



**Department of Mechanical Engineering**  
Indian Institute of Technology Guwahati  
Guwahati-781 039, Assam, India

## ABOUT THE CONFERENCE

With deeper understanding of physics of the system along with growing powerful computing technology, it is now viable to design more efficient and optimized engineering systems incorporating multiple physics. The field of Multidisciplinary Design, Analysis and Optimization (MDAO) enables the researchers and designers from academia and industry to build optimized systems that are efficient, accurate, reliable and robust.

The 6<sup>th</sup> edition of the National Conference on Multidisciplinary Design, Analysis and Optimization (NCMDAO 2023) is going to be organized at Indian Institute of Technology Guwahati during December 6 – 8, 2023. The conference is jointly organized by IIT Guwahati and Design division of the Aeronautical Society of India (AeSI). The conference provides a unique platform to bring together the researchers and industry professionals working in the field of MDAO and share the expertise in the form of contributed paper presentations, interactive poster sessions, keynotes and invited talks, panel discussions, and a master class on contemporary topics.

The focus is on design and analysis as applicable to optimization of engineering systems in aerospace, mechanical, automotive, manufacturing, biomedical and other domains.

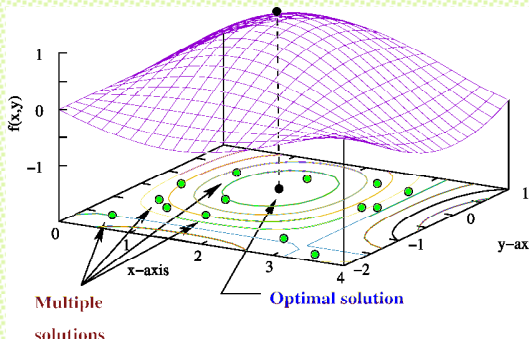
## ABOUT IIT GUWAHATI

IIT Guwahati campus is spread over a sprawling 785 hectares plot of green land on the north bank of the river Brahmaputra around 25 km from the heart of the city. With hills and vast open spaces the campus provides an ideal setting for training. At present the Institute has eleven departments and five inter-disciplinary academic centres covering all the major engineering, science and humanities disciplines, offering BTech, BDes, MA, MDes, MTech, MSc, MBA and PhD programmes. Details on how to reach IITG Campus are available on the conference website.



## ABOUT MECHANICAL ENGINEERING DEPARTMENT

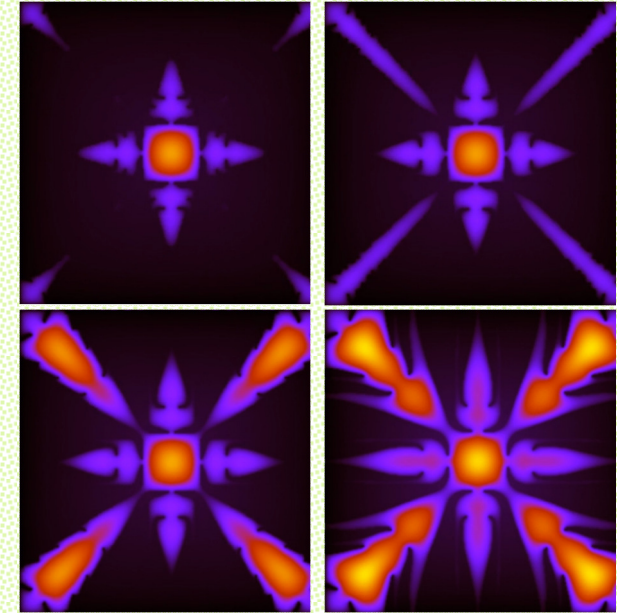
The department of mechanical engineering, being one of the largest and oldest departments of the institute, caters to its students with class tutorial and state-of-the-art laboratories. The department is continuously striving to achieve excellence in education, academic and industry oriented research as well as consultancy work with service to the society.



**INDIAN  
INSTITUTE OF  
TECHNOLOGY  
GUWAHATI**



## 6<sup>th</sup> National Conference on Multidisciplinary Design, Analysis and Optimization December 6–8, 2023



*Jointly Organized by*

**Department of Mechanical Engineering**  
IIT Guwahati, Guwahati – 781039, Assam

&

**Design Division**  
**Aeronautical Society of India (AeSI)**



## THEMES AND CALL FOR PAPERS

- **Track – 01:** Structural Optimization: Size, Shape, and Topology
- **Track – 02:** Design and Optimization of Materials and Metamaterials
- **Track – 03:** Multiscale and Multiphysics Problems
- **Track – 04:** Metamodeling or Surrogate Modeling
- **Track – 05:** Systems Design and Optimization
- **Track – 06:** Machine Learning and Data Science in Optimization
- **Track – 07:** Mixed Integer and Linear Programming
- **Track – 08:** Evolutionary, Bayesian, Heuristic Optimization Techniques, and Quantum Algorithms for Optimization
- **Track – 09:** Uncertainty Quantification, Reliability, and Robustness in Design
- **Track – 10:** Optimization and Additive Manufacturing
- **Track – 11:** Industry Applications and Case Studies in MDAO
- **Track – 12:** Emerging Trends in Optimization, Online Optimization
- **Track – 13:** Optimization in Industry 4.0/Digital Twin/IoT/Smart Manufacturing
- **Track – 14:** Generative Engineering/ Design Synthesis
- **Track – 15:** Miscellaneous Topics

## PUBLICATION

Submitted full-length papers will be published by Springer in the form of Scopus-indexed book series.

Extended versions of some selected papers will be recommended to journals. The details are given on the conference webpage.

## IMPORTANT DATES

Last date of extended abstract	31 <sup>st</sup> August 2023
Notification of acceptance	15 <sup>th</sup> September 2023
Deadline for submission of full paper	3 <sup>rd</sup> October 2023
Deadline for early bird registration	15 <sup>th</sup> November 2023
Conference dates	6 <sup>th</sup> –8 <sup>th</sup> December 2023

## VENUE

Conference Centre, IIT Guwahati, Assam

## REGISTRATION

Early-bird registration\* (on and before 15 November 2023) details including 18% GST.

Category	Domestic (INR)	International (USD)
Students	4000	150
Post Docs	5000	180
Faculty / Start-up / Govt. Lab Employees	7500	250
Industry Participants	12000	300

\*After 15 November 2023, the registration fee will be increased by INR 1000 for all categories.



## BOARDING AND LODGING

Boarding and lodging facilities (Guest House or Hostel Rooms) will be provided for the selected participants on [self-payment](#) basis and on first come first serve basis. [No TA/DA](#) will be [provided](#). However, there will be [working lunch](#) and [tea/coffee](#) during breaks.

## SPONSORSHIP

Category	Sponsorship
Platinum	4 Lakh INR
Diamond	3 Lakh INR
Gold	2 Lakh INR
Silver	1 Lakh INR
Bronze	0.5 Lakh INR

The details are given on the conference website. [TIH IITG](#) [TIDF](#) will be a co-organizer of a session.

## PATRON

- [P. K. Iyer](#), Officiating Director, IIT Guwahati
- [Kota Harinarayana](#), Chairman, Design Division, AeSI

## CHAIRPERSON

- [K. S. R. Krishna Murthy](#), Head, Department of Mechanical Engineering IIT Guwahati

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## CONTACT US

For additional information and queries, email us at [ncmdao@iitg.ac.in](mailto:ncmdao@iitg.ac.in)

Conference webpage: <https://event.iitg.ac.in/ncmdao/>  
<https://www.ncmdao.org/>