



Chitresh Chandra



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Skills

Mechanical Characterization



Mechanical Testing



Material Management



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

Interests

Mechanical Testing, Fatigue, Materials Characterization, Heat treatment studies

Education

- 2023-till now Ph.D. candidate in Mechanical Engineering IIT Roorkee
Investigation on Monotonic and Cyclic Performance of Novel Ni-free Mn based Maraging Steel.
- 2020-2022 M.Tech in Materials Technology NIT Warangal
Creep-Fatigue Crack Growth Behaviour of P91 Steel.
- 2015-2019 B.E. in Mechanical Engineering SSGI Bhilai
Application of Rockwool insulation material - A case study.

Publications

- 2022 Chandra, Chitresh, G. R. Kiranchand, Challa Krishna Teja, B. Srinivasa Rao, M. Nani Babu, and N. Narasaiah. "Effect of force ratio on creep-fatigue crack growth (CFCG) of P91 steel." *Journal of Materials Science* 57, no. 30 (2022): 14478-14489. <https://doi.org/10.1007/s10853-022-07521-0>
- 2024 Krishna Teja, Challa, Kiranchand GR, Chitresh Chandra, M. Nani Babu, and N. Narasaiah. "Crack tunnelling analysis of P91 steel under creep-fatigue loading with various force ratios and hold times at 600 °C." *Materials at High Temperatures* 41, no. 3 (2024): 399-408. <https://doi.org/10.1080/09603409.2024.2327738>
- 2024 Chandra, Chitresh, G. R. Kiranchand, Challa Krishna Teja, B. Srinivasarao, M. Nani Babu, and N. Narasaiah. "Crack growth behaviour of P91 steel under trapezoidal loading at high temperature." *Procedia Structural Integrity* 60 (2024): 165-176. <https://doi.org/10.1016/j.prostr.2024.05.038>

Awards and Fellowships

- 2023 PMRF fellowship for Ph.D. from IIT Roorkee
- 2023 MHRD fellowship for Ph.D. from IIT Roorkee
- 2020 MHRD fellowship for M.Tech from NIT Warangal

Experience

- 2022 MSME Department, IIT Hyderabad Junior Research Fellow
High Entropy Carbide Based Cutting Tool Inserts.

Professional Skills

- Mechanical Testing
Tensile Test, Compression Test, Hardness Test, Impact Test, Fatigue and Fracture Test.
- Mechanical Characterization
Optical Microscopy, Scanning Electron Microscopy (SEM), Electron Back Scattered Diffraction (EBSD), X-Ray diffraction analysis (XRD)
- Softwares
Auto CAD, Catia, ANSYS, Origin, MS Office