Centre of Excellence in Joining Technology (COEJT)

Faculty In charge:

Dr. B.V.R.RAVIKUMAR

Ph.D. MIE, MIWS, MSAQR, MIST

Professor

Year of Establishment: 2013 in Room No. : S1-1

OBJECTIVES

The Centre of Excellence in Joining Technology (COEJT) was established in the year 2013 with the financial assistance of All India Council for Technical Education (AICTE) under Research Promotion Scheme (RPS) and with the support of VNRVJIET.

Objectives of COEJT:

- **To plan and execute R & D programs for interested faculty and students in the area of Materials Joining.**
- **To provide an effective linkage between the industry and academic institutions to work on Sponsored, Research and Consultancy activities.**
- **To offer the state-of-the-art R & D facilities in Materials Joining for Intramural Research & Development and training to PG and Ph. D. students.**
- **To provide necessary expertise for undertaking R & D projects in Materials joining.**
- **To plan, coordinate and execute integrated R & D programs, involving interested institutions, R & D organizations and**

Funded Research Projects Carried out in COEJT

S.No.	Project Title	Funding Agency	File No.	Duration	Amount Sanctioned Rs.	Principal Investigator	Status
1	Experimental Investigation on role of Hybrid tool Pin profile on Microstructure and Mechanical Properties of Friction Stir Welded dissimilar AA6082-AA5083 Aluminum Alloy	AICTE	AICTE-File No. 8-112/FDC/RPS (POLICY-1) /2019-20 dated 14-08-2020.	3 Years (2020-2023)	7,84,314/-	Dr. B.V.R Ravi Kumar	On going
2	Comparative Study of weld characteristics of IS:65032A Aluminum Alloy by two Processes – FSW and GTAW	DRDO (CARS)	ASL/31/2013/4051/ CARS/47 18th June 2013	2 Years (2013-2015)	9,91,100/-	Dr. B.V.R Ravi Kumar Co-PI: Dr. M.S.S.Rao	Completed
3	Experimental Study of Influences of Pulsed and Non-Pulsed Current Gas Tungsten Arc Welding on 6082 Aluminum Alloy Weldments	AICTE	20/AICTE/RIFD/RPS(POLICY-III)54/2012-13 25th Feb2013	3 Years (2013-2016)	15,70,000/-	Dr. B.V.R Ravi Kumar	Completed

Ph.D. work Carried out in COEJT

S.No.	Name of the scholar	University	Title	Year of Registration	Name of the supervisor	Status
1	A Raveendra (H.T.No.0903PH1516)	JNTUH-Hyderabad	Comparative Study of Welding Characteristics of Aluminum Alloy (5052) and Alloy Steel EN19 using TIG Welding	2009	Dr. B.V.R Ravi Kumar	Degree Awarded 2018
2	M.S.Srinivasa Rao (H.T.No.1003PH1543)	JNTUH-Hyderabad	Experimental Study of Weld Characteristics during Friction Stir Welding (FSW) of Aluminum alloy	2010	Dr. B.V.R Ravi Kumar	Degree Awarded 2019
3	K. Nageswera Rao (H.T.No.1103PH1536)	JNTUH-Hyderabad	Experimental Investigation to study the weld characteristics of dissimilar aluminum alloy and alloy steel using GTAW	2011	Dr. B.V.R Ravi Kumar	In Progress
4	S.Veerendra Prasad (H.T.No.14022P0305)	JNTUK - Kakinada	Characterization of weld Parameters in welding of Aluminum Allos by using Friction Stir Welding	2014	Dr. B.V.R Ravi Kumar	In Progress

M.Tech Projects: 05	
S. No.	**Project Title**
1	Influence of tool pin profile and Welding parameters on Tensile and Microstructural properties of AA 6082-T6 during FSW.
2	Experimental Evaluation of weld characteristics of AA2014-T6 Aluminum Alloy using FSW and GTAW processes.
3	Experimental Investigation into the effect of Gas Tungsten Arc welding on Ti-6Al-4V
4	Experimental investigation of effect of filler wires and currents on dissimilar Aluminum Alloy weldments during GTAW
5	Experimental study the effect of filler wires on weld characteristics of 5083 Aluminum alloy during the Gas Tungsten Arc Welding (GTAW) Process
6	Optimization of Process parameters in Friction Stir welding

B.Tech Projects	
S.No	**Project Title**
1	Experimental Investigation on role of Hybrid tool Pin profile on Mechanical Properties and Microstructure of Friction Stir Welded AA6082-T6 Aluminum Alloy
2	Experimental Investigation of effect of welding parameters on Mechanical and Metallurgical Properties of Gas Tungsten arc Welded dissimilar Aluminum alloys
3	Experimental study of filler wires effect on weld characteristics of Aluminum alloy during Gas Tungsten Arc Welding (GTAW)
4	Experimental Study the effect of Tool Pin Profiles on Aluminum Alloy 6082 during Friction Stir Welding Process

Facilities Available: 1**.** Lincoln Electric PrecisionTIG 375 Welding Machine (Rs. 6,56,825/-)

2. Microscope with Image Analyzer (Rs. 2,91,975/-)

3. Vicker's Micro Hardness Tester (Rs. 4,69,450/-)

4. Ultrasonic Flaw Detector (Rs. 2,23,938/-)

5. Laptop and Laser Printer (Rs. 45,300/-)

Precision TIG 375 Welding Machine

Vicker's Micro Hardness Tester

Metallurgical Microscope

Ultrasonic Flaw Detector