



# Engineering Staff College of India

(An ISO 9001:2015 Certified, AICTE & CEA Recognized Institution)

Autonomous Organ of The Institution of Engineers (India)

Old Bombay Road, Gachi Bowli, Hyderabad – 500 032. Telangana, India



## Management and Technology Division

Online Continuing Professional Development Programme on

### Welding Technologies and NDT Techniques

10 – 13 November 2020

(3 HOURS PER DAY)

Powered



#### INTRODUCTION

Worldwide, welding is a multi-billion dollar fabrication technology, used extensively in the construction of building, bridges, manufacturing automobile, aircraft, aerospace applications, power & energy sector, shipbuilding and electronic industries. Defects in welds or poor performance of weld can lead to catastrophic failures with costly consequences including losses to property and life.

Virtually every manufacturing industry uses welding process at some stage of manufacturing or in repair or maintenance of process equipment like Industrial Boilers and heavy duty welding of steels plates for ship building etc.

**Non-destructive Testing** is the most versatile tool to assess quality of components and to ensure their reliability in service. The increasing applications of Non-Destructive Testing Methods necessitate that the tests and evaluation of components are conducted by competent personnel ensuring uniformity of practice and soundness of technical approach.

The competence of personnel involved can only be ensured by exposing them to a systematic training in the science and practice of non-destructive evaluation. In view of the multi-disciplined back ground and varying experience of entrants to the field of NDT, the course has been developed from fundamentals through advanced.

#### OBJECTIVES

The main objective of the programme is to:

- Impart through knowledge to the engineers and managers on advances that are coming up in the area of welding and its application in various industries
- The objective of the programme is to provide a an insight into the various aspects of NDT and to update the knowledge of personnel working with manufacturing and process industries, automobile, defence, aeronautical or aerospace, ordnance factories, public & private sectors enterprises.

#### COURSE COVERAGE

- **Overview of Welding Technology**
  - Normal arc welding processes TIG, MIG Welding
  - Welding power sources and consumables
  - Electron beam welding
  - Laser Welding
  - Aluminium Welding Metallurgy
  - Monitoring and quality control of welding process
  - Advanced Welding process & its applications
  - Advances in Welding Metallurgy
- **Overview of NDT Methods in identifying defects**
  - Application of Infrared Thermography in material testing & NDE
  - Industrial Computed Tomography
  - Ultrasonic Testing & Development
  - Phased Array Ultrasound Testing
  - Eddy Current Testing
  - Real time and Digital Radiography of Welds and castings & case study

**Centre for Promotion of Professional Excellence**

## METHODOLOGY

Methodology of the programme includes Digital Learning through LMS Platform, Online Video Interactive sessions with Cloud based Hand-on Practical, Lecture / Discussion with audio visual aid, bench marked video shows, Online case studies, debates, sharing of experiences etc. All the sessions will be interactive demanding active participation from all the members.

## TARGET PARTICIPANTS

Engineering Executives, Scientists from various Defence Labs, Engineering managers, supervisors working in production, welding, R&D units, process planning, designs, maintenance and Quality Control / Quality Assurance in manufacturing and process industries like heavy equipment fabrication sectors, automobile, defence, aeronautical, electronics, power sectors (Generation–Thermal, Nuclear, Gas) medical products & precision instruments, petrochemicals, fertilizers, ordnance factories, Academicians, public & private sectors enterprises will be highly benefited by attending the programme.

## PROGRAMME DATES & TIMINGS

**Dates: 10 – 13 November 2020 (3 hours Per Day)**

**Timings:** After Registration Participant can access **ESCI LMS platform** for digital Learning **Online Session**

## COURSE DIRECTOR

The Head  
Management & Technology Division  
Engineering Staff College of India  
Old Bombay Road, Gachibowli – 500032  
Phone: 040 6630 4111 & 6630 4112 & 6630 4105  
Email: [mt@escihyd.org](mailto:mt@escihyd.org)/[mtmkt@escihyd.org](mailto:mtmkt@escihyd.org)

**For Registration Please  
Contact:  
Mr. Rakesh Singh  
Business Development Manager  
Land line 040-66304105  
Mob: 07013551765**

## FACULTY/SPEAKER DETAILS

Faculty consists of experts from industry, research establishments, academia and experts who are into research work are involved, besides that from ESCI.

## COURSE FEE

**Rs. 7,500/- (Rupees Seven Thousand & Five Hundred Only) per participant. GST @18%** is to be paid extra and above the training fee as training. **PAN Card No. AAATT3439Q. GST No: 36AAATT3439Q1ZV, HS No.: 999293** (under commercial training or coaching services – clause 65(105) (ZCC) of Finance act – 1994). Programme fee is to be paid in in favour of **“THE INSTITUTION OF ENGINEERS (INDIA) –**

**ENGINEERING STAFF COLLEGE OF INDIA”** in the form of demand draft payable at Hyderabad. Alternatively, the payment may be made by Electronic Fund Transfer (EFT) to ESCI - **SB A/c No.0432104000039631 with The IDBI Bank Ltd., Gachibowli Branch, Plot No. 2-53/2, JNIBF, IIIT Junction, Gachibowli, Hyderabad-500032 by RTG’s/ NIFT / IFSC Code No: IBKL0000432. ESCI PAN No. is AAATT3439Q.** While using EFT/ Draft method of payment, kindly forward a covering letter giving details on the names of the participants, Title and the programme schedule so that proper accounting can be done.

## REGISTRATION

**Online registration** shall be available on ESCI web portal : [www.esciupskill.org](http://www.esciupskill.org) / [www.escihyd.org](http://www.escihyd.org)

**To register manually** please send your nominations giving details of name, designation, contact address, email address, mobile no, telephone and fax number of the participant along with the details of mode of payment of fee, addressed to : **Course Director**

## CERTIFICATION

A Certificate of participation will be awarded to each participant on conclusion of the programme.

**Management & Technology Division, Engineering Staff College of India**

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