### Harshit Kumar Sandhu

Contact Information

Doctor of Philosophy (Pursuing) Department of Aerospace Engineering

Indian Institute of Science Bengaluru, Karnataka (India)

Research Interests Wave propagation in meta-materials, Vibrations, Computational mechanics, Fluid-structure interaction

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**EDUCATION** 

Indian Institute of Science, Bengaluru, Karnataka, India

Doctor of Philosophy in Aerospace Engineering

Jan 2020 - Present

Grade Point Average: 8.6/10

• Advisor: Prof. Rajesh Chaunsali

Government Engineering College, Raipur, Chhattisgarh, India

Bachelor of Engineering in Mechanical Engineering

June 2016

Grade Point Average: 7.99/10

• Thesis topic: "Design and Simulation of Hood Assembly of Electric Mini-Crane"

• Advisor: Lecturer Shashi Chichkhede

FIITJEE Junior College, Hyderabad, Andra Pradesh, India

Higher Secondary School (Board of Intermediate Education, Andra Pradesh) April 2012 Percentage: 78.68%

• Subjects studied: English, Physics, Chemistry, Mathematics and French

Kendriya Vidyalaya Sangathan, Kirandul, Chhattisgarh, India

Secondary School (Central Board of Secondary Education, India) Grade Point Average: 9/10

May 2010

• Subjects studied: English, Hindi, Social Science, Science and Mathematics

WORK EXPERIENCE Subject Matter Expert

THE GATE ACADEMY Pvt. Ltd., Bangalore

August 2019 – December 2019

Faculty

THE GATE ACADEMY Pvt. Ltd., Bangalore

September 2018 – July 2019

- Trained 2000+ GATE aspirants.
- Developed course material for the training program.
- Trained students of State Engineering Colleges (listed in NPIU) for GATE.

#### Vocational Trainee

Steel Authority of India, Bhilai, Chhattisgarh

August 2014

- Got introduced to various workshops of BSP-SAIL project, namely, Blast furnace, Coke Oven Battery, Steel Melting Shop, Machining Shop and Rolling mill.
- Learnt about the operations, functioning and some basic theory of the processes carried out at each workshop.

Honors and Awards

- All India Rank 53 in the national level Graduate Aptitude Test for Engineers (2019)
- Overall State Rank 625 in the state level Chhattisgarh Pre-engineering Test (2012)

#### Courses

- Academic coursework: Mathematical methods for Aerospace engineers, Vibrations, Finite element methods, Fluid Mechanics, Aeroelasticity, Fluid-structure interaction, Numerical solution of differential equation, Fluid Turbulence, Solid Mechanics (Audited)
- Independent coursework: Fluid-solid interactions (Coursera), The Finite Element Method for Problems in Physics (Coursera), Lectures on Continuum Physics (openmichigan)

#### TECHNICAL SKILLS

- Simulation and visualization softwares: OpenFOAM, MSC NASTRAN, ParaView
- CAD and meshing softwares: Creo Parametric
- Softwares for documentation: LaTeX, Microsoft Office Suite
- Programming and scripting languages: C++, MATLAB, Python
- Operating systems : Ubuntu, Windows

## Professional Memberships

Society of Industrial and Applied Mathematics (SIAM) (2021 - present)

# HOBBIES

Listening music, playing keyboard, photography, reading spiritual books, trekking and also very passionate towards teaching