



SATYAKIRAN SCHOOL OF NDT

A unit of Satyakiran Engineers Private Limited

TRAINING STANDARDS

Only Accredited Centre in NORTH & EAST INDIA



IS-13805

The Indian Society for Non destructive Testing, ISNT is the society for NDT professionals and practitioners which offers invaluable resources, information and linkages for industrial quality development and professional development to its members.

One of the wings of ISNT is the National Certification Board (NCB). NCB has been primarily responsible for the examination and certification of NDT personnel in India and has been periodically conducting Level - I and Level – II certifications in courses run through ISNT Chapters & accredited NDT schools.



SNT-TC-1A

Personnel Qualification and Certification in Non destructive Testing is an employer based certification program that is recommended by the American Society for Non destructive Testing



NAS-410

The National Aerospace Standard - 410 (NAS-410) is an established standard that outlines the minimum qualification requirements for personnel that perform non destructive testing. This certification is commonly required to perform NDT jobs in the aerospace and defence industry.



CERTIFICATE OF COMPETENCY

Regulatory requirements of Civil aviation authorities of various countries is also taken care of.



CWI

Certified Welding Inspector is a prestigious exam based certification by The American Welding Society (AWS), founded in 1919 as a multifaceted, non-profit organization with a goal to advance the science, technology and application of welding and allied joining and cutting processes, including brazing, soldering and thermal spraying.



EN 473

This European Standard establishes principles for the qualification and certification of personnel who perform industrial non-destructive testing (NDT) and engaged in NDT activities mandated through European Standard requirements.



ISO-9712

This International Standard specifies requirements for principles for the qualification and certification of personnel who perform industrial non-destructive testing (NDT). The standard is published by the International Standards Organisation and adopted verbatim by most nations around the Globe. The intent is to create out the differences between varying national standards and create one harmonised Internationally accepted training & certification program.

COURSES OFFERED

CERTIFICATION TRAINING

- All certification programs leading to ASNT, ISNT, AWS, EN473, NAS410

- ✓ Visual testing (VT)
- ✓ Ultrasonic Testing (UT)
- ✓ Eddy Current Testing (ET)
- ✓ Magnetic Particle Testing (MT)
- ✓ Penetrant Testing (PT)
- ✓ Radiograph Testing & Film Interpretation (RTFI)



Minimum Formal Training Hours, Level 1 and 2

Method	Level 1	Level 2 with Level 1 certification	Level 2 without Level 1 certification
Visual Inspection (VT)	8	16	24
Eddy Current (ET)	40	40	80
Liquid Penetrant (PT)	4	8	12
Magnetic Particle (MT)	12	8	20
Radiography (RTFI)	40	40	80
Ultrasonic (UT)	40	40	80

Minimum Experience Requirements Hours, Level 1 and 2

Method	Level I (Trainee Experience)	Level I (NDT hrs requirement)	Level II with previous Level I certification (TE)	Level II (NDT hrs requirement)
Visual Inspection (VT)	70	130	140	270
Eddy Current (ET)	210	400	630	1200
Liquid Penetrant (PT)	70	130	140	270
Magnetic Particle (MT)	70	130	210	400
Radiography (RTFI)	210	400	630	1200
Ultrasonic (UT)	210	400	630	1200

• AWARENESS TRAINING

Customised training on various topics like welding, Casting, Quality Control, NDT Methods, Standards, Procedures, Codes etc.

• OPEN SEMINARS

We Conduct Open seminars on various current NDT Technique & Methods for 1 or 2 days as per the demand of the industry

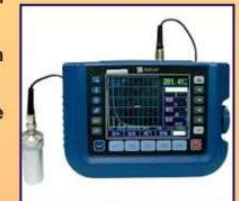
VISUAL TESTING

- ❖ 4 DAYS VT-II (DIRECT) TRAINING PROGRAM
- ❖ Most widely used inspection method.
- ❖ Topics Included: Fundamental of VT, Visual perceptions, Lighting, Remote visual inspection interpretation and evaluation of welds, casting, forgings etc.
- ❖ Tools included Fiberscope, Borescope, Magnifying Glasses, Vernier calliper, Micrometers, Gages etc.
- ❖ Daily 4 Hrs Theory classes and 4 Hrs. Practicals
- ❖ Study Material kit and schedule as per certification codes
- ❖ Includes Various Practice Modules
- ❖ Guest Lectures from World Known L-III



