SOUND BYTES - 21

Decibel 26
Frequency 3
JULY 2026 issue
Email ID: soundbytesisnt@gmail.com

Official Newsletter of ISNT Chennai Chapter

ISNT Day 2026 Celebration – Chennai Chapter

Dear Readers,

ISNT Day (21.04.2026) was celebrated with great enthusiasm by 67 members of the ISNT Chennai Chapter along with their family members. The attendance showed a modest increase compared to previous years. The venue selected by the Convener and Co-convener, **S Convention Center, T. Nagar, Chennai**, proved to be an excellent choice, and the hospitality and dinner arrangements were truly outstanding.

As the Tamil proverb says, *"When there is no food for the ears, something will be given to the stomach,"* our members were fortunate to receive nourishment for both mind and body. The gathering was enriched by highly informative presentations delivered by **Dr. T. Jayaprakasan, Dr. M. Raj Kumar, and Dr. R. Namitha Bhuvaneswari**.

Dr. T. Jayaprakasan (Director, Directorate General of Training (DGT), Ministry of Skill Development and Entrepreneurship, Government of India, and former CEO of the Naan Mudhalvan Skill Initiative of the Tamil Nadu Skill Development Corporation) is a renowned figure in the field of skill development in India. His initiatives have contributed to measurable skilling outcomes impacting more than 1.7 crore youth across the country. During his presentation, he provided a vivid overview of the achievements of the Directorate and highlighted the significant progress made under his leadership. His talk offered valuable insights into how India is equipping Generation Z with future-ready skills and how the nation is poised to emerge as a global reservoir of skilled human resources.

Prof. Dr. M. Raj Kumar, Professor Emeritus of Dr. M.G.R. Medical University, former Director of the Institute of Vascular Surgery, Madras Medical College, and Senior Consultant Vascular Surgeon at various hospitals, delivered an excellent presentation on **Varicose Veins**, a common health concern among NDT practitioners. Beginning with the definition and types of the condition, he elaborated on the predisposing factors, clinical features, preventive measures, and treatment options. The session was particularly relevant to NDT professionals, many of whom spend long hours standing during inspections and testing activities.

As annual eye examinations are mandatory for maintaining NDT certification, the Chapter invited **Dr. R. Namitha Bhuvaneswari**, a postgraduate in Ophthalmology from Meenakshi Medical College Hospital & Research Institute, Kanchipuram, to deliver a talk on eye care and preservation of vision. She explained various eye diseases, their causes, preventive measures, and treatment options in a clear and engaging manner. The audience, especially the ladies present, showed keen interest when she discussed eye disorders affecting young children. Her presentation was supported by vivid and informative visual aids. NDT practitioners, who often work under harsh lighting conditions, gained valuable insights into protecting their eyesight. Indeed, the session proved to be an eye-opener for all.

The celebration concluded with the distribution of awards to deserving members and the felicitation of faculty members, laboratories, and the Best Course Participant. The event once again reinforced the spirit of camaraderie and professional excellence that defines the ISNT Chennai Chapter.

It was yet another memorable day in the Chapter's history.

Long Live ISNT!

Ram

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ISNT Chennai Chapter News

PARTICULARS	April 2026	Newly added	June 2026
LIFE CORPORATE MEMBER	61		61
CORPORATE MEMBER	4		4
LIFE FELLOW	14		14
HONORARY FELLOW	9		9
LIFE MEMBER	639	1	640
MEMBER	22		22
ASSOCIATE MEMBER	8		8
STUDENT MEMBER	202		202
TOTAL	959	1	960

Addition of Members –

Newly Added Members in April 2026 to June 2026

1. Mr.Rakesh Kumar Madhu– Life Member

Sl.No	Course	From	To	No. of partici-pants	Course Director
1	UT Level-II	12.05.2026	23.05.2026	6	Sri.B.Ram Prakash
2.	RT Level-II	10.06.2026	20.06.2026	10	Sri.S.Chockalingam

Courses Planned for the next 3 months

MT & PT Level-II course from 16th July 2026 to 25th July 2026.

VT Level-II course from 29th July 2026 to 4th July 2026 at KKNPP.

