



Litton Bhandari

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Skills

Mechanical Characterization

Mechanical Testing

Softwares

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

Interests

Mechanical Testing, Fatigue, Fracture Mechanics, Materials Characterization.

Education

- 2020- Ph.D. candidate in Mechanical Engineering IIT Roorkee
Investigation of creep and fatigue behavior of additively manufactured Ti-6Al-4V alloys.
- 2017-2019 M.Tech in Materials Science and Engineering IIT Gandhinagar
Variability in fatigue life of near-alpha Titanium alloy.
- 2012-2016 B.Tech in Mechanical Engineering BTKIT, Dwarahat
Tensile test on pine needles and crack analysis of pine needles short reinforced composites.

Publications

- 2024 Pandey, A., Bhandari, L. and Gaur, V., 2024. Identification and optimization of material constitutive equations using genetic algorithms. *Engineering Applications of Artificial Intelligence*, 128 p.107534. <https://doi.org/10.1016/j.engappai.2023.107534>
- 2023 Bhandari, L. and Gaur, V., 2023. Different post-processing methods to improve fatigue properties of additively built Ti-6Al-4V alloy. *International Journal of Fatigue*, p.107850. <https://doi.org/10.1016/j.ijfatigue.2023.107850>
- 2023 Bhandari, L. and Gaur, V., 2023. A study on dwell-fatigue behavior of additively manufactured Ti-alloy. *Engineering Failure Analysis*, p.107423. <https://doi.org/10.1016/j.engfailanal.2023.107423>
- 2022 Bhandari, L. and Gaur, V., 2022. On study of process induced defects-based fatigue performance of additively manufactured Ti6Al4V alloy. *Additive Manufacturing*, 60, p.103227. <https://doi.org/10.1016/j.addma.2022.103227>
- 2021 Bhandari, L., Kumar, J., Balasundar, I. and Arora, A., 2021. Variability in Fatigue Life of Near-alpha Titanium Alloy IMI 834. *Transactions of the Indian Institute of Metals*, 74, pp.979-989. <https://doi.org/10.1007/s12666-021-02210-z>

Awards and Fellowships

- 2023 Best poster award in Research Scholar's Day 2023, IIT Roorkee.
- 2022 Best poster award in International Conference AMPCO'22.
- 2017-19 Ministry of Education, Government of India Fellowship.

Experience

- 2018-19 Defence Metallurgical Research Laboratory Project Fellow
Worked in the field of mechanical behavior of materials and materials characterization.
- 2020-23 IIT Roorkee (DRDO Project) Research Fellow
Investigated the fatigue and creep behavior of additively manufactured alloy.

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
AutoCAD, SolidWorks, Ansys, ABAQUS, MATLAB, MS-Office, Origin.