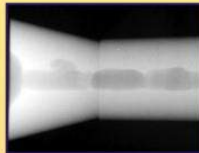
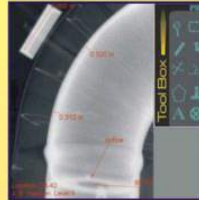
ULTRASONIC TESTING

- ❖ 6 DAYS UT-I & 11 DAYS UT -II (DIRECT) TRAINING PROGRAM
- ❖ Very useful and versatile NDT method.
- ❖ Uses high frequency sound energy to conduct examinations and make measurements.
- ❖ Sensitive to both surface and subsurface discontinuities.
- ❖ Used for flaw detection/evaluation, dimensional measurements, material characterization
- ❖ Fast and accurate location determination of flaws when performing shear wave inspections
- ❖ Tools included flaw detector, normal probes, angle probes
- ❖ Daily 4 Hrs Theory classes and 4 Hrs Practical
- ❖ Study Material kit and schedule as per certification codes
- ❖ Includes Various Practice Modules
- ❖ Guest Lectures from World Known L-III



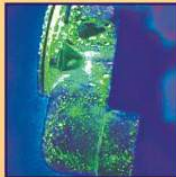
RADIOGRAPH TESTING AND FILM INTERPRETATION

- ❖ 11 DAYS RT-II (DIRECT) TRAINING PROGRAM
- ❖ Imaging inspection method.
- ❖ Topics Included: Principle of Radiography, Evaluation of castings and weldments, codes and procedures for radiography, Radiographic viewing.
- ❖ Use in metallurgical material identification and security systems at airports
- ❖ Applications in automotive, aerospace, pressure vessel, electronic, and munition industries
- ❖ Tools included various radiographs, X-ray machine, wire penetrameters, densitometer etc.
- ❖ Daily 4 Hrs Theory and 4 Hrs Practical classes
- ❖ Study Material kit and schedule as per certification codes
- ❖ Includes Various Practice Modules
- ❖ Guest Lectures from World Known L-III



PENETRANT TESTING

- ❖ 2 DAYS PT-I and 3 DAYS PT-II TRAINING PROGRAM
- ❖ Commonly used nondestructive evaluation (NDE) method.
- ❖ Enhance flaw detection capability for Fatigue cracks, Quench cracks, Grinding cracks, Overload and impact fractures, Porosity, Laps, Seams, Pin holes in welds, Lack of fusion or braising along the edge of the bond line
- ❖ High sensitivity to small surface discontinuities.
- ❖ Applied in a large variety of applications ranging from automotive spark plugs to critical aircraft components
- ❖ Tools included penetrant, developer, cleaner, sample bank.
- ❖ Daily 4 Hrs Theory and 4 Hrs. Practical classes
- ❖ Study Material kit and schedule as per certification codes
- ❖ Includes Various Practice Modules
- ❖ Guest Lectures from World Known L-III



EDDY CURRENT TESTING

- ❖ 11 DAYS ET-II (DIRECT) TRAINING PROGRAM
- ❖ Widely used and well-understood inspection method.
- ❖ Used for Crack detection, Material thickness measurements, Coating thickness measurements, Conductivity measurements for: Material identification, Heat damage detection, Case depth determination, Heat treatment monitoring
- ❖ Detect corrosion damage and other damage that causes a thinning of the material.
- ❖ Used to measure the thickness of paints and other coatings
- ❖ Topics Includes : Electromagnetic theory, type of eddy current sending elements
- ❖ Tools included probes, software, cleaner, sample bank, etc.
- ❖ Daily 4 Hrs Theory and 4 Hrs Practical classes.
- ❖ Study Material kit and schedule as per certification codes
- ❖ Includes Various Practice Modules
- ❖ Guest Lectures from World Known L-III



