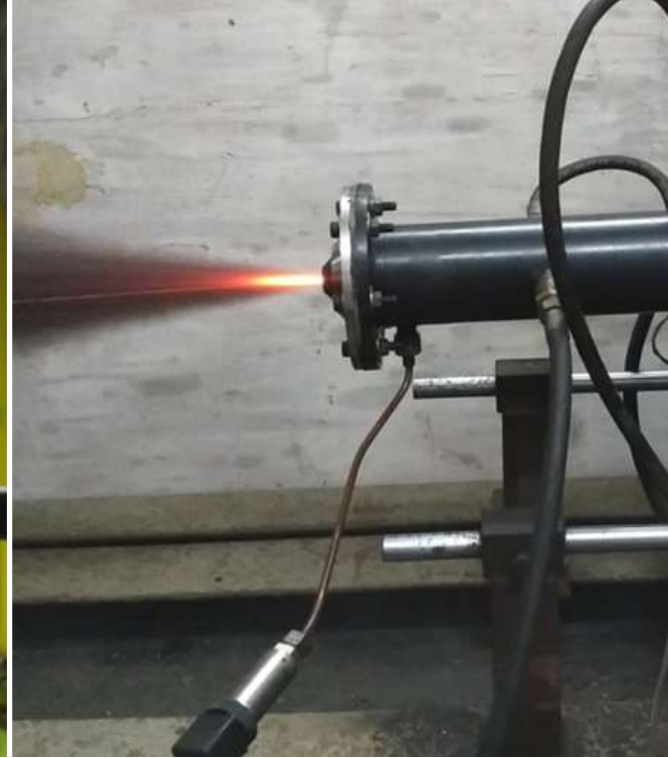




## DEPARTMENT OF AEROSPACE ENGINEERING



The Department of Aerospace Engineering at the Indian Institute of Technology Madras (IITM) was established in 1969. Since then it has been in the forefront of fundamental and applied research & development with scientific and social impact in the country.

The department has been involved in activities supporting our national ambitions in the field of Aerospace Engineering. Continued interaction with R&D agencies of international repute in the field of aerospace engineering has led to mutually beneficial research activities.

One of the major contributions to our society has been in the form of training manpower via graduate research programs (PhD and Master of Science by research) as well as course based programs (M.Tech, Dual Degree and B.Tech).

Graduate and undergraduate programs offered are of international repute and considered the best in the country. Various alumni from this department have been at the forefront of research organizations in the country and elsewhere.



**Prof. H. S. N. Murthy**  
Head of the Department



The Department offers a vibrant academic atmosphere which enables independent research and free exchange of ideas.