Ultrasonic Testing Level-II from 18th August 2026 to 29th August 2026.

EC meeting

1. The 1st EC Meeting for the financial year 2026-2027 was held on 25th May 2026.
2. The 2nd EC Meeting for the financial year 2026-2027 was held on 7th June 2026.

TMB Audit for ICN and Annual Surveillance IS13805

TMB audit for ICN on PT, MT, RT, UT, Digital RT, PAUT & TOFD and Annual Surveillance for IS13805 was held on 8th and 9th June 2026.

ISNT DAY CELEBRATION ON 21ST APRIL 2026

ISNT Day was celebrated on 21st April 2026 at Hotel S Conventional Centre, T. Nagar, Chennai. The event was graced by the Chief Guest, Dr. M. Jayaprakasan, ISDS, NSTI, Chennai, who addressed the gathering.
Dr. M. Rajkumar delivered an informative talk on Varicose Veins, while Dr. K. Namitha Bhuvaneswari presented a session on Eye Care. Mr. R. Balakrishnan, Chairman, welcomed the gathering and highlighted the significance of ISNT Day. Mr. P. Anandan, Secretary, presented the chapter's activities.
During the event, the prestigious awards for the year were conferred on the awardees by the Chief Guest. Faculties, equipment providers, and contributors to *Sound Bytes* were also honoured for their valuable contributions.

Awards given during ISNT DAY 2026

The Best Member Award "Thambidurai Award" sponsored by M/s. Electro-Magfield Controls & Services was awarded to Mr.M.Manimohan.

Mr. M. Manimohan is an active Life Member of ISNT since 1979. He holds an M.Sc. in Physics and an M.Tech. in Non-Destructive Testing. He is certified to NDT Level II in VT, PT, MT, RT, and UT. A retired Manager from the Non-Destructive Testing Laboratory (NDTL), BHEL, Tiruchirappalli, he possesses over 47 years of rich experience in the field of Non-Destructive Evaluation (NDE).
His contributions to NDT education and training include:

- Faculty for NDT training programmes conducted by ISNT Chennai, Tiruchirappalli, Kalpakkam, and Thiruvananthapuram Chapters under SNT-TC-1A, IS 13805, and ISO 9712 certification schemes.
- Visiting Faculty for the M.Tech. (NDT) programme at the National Institute of Technology (NIT), Tiruchirappalli.
- Faculty for NDT Level II programmes conducted for BHEL personnel.

Faculty at WRI School of Welding/BHEL for Certified Welding Inspector and NDT Level II programmes.

2. The Best Technical Talk Award “Rajamani Award” sponsored by M/s. Electro-Magfield Controls & Services was awarded to Mr. Shyamsunder Baskaran, IQC, Chennai.

Mr. Shyam Baskaran is the Director of the Industrial Quality Concepts (IQC) Group of Companies, which operates in the areas of Training and Certification, Consulting, Computer-Based NDE Systems, Welding Inspection, and Corrosion Inspection.

IQC was founded in 1989 by Mr. Sundaram Baskaran. Since 2007, Mr. Shyam Baskaran has led IQC Advanced Inspection Solutions, focusing on the development of computer-based NDE systems utilizing Eddy Current Testing, Machine Vision, Acoustics, Ultrasonics, and custom Impedance Spectroscopy technologies.
He holds a Bachelor's Degree in Metallurgical Engineering from IIT Madras and a Master's Degree in Computational Science from Purdue University, USA, with specialization in Signals and Sensors.

3. The Best Participation in courses Award “Pari Award” sponsored by M/s. QTECH was awarded to Mr.Shailesh Kumar Jain, BHEL, PSSR, Chennai.

Mr. Shailesh Kumar Jain obtained his B.Tech. in Mechanical Engineering from NIT Tiruchirappalli during 2006–2010 and joined BHEL in July 2010.
He is currently associated with the Boiler Erection Department in Thermal Projects. He is certified to UT and RT Level II and possesses professional qualifications including Lean Six Sigma Black Belt and Project Management Professional (PMP) certification from the Project Management Institute (PMI).

4. The Best Student Achievement Award (Post Graduate and Research Studies) “Ms.Bala Rao Award” sponsored by Mr. I.M. RAO was awarded to, Mr. Akhil Balachandran, IITM, Chennai for the year 2025.

