

SEELAM RAJASEKHAR REDDY

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BRIEF BIO

Currently, I am working as an Institute Post-doctoral Fellow in the Department of Materials Science and Engineering at Indian Institute of Technology Kanpur. I joined IIT Kanpur in March 2021. Prior to joining IIT Kanpur, I worked as Adhoc Faculty in the Department of Metallurgical and Materials Engineering at NIT Andhra Pradesh, India. I obtained my B.Tech. (2013) in Metallurgical Engineering from JNTUH College of Engineering Hyderabad and MTech (2016) + Ph.D. (2020) from IIT Hyderabad, under the supervision of [Prof. Pinaki Prasad Bhattacharjee](#) in the area of thermomechanical processing of High entropy alloys. I have a strong motivation for teaching, research and development. I have a strong desire to pursue research in high strength materials and their applicability for advanced applications through novel processing techniques.

Apart from academics and research, I love reading newspaper, watching cricket and movies for a change. I love farming and exploring new places.

PROFESSIONAL EXPERIENCE

- **Institute Post-doctoral Fellow** (March 2021 to till date)
Dept. of MSE, IIT Kanpur, India
- **Adhoc Faculty** 8 months (August 2020 to March 2021)
Dept. of MME, NIT AP, India
- **Institute Post-doctoral Fellow** 6 months (January 2020 to July 2020)
Dept. of MSME, IIT Hyderabad, India
- **Graduate Engineer Trainee** 1 year (July 2013 to July 2014)
Rane Brake Lining Limited, Hyderabad, India

EDUCATION

Degree	Board/University	Year of study	GPA/ Percentage
Ph.D. in MSME	IIT Hyderabad, India	2016-2020	GPA: 9.5/10
M.Tech. in MSME	IIT Hyderabad, India	2014-2016	GPA: 9.1/10
B.Tech. in Metallurgical Engineering	JNTUH CE Hyderabad, India	2009-2013	83.17 %
Intermediate (12 th)	Board of Intermediate Education	2007-2009	95.40%
SSC (10 th)	Board of Secondary Education	2006-2007	91.33%

PROFESSIONAL AFFILIATIONS

- **Life Member**, Electron Microscopy Society of India (**EMSI**), registration no. LM 1730
- **Life Member**, Powder Metallurgy Association of India (**PMAI**), registration no. PMAI 1551086937
- **Student Member**, Indian Institute of Metals (**IIM**), registration no. ST01-53741 (2015-2021)

EXPERTISE

- Thermomechanical processing, materials processing (hot/cold rolling, ARB)
- Materials characterization by electron microscopy (SEM, EBSD, EDS & TEM) and X-ray diffraction
- Texture in metals and alloys (micro texture through EBSD, Thin film XRD)
- Mechanical testing (High temperature tensile, Micro Vickers hardness)

RESEARCH INTERESTS

- Mechanical behaviour of materials
- Alloy design and microstructural control in high entropy alloys and composites
- Creep and superplasticity in nanostructured materials

INTERNATIONAL JOURNAL PUBLICATIONS (**total 16 publications**) selected publications are here

- **S.R. Reddy**, S. Yoshida, T. Bhattacharjee, N. Sake, A. Lozinko, S.Guo, P.P. Bhattacharjee, N. Tsuji, Nanostructuring with Structural-Compositional Dual Heterogeneities Enhances Strength-Ductility Synergy in Eutectic High Entropy Alloy, *Scientific Reports* 9 (2019) 1155.
- **S.R. Reddy**, S. Yoshida, U. Sunkari, A. Lozinko, J. Joseph, R. Saha, D. Fabijanic, S. Guo, P.P. Bhattacharjee, N. Tsuji, Engineering heterogeneous microstructure by severe warm-rolling for enhancing strength-ductility synergy in eutectic high entropy alloys, *Materials Science and Engineering: A* 764 (2019) 138226.
- **S.R. Reddy**, M.Z. Ahmed, G.D. Sathiaraj, P.P. Bhattacharjee, Effect of strain path on microstructure and texture formation in cold-rolled and annealed FCC equiatomic CoCrFeMnNi high entropy alloy, *Intermetallics* 87 (2017) 94–103.
- **S.R. Reddy**, S. Bapari, P.P. Bhattacharjee, A.H. Chokshi, Superplastic-like flow in a fine-grained equiatomic CoCrFeMnNi high-entropy alloy, *Materials Research Letters* 5 (2017) 408-414.

AWARDS AND RECOGNITIONS

- International Travel Grant for attending RexGG2019 International Conference held in Belgium from Indian Institute of Technology, Hyderabad, India, 2019.
- Best Poster Award in Advanced Materials Category at NMD-ATM of IIM, Kolkata, India (2018)
- Senior Research Fellowship from MHRD, India for Ph.D. (2016-2020)
- Excellence in Research Award for the year 2016 on the occasion of Foundation day from IIT Hyderabad
- All India Rank 226, Graduate Aptitude Test in Engineering (GATE) in Metallurgical Engineering (2013)

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