MAGNETIC PARTICLE TESTING

- ❖ 3 DAYS MT-I and 4 DAYS MT-II TRAINING PROGRAM
- ❖ Most widely utilized nondestructive testing method.
- ❖ More sensitive for ferromagnetic iron and steels.
- ❖ WET and DRY method
- ❖ Used to inspect a variety of product forms including castings, forgings, and weldments.
- ❖ Industries that use magnetic particle inspection are the structural steel, automotive, petrochemical, power generation, and aerospace industries.
- ❖ Tools Included Bench type machine, yoke, prods, cleaner, sample bank etc.
- ❖ Daily 4 Hrs Theory classes and 4 Hrs Practicals
- ❖ Study Material kit and schedule as per certification codes
- ❖ Includes Various Practice Modules
- ❖ Guest Lectures from World Known L-III



MORE TRAININGS

WELD EVALUATION & INTERPRETATION

Evaluation of weld characteristics includes the size of the weld and the presence of discontinuities. The size of a weld can be extremely important, as it often correlates directly to strength and associated performance. The number of acceptable and unacceptable weld discontinuities for welding inspection usually is obtained from welding codes and standards. For this reason, many welding codes and standards require that the welding inspector be formally qualified, or have the necessary knowledge and experience to conduct the inspection.

INDUSTRIAL METROLOGY

Metrology includes all theoretical and practical aspects of measurement. This training is required by industries to meet their particular needs for technically and economically competitive manufacturing. The procedures address the issues of what specific instrument technology will be used to measure each quantity, how often each quantity will be measured, and which definition of each quantity will be used as the basis for accomplishing the process control. Includes in depth understanding of Calibration, Accuracy & Precision. Ideal for Third party Inspectors.

VIBRATION ANALYSIS

Vibration analysis is used to detect the early precursors to machine failure, allowing machinery to be repaired or replaced before an expensive failure occurs. Vibration analysis provides necessary information for:

- ✓ Evaluation of machine condition
- ✓ Recognition of on-going machine damage symptoms
- ✓ Identification of the cause and the damaged components and
- ✓ Prognosis of remaining service life.

INFRARED THERMOGRAPHY

Infrared thermography training provides the necessary foundation for the success of any infrared thermographer and their program. Temperature profiling of a surface or point using remote cameras finds fault detection application in aviation industry, Electrical distribution systems, Air conditioning and Thermal Insulation, Malfunctioning Rotating equipments, Leaking pipes & lines etc.

INTERNAL AUDITORS TRAINING

Auditors are being challenged to keep up with emerging technology threats without losing sight of existing dangers. Internal audits are extremely valuable tools because they provide independent and objective assessment of compliance with defined business and other requirements. The course covers audit planning, scheduling, auditing and review. It is applicable for all management systems.

TRAINING FOR QMS

An ISO 9001 Quality Management System (QMS) offers a comprehensive framework on which to build processes that help ensure key business objectives are achieved. Training courses help you to gain a comprehensive understanding of quality management systems. Learn the most effective and business-focused strategies for implementing, documenting and auditing ISO 9001:2008 quality management systems.

MAJOR CLIENTS

(Clients not limited to.....)



Air India Limited



Ambuja Cements Ltd.



Amtek Auto Group



Continental Engines Limited



Bharat Heavy Electricals Ltd.



Dlf Limited



Engineers India Ltd.



Escorts Group



Knorr-bremse India Private Limited



Gail India Limited



Ghaziabad Ispat Udyog Limited



Hero Motocorp Ltd



Isgec Heavy Engineering Ltd.



Indian Sugar Mills Association



Indian Airlines Ltd.



Jindal Stainless Limited



Jet Airways India Limited



KLJ Group



Kennametal India Limited



Lakshmi Precision Screws Limited



Maruti Suzuki India Limited



Mahindra & Mahindra Limited



National Test House



Rites Limited



Swastik Pipes Limited



Starwire (india) Limited



Sona Group



Shriram Pistons & Rings Limited



Tata Motors



Tuv India P. Ltd.