Mr. B. S. Akhil is a Ph.D. Scholar in Mechanical Engineering at the Centre for Non-Destructive Evaluation (CNDE), IIT Madras. His research interests include advanced ultrasonic techniques, nonlinear ultrasonics, and structural health monitoring.
He has published the following research papers in reputed international journals:

1. *Falling Film Thickness Measurement Using Air-Coupled Ultrasonic Transducer*, Experimental Thermal and Fluid Science, Elsevier, Vol. 109, Article 109906, 2019.
2. *Quality Assessment of Adhesive Joints Using Third Harmonics of Fundamental Shear Horizontal Wave Mode*, Journal of Vibration and Control, SAGE Publications, Vol. 30(23), pp. 5359–5368, 2023.
Immersion-Based Non-Collinear Shear Wave Mixing: Effects of Experimental Assembly on Scattering Directivity and Nonlinear Characterisation, Nondestructive Testing and Evaluation, 2026.
He has also completed specialized courses in:

- Advanced Non-Destructive Evaluation conducted by Prof. Krishnan Balasubramaniam.

Structural Health Monitoring and Guided Wave Ultrasonics conducted by Prof. Prabhu Rajagopal.

5. The Best Student Achievement Award (Graduate Studies) “Kiran Award” sponsored by Prof.D.R.Kiran was awarded to, Mr.M.Nithin Kumar, Veltech college, Chennai for the year 2025.

Mr. M. Nithin Kumar is a student of B.Tech. Aeronautical Engineering at Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai, currently pursuing his sixth semester.
He has developed an interest in Unmanned Aerial Vehicles (UAVs) and has gained familiarity with Ultrasonic Testing (UT), Dye Penetrant Testing (DPT), and Eddy Current Testing (ECT).

SOUND BYTES AUTHORS 17TH TO 20TH ISSUE

1. B. Ram Prakash	6. Umakanthan Anand	11. S.Ponnappan
2. M.Manimohan	7. V.Sankaranarayanan	12. John David M.
3. R.J. Pardikar	8. S.Dwarakanathan	13. Shanmuga Priya
4. R. Balakrishnan	9. B.Ramasethu	14. G.Nandha
5. Dr.Prabhu Rajagopal	10. S.Sundararaman	

Birthday celebration of EC members during May and June 2026

ISNT Chennai chapter has organized ISO 9001:2015 Lead Auditor training program in association with LRQA from 22nd to 26th June 2026 for 10 participants.

SOME OF THE KEY FEATURES OF ISO 9712 AND SNT-TC-1A.

By Mr. M.Manimohan, Manager (Retired), NDTL, BHEL, Trichy ,
Mr. Parthapratim Brahma, Mentor, Twi India; Ex Lloyd's Register and
Mr. R Balakrishnan, Manager-CQ-BHEL (Retd)

Sl.No	Aspect	ISO 9712	SNT-TC-1A
1	Title	Non-Destructive Testing – Qualification and Certification of NDT Personnel	Recommended Practice No. SNT-TC-1A: Personnel Qualification and Certification in Non-destructive Testing
2	Issuing Organization	International Organization for Standardization	American Society for Non-destructive Testing
3	Nature of Document	International Standard	Recommended Practice to establish a training, qualification and certification process by employer in the form of a Written practice, approved by NDE Level III
4	Certification System	Third-party certification	Employer-based certification
5	Certifying Authority	Independent Certification Body accredited to ISO17024	Employer
6	Worldwide Acceptance	Globally accepted certification particularly popular in pressure equipment industry complying with Pressure Equipment directives of EU	Globally recognised standard for employer-based certification as mandated by construction code like ASME BPVC
7	Responsibility for Certification	Certification Body	Employer's Authorised responsible person
8	Written Practice	Not mandatory from employer	Mandatory
9	Employer's Role	Limited to authorization	Major role in qualification and certification
10	Examination Body	Authorised Qualifying Body (AQB)	Employer's NDE Level III or designated agency
11	Vision Requirements	Mandatory and standardized	Mandatory as per employer's Written Practice
12	Training Requirements	Strictly specified	Recommended minimum hours or higher to be specified in the Written Practice
13	Experience Requirements	Strictly defined	Recommended minimum hours or higher to be specified in the Written Practice
14	Recertification	Mandatory periodic recertification	Mandatory based on employer Written practice
15	Validity Period	Usually 5 years with renewal/ recertification	Recommended 5 years and as specified in Written practice
16	Practical Examination	Mandatory with grading criteria	Mandatory with 10-point check list
17	Employer Independence	Independent certification	Employer dependent
18	Traceability	centralized records maintained by Certification Bodies	Employer maintains records according to written practice and construction codes

