chancellor (i/c), BIHER  
Dr. R. M. Suresh, Pro-VC & COE, BIHER  
Dr. R. Venkatesh Babu, Pro-VC, International Relations, BIHER  
Dr. S. Bhuminathan, Registrar, BIHER  
Dr. R. Hari Prakash, Additional Registrar, BIHER  
Dr. M. Sundararaj, Dean-Academics, BIHER  
Dr. P. Naveenchandran, Dean-Research & Development, BIHER  
Dr. J. Hameed Hussain, Dean-Infrastructure, BIHER  
Dr. K. Chidambaram, Dean-Student Affairs, BIHER

### ADVISORY BOARD

Dr. Sharan Asundi, Prof., Old Dominion University, USA  
Dr. Carlo Santulli, Prof., University of Camerino, Italy  
Dr. R. Panneer Selvam, Prof., University of ARKANSAS, USA  
Dr. Vijay Sahadevan, Chief Technologist, GKN Aerospace, UK  
Dr. Siva Marimuthu, Prof., University of Staffordshire, UK  
Dr. S. Rajagopal, Sc B, ADE, Bengaluru  
Dr. K. Sankaranarayanan, Prof., NIT, Tiruchirapalli  
Dr. K. Kalaiichelvan, Prof., AC Tech, Anna University  
Dr. S. Elangovan, Former Prof. MIT, Anna University  
Dr. Selvi Rajan, Former Chief Scientist, CSIR-SERC, Taramani  
Shri T K Sundaramurthy , Former Mission Director, ISRO  
Dr. K. M. Parammasivam, Prof. & Head, MIT, Anna University  
Dr. V. Arumugam, Prof., MIT, Anna University  
Dr. K. Vadivuchezhian, Assoc. Prof., NIT, Suratkal  
Dr. S. Gomathinayagam, Former DG of NIWE, Chennai  
Dr. P. Arun Kumar, Assoc. Prof., IIT, Kanpur  
Dr. Jack.J.Kenned, Asst. Prof., NIT, Puducherry  
Dr. A. R. Jac Fredo, Asst. Prof., IIT(BHU), Varanasi  
Dr. S. Nadaraja Pillai, Prof., Sastra University, Tanjore  
Dr. G. Vinayagamorthy, Assoc. Prof., VIT, Chennai

### ORGANIZING CONVENERS

Dr. M. Sundararaj, Prof. & Dean, Convener  
Dr. C. Suresh Kumar, Prof. & Head, Co-convener



## ORGANIZING COMMITTEE

Dr. Hamza Naseem, Assoc. Prof., Chair  
Dr. R. Bhoominathan, Asst. Prof., Co-Chair  
Mr. R. Karthikeyan, Asst. Prof.  
Mr. N. Kalaimani, Asst. Prof.  
Mr. M. K. Karthik, Asst. Prof.  
Mr. E. Mahavishnu, Asst. Prof.  
Ms. D. Shalini Priya, Asst. Prof.  
Mr. K. Arun Kumar, Asst. Prof.  
Ms. A. Ezhilsibora, Asst. Prof.

## SCIENTIFIC COMMITTEE

Dr. LIN Pengfei, Postdoc, Harbin Institute of Technology, China  
Dr. C. Lakshmana Rao, Prof., IIT Madras, Chennai  
Dr. K. B. Rajasekarababu, Harbin Institute of Technology, China  
Dr. R. Senthil Kumar, Assoc. Prof., KARE, Srivilliputhur  
Dr. S. Elangovan, Former Prof. MIT, Anna University  
Dr. Selvi Rajan, Former Chief Scientist, CSIR-SERC, Taramani  
Dr. M. Sundararaj, Prof. & Dean, SoAE, BIHER  
Dr. Jack.J.Kenned, Asst. Prof., NIT, Puducherry  
Mr. G. Grahadurai, Sc G, SDSC, ISRO, Sriharikota  
Ms. T. Ramaneeswari, Sc F, SDSC, ISRO, Sriharikota  
Dr.T.A.Sundaravadivel, Asst. Prof., R.M.D. Engineering College  
Dr. C. Suresh Kumar, Prof. & Head, SoAE, BIHER  
Dr. Hamza Naseem, Assoc. Prof., SoAE, BIHER  
Dr. R. Bhoominathan, Asst. Prof., SoAE, BIHER

