GOPAL AGARWAL

PROFILE

A quick learner and an active listener willing to gain a strong foundation in computational mechanics, solid modelling and simulations. With a focus also on machine learning towards a career in development and integration.

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+49 1521 7730515

Gopal Agarwal

Gopal Agarwal

Indian

Male

LANGUAGES

Hindi ●●●●●

English ●●●●●

German ●●●○○

EXPERIENCE

10/2022 – ongoing – *RDBT/VD-CVT/TTM, Continental Reifen Deutschland GmbH, Hannover*

Master Thesis (10/22-03/23), Supervisor: Dr. Ing. André Lutz

Intern (04/23-ongoing) Supervisor: Dr. Ing. André Lutz

Framework development for automatic hexahedral mesh generation for tire tread patterns and improvement in contact pressure distribution for tire footprint simulation.

05/2022 –09/2023 – *IBNM, Leibniz Universität Hannover*

HiWi (Research Assistant)

Working on poroelasticity and viscoelasticity of hydrogels using FEnics and Python.

12/2021 – 02/2022 – *IRZ, Leibniz Universität Hannover*

HiWi (Research Assistant)

Worked on uncertainty quantification, developed algorithms and codes for reliability analysis.

07/2019 – 03/2021 – *SEZ-Px4, Reliance Industries Ltd.*

Maintenance Engineer

Establish maintenance strategy in a team for improving productivity. Prepare data and information for making regular maintenance and spares report, data analysis.

05/2018 – 07/2018 –*Department of Mechanical Engineering, IISC Bangalore*

Research Intern

Work under the guidance of Prof. Saptarshi Basu on the project- Acoustic Characterization of a High Shear Injector.

12/2017 – 01/2018 - *TATA Steel Kalinganagar*

Intern

Work on the project- Review of Energy Source Identification and study on hydraulic systems.

05/2016 – 06/2016 - *ICMPL, Sipcot Industrial Park*

Intern

Familiarization of the plant operations and departments, and management overview of the production process.

EDUCATION

04/2021 – ongoing

M.Sc. Computational Methods in Engineering

Leibniz Universität Hannover

Grade – **1.5/5** | (Best Grade – 1.0)

08/2015 – 04/2019

B.E. Mechanical Engineering

Jadavpur University

CGPA – **8.52/10** | (Best Grade – 10.0)

05/2014 – 04/2015

Indian School Certificate

M.C. Kejriwal Vidhyapeeth

Percentage –**91.25%**

PUBLICATIONS

- 'A Study on Low Velocity Impact Behaviour of Functionally Graded Sandwich Conical Shell Under Thermal Environment', DOI:10.1115/GTINDIA2021-73468, Dec 2021, ASME 2021 Gas Turbine India Conference
- 'Free Vibration Analysis of Functionally Graded Sandwich Conical Shell Using FSDT', DOI:10.1115/GTINDIA2021-73468, Nov 2021, Recent Advances in Computational and Experimental Mechanics, Vol—I (pp.31)
- 'Experimental Study of Static and Dynamic Load Test of Railway Wagon Bogie', Aug 2021, Progressive Research in Industrial & Mechanical Engineering (PRIME - 2021)
- 'Investigation of Torsional Stability and Camber test on a Meter Gauge Wagon' paper presented in ISTAM 2018 conference and published in Springer book title 'Advances in Fluid Mechanics and Solid Mechanics'. (DOI: 10.1007/978-981-15-0772-4_24)
- 'Optimization of the stress discontinuity value at the interface of a cylindrical stainless-steel substrate and electroless Ni-P coating' paper published in Material Research Express. (DOI: 10.1088/2053- 1591/ab431c)
- 'Free Vibration Characteristics of Sandwich Conical Shells with FGM Face Sheets: A Finite Element Approach' paper published in ASME GT India 2019 conference. (DOI: 10.1115/GTINDIA2019-2545)
- 'Time Dependent Low Velocity Impact Response of Turbomachinery Blade Made of Porous Exponential FGM' paper published in ASME GT India 2019 conference. (DOI: 10.1115/GTINDIA2019-2785)
- Compression, tension & lifting stability on a meter gauge flat Wagon: an experimental approach published in Australian journal of mechanical engineering. (DOI: https://doi.org/10.1080/14484846.2020.1775007)

TECHNICAL SKILLS

- Python
- Microsoft Office
- PyTorch
- FEnics
- C++ Programming
- Java
- AutoCAD
- MATLAB
- CREO
- Gmsh
- OpenFoam
- Ansys

EXTRA-CURRICULAR

- Completed Finite Element course in coursera by University of Michigan.
- Completed Machine Learning course in coursera.
- Participated in an aircraft's workshop and designed a remote operated plane.
- President of the Jadavpur University ISHRAE chapter 2018-19 and Secretary of the Jadavpur University ISHRAE chapter 2017-18.
- Gold medallist for the Zonal topper of the Kolkata region in physics in the FTRE exam.