Educational Qualification- Direct Access -Level II & III

ISO 9712		SNT-TC-1A/2024	
Level II	Level III	Level II	Level III
secondary education	Higher Education	Sufficient education Qualification	Degree in Engg/Science

Experience requirements-Direct Access -Level II & III

Method	ISO 9712		SNT-TC-1A/2024	
	Level II	Level III	Level II	Level III
VT	60 days (420 Hrs)	360 Days	210 Hrs	210 Hrs + 1 year
PT	60 days (420 Hrs)	360 Days	210 Hrs	210 Hrs + 1 year
MT	60 days (420 Hrs)	360 Days	280 Hrs	280 Hrs + 1 year
RT	180 days (1260 Hrs)	540 Days	840 Hrs	840 Hrs + 1 year
UT	180 days (1260 Hrs)	540 Days	840 Hrs	840 Hrs + 1 year
	Minimum @ 7 hours per day			

Minimum duration for Training - Direct Access to Level II & III

Method	ISO 9712/2021		SNT-TC-1A/2024	
	Level II	Level III	Level II	Level III
VT	5 days (35 Hrs)	8 days (56 Hrs)	24 Hrs	Level II Training plus Additional training as defined in the written Practice
PT	5 days (35 Hrs)	8 days (56 Hrs)	12 Hrs	
MT	5 days (35 Hrs)	9 days (63 Hrs)	20 Hrs	
RT	15 days (105 Hrs) *	20 days (140 Hrs)*	80 Hrs	
UT	18 days (126 Hrs)	23 days (161 Hrs)	80 Hrs	
	1 day @ 7 hours- *RT without safety			

Exam-Minimum Number of questions-Theory & Practical- Level II

Method	General		Specific		Practical	
	ISO 9712	SNT-TC-1A	ISO 9712	SNT-TC-1A	ISO 9712	SNT-TC-1A
VT	40	40	20	20	2 Specimen + Instruction writing for 1 specimen	1 specimen No instruction writing
PT	40	40	20	20		
MT	40	40	20	20		
RT	40	40	20	20		
UT	40	40	20	20		

Vision requirement

Parameters	ISO 9712	SNT-TC-1A
Near Vision	Minimum J1 or Times Roman N 4.5 or equivalent	Minimum J2
Colour contrast	Colour differentiation using ISHIHARA Chart	Colour differentiation using ISHIHARA Chart
Duration	Vision acuity-Annually Colour vision-every 5 years	Vision acuity-Annually Colour vision-every 5 years
Responsibility	Ophthalmologist/ Physician/ Nurse/ approved person by Level 3 of the employer	Employer or nominated personnel by the Employer

Certificate Validity & Renewal Period

Parameters	ISO 9712	SNT-TC-1A
	Validity Period	
Validity	5 Years	5 Years
Expiry date	Not specified	Last day of the month
	Renewal	
Renewal by	Certification Body	Employer / Employer's authorized Level 3
Renewal Period	Additional 5 years	Additional 5 years
Applying period	Before the expiry date and not later than 12 months	Before the expiry or within 3 months after expiry

Disclaimer

This comparison is not exhaustive and therefore may not contain all the requirements of the standards. The reader is advised to refer to the actual standard for complying with the requirements.

FIELD RADIOGRAPHY

By Mr.S.Sundararaman, Manager (Retired), NDTL, BHEL, Trichy

Radiography is generally conducted in approved radiography installations. It can also be conducted in places other than approved installations with the approval of Radiation safety Division (RSD) of Atomic Energy Regulatory Board (AERB), Mumbai

Why field radiography?

