

Ultrasonic Immersion Testing / Automated UT (AUT)

(Not offered on regular basis)

Course covering detailed theory and applications involving automated systems and immersion testing practical. Both UT I and UT II courses will carry an introduction to Automated testing. Course includes detailed discussion on set-up parameters of Automated UT and immersion systems. Separate course available on request.

Course is ideal for working professionals in the maintenance industries. ASNT , CSWIP / PCN certificate holders may find this very useful to their career.

• Eddy Current Testing / Automated ET (AET)

Course covering detailed theory and applications involving automated systems. Applications on the automated ET will be discussed and practical session using Automated ET equipment will be provided.

The participant will be taught on the set - up parameters, operation, acquisition & evaluation of the test results and the code compliance. Separate course available on request. Contact NDTTech for duration & fee. Course is ideal for working professionals in the maintenance industries. ASNT, CSWIP / PCN certificate holders may find this very useful to their career.

• Ultrasonic Time of Flight Diffraction (TOFD)

(Not offered on regular basis)

Short, intensive courses are offered in Ultrasonic TOFD TOFD is a proven test method to scan welds of high thickness in a very short time and several major industries have acknowledged the advantages of this method. TOFD equipment, scanner assembly, reference materials, test specimens and evaluation software will be used in the class.

Participants are expected to learn setting up , operation of the TOFD equipment, recording and evaluation of the test results.



Computers in class room

Dedicated computers are available in the class room for the use of the candidates for taking Class examinations. Custom made software with thousands of questions in several NDT methods are provided at the class. Imported software for NDT, Materials and process methods are also provided at the class.

NDT Accessories

Variety of probes, reference blocks, Test specimens, Codes, standards and other reference materials are available at the class for the practical sessions.

Time provided with instruments

All participants are encouraged to spend as much time as needed at NDTTech to master the testing skills even after the completion of the course. Additional time is provided free of charge after the examinations. Regular classes are offered Monday to Friday, 09:30 to 16:30 hours and 09:30 to 13:00 Saturday.

Level I / Level II Examinations

Three examinations will be taken in each method for Level I / II. This would include (1) A closed book, General examination on the fundamentals of the subject, (2) An open book, Specific examination on any of the International code or standard provided and (3) Practical examination with the equipment used in the method. 80% average is required to pass the examination. Multiple choice questions will be given for examinations. All Examinations are taken in English. Training certificate will be issued to successful participants within 10 working days from the date of examination. Name, photograph and details of those who have attended our training are posted at the resource page of our website: http://ndttech.org

Re-Examination

One free course and re-examination is offered to participants who have failed the first examination. The participant's score should be >50% in each paper to become eligible for this free course and examination. This re-examination should be taken within 6 months from the date of the first examination. Participants who does not qualify in this mode may pay an additional 60% of the fee for re-examination. If this is not desired, then a course participation certificate will be issued.

NDT Refresher courses (Not offered on regular basis)

This course is designed for the level III aspirants and involves detailed theory, applications and class room exercises and class examinations. For Duration and Fee, please contact the course director.

Renewal of certificates

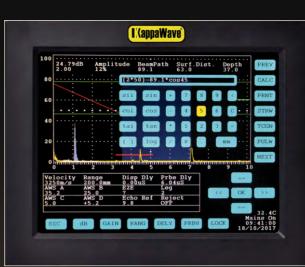
Certificates will be issued for a period of 5 years and full refresher courses are being offered on renewal of our certification. Please contact the course director or check http://ndttech.org for detailed renewal requirements / schedule and fee.

General - For all courses in NDT

A brief introduction to NDT, Destructive Testing , Inspection techniques, materials and processes, type of defects, certification, employment, other NDT related courses etc will be discussed prior to the start of any Level I / II course. Introduction also uses detailed video imported from ASNT and TWI. It is important that the participant attends this session in any course.

Course registration

To appear Level II examinations, Participants are required to bring copies of the level I certificate and work experience certificates in addition to the employers authorization to attend and certify on behalf of the employer. Certification to all levels of qualification is the responsibility of the employer. NDTTech provides training to meet the requirements for certification by the employer.



