

Sumit Choudhary

PhD - Machine Design (*Pursuing*)
Indian Institute of Technology Roorkee
Uttarakhand India - 247667
Contact No: +91-9045615742
E-mail: sumitmech2k15@gmail.com



Research Interests:

Fatigue & Fracture Analysis, Additive manufacturing, Plasma spray coating, Material characterization

Educational Detail:

Name of Exam Passed	Name of Institution/University	Duration of Course (Year)	Full Time/ Correspondence	Date of Passing	Percentage of Marks obtained
Matriculation	CBSE	1	Full Time	2008	69
Intermediate	CBSE	1	Full Time	2010	70
B.Tech	GBPEC Pauri Gharwal	4	Full Time	2015	81.66
M.Tech	IIT Patna	2	Full Time	2020	9.32 (CPI)

Current Study:

- To find Out the Near-threshold Property and fracture behavior of Nickel based high entropy alloy at various stress ratio i.e. R-ratio.
- To predict the fatigue life (high & very high) of additively manufactured component at various mean stress level.

Publications:

- K.K. Pandey, R.K. Singh, A. Rahman O.S, **S. Choudhary**, R. Verma, A. Keshri., 2020 “Insulator-Conductor Transition in Carbon Nanotube and Graphene Nanoplatelets reinforced Plasma Sprayed Alumina Single Splat: Experimental evidence by Conductive Atomic Force Microscopy”. *Ceramics International, SCI, IF 3.450, Elsevier*.

Summer Internship:

- 3 weeks of technical training at **THDC India Limited (Rishikesh, Uttarakhand)** about **Design of hydro power plant** in B.Tech 3rd Year 2014
- 3 weeks of technical training at **THDC India Limited (Tehri, Uttarakhand)** about the **Plant Overview** in B.Tech 2nd year 2013.

Institute Project (B.Tech): Institute – G. B. Pant Engineering College, Pauri Gharwal (Uttarakhand) - 246194

- Effect of Heat treatment (quenching in different medium with varying temperature) on tensile strength of Al-7075 alloy.

(Supervisor: Dr. Sanjay S. Samant)

Master's Thesis:

- Plasma sprayed Lanthanum Zirconate Thermal Barrier Coating over additively manufactured carbon nanotube reinforced Ni-based composite components.

(Supervisor: Dr. Anup Kumar Keshri)

Teaching Assistantship: (At IIT Patna)

- Plasma spray and coating lab
- Mechanical testing lab

Rewards and Achievements:

- **College Merit scholarship** in B.tech 2nd, 3rd and 4th year for holding 3rd rank in the class.
- **2nd Rank** (total 10 students) in the M.Tech 2018-20 batch
- **Masters' Representative** 2019-20 (Gymkhana member)
- Poster presented on "9th Research Scholar's Day 2020, Indian Institute of Technology Patna
- Achieved Second Position in "**Verve**" (**Fashion Show**) at annual techno-cultural fest **Anvesha 2k19 (IIT Patna)**.
- Awarded as **Mr. Fresher** (PG-2019) in **Nebula-2019** (The Freshers Party welcomes the freshmen into the college)



(Sumit choudhary)