

INTRODUCTION

Materials are the mainstay of all Science, Engineering and Technology related activities which have been serving the society by improving - directly and indirectly - their living comforts and safety standards. **The Development of materials science allowed designing materials - especially metal alloys - and provided a knowledge base for the engineering applications (Materials Engineering), mainly strength.** However, the choice of a particular material for the development of a product essentially depends on critical understanding of its behavior by the application / design engineers. When welding is involved, which is almost always the case in any product made, that ‘expected mechanical behavior’ for which the material was chosen, just goes haywire, due to the metallurgical and mechanical interactions with the welding process. **Welding is a 360° in 3-dimesional space Technology** considering its applications. It is needed everywhere with varying applications and criticality. **One thing common in all welding applications**, other than the spelling, **is the aspect of quality issues arising while manufacturing.**

Keeping this in view, IMTMA is organizing an online training on Welding Technology, covering the **first order needs of engineering professionals**. This is the first of the online course to understand the **“Why?”** behind apparently unpredictable behavior of engineering materials during welding. This will be followed by a series of similar need based short term courses covering welding processes, machines, equipment, type of material groups, codes and standards.

Special Offer: Participants will be provided FREE ACCESS to IMTMA E'learning course on "Arc Welding Processes" towards continual learning and up skilling. Access will be valid from 27 Oct to 11 Nov 2021.

FOCUS AREAS

- Mechanical Behavior of Engineering materials – How and Why these are chosen?
- Materials, Metals and Alloys
- Physical Metallurgy and properties of materials
- Processing of components from materials and manufacturing engineering
- Inevitability of welding for economic benefits
- Overview of Welding Technology – Understanding Welding process
- Need for joining the materials
- Mechanism of joining the materials – mechanical and metallurgical aspects
- Processes of joining: Welding, Brazing, Soldering, Adhesive Bonding, Fastening
- Why welding as a process occupies number one status in manufacturing engineering
- The main issues with the joining process using heat and/or mechanical force.

KEY TAKE AWAYS

At the end of the program, the participant shall be able to -

- Understand the behavior of different materials during welding or any metal joining process
- Choose metals to be welded based on their material properties
- Understand likely defects and choose the right process parameters.

FEE PER PARTICIPANT (PER LOGIN)

Rs. 4500/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others

USD 180/-
Overseas Participants

Group Concession : 20% for 3 to 5 and 30% for 6 and more delegates being nominated from the same company

FACULTY

This programme will be conducted by **Mr. Vijay Agwan**. Mr. Vijay Agwan is an industry expert with over 46 years of experience in the field of welding activities related to research, development, equipment manufacturing. Quality Control , Contract Manufacturing and Training. He holds a Master degree in Production Science & Technology degree from IIT-Kharagpur & an IWE (ISO:14731) Diploma. He is a qualified Welding Professional and a free-lance consultant for in-house group companies and several other industries for training and problem solving. He has also given his services as a Regional Director (West) to Indian Institute of Welding-ANB for promoting the Welding Education among users, and ISO Certification of Individuals and Industries.

For Registration Contact

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