OUR STRENGTH

CREDIBILITY

- ❖ BEST NDT TRAINING CENTRE IN THE COUNTRY
- ❖ AMONG TOP 5 IN THE WORLD
- ❖ TRAINED OVER 5000 NDT PROFESSIONALS ACROSS 4 CONTINENTS.
- ❖ CUSTOMISED ON-SITE TRAINING COURSE TO ACCOMMODATE YOUR NEEDS AND SPECIFICATIONS.

QUALITY POLICY

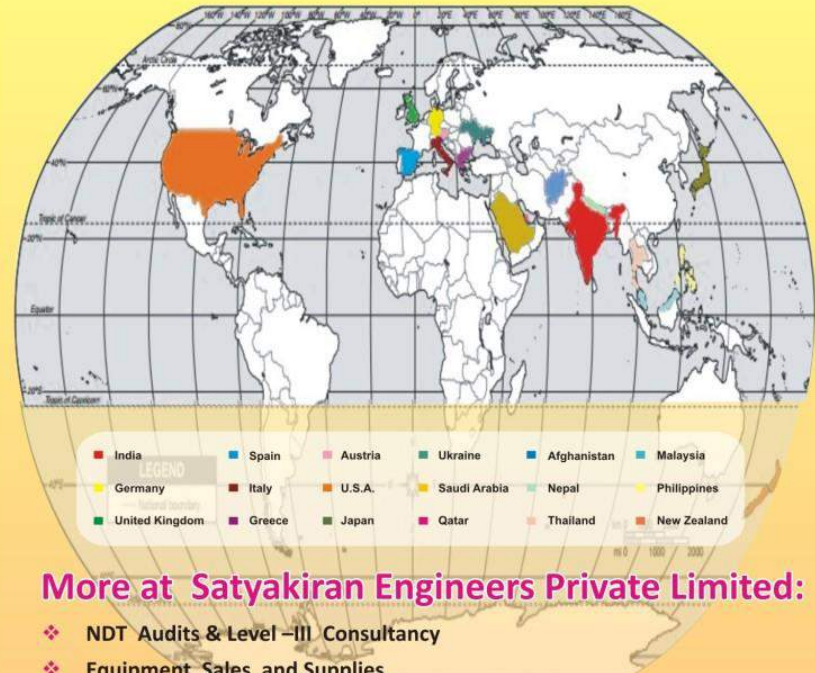
We are committed to "Total Customer Satisfaction", through value for money, by being a part of the solution and not a problem for the customer.

We shall achieve this by:

- ❖ Providing personalized and prompt service.
- ❖ Reducing cost of scrap and reworking.
- ❖ Assisting our sub contractors in upgrading quality systems, so that our inspection effort on bought outs is gradually minimized.



SERVICING THE GLOBE



More at Satyakiran Engineers Private Limited:

- ❖ NDT Audits & Level –III Consultancy
- ❖ Equipment Sales and Supplies
- ❖ Equipment AMC, Retrofit & Automation
- ❖ Third Party Inspections
- ❖ Developing New Testing Applications & SPMs

GLIMPSES



OUR TRAINING CENTRE

Registered Office : BU-3, SFS, Outer Ring Road,
Pitampura, New Delhi – 110 088
India

Training Centre : 487 /76, Peeragarhi,
Opposite Peeragarhi DTC Bus depot,
Outer Ring Road,
New Delhi -110087
Tel : 011-27345252, 25278008,
Email : training@satyakiran.com
Website : www.ndttraining.in, www.satyakiran.com

SATYAKIRAN GROUP VENTURES

- ★ Satyakiran Engineers Private Limited
- ★ Satyakiran School of NDT
- ★ Satyakiran Quality Consultants
- ★ Satyakiran Healthcare Private Limited
- ★ Satyakiran Paramedical Institute
- ★ Satyakiran Healin Education
- ★ Satyakiran Health Republic
- ★ Satyakiran Life Sciences
- ★ Satyakiran Foundation Trust