What to carry for courses

Participants are required to bring (a) 5nos. passport size photographs and (b) an eye test certificate from a registered ophthalmologist for vision acuity and colour differentiation. Participants shall also produce (c) attested copies of academic and professional certificates at the time of registration and are requested to carry (d) a scientific calculator for the course. (e) Full fee shall be paid at the start of the course.

Course fee includes course notes, work books and stationery. For accommodation, we recommend hotels and lodges at Kottayam town. There are also few lodges available near the training venue. Kindly call us in advance if special accommodation is required. Log on to http://ndttech.org for a current schedule and the requirements for certification to Level II in accordance to ASNT, or contact us for a specific date.

Please confirm the course dates in advance by phone. Participants should make themselves available at the venue by 09:00 hours on the course date for registration.



These are intensive training courses and the participants are expected to spend time during and after the daily class with the subject and should have sufficient time to complete the course.







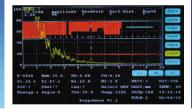
Above State Bank of India, M.C. Road, Pallom, Kottayam 686012, Kerala, India T:+91 481 2361887 M: +91 9447705887 E: info@ndttech.org W:ndttech.org Follow us on **f**/NDTTech

Build your career... Not just Certification!



PIONEERS IN ORGANIZED NDT TRAINING IN KERALA

E-OF-THE ART NG INSTRUMENTS FRAINING





ORIGINAL EQUIPMENT DEVELOPERS IN ULTRASONIC & EDDY CURRENT





NDT Technology (P) LTD was founded in 1998 with the objective of advancing the science, technology and application of Nondestructive testing and to impart the specialized skills required by the professionals engaged in NDT. Engineering Inspection. Construction and Quality Control.

NDTTech offers training, consultation, certification and Inspection services in Nondestructive testing, Engineering Inspection and quality control. NDTTech is promoted by NDT professionals who have been very active in the development of technology, applications and training of professionals in India and abroad

So far, majority of the NDT professionals in India had been trained on- the-job by their employers, as no organized training facilities were available. NDTTech is trying to bridge this gap by providing the required training with a combination of classroom training and on-the-job practical.

Courses in NDT currently offered by NDTTech are formulated based on the requirements of the personnel qualification and certification in Nondestructive testing 'Recommended Practice No. SNT-TC-1A' of The American Society For Nondestructive Testing Inc. The training offered at NDTTech may be considered for qualification of the individual by their employers based on their written practice.

The faculty consists of well-qualified and experienced instructors. These instructors have been involved in training and certifying of NDT professionals in India and abroad for several years and possesses quality experience in the world of NDT.

At NDTTech, all NDT courses are being conducted by ASNT certified level III, Welding Inspection courses are conducted by the American Welding Society Certified Welding Inspector / CSWIP 3.2, and ISO 9000 courses are conducted by Certified Lead Assessor. All our instructors are ASNT certified Level III personnel and have the field experience of 20 - 40 years.

NDT EQUIPMENT

State-of-the art NDT instruments, both manual and fully automated systems are available with us for hands on experience. A technical library with a number of books and reference material on NDT and engineering Inspection are provided to assist the students in the acquisition of specific knowledge required. Participants are taught the basics and trained to perform the basic testing and assessment of the results independently with reference to a Code (ASTM/ASME) in the following Level I and level II courses



COURSES OFFERED

Radiographic Testing (RT) (Not offered on regular basis) Radiographic testing involves the use of penetrating X or gamma radiation to examine parts and products for imperfections. An X-ray machine or radioactive

isotope is used as a source of radiation. Radiation is directed through a part and onto the film. When the film is developed, a shadowgraph is obtained that shows the internal soundness of the part.

Ultrasonic Testing (UT)

Ultrasonic testing uses the transmission of high frequency sound waves into a material to detect imperfections within the material or changes in material properties. The most commonly used ultrasonic testing method is Pulse echo, wherein sound is introduced into the test object and reflections are returned to a receiver from internal imperfections and geometrical surfaces of the part.

