

An ISO 9001-2015 Certified Institution

Established in 2002

ENGINEERING CONSULTANCY ◆ SKILLED PROFESSIONAL RESOURCES ◆ ENGINEERING SKILL DEVELOPMENT PROGRAMMES

# **NDT TECHNICIAN**

PT, MT, RT, and UT



#### **ABOUT INDUSCAN**

Induscan Petroleum Institute is an ISO 9001: 2008 certified, Trade Mark Registered academy established in February 2002. This institute pioneers in Engineering consultancy, Engineering skill development programs, Human Resources, and Skilled Professional Management for all kinds of mechanical construction industries especially in Oil and Gas Sector, Thermal Power sector, Petro-Chemical sector, and other related Industries. Induscan's skill development programs are available from matriculation level (skilled Technician) throughout Post-graduation level (Skilled Design Engineer). The course elevates employability of youth and ensures employment all around the world. Induscan's skill development programs enhance sufficient clarity in the area of employability and nature of the responsibilities of skilled professionals in the industry. Thousands of skilled professionals have benefited this program since 2002.



## **VISION**

The Global Engineering community shall recognize their skill range in accordance with international standards and specifications. Industry shall recognize the potential of skilled engineering professionals and source of dynamic candidates from Induscan Petroleum Institute.



## **MISSION**

Construct a strong bridge of engineering skills between engineering professionals and the International Mechanical Construction Industry so that need from either side is successfully fulfilled.



#### **RECORDS**

Since February 2002, Induscan Petroleum Institute has proven records of successful services in accordance with the vision and the mission of its nature. The system of skill development and industrial customization is introduced as a miniature of the core mechanical engineering industry (Mechanical Construction, Mechanical Production/Manufacturing, and Mechanical Maintenance).



## NDT TECHNICIAN PT, MT, RT, and UT

#### SCOPE

The course of NDT Technician Is a skill development program for undergraduates for employability in mechanical production, construction, and maintenance Industries especially in Oil and Gas, Thermal Power, Petrochemical, and similar industries. Training in four methods of non-destructive testing is available in Induscan to qualify Technician as per NDT Level 1 and level 2 certification for the above types of industries.

#### THE COURSE

Following are the stages of training and types of qualifications programs for NDT Technicians

- 1. Penetrant Examination (PT)
- 2. Magnetic Particle Examination (MT)
- 3. Radiographic Examination (RT)
- 4. Ultrasonic Examination (UT)

Trainees shall select individual or multi-level NDT methods to meet the skill level they need to suit their employment. Upon successful completion of the course, Trainees are capable of handling various responsibilities in Oil and Gas/Thermal Plant/ Petrochemical and other industries (factories and construction sites) just like an NDT technician with relevant field experience.

#### **SYLLABUS**

The course syllabus is designed in such a way that NDT calculations (Theory) and hands-on practical application of NDT are properly experienced to take responsibilities from the day of their employment with the best pay scale. Total syllabus is are divided into five modules. The main subjects are as listed below

#### **MODULE 1**

- About Non Destructive test
- Various methods of NDT
- Use of NDT in Mechanical Production and Construction
- Penetrant Examination (PT) (Theory and Practical)

#### **MODULE 2**

• Magnetic Particle Examination (MT) (Theory and Practical)

#### **MODULE 3**

Radiographic Examination (Theory and Practical)

#### **MODULE 4**

Ultrasonic examination (Theory and Practical)



#### MODULE 5

 Application and interpretation of NDT in various types of test samples and production components
 Note: Detailed syllabus will be available during course counseling

#### **DURATION OF TRAINING**

Duration of training depends on the selection of individual or multi-methods of NDT. Duration of each Module is listed in the course syllabus.

#### TRAINING FACILITIES

Induscan Petroleum Institute is well equipped with an advanced classroom, laboratory, and workshop facilities to conduct the training and certification programs as per international standards and specifications.



#### **Piping Lab**

Piping Lab is constructed with the below specification. Lab area is 110 Square Meter

750-inch meter erected piping of heavy wall thickness carbon steel pipe ranging from 1/2 NS to 12 NS using butt and fillet welding. The piping lab is facilitated to explain P&ID, GAD, Isometric pipe supports, coordinates, elevation, etc).

3 types of Static equipment, (Heat exchanger, Horizontal vessels, and Column) are installed in the piping lab to explain equipment drawing, Equipment construction, Nozzle orientation, etc.

#### Materials Lab

Materials lab is arranged at 75 Square Meters in area Sufficient quantity of almost all kinds of mechanical construction materials such as seamless pipes, ERW pipes, flanges, Gasket, fasteners, elbows, tees, reducers, O lets reducers, end cap, valves, etc ranging from 1/2NS to 12NS in size.

