

# One-day intensive training on “Welding metallurgy for engineers”



**Date:** 22<sup>nd</sup> August, 2019

**Time:** 9:00 am to 6:00 pm

**Venue:** Evolve by TCR, 215 Pancham Icon, Vasna Road, Vadodara, Gujarat.

## Course Content:

Stainless steels such as ASS, FSS, MSS and DSS are an important class of engineering materials used in chemical and process industries. Welding is an important fabrication technique for stainless steels. In general, stainless steels are considered weld able materials but there are certain rules to be followed to ensure that they can be readily fabricated to be free from defects and will perform as expected in their intended service. Welding results in a significant change in weld and heat affected zone microstructures relative to the base metal. This leads to change in mechanical properties and corrosion resistance of the materials.

The objective of this training program is to provide basic information regarding welding metallurgy and weldability of different stainless steels. This will include classification, properties and applications of stainless steels such as ASS, FSS, MSS and DSS. In addition to that importance of metallurgy of steels to control microstructure of the weld and defects associated with weld joint.

## Topics to be covered:

- Welding metallurgy and weldability of different stainless steels.
- Classification, properties and applications of stainless steels such as ASS, FSS, MSS and DSS
- Importance of metallurgy of steels to control microstructure of the weld and defects associated with weld joint.

## Who should attend?

- Engineers of middle management level
- Maintenance / Inspection Engineers
- Process engineers / Plant Engineers / Managers
- QA / QC Engineers / Reliability Engineer
- Metallurgical / Materials Engineers
- Other Technical, Laboratory, Sales Personnel, engineer from allied disciplines, management and administrative staff who need a working understanding of metals and their applications.

## Registration:

The course is limited to 20 candidates only and participation will be decided on first come first served basis. Interested candidates can register by filling attached registration form. The course fee includes participation, course material and stationery. Tea / coffee and working lunch will be served. Candidates have to make their own arrangements for accommodation and local conveyance. The course fee is non-refundable; however, in the event of cancellation of training program by TCR for some unavoidable reasons, it will be refunded. TCR accepts the change in nomination.

## Course fee:

Single participant: Rs. 5000.00 for Indian delegates & USD 150 for Foreign delegates.  
GST @ 18.00 % applicable on above fees.

## Payment mode:

Interested candidates should post/ E-mail the registration form along with DD/at par cheque in favour of “TCR ADVANCED ENGINEERING P LTD.” at the address mentioned in attached registration form.

## Forward your Registration forms to:

**Mr. Rajesh Lakhnotra**, HOD - Training  
TCR Advanced Engineering Pvt. Ltd., 250/9 GIDC, Makarpura, Vadodara, Gujarat. Ph: 0265-2657233, 7574805594-96  
Email: [evolve@tcradvanced.com](mailto:evolve@tcradvanced.com)  
Mobile: +91 7574801050

Registration form can be downloaded from our website:  
<http://tcradvanced.com/coursecalendar.php>

For more course details, check our FB page: -  
<https://www.facebook.com/EvolveTCR/>

## Faculty:

The course will be conducted by renowned experts with vast experience in respective field. Course faculty are:



### Mr. Paresh Haribhakti

MD, TCR Advanced

Authored the book titled as “Failure Investigation of Boiler Tubes”

- He has over 29 years of experience in the field of metallography and microstructure examination and has solved more than 3000 industrial problems. He is pioneer in promoting in situ-metallography.
- Solved materials engineering problems and performed failure analysis on components from petrochemical plants, oil and gas transmission pipelines, offshore structures, ships, pharmaceutical plants, food processing equipment, gas turbine engine components, and weldments.



### Mr. Ketan Upadhyay

GM – Reliability Engineer in TCR Advanced

- He has experience of 26 years in the field of NDE, Acoustic emission techniques, Vibration measurement and signature analysis, Failure Investigations, microstructure interpretation, Scanning electron microscopy and digital imaging system
- He is a qualified level II for Acoustic Emission testing (IISC Bangalore), Vibration Analyst VT-II (Entec IRD) and Ultrasonic Flaw Detection (EEC Mumbai) techniques.



### Mr. M. N. Patel

Ex. Associate Professor  
Metallurgy & Materials Engg Dept.  
Consultant – TCR Advanced

- He has 35 years of teaching experience in UG and PG level in subjects like Plastic Deformation of Metals, Mechanical Metallurgy, NDT and Failure Analysis, Mechanical behaviour of materials, Selection of Materials and Failure Analysis, Physical Metallurgy and Welding Metallurgy.
- He has Published 16 research papers in various national journals in the field of weld ability of steels, corrosion of steels, sensitization of stainless steels and failure analysis



### Mr. Gopul Patel

GM, TCR Advanced

- He has an extensive knowledge of vacuum Technology and has worked as scientific officer at Department of science and technology sponsored research centre.
- He is qualified as NDT level II in M.T., P.T., U.T. and E.T
- He has experience of various advanced methods of material characterization and has worked extensively in the field of microscopy
- He is actively involved in establishing new testing facilities at lab as well as on site



**INNOVATE YOUR SKILLSET, EMPOWER THE MIND**

\*: **EVOLVE** by TCR *act our training centre for any specific or customised programs*