Eddy Current Testing (ET)

Eddy current Testing is based on the principle that a coil in air with alternating current flowing through it has unique and measurable resistive and inductive reactance components of it's electrical impedance. Eddy currents are induced when an electrically conductive test object is placed close to the coil. Mutual induction occurs and both components of the circuit impedance are changed by a given amount. This change is based on frequency of AC used, proximity between probe coil and test part, dimensions of the test part, it's conductivity, permeability and the presence of flaws or discontinuities.

Magnetic Particle Testing (MT)

Magnetic particle testing is done by inducing a magnetic field in ferromagnetic material and dusting the surface with Iron particles. Surface imperfections will distort the magnetic field and concentrate the iron particles near the imperfections, thus indicating their presence.



Liquid Penetrant testing is probably the most widely used NDT method. The test object or material is coated with a visible or fluorescent dye solution. The excess dye is removed from the surface, and then a developer is applied. The developer acts like a blotter. It draws penetrant out of the imperfections which are open to the surface. With visible dves, the vivid color contrast between the penetrant and the developer makes the bleed out easy to see. An ultraviolet lamp is used to make the bleed out fluoresce brightly, thus allowing the imperfection to be seen clearly.

Introduction to NDT (Not offered on regular basis) Introductory course covering the most commonly used NDT methods and techniques. An excellent course for those who are not directly involved in NDT. Offered to Industries and individuals

NDT Special applications (POST LEVEL II)

Post Level II courses are usually taken up by the experienced ndt / inspection professional. Inspection Supervisors, Engineers, Inspectors and senior technicians attend these courses to enhance their knowledge base and for career growth.

Radiographic Film Interpretation (RTFI)

(Not offered on regular basis)

The course is designed for the certified level II RT personnel. Various codes and standards are included along with a number of radiographs containing natural defects. (ASME Sec VIII, API 1104, AWS D 1.1, ASME B 31.3) Radiographic films with natural and artificial discontinuities in welds are being provided for the practical.

Participant should be able to independently carry out film interpretation to any of the above codes upon completion of this course. Detailed acceptance - rejection criteria are being discussed in the class for a thorough understanding of the subject.

Course is ideal for those who plan for any Welding Inspector examinations or the AWS or CSWIP Senior Welding Inspector examinations. Most construction companies may require an in-depth knowledge of RTFI and our course is designed to meet the challenges faced by the Inspectors in the field.



Course covering plate and pipe butt weld examination per ASME sec VIII and AWS D1.1 Butt joints are being provided for the practical with designated blocks for the sensitivity setting and equipment verification. Participant should be able to independently carry out this work upon completion of this course.

Course is ideal for UT Level II certified personnel (ASNT or CSWIP/ PCN) who are looking for employment with Oil and Gas companies or with any major Engineering or Service companies. Special course dates may be available.

Joints)

API RP 2X

Ultrasonic Testing Applications Level II A – Ultrasonic Testing of Pipes for Corrosion

Course covering normal beam inspection, sizing, mapping and recording of corrosion. HIC and other flaws found in plates and pipes of various sizes. Participant should be able to independently carry out this work upon completion of this course

Course is ideal for UT Level II certified personnel who are looking for employment with Oil and Gas companies. Special course dates may be available

Level II B – Ultrasonic Testing of welds

Level II C - Ultrasonic testing of welds to API RP 2X (TKY)

Course covering TKY weld examination per API RP 2X. Extensive practical on TKY welds will be provided. Course includes detailed interpretation of

This is a progressive training course and admission to Level IIC would require the candidate to pass Level II A and B. The participant will be taught on the following: Construction of Beam Profiles, Construction of DAC Curves, Flaw sizing techniques, Transfer correction, Mode conversion effects, Testing UFD for Vertical, Horizontal Linearity, Selection of probes, Reserve Gain, Internal Reflectors Limit for probes, Construction of weld cross section involving curvature using profile-gauge and other methods. Estimating change of angle, beam-path, surface distance for curved surfaces, Construction of a flaw locating rule for TKY Weld Inspection, Applying different acceptance criteria and Report preparation. Participant should be able to independently carry out this work upon completion of this course.

Course is ideal for working professionals in the construction of offshore oil platforms. ASNT, CSWIP/PCN certificate holders may find this very useful to their career.