#### Welding Lab and Workshop

The welding lab/ Workshop is arranged with the below specifications

Lab area is 100 Square Meter

Facility to explain different types of the welding process, Welding Procedure Qualification (WPS/PQR), Welders Qualification Test, Weld visual Examination, Welding Positions, Weld defects, Welding Electrodes, etc.

#### **NDT Lab**

NDT Lab is provided with the following specifications Lab area is 100 Square Meter

Facility for Practical Training in the following 4 methods

#### PENETRANT TEST

Solvent Removable Visible Method Solvent removable Fluorescent Method



#### MAGNETIC PARTICLE TEST

Electro Magnetic Yoke Method Permanent yoke Method Prod Method

#### RADIOGRAPHY TEST

Weld joints to explain all types of Radiographic techniques and Weld defects.

Film samples of various radiographic Techniques

#### **ULTRASONIC TEST**

Digital type UT Machines
Calibration Blocks
Various types of Transducers
Various types of Weld Samples and Test specimen





#### **ELIGIBILITY CRITERIA FOR ADMISSION**

Academic: Plus two or equivalent Certificate is the basic qualification required for admission.

#### **COURSE REGISTRATION**

Properly filled application form along with a copy of the qualification certificate shall be submitted either in person or through the website www.induscan.net. Upon receipt of the application and registration fee, registration detail will be forwarded to the applicants. The applicant shall submit the original of their qualification /course completion certificate at the time of admission.

#### **EXAMINATION / TEST**

General, Specific, Practical and Viva are the examinations and test conducted for each module of NDT

#### FINAL EXAMINATION

Module 5 examination is considered as the final examination.

#### **CERTIFICATION**

Upon completion of modular examinations, certificates of ASNT Level 2 in four methods of NDT will be issued to the successful candidates by compitent authority.

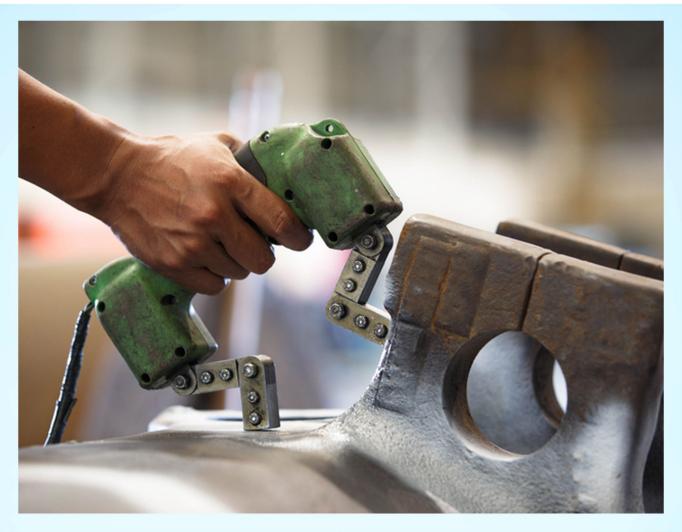
#### COURSE FEE

(Course fee list of each method of NDT course will be available during course counselling)

#### **PLACEMENT**

Placement is not guaranteed for the course of NDT Technician. The course fee indicated in the Fee list is only for training and certification. Certified NDT candidates are permitted to register through Induscan's campus selection portal for employment. Almost all of our previous batch students are well placed in India as well as abroad through this placement portal.





SKILL DEVELOPMENT COURSES	BASIC EDUCATIONAL QUALIFICATION
X RAY QUALITY WELDER	MATRICULATION (SSC) OR EQUIVALENT
STEEL FABRICATOR	PLUS TWO OR EQUIVALENT
NDT TECHNICIAN	PLUS TWO OR EQUIVALENT
WELDING SUPERVISOR	ENG. DIPLOMA OR NON ENG.GRADUATION
FABRICATION SUPERVISOR	ENG. DIPLOMA OR NON ENG.GRADUATION
SKILLED MECHANICAL INSPECTOR - QAQC	ENG. DIPLOMA (MECHANICL)
SKILLED MECHANICAL ENGINEER - QAQC	BE/B.TECH (MECHANICAL)
DESIGN ENGINEER (PRESSURE VESSELS & PROCESS PIPING)	M.TECH (MECHANICAL)



Induscan House, Court Road Junction Area, **NILAMBUR**Malappuram (District), Kerala-679329, India.
Ph: 9207535195, 8078170793

E-mail: info@induscan.net Web: www.induscan.net