DIVYANSHU GARG

Department of Mechanical Engineering
Indian Institute of Technology, Ropar
Specialization: **Computer Integrated Manufacturing**

Undergraduate 3[3d] Year
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EDUCATION

Qualifications	University	Institute	Year	GPA - %Marks
B.Tech	IIT Ropar	IIT Ropar	2018-Present	7.39/10
Intermediate/+2	CBSE	JVM, Ranchi	2018	88.6/100
Matriculation	ICSE	BWBS, Ranchi	2016	94.4/100

INTERNSHIPS

Development of a Three-Wheeler Hydrogen powered vehicle
(Under Dr.Dhiraj K. Mahajan, Associate Professor, IIT Ropar)

- The projects aim to make a three-wheeled Hydrogen powered vehicle with very high mileage.
- Design of the body of the vehicle such that it has a minimum drag and the chassis of the vehicle such that it is of minimum possible weight without compromising its strength.
- Design of the drive train of the vehicle. (Oct.2019 – Ongoing)

KEY ACADEMIC PROJECTS

Effect of Micro Pin-Fin Shape on Thermal Performance of Micro Pin-Fins Heat Sinks
(Under Dr.Anupam Agarwal, Associate Professor, IIT Ropar)

- The project aims to evaluate the effects of different shapes of Micro Pin-Fins (Having the same area) on its thermal performance as a Heat Sink. (Oct 2019 – Mar 2020)

Development of Real-Time Railway Track Crack Detection System
(Under Dr.Himanshu Paliwal, Assistant Professor, IIT Ropar)

- This project aims at developing an automatic railway track crack detection system which works along with the running train to stop its derailment. (Aug 2019 – Dec 2019)

Calculating the surrounding conditions (like Temperature, Relative Humidity and AQI) in an ICU most optimal for a patient suffering with corona virus.
(Under Dr.Navin Gopinathan, Assistant Professor, IIT Ropar)

- The project aims in calculating the best surrounding conditions of an ICU for a patient suffering with Covid-19 virus to help their speedy recovery. The project also aims to help building the most optimal negative pressure by the help of those surrounding conditions. (Apr 2020 – Jun 2020)

Development of a software to utilize CFD in simulating body fluids.
(Under Dr.Javed.N.Agrewala, Assistant Professor, IIT Ropar)

- This project aims at develop a software to assist the doctor in simulating the flow of different fluids in human body, and to bridge the gap between a Mechanical engineer and a Doctor
- This software would assist the doctor in planning an operation or selecting a prosthetic/related machine suitable for a specific person. (Mar 2020 – May 2020)

COMPETITIONS PARTICIPATED

- **2[nd] prize in the HY-Contest, 2019 conducted by the Hydrogen Association of India at a National Level.**
- 2[nd] prize in intra college speed design contest on Solidworks
- 1[st] prize in intra college design and innovation contest using Solidworks
- 3[rd] prize in inter-college design and innovation contest using Solidworks in a team of 5 (in which most of the opponents were from M.Tech or M.Sc.).
- **Participated in AAKRUTI Contest conducted by Dassault Systemes.**
- Developed a robot for robowars competition at an inter-college level.

CERTIFICATIONS

- Certified as a Mechanical Design Associate by Dassault Systemes (Certification earned by passing the CSWA exam conducted by Dassault Systemes, with a score of 240/240).
- MATLAB Training Certificate.

WORKSHOPS AND SEMINARS ATTENDED

- **Attended the 8th International Hydrogen and Fuel Cell Conference, 2019. Held in Mumbai from 7th Dec 2019 to 10th Dec 2019 (Got pass by winning the HY Contest).**

TECHNICAL SKILLS

Skills:

1. CAD/CAM and ANSYS Simulations
2. Web Development

Software:

1. SolidWorks: : Certificates: https://drive.google.com/open?id=11FRGydTef0CZ9OsRyhdyy0R3tdSE2r7p
2. ANSYS
3. Catia
4. Siemens NX

Programing/Languages/Scripts:

1. C/C++
2. JAVA
3. MATLAB & Simulink: Certificates: https://drive.google.com/open?id=17ZsqccVL_eFpfjgir0kWKkww00RGPe65
4. HTML
5. CSS
6. JavaScript
7. Arduino IDE

Operating Systems:

1. Windows
2. Linux(Ubuntu)
3. Raspberry pi OS (Raspbian)

RELEVANT COURSES

Engineering Mechanics	Solid Mechanics	Introduction to Computer Programing	Engineering Drawing
Machine Drawing	Thermodynamics	Introduction to Metallurgy and Material Science	Fluid Dynamics (Currently Studying)
Theory of Machines (Currently Studying)	Biology for Engineers (Currently Studying)	Linear Algebra	Calculus
Differential Equations	Probability (Currently Studying		

OTHERS

- Event Head of Computer Integrated Manufacturing online design contest Invento at college technical fest.
- Volunteer for BAJA SAE India, 2019 IIT Ropar Edition.
- Secured All India Rank 5515, (Top 0.5%) in JEE-Advanced, 2018 (Conducted by IITs)
- Was among top 0.02% (Out of nearly 1.4 million candidates) in JEE-Main, 2018.
- Part of the Event management team at college cultural fest.
- Part of college badminton team, and was the 2nd prize-winning captain in the college badminton competition.
- Member of Society of Mechanical Engineers (SME), IIT Ropar