## Programmes (M.Tech.)

- Aerospace Engineering

## Research areas

### Aerodynamics and Flight Mechanics

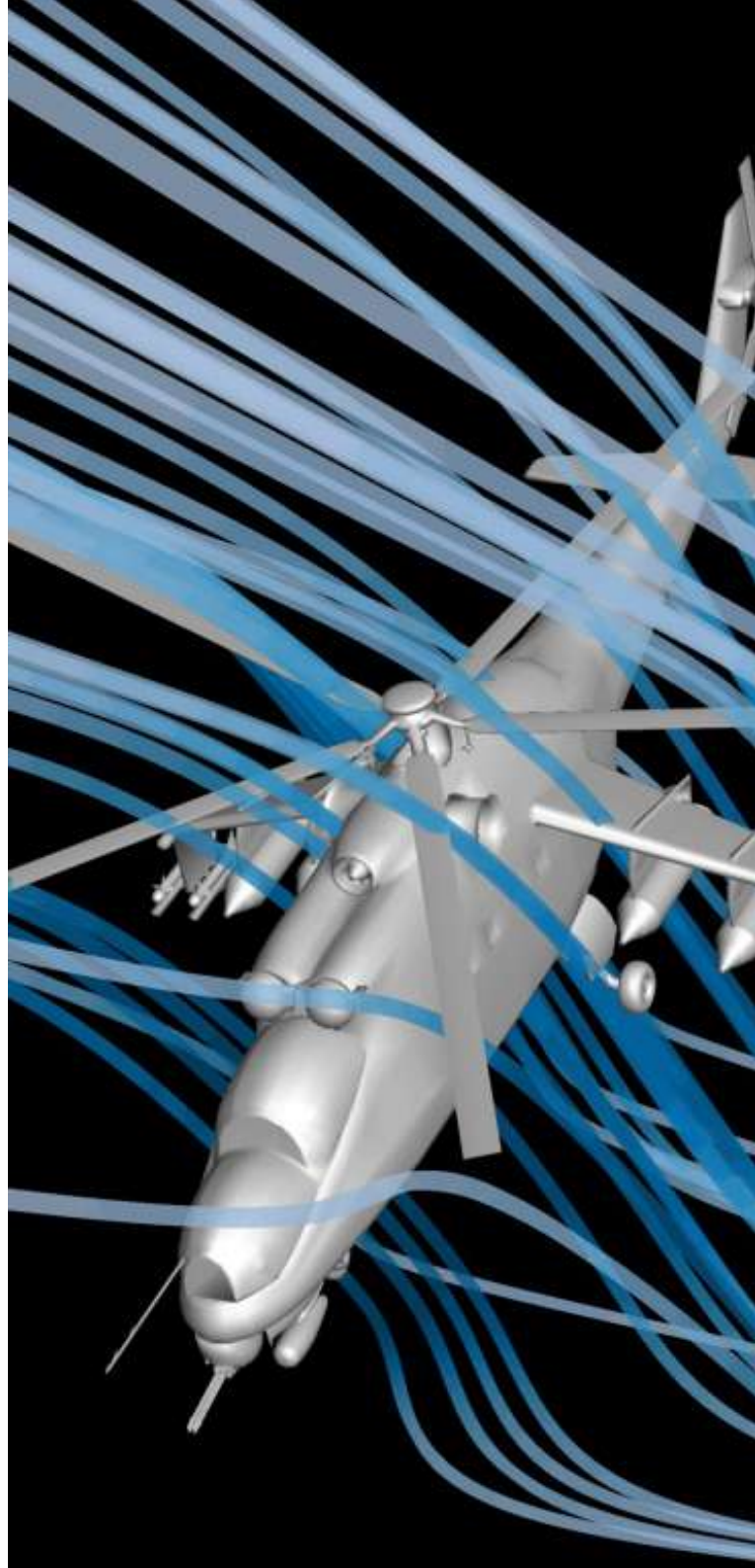
- Subsonic, Transonic, Supersonic, Hypersonic, Rarefied Gas Flows
- Boundary Layers and Stability of Flows, Turbulent Flows
- Shock Tubes and Related Problems
- Development of Algorithms and Code for Numerical Methods in Gas Dynamics and Computational Fluid Dynamics
- Vortex Dynamics, Supersonic Mixing and Combustion
- Optical Flow Diagnostics

### Aerospace Propulsion

- Rocket Propulsion and Solid Propellant Combustion
- Airbreathing Propulsion and Combustion
- Multiphase Flow Simulation
- Combustion Instability
- Optical Flow/Combustion Diagnostics
- Cascade flows, High fidelity CFD in Turbomachines

### Aerospace Structures

- Finite Element and other Numerical Methods
- Composite Structures
- Fatigue and Fracture Mechanics
- Contact Mechanics
- Vibrations and Impact Mechanics
- Multifunctional Materials
- Multi-scale Modelling