## THEMES

AI/ML in Aerospace Engineering  
Re-entry Vehicle Design and Dynamics  
Novel Concept for Aircraft Design  
Nano-Technology in Aerospace Engineering  
Unmanned Aerial Vehicles  
Structural Health Monitoring  
Non-destructive Evaluation of Structures  
Aerospace Materials and Manufacturing  
Additive Manufacturing in Aerospace Engineering  
Vibration and Aeroelasticity  
Advanced Aerodynamics and Flow Control  
Computational Fluid Dynamics  
Sustainable practices in Aircraft Maintenance  
Propulsive systems  
Heat Transfer and Thermal Management in Aerospace Engineering  
Fluid Structure Interaction Techniques  
Computational Mechanics in Aerospace Structures  
Satellite Systems  
Spacecraft Engineering  
Space Mission Design and Planning

Space Robotics and Autonomous Systems  
Satellite Communication and Navigation Systems  
Aircraft Noise Reduction Techniques  
Design Optimization in Aerospace Engineering  
Non-conventional Propulsion Techniques  
Rocket Propulsion and Engine Design  
Space Debris and Orbital Mechanics  
Vehicle Aerodynamics  
Wind Turbine Aerodynamics

## INVITATION TO PARTICIPANTS

This International Conference is designed for undergraduate, postgraduate, researcher scholars, faculty members, scientists and Industrialists from various Engineering & Technology Institutions, Research Organisations, and Industries. Participants may have a background in Aerospace Engineering, Mechanical Engineering, Materials Science, Chemical Engineering, or related disciplines. The participants are expected to upload their extended abstracts (approximately 1000 words or 2 pages including maximum of 2 Figures). The extended abstracts will be evaluated based on originality, depth of research, accuracy, relevance to conference topics, and clarity. Upon acceptance of the extended abstract, the participant needs to register and present his/her research work during the conference.

Selected extended abstract shall be encouraged to submit full length paper (6-8 Pages) to ICRAAAT-2024. The submitted paper will undergo a peer-review process and the accepted paper will be published as book chapter in Springer proceedings.

## BEST PAPER AWARD

For each session, the Best Paper Award will be given on the basis of the quality of the research work presented.

### TEMPLATE for Extended Abstract:

<http://surl.li/uavmch>

### LINK for Extended Abstract Submission:

<https://shorturl.at/SVEWX>

### TEMPLATE for Full Length Paper:

<http://surl.li/dxmpow>

### LINK for Full Length Paper Submission:

<http://surl.li/kgldpt>

## ACCOMMODATION

Accommodation will be provided based on the participant's request sent to email id: [icraaat2024@bharathuniv.ac.in](mailto:icraaat2024@bharathuniv.ac.in)

## IMPORTANT DATES

Extended Abstract Submission : 25/11/2024  
Acceptance of Abstract : 02/12/2024  
Last date of registration : 05/12/2024  
Late registration : 12/12/2024  
(with Late Fee Rs 500/-)  
Final paper Submission : 14/02/2025  
Camera ready copy submission : 15/03/2025

## REGISTRATION DETAILS

Participants	Fees (INR) + GST	USD (\$)
B.Tech/M.Tech. Students	900	15
Research Scholars/Faculty	2000	30
Scientists/ Engineers/Industrialists	3000	40
Foreign Delegates	5000	70

## PAYMENT PROCESS

Registration Fees shall be paid through  
Bank Account Number : 4557002100001744  
Bank Name: Punjab National Bank  
Account Name : DR APJ ABDUL KALAM RESEARCH CENTER  
FOR AEROSPACE TECHNOLOGY  
Branch Name: BIHER Tambaram  
IFSC Code : PUNB0455700

## ADDRESS FOR CORRESPONDENCE

**Dr. C. Suresh Kumar, Prof., and Head**  
School of Aeronautical Engineering,  
Bharath Institute of Higher Education and Research (BIHER),  
Chennai, Tamil Nadu, India - 600 073  
Email id: [icraaat2024@bharathuniv.ac.in](mailto:icraaat2024@bharathuniv.ac.in)  
Mobile No: 9486728150, 9343276917

## QR CODE FOR REGISTRATION



**REGISTRATION LINK :** <http://surl.li/cfkqew>

**Website:** <https://www.bharathuniv.ac.in/>

## LOCATION

<https://maps.app.goo.gl/ip9gJFQXA9xP1f5R9>  
12°54'29.5"N 80°08'33.2"E