Whenever it takes a longer time for loading the job/specimen(because of faraway locations) inside approved installations for radiography, it increases the cycle time enormously.

When handling the job for loading inside radiography installations becomes too difficult because of trivial nature and large size of the job

For ex: In a large size steam generator, suppose one of the nozzles of dia 32 mm is damaged because of mishandling, it would invite all operations to be repeated including heat treatment, leading to enormous increase in cycle time .

Such situations warrant radiography in open places called field radiography.

The requirements are

01. Can be conducted whenever the occupancy is minimum
02. Cordon off the area to a distance where the permissible limit for public exist
03. Warn the public by displaying warning lamps and warning boards in local language and in English

Cordon off can be calculated by the following formula

$$P = \frac{WUT}{d^2}$$

P – Permissible level of radiation for the members of the public as prescribed by AERB- 2mR/Week (20µGy/week).

W – It is defined as the weekly work load, expressed in terms of R/ week / 1 meter for Gamma sources. & mA min for X ray sources- the sum of all exposure times

U - Use factor that is the portion of the area which is occupied by radiation in the atmosphere.

U=1 for panoramic

¼ for the direction other than the primary beam

d- Distance to which the cordon off has to be done.

T-occupancy factor-Fraction of total time spent by radiation workers/members of the public in radiation field.

T- 1 for full, ¼ for partial, 1/16 for occasional

For ex: For work load 5 hours /week, 5 Ci of Ir192, for panoramic exposure and full occupancy

The cordon off distance would be 79 meters

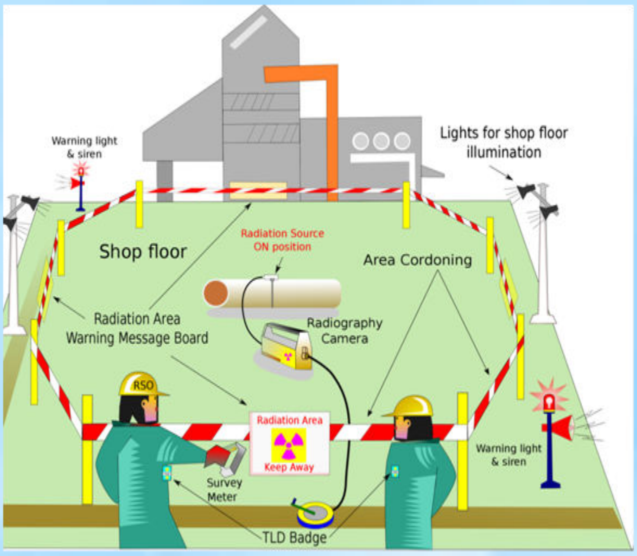
Permitted use of Sources: With low energy gammaradiography sources like Ir^{192}, X-ray equipment or mobile accelerators (Betatron)

Location: Open areas in refinery, fabrication work shop, Gas pipe line through uninhabited areas

Special care is to be taken in the case of proximity of members of public, weather conditions, work at height, confined spaces like inside closed vessels etc.

Prior to work, a thorough assessment of working environment shall be made to address any site issues that may hinder the work. Needless to point out that the source shall be brought safely from approved enclosure after making entry in the log book for the work.

Approved Safety Site in charge shall be in charge of the site.



REF: AERB Safety Guide for Industrial Radiography AERB / RF / SG / IR/ -Dec '25

NDE IS NOT AN END-OF-LINE ACTIVITY—THE UNTOLD STORY OF NDE SUCCESS; IT STARTS BEFORE INSPECTION

BY Mr.S.PONNAPPAN, HEAD QA, L & T CONSTRUCTION, KUDANKULAM, TIRUNELVELI

Introduction: Looking beyond the test itself

In the first article of this series— *"Overview and Challenges in Non-Destructive Examination (NDE) in Manufacturing, Construction & Process Industries"*—several long-standing challenges affecting NDE reliability were examined, including personnel competency, alignment with standards, technology adoption, and practical field constraints.

This second article takes the discussion a step deeper by addressing a more fundamental reality—one that is frequently overlooked but repeatedly proven through project experience:

Most NDE failures are not inspection failures. They are planning and integration failures.