## Placements

 **GNIRUL**

**AIRBUS**

 **Collins  
Aerospace**

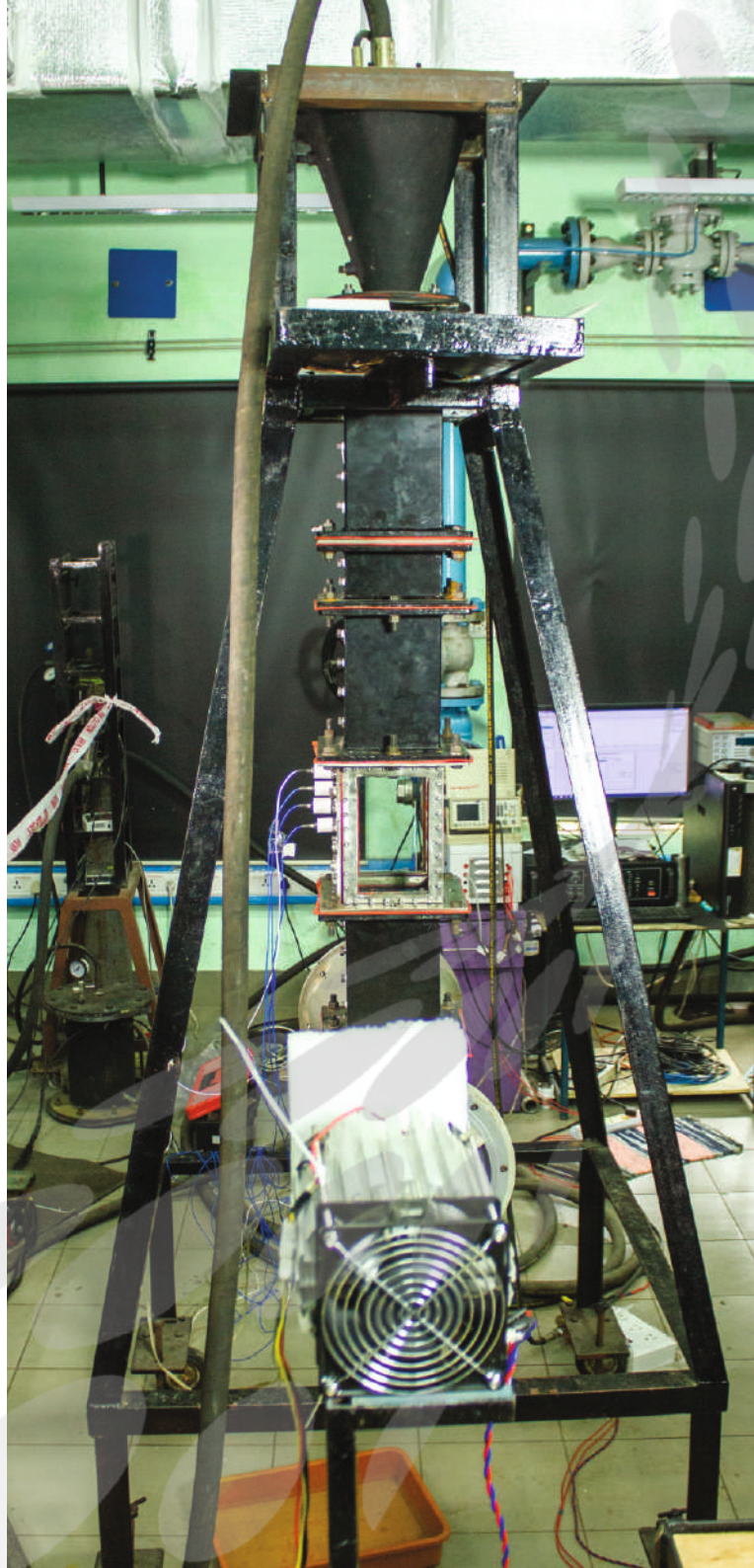
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## Faculty

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Dr. Bharath Govindarajan  
Dr. David Kumar  
Dr. Devaprakash Muniraj  
Dr. Dipankar Das  
Dr. H S N Murthy  
Dr. Joel George M  
Dr. K Bhaskar  
Dr. K V N Gopal  
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Dr. T M Muruganandam  
Dr. Vadlamani Nagabhushana Rao

