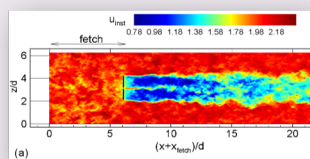


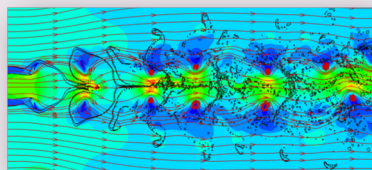
Online M. Tech. in Computational Mechanics

Introduction

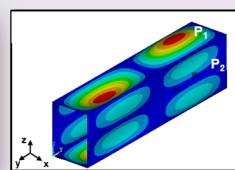
The online M. Tech. in Computational Mechanics is a unique program offered by the Department of Mechanical and Aerospace Engineering, started in August 2021, that will train students to solve multidisciplinary problems related to mechanical systems using computational techniques. Computational tools are ubiquitous in mechanical, aerospace and allied industries and form an integral part of the engineering design process today. Training in advanced computational techniques will greatly broaden the spectrum of opportunities available to graduates.



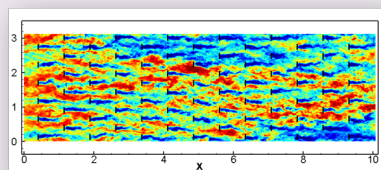
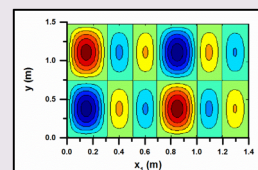
Large-eddy simulation of a multi-rotor wind turbine



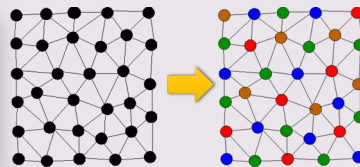
Computation of sprays and atomization



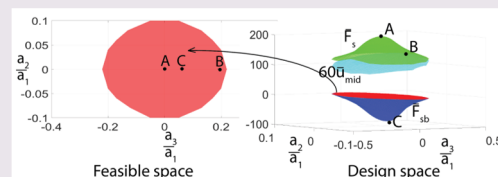
Duct and Equivalent Plate Mode Shapes



Turbine wakes simulation in large wind farms



CFD Solver Parallelization on CPU/GPU architectures



Design space and optimal profiles of bistable arches

The program combines elements of numerical methods and scientific computing with fundamental principles in solid mechanics, fluid mechanics, design and vibrations. Courses covering fundamentals of numerical analysis will be complemented with hands-on training using wide-ranging examples drawn from various domains of engineering. The program will benefit industry professionals looking to build expertise in the area looking to address technological challenges in industries in the automotive, oil and natural gas, renewable energy, defense and manufacturing sectors.

Eligibility

B. E./B. Tech. with first class (60%) in Mechanical, Aerospace, Civil or Chemical engineering or other equivalent degrees; AND should be currently working in industry with a minimum of 2 years of industry experience after B. Tech. The selection will be based on the candidates' background along with performance in a written test and/or interview, which will be conducted online between April-May 2023.

Duration and Structure

Option 1: M. Tech. (CM) with thesis - up to 4 years.

- Total 48 Credits (Course Credits: 24 + Thesis Credits: 24)
- Courses can be done over up to three years.
- Thesis will be done in the final year (maximum 4th year) after course work.

Option 2: Executive M. Tech. (CM) without thesis - up to 3 years.

- Total 24 Course Credits.
- Courses can be done over up to three years.

Online courses will be conducted separately from regular courses. Classes will be held in the evening and on weekends.

Students will do their project in their own industry. The project can be started only after coursework worth 24 credits is completed. During the project, each candidate will have a guide from IITH and may have another from his/her industry.

Important Dates

Applications Solicited: Starting 18 March 2023

Last Date to Apply: 23 April 2023

Selection Process Completed: 14 June 2023

Classes Start: 31 July 2023

Please check <https://www.iith.ac.in/academics/post-graduate/> for applying (starting 18 March 2023)

More Details

Curriculum, Courses, Fees:

<https://mae.iith.ac.in/MTechCompMech.html>

Contact Us:

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Dept. Of Mechanical and Aerospace Engineering, IIT Hyderabad