Across industries, inspection outcomes are often judged at the testing stage. However, the conditions that ultimately determine whether NDE will succeed—or struggle—are established much earlier, often long before the first probe is placed or the first exposure is taken.

Reframing the Real challenge in NDE execution

One of the most persistent misconceptions in NDE practice is the belief that inspection effectiveness depends primarily on advanced techniques, sophisticated equipment, or highly experienced & certified inspectors. While all of these are essential, they are rarely the limiting factors.

The real challenge lies in the *absence of competent and coordinated involvement of relevant stakeholders throughout the lifecycle of a component or structure*—from conceptual design and detailing to fabrication, inspection planning, execution, and final acceptance.

Despite decades of technological advancement, NDE is still widely perceived as an activity performed *after* fabrication is complete. This narrow perception continues to drive avoidable inspection difficulties, rework cycles, schedule delays, and technical disputes across manufacturing, construction, and process industries.

The Persistent Myth: *NDE as a final checkpoint*

In many projects, NDE is initiated only when welding is completed and the job is declared "ready for inspection." While this approach may satisfy procedural requirements on paper, it often falls short in real execution environments.

Effective NDE is not defined by the act of inspection alone. Rather, it is the *cumulative result of multiple technical and planning decisions made much earlier in the project lifecycle*—often by personnel who may not consciously view themselves as contributors to the NDE process.

When NDE is treated as a final checkpoint, it becomes reactive by nature. When it is treated as a planned engineering function, it becomes a powerful enabler of quality and reliability.

NDE Is Not a Standalone Responsibility

Another common misconception is that responsibility for NDE rests solely with inspection personnel. By the time inspectors arrive at site, most of the critical constraints governing inspection feasibility have already been fixed—material selection, joint configuration, welding process, fabrication sequence, and physical accessibility.

When these upstream decisions are taken without adequate consideration of NDE requirements, inspectors are forced to work within limitations that were never evaluated from an inspection perspective. The outcome is predictable: restricted access, compromised coverage, repeated clarifications, deviations from specified methods, and inconsistent inspection reliability.

Inspection personnel do not create these constraints—they inherit them.

Design Decisions Shape Inspection Reality

The success of NDE is often determined at the design stage. Choices related to material grades, thickness ranges, joint geometries, and acceptance criteria directly influence what can realistically be inspected.

In many projects, design documents correctly specify technically appropriate NDE methods based on engineering intent. However, during execution, practical realities—complex geometries, limited access, or construction sequencing—may challenge the original inspection assumptions.

When design, fabrication, and NDE specialists engage early and collaboratively, inspection approaches can be refined proactively. This avoids late-stage revisions, reduces execution delays, and ensures inspection effectiveness without compromising quality or compliance.

These situations highlight a recurring systemic issue*: inspection requirements are often specified without validating their practical executability in the field***.**

Fabrication Without NDE Awareness Creates Downstream Challenges
A similar disconnect frequently emerges during fabrication. Production teams, understandably focused on dimensional accuracy and weld quality, may not fully recognize how fabrication sequence influences NDE accessibility.
When welds are completed in configurations that restrict probe movement, radiation geometry, or scanning coverage, the impact becomes evident only when inspection begins. At that stage, corrective options are limited, costly, and disruptive.
Field experience consistently shows that even basic NDE awareness during fabrication planning—such as weld sequencing, provision of inspection windows, or temporary access allowances—can eliminate many downstream challenges and significantly improve inspection outcomes.

Procedure Preparation: A technical discipline, not a formality
Preparation of NDE procedures is often treated as a documentation exercise aimed primarily at compliance. In reality, it is one of the most technically critical stages of the inspection process.
Selecting an NDE method alone is not sufficient. The chosen technique must be compatible with material characteristics, thickness, geometry, accessibility, and applicable codes and standards. Over-reliance on generic procedures or superficial interpretation of code clauses frequently results in ineffective inspections or rejection by clients and regulatory authorities.
This stage demands not only formal certification, but also sound engineering judgment, typically best provided by experienced NDT Level III professionals who understand both code intent and field realities.

