

## Faculty Profile

Name: **Dr. Barla Madhavi**  
Designation: Assistant Professor  
Teaching Areas: Design, Modelling and Manufacturing  
Research Interests: Design, Modelling and Simulation in Friction Stir Welding  
Education: Ph.D. (Welding0, Bits-Pilani, Hyderabad Campus, Hyderabad -2018  
M.E (CAD/CAM) Gitam, Vizag -2006  
B.Tech (Mechanical Engineering) -V.R.Siddhartha Engg College, Vijayawada-2001



### Professional Experience (Total: 15 years Inclusive of Teaching and Industrial)

1. 2004-2009: Faculty Member, Icfai Tech, Hyderabad.
2. 2009-2018: Faculty Member, Bits-Pilani, Hyderabad Campus, Hyderabad.
3. 2018- Till Date: Assistant Professor, IFHE, FST, Hyderabad.

### Research / Selected Publications:

#### List of Journal Publications

1. Madhavi, B., Jeevan. J., and Karthik Teja M., "Heat and Material Flow Effects on the Microstructures and Hardness in Friction-Stir Welded Joints." Procedia Engineering, vol. 86,2016, pp.209-214. (DOI: 10.1016/j.proeng.2014.11.030; Citations=1)
2. Madhavi B., Jeevan J., "Influence of Strain Hardening Behaviour in Friction Stir Welded Joints of Aluminium-alloy Plates", Materials Today: Proceedings, vol. 5, Issue 2P1 (2018), pp. 3851-3860.
3. Madhavi, B., and Jeevan .J. "Experimental and Numerical Studies of Tool Geometry Effects on Mechanical Properties and Stresses in Friction Stir Welded Joints", (to communicate).
4. Madhavi, B., and Jeevan. J. "Optimization of Friction Stir Welding process of AA5052-H32 using Taguchi OA", (under review).
5. Madhavi, B., Jeevan J., "An assessment of microstructure, hardness, tensile and impact strength of FSW Al joints", Journal of scientific and industrial research- (communicated).
6. Madhavi, B., Jeevan J., "FE modelling for controlling residual stresses in Friction Stir Welds", Materials & Design-2017 .(communicated).
7. Madhavi, B., Jeevan J., Anvesh Krishna S., "Effect of tool-pin height on the mechanical properties of friction stir welded joints-AA5052-H32", Indian journal of engineering and material science(communicated).

#### List of Conference Publications

1. Madhavi B., Jeevan J, and karthik.Teja M, "Optimization Study of Friction Stir Welding Process Parameters and Nugget Properties of Aluminium-alloy", International Conference on Structural Integrity (ICONS-2014), IGCAR, Kalpakkam, India, February 4-7, 2014, pp. 129. (Citations=2)
2. Madhavi B., Anvesh Krishna S. and Jeevan J., "Finite Element Modelling of Friction Stir Welding Process to Study the Thermal Impact and Evolution of Stresses in Aluminium-alloy Plates", AIMTDR-2016, College of Engineering , Pune, December 16-18, 2016, pp. 243.
3. Robin Raj Balraj, Madhavi Barla and Govardhan Tingarikar, "A Review on Intelligent Fault Detection in Rolling Element Bearings", E3S Web of Conferences ,184, (August, 2020).ISSN:00002013ISSN: 2267-1242.