

## EDITORIAL

Change is one of the fundamental elements of human existence. In fact, change is one of few things about which we can be certain. That's why lot of expectation are in vogue from the new government. But those may vary from different classes of people in our society. At the same time government doesn't magically produce solutions to the existing problems in our country. It is the people of the country, decision makers, who are the enablers that provide solid ideas and have the drive to contribute constructively to our cause.

The welding fraternity of our country obviously expects growth of construction and fabricated industries. Efforts are also needed to focus on the new strategic plan and corporate values statement and on bringing together all forces that interact with our industry. The success of IIW- India will be reflected through its strong dedication to the mission of advancing science, technology and application of material joining throughout the countries and also neighboring countries. It is receptive and responsive to the demands of all its constituents in order to meet the real needs of the market place. As a result, the IIW- India leadership is essential in confronting the important issues that face the industries.

This issue of Indian Welding Journal has four contributed technical papers. In the paper on "Microstructure and strength of  $Al_2O_3$ -EN24 vacuum brazed joints", Sree Vardhan Lalam investigated the microstructure and strength of  $Al_2O_3$ - EN 24 vacuum brazed joint performed at 850°C for 15, 30 and 45 minutes in  $5 \times 10^{-5}$  to  $5 \times 10^{-6}$  bar vacuum using  $Ag_{26.7}Cu_{4.5}Ti$  (wt%) braze alloy. Authors observed three to four reaction layers mainly consisting of different intermetallic compounds at different layers with increasing time. Shear strength of the brazed joint, however, increased with brazing time.

Aravinda Pai et al studied mechanical properties of welded modified 9Cr – 1Mo steel of different thickness (12mm , 30mm and 90 mm) using hot wire and cold wire GTAW process for 500 MWe PFBR steam generators. The authors emphasized the heat input as the key parameter particularly for impact toughness and hot wire technique could be effectively utilized with improved toughness by increasing welding speed, no of welding layers with reduced thickness and overlapping.

Subrata Saha et al from Bangladesh used artificial neural network to correlate the effects of process parameters on weld bead geometry in GMAW process using solid wire of 0.8 and 1.0mm diameter.

Shiraj V. Pande et al studied mechanical and metallurgical properties of dissimilar FSW joints of 6061T6 Al alloy to copper . Good joint strength was achieved at higher rotation (2000 rpm ) and 1 to 2 mm pin offset due to better interaction of Al and Cu.



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