



Manoj Singh Bisht

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🌐 <https://fame-iitr.in/members/>

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Skills

Mechanical Characterization

Mechanical Testing

Crystal Plasticity

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

Interests

Mechanical Testing, Fatigue, Materials Characterization, Crystal Plasticity

Education

2020-	Ph.D. candidate in Mechanical Engineering <i>Fatigue behavior of additively manufactured SLM AISi10Mg</i>	IIT Roorkee
2015-2017	M.Tech in Machine Design Fatigue behavior of Advanced High Strength Steel	NIT Raipur
2010-2014	B.Tech in Mechanical Engineering Development of a solar-powered bicycle.	GGSIPIU, Delhi

Publications

2022	Bisht, Manoj Singh, Vidit Gaur, and I. V. Singh. "On mechanical properties of SLM Al-Si alloy: Role of heat treatment-induced evolution of silicon morphology." <i>Materials Science and Engineering: A</i> 858 (2022): 144157. https://doi.org/10.1016/j.msea.2022.144157
2019	Majumdar, S., A. D. Gandhi, and M. S. Bisht. "Low cycle fatigue behaviour of a ferritic steel strengthened with nano-meter sized precipitates." <i>Materials Science and Engineering: A</i> 756 (2019): 198-212. https://doi.org/10.1016/j.msea.2019.04.043

Awards and Fellowships

2020	MHRD fellowship for Ph.D. from IIT Roorkee
2015	MHRD fellowship for M.Tech from NIT Raipur

Experience

2017-19	KIET Ghaziabad Department of Mechanical Engineering.	Assistant Professor
2016-2017	Research & Development Center, TATA Steel Studied the fatigue behavior of a nano-precipitate strengthened ferritic steel	Research Intern

Professional Skills

- Mechanical Testing
Tensile Test, Compression Test, Hardness Test, Bend Test, Impact Test, Corrosion Test, Fatigue and Fracture Test.
- Mechanical Characterization
Optical Microscopy, Scanning Electron Microscopy (SEM), Electron Back Scattered Diffraction (EBSD), Chemical Composition.
- Softwares
MATLAB, DREAM3D, NEPER, Crystal Plasticity software: DAMASK, PRSIMS,