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Report on

One day workshop on

"Recent Advances in Welding" RAW 2019

On 22nd August , Dr. K. Thyagarajan, Chairman, Indian Welding Society (IWS), Hyderabad centre has inaugurated the IWS student forum and one day workshop on "Recent Advances in Welding" RAW 2019, at Methodist College of Engineering & Technology, King Koti Road, Abids, Hyderabad – 500 001. The one day workshop was coordinated by Dr. P.Prabhuraj., Associate Professor and convened by, Dr. A. Rajasekar, Head, and Department of Mechanical Engineering. The workshop was included four sessions which is delivered by invited expert.

Session II: 12.00 pm to 1.00pm

Topic : various types and working principle of advanced welding techniques in fabrication industry

Delivered by: Mr. C.V.S Murthy , Scientist, E, DMRL, DRDO, Hyderabad.

- Shri C.V.S Murthy has delivered expert lecture on various types and working principle of advanced welding techniques such as MMAW, GTAW and SAW in fabrication industry
- Metal arc welding is maintained between electrode and work piece and work piece which form the two terminals.
- In this welding electrode used may be bare or coated. Bare electrode has same composition as that of parent metal whereas coated electrode have some material or flux that prevents the oxidation of surface.
- To obtain the required heat arc is struck by making light contact of electrode with work piece and then electrode is withdrawn to a proper distance.

- This current arc produces large amount of heat and melts the electrode end and the work piece. Due to melting of electrode material droplets are transferred to the work piece through the arc and deposited along the joint.

- Metal electrode is coated with a flux which burns and produces a gas shield around the arc to protect it from atmospheric contamination of molten weld metal

- Arc welding Power source- In arc welding both A.C and D.C. power sources could be used. In D.C. welding Polarity in arc welding- When A.C is used polarity is not fixed at any terminal and it interchanges in every cycle thus the heat generated at each pole is same. But in D.C welding polarity is fixed.

- Job acts as one terminal and electrode acts as another terminal. Heat developed at +ve terminal is 2/3 rd and at –ve terminal is 1/3 rd of the total heat. In D.C welding polarity is of two types.

- Straight polarityIn straight polarity electrode forms the –ve terminal and work piece forms the +ve terminal. This polarity is used in welding of thick materials due to large requirement of heat on the plate Reverse polarityIn Reverse polarity electrode forms the +ve terminal and work piece form the -ve terminal.

- This polarity is used in welding of thin materials due to less requirement of heat in welding zone.

Mr. C. V. S. Murthy, Scientist, DMRL, DRDO,, delivering his expert lecture.

Mr. C. V. S. Murthy was honored by IWS chairman, Hyderabad center