

Department: ME | Date: 03rd to 7th Septemeber, 2019

Five Days National Level Workshop

on

“Recent Advancements in Welding Technology for Automotive Applications (RAWTAA-19)”

The industrial production of technical goods, particularly of investment goods, is hardly conceivable without joining technology. Welding, brazing and adhesive bonding are used for the manufacture of household appliances, vehicles of all kinds and electrical and electronic devices as well as for building structures in the private and industrial sectors. Today, joining technology accounts for a substantial proportion of the entire manufacturing process of investment goods.

Keeping the importance of welding in view, Sree Vidyanikethan Engineering College, in association of Indian Welding Society (IWS) organized a five-day National Workshop on **“Recent Advancements in Welding Technology for Automotive Applications (RAWTAA-19)”**. Indian Welding Society is a Professional Body devoted to welding in India. IWS is promoted by Welding Professionals from leading Fabrication Industries, Academic & Research Institutes and progressive minded Welding Consumable & Equipment Manufacturers. IWS is working with various academic institutions in conducting Degree & Diploma Courses, and Certification & Distance Learning Programs in Welding.

On the first day, the workshop began with the Inauguration & Introduction about the program learning objectives by Dr. S. Ragu Nathan. Later, he continued his presentation on prerequisites about Welding and its allied processes. Students were taken to the Siemens laboratory to create awareness on the Welding machines and Weld simulation system.

On the second day, the workshop began with the felicitation of the resource person Dr. D. V. Kiran, Assistant Professor, Department of Mechanical Engineering, Indian Institute of Technology, Tirupati. In his first session, his presentation was on “Introduction to Single and Multi-wire Deposition Welding Processes”. Later, in his second session he delivered a lecture on “Numerical and Experimental Studies on Single and Multi-wire Deposition Welding Processes”. Finally, the day two came to an end with a session on “Welding Inspections” by Dr. M. Baburaj, Associate Professor, Department of Mechanical Engineering, SVEC.



**Welding and its allied processes by
Dr. S. Ragu Nathan, Associate Professor,
Dept. of M.E. SVEC**



**Felicitating Dr.D.V.Kiran, Assistant Professor, Dept.
of M.E., IIT-Tirupati**



**Additive Manufacturing by Dr. N SivaShanmugam,
Assoc. Prof., NIT, Trichy.**



**Felicitating Dr.G.Padmanaban, Assistant Professor,
Dept. of M.E., Thanthai Periyar Government Institute
of Technology, Vellore.**



**Welding Inspections by Dr. M. Baburaj &
Dr J S Binoj, Assoc. Prof., Dept. of M.E. SVEC**



**Advance welding techniques by Mrs.Terja Shree
Assistant Prof., Dept. of M.E. SVEC**

On the third day, the workshop began with the felicitation of the resource person Dr. N. Siva Shanmugam, Associate Professor, Department of Mechanical Engineering, NIT, Tiruchirappalli. During his lecture, he explained the development of Wire Arc Additive Manufacturing (WAAM). The afternoon session of the third day began with a lecture on "Significance and Welding Challenges in Composite Materials" by Dr. J. S. Binoj, Associate Professor, Department of Mechanical Engineering, SVEC. During the session, he began his talk explaining history, background and development of different materials from time to time, especially focusing on composite materials. Finally, the day three came to an end with a session on "Current Issues and Challenges in Laser Welding Process" by Mrs. P. Thejasree, Assistant Professor, Department of Mechanical Engineering, SVEC.

On the day Four, the workshop began with a session on "Finite Element Simulation of Laser Beam Welding of AISI 304 Stainless Steel Sheets" by the resource person Dr. N. Siva Shanmugam, Associate Professor, Department of Mechanical Engineering, NIT, Tiruchirappalli. The final session of day four began with the felicitation of the resource person Dr. G. Padmanaban, Assistant Professor, Department of Mechanical Engineering, Thanthai Periyar Government Institute of Technology, Vellore. In this session, his presentation was on "Recent Advances in welding - Activating flux for GTAW".

On the Fifth day, the workshop began with a session on "Future prospects - Laser Beam Welding" with Dr. G. Padmanaban, Assistant Professor, Department of Mechanical Engineering, Thanthai Periyar Government Institute of Technology, Vellore. During his lecture, he described the insignificant challenges of the tool material and asserted that friction stir welding will become attractive for many niche and specialized applications.

Finally, the workshop ended with the valedictory function and certificate distribution to the student and faculty participants by the Head of the Department and Conveners of the workshop. The five-day National level workshop summarized the significant recent developments in both traditional and emerging welding processes. Progress is being made, and this should lead to improved quality, greater reliability and lower costs for the industry. The importance of welding technology to the offshore sector is well recognized, but there is still great scope for improvement.