Execution and Evaluation: Where integration gaps become visible
Even with approved procedures in place, execution-stage challenges continue to surface—calibration control issues, deviation from essential variables, inconsistent interpretation of indications, and incomplete documentation.
These issues are not always the result of individual competency gaps. More often, they reflect insufficient technical guidance, inadequate supervision, or unclear procedural intent. Complex evaluations require structured involvement of senior NDT authorities rather than isolated decision-making at site level.
Execution quality is ultimately a reflection of how well earlier stages were aligned.

Coordination: The most overlooked factor in NDE success
Across industries and project environments, one conclusion consistently emerges:
NDE challenges are rarely technical alone—they are coordination failures.
Design, fabrication, welding, QA, and NDT teams often function in parallel rather than in alignment. Each discipline may meet its individual objectives, yet the overall inspection outcome suffers. Effective NDE requires these functions to operate as an integrated quality system, not as isolated silos.

A Necessary Shift in Mindset
Decades of project experience point to a simple but powerful truth:
NDE quality cannot be inspected into a component—it must be engineered into it.
When NDE is embedded into design, planning, and execution—rather than treated as an end-of-line activity—inspection reliability improves, rework reduces, and regulatory confidence strengthens. This shift in mindset is particularly critical in high-integrity sectors such as nuclear power, oil & gas, and process industries, where inspection outcomes directly influence safety and long-term performance.

Conclusion: The Opportunity Ahead
The industry does not suffer from a lack of advanced NDT techniques or technologies. The real opportunity lies in *integrating inspection thinking at every stage of the project lifecycle.*
Until NDE is recognized as a shared, multidisciplinary responsibility—embraced by designers, fabricators, welding engineers, QA professionals, and inspectors alike—execution challenges will continue to repeat themselves, regardless of how advanced our inspection tools become.
In the next article of this series, *practical frameworks and actionable strategies for achieving this integration will be explored*—turning NDE from a reactive necessity into a proactive driver of quality excellence.

By Mr. Dwarakanathan S (SDN), Ramakrishna Titagarh Railwheels Limited

VISSION & MISSION

Vision Statement – An Introduction

A Vision Statement describes the future aspiration of the institution — what the organization aims to become or achieve in the long term. It reflects ambition, inspiration, and the broader impact the institution wants to create in society, industry, or education.

A strong vision statement should:

- Be future-oriented.
- Inspire stakeholders.
- Reflect organizational values.
- Be clear and concise.
- Indicate long-term impact.

Purpose of a Vision Statement

The vision helps:

♦ Provide strategic direction.
♦ Inspire trainers, staff, and learners.
♦ Build organizational identity.
♦ Align long-term goals.
♦ Enhance institutional credibility.

Key Elements of an Effective Vision

An institutional training organization's vision generally includes:

* Excellence in education/training.
* Skill development and competency building.
* Innovation and technology adoption.
* Industry relevance.
* Societal contribution.
* Global or national recognition.

Mission Statement – An Introduction

A **Mission Statement** defines the institution's present purpose — what it does, whom it serves, and how it operates to achieve the vision.

It explains:

- The institution's core activities.
- Target audience.
- Training methodology.
- Commitment to quality and improvement.

The mission is practical and action oriented.

Purpose of a Mission Statement

The mission helps**:**

◊ Define operational focus.
◊ Guide day-to-day activities.
◊ Communicate organizational purpose.
◊ Establish accountability.
◊ Support policy and quality objectives.

Key Elements of an Effective Mission

A training institution's mission commonly includes:

⇒ Delivering quality training.
⇒ Enhancing competency and employability.
⇒ Industry collaboration.
⇒ Experienced faculty and infrastructure.
⇒ Continual improvement.
⇒ Ethical and professional standard.
⇒ Research and innovation.

Key Difference Between Vision & Mission

Aspects	Vision	Mission
Meaning	Future Aspiration	Present Purpose
Focus	What the company wants to become	What the company does
Timeframe	Long-term	Current and ongoing
Nature	Inspirational	Operational
Purpose	Direction and motivation	Execution and action
Answers	Where are we going?	What do we do

Vision – Futuristic with progressive time plan with target.
Mission – Execution of activities to achieve the target considering the current conditions, identifying the gaps and achieving the same.

