



ACADEMIC DETAILS

Year	Degree / Board	Institute	GPA / Marks(%)
2021	M.Tech in Production Engineering	Indian Institute of Technology, Delhi	8.909
2012	Uttar Pradesh Board	B.S.N.V Inter College, Lucknow	79.40 %
2010	Uttar Pradesh Board	Shanti Shiksha Niketan, Rajajipuram	69.50 %

DEGREES PRIOR TO IIT

Year	Degree	Institute	GPA / Marks(%)
2017	Bachelor of Technology (Mechanical Engineering)	Dr. APJ Abdul Kalam Technical University	77.30 %

IIT DELHI THESIS

Fabrication & Testing of Ballistic Material for Bullet Resisting Solution

Supervisor: Prof. Naresh Bhatnagar, Mechanical Engineering Department, IIT Delhi

Description: - based on Polymer Composite: fabrication of **UHMWPE (Ultra High Molecular Weight Polyethylene)** Bullet Proof panel by using Vacuum-assisted compression molding machine

Testing will be conducted on the **Gas gun** by using brass and HSC **bullets** and simulation work done on **LS-DYNA**

Fabrication of **Mechanical drop test apparatus** on the basis of NIJ Standard-0101.07 for testing of ceramic (B_4C) tiles

PROJECTS

- **Bin Packing Problem** (Prof. P V M Rao) (Jan, 2020 - Aug, 2020)
The objective of different weight must be packed into a finite number of trucks each of given weight capacity in such a way that minimizes the number of trucks using the Heuristic approach in Python
- **Design and Test Analysis of Split Hopkinson Pressure Bar** (Prof. Naresh Bhatnagar) (Aug,2020 - Dec,2020)
Design the pressure bar (striker, incident and transmitted bar) through 1-D wave theory and after testing of composite material at SHPB, test analysis of High strain rate data was done through MATLAB
- **2D Transient Heat Conduction in the FGMs Material** (Prof. P M Pandey) (Mar, 2020 - Jun, 2020)
Solved the optimization problem of heat transfer on various geometry with given boundary conditions using MATLAB
- **Design Optimization of Mechanical Components** (Prof. P M Pandey) (Jan, 2020 - Apr, 2020)
Solved the problem for pressure-vessel manufacturing cost and spring weight optimization using the fmincon and Genetic algorithm in MATLAB
- **Magnetic Pulse Welding** (Prof. S Aravindan) (Aug, 2019 - Oct, 2019)
Developed setup for MPW in Lab, generate electromagnetic force through cylindrical solenoid and Capacitor pulse to join thin sheet of conductive material
- **Designed and Fabricated light-weight Go-Kart** (Asst. Prof. Ankur Verma) (May, 2015 - Sep, 2016)
Co-founded the racing team and fabricated lightweight Go-Kart (Four-wheel vehicle) with the optimized performance of power train and also did optimization for strength, weight, cost and aesthetics of Go-Kart

INDUSTRIAL TRAINING

- **Training in Maruti Suzuki** under Ministry of Skill Development & Entrepreneurship (Feb, 2016 - Apr, 2016)
- **Indian Railway Diesel Shed and Locomotive:** Periodic Overhauling of railway Bgies (Jun, 2016 - Jul, 2016)

TECHNICAL SKILLS

- **Designing and Simulation software:** Solid Work, Creo, ANSYS, LS DYNA, ABAQUS
- **Programming Skills:** MATLAB, Basic of Python programming, Python Data Structure
- **Hand on Experience:** SEM, SLS, CNC Milling, Waterjet cutting, Gas-gun, Vacuum compression molding m/c, Autoclave

POSITIONS OF RESPONSIBILITY

- **Maintenance Secretary** of IIT Delhi Hostel (Aug, 2019 - Aug, 2020)
- **Teaching Assistant** for MCP101 and MCP331 course, IIT Delhi (Jul, 2019 - Mar, 2020)
Helped students in lab practice and guided them in their term project, conducted test and Doubt clearing sessions
- **Lead College Go-Kart Team** (Jan, 2016 - Oct, 2016)
Guided 19 members team, to design and fabrication of racing car and also headed Brake and Finance department

EXTRA CURRICULAR ACTIVITIES

- **YouTube** content creator (channel name: **Mansingh Yadav**), based on Social issues and National policies [2020]
- **OCS Volunteer** Worked for Office of Career Services, IIT Delhi [2019]
- **NSS Activities** worked in different social activities with NSS team [2020]
- **NCC Cadet of 67 UP BN** Training under Combined Annual Training Camp No. 214 [2012]