Jagdish Rana

✉ Department of Mechanical and Industrial Engineering, Indian Institute of Technology Roorkee, Roorkee - 247 667, India

☎ 8171343261

🌐 https://fame-iitr.in/members/

@ jagdish.me@sric.iitr.ac.in
jagdishrana025@gmail.com

Skills

Mechanical Characterization

Mechanical Testing

Thermomechanical Fatigue

(*)[The skill scale is from 0 (Fundamental Awareness) to 6 (Expert).]

Interests

Mechanical Testing, Themomechanical Fatigue, Creep fatigue interaction , Materials Characterization

Education

Cuurently	IIT Roorkee	JRF
	Working on thermomechanical fatigue and creep fatigue interaction of AUSC turbine rotor and casing	
2018-2020	M.Tech in Machine Design	NIT Uttarakhand
	To prepare a physical terrain model of a Natural World Heritage Site (e.g Valley of Flowers National Park) into 3D STL part for additive fabrication using GIS data.	
2011-2015	B.Tech in Mechanical Engineering	GEU, Dehradun
	Development of Thermal Eco Vehicle.	

Publications

2020	Rana, J., Agrawal, S,. (2020). Physical model of terrain by using different file format: A review. International Conference on Inovative Engineering Design-ICoIED 2020, Dehradun.

Awards and Fellowships

2019	Bronze medalist in intra NIT Table Tennis contest
2018	MHRD fellowship for M.Tech from NIT Uttarakhand
2013	Secured 2nd position in material science quiz test in 2013

Experience

Cuurently	IIT Roorkee	JRF
	Working on thermomechanical fatigue and creep fatigue interaction of AUSC turbine rotor and casing	
2023	IIT Mandi	JRF
	Worked on 3D Printing of continuous carbon fiber reinforced polymer composite fabricateed by Fused Filament Fabrication process	
2021-2022	Smt. S. R. Patel Engineering College, Unjha Gujarat	Assistant Professor

Professional Skills

- Mechanical Testing
  Tensile Test, Compression Test, Hardness Test, Flexural Testing, Impact Test, Thermo-mechanical Fatigue, Creep fatigue interaction testing.

- Mechanical Characterization
  Optical Microscopy, Scanning Electron Microscopy (SEM), Electron Back Scattered Diffraction (EBSD), Chemical Composition.

- Softwares
  MATLAB, PYTHON, SOLID WORKS, CATIA V5