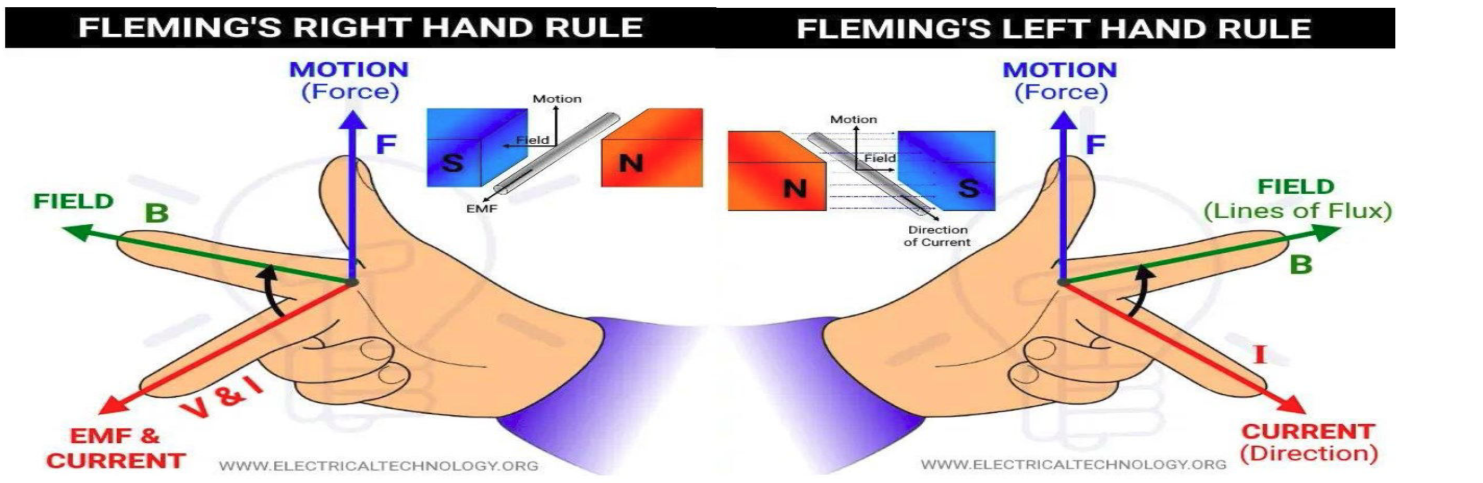
To be continued ….

Comparison of Fleming's Right-Hand Rule and Fleming's Left-Hand Rule

R Balakrishnan, Manager-CQ-BHEL (Retd)

Comparison of Fleming's Right-Hand Rule and Fleming's Left-Hand Rule

Aspects	Fleming's Right-Hand Rule	Fleming's Left-Hand Rule
Principle	Based on **Electromagnetic Induction**.	Based on **Motor Effect**.
Applications	**Current Produced** ☐ DC Generators ☐ Alternators ☐ Bicycle Dynamos ☐ Electromagnetic induction problems	**Motion Produced** ☐ DC Motors ☐ AC Motors ☐ Loudspeakers ☐ Electromagnetic relays
Finger's Representation	☐ **Thumb** → Motion of conductor ☐ **Forefinger** → Magnetic Field (N to S) ☐ **Middle Finger** → Induced Current	☐ **Forefinger** → Magnetic Field ☐ **Middle Finger** → Current ☐ **Thumb** → Force/Motion
Purpose	Determines the direction of **induced current (or emf)** in a conductor moving in a magnetic field.	Determines the direction of **force (motion)** on a current-carrying conductor placed in a magnetic field.
Hand Used	Right Hand	Left Hand
Thumb Represents	Direction of **motion** of the conductor.	Direction of **force or motion** produced.
Forefinger Represents	Direction of **magnetic field** (N to S).	Direction of **magnetic field** (N to S).
Middle Finger Represents	Direction of **induced current**.	Direction of **current**.
Input and Output	Motion + Magnetic Field → Induced Current	Current + Magnetic Field → Force (Motion)



ISNT
INDIAN SOCIETY FOR NON DESTRUCTIVE TESTING

Chief Compiler:
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