Parv Goel

Third Year Undergraduate
Department of Mechanical Engineering

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Academic Qualifications

Year	Degree/Certificate	Institute	CPI/%
2020-present	B.Tech	Indian Institute Of Technology,Kanpur	8.08
2020	CBSE(XII)	B.C.M. Arya Model School,Ludhiana	93.8%
2018	CBSE(X)	B.C.M. Arya Model School,Ludhiana	96%

Scholastic Achievements

- Secured an **All India Rank Of 1834** in **JEE Advanced 2020** among the 1.5 Lakh shortlisted candidates.
- Secured an **All India Rank Of 10955** in **JEE Mains 2020** among 1 million applicants across India.
- Received the **Award Of Honour** for exceptional academic performance in 2017-18 academic session.

Work Experience

Engine Research Laboratory, IIT Kanpur | *Instructor: Prof. Avinash Kumar Agarwal*   *Oct 22'- ongoing*

- Computer aided design modeling of intake manifold for the **Single Cylinder Optical Research Engine**.
- Computer aided design modelling of intake port, exhaust port, intake and exhaust valves of a **Compression Ignition** engine.
- Data aquisition using **current clamp and oscilloscope** to verify injection timing in Single Cylinder Research Engine.
- Developed MATLAB programme for **Heat Release Rate** calculation from Pressure vs Crank Angle data for SCRE.
- Assisted PhD student in **Constant Volume Combustion Chamber** using **Laser Ignition of gaseous fuel** experiment.

Key Projects

Viscometery of Glycerine | *Instructor: Prof. Manjesh Kumar Singh* (Course Project)   *Mar 22'-Apr 22'*

- Constructed a **1.8m long, 0.2m wide and 0.01m deep** static channel for glycerine using **PVC Foam Sheets**.
- Allowed the plank to be pulled by a freely falling predetermined mass under gravity through a thread passing over a pulley.
- Analysed motion of the floating plank and used Mathematical modelling and Approximations to obtain its terminal velocity.
- Calculated viscosity of the fluid using **Newton's Viscous Force Formulae** by plugging in various experimental parameters.
- Compared the calculated viscosity with theoretical value from literature and explained some of the possible sources of error.

Design Anti-Vibrational Mount | *Instructor: Prof. Anindya Chatterjee* (Course Project)   *Oct 21'-Nov 21'*

- Acquired knowledge about various components of an **Anti-Vibrational Mount** *(Yoke plate, Center Body, Bushings, Cotter pin)* and studied its possible applications in various domains of mechanical engineering and machine components.
- Designed various components on Autodesk Fusion 360 Design tool separately and put together to a single unit.
- Prepared an Engineering Drawing of the produced parts using Autodesk Fusion 360 Drawing tool.

Technical Skills

- **Programming Languages:** C, C++, MATLAB, Python, LaTeX
- **Software and Libraries:** Micro-Cap, Autodesk Fusion 360, MS Word, MS Excel, MS PowerPoint

Relevant Courses

Introduction to IC Engine	(**A***)	Advanced Mechanics Of Solids
Fluid Mechanics	(**A***)	Thermodynamics
Energy Systems	(**A***)	Engineering Design and Graphics
Refrigeration And Cooling Systems	(**A**)	Introduction to Electronics
Nature and Properties of Material	(**A**)	Introduction to Electrical Engineering
Mechanics Of Solids	(**A**)	Dynamics
Manufacturing Processes(I & II)		Introduction to Computing

Extra-Curricular Activities

- Volunteered at Seventh International Society for Energy, Environment and Sustainability International Conference at IIT Varanasi.
- Participated in **Shooting Workshop** *(organised by Games and Sports Council)* and shot with **60%** accuracy.
- Participated in 5 km long Dr. Arbind K. Lal memorial Walkathon organised by Women Association.
- Member of **Team-BHP** automotive forum.