



CONFERENCE PROGRAM

34th Annual Conference and Exhibition on Non-Destructive Evaluation & Enabling Technologies (NDE 2024)

www.isntnde.in

Organised by Indian Society for Non-Destructive Testing (ISNT)

DAY 1: THURSDAY, 12th DEC 2024

NDE CONFERENCE INAUGURATION

THURSDAY, 12TH DECEMBER 2024 - 9:15 - 10:45 HRS

EXHIBITION INAUGURATION

12TH DECEMBER 2024 - 10:45 - 11:00 HRS

TEA BREAK

12TH DECEMBER 2024 - 11:00 - 11:30 HRS

MEMORIAL TALKS

12TH DECEMBER 2024 - 11:30 -13:00 hrs

Hall	Hall A: BHABHA			
Session Chairperson:	Shri K Vishwanathan, Past President-ISNT, Trustee- Qunest Foundation			
Time	Memorial Talk	Title of the talk	Name of the Speaker	Organization
11:30-12:15	Mr Ramesh Bhai Parikh Memorial Talk	Evolution of Integral Coach Factory - Vande Bharath journey	Sri U. Subba Rao	GM, ICF-Chennai
12:15-13:00	Dr. Baldev Raj Memorial talk	Novel Methods for Improving the Quality of Additively Manufactured Components	Prof. Satish Udpa	Michigan State University, USA

LUNCH

12TH DECEMBER 2024 – 13:00 -14:30 hrs

PLENARY SESSION: I

12TH DECEMBER 2024 - 14:30 -16:00 hrs

Session Number	Plenary Session : 1		
Hall	Hall A: BHABHA		
Session Chairperson:	Dr R J Pardikar		
Time	Title of the talk	Name of the Speaker	Organization
14:30-15:00	NDT Personnel Certification Trends & Harmonization-How Do You Recognize the Needs of Personnel Certification in your Industry	Dr.Sajeesh Babu	ICNDT
15:00-15:30	Multi-Modal, In-Motion Rail Damage Detection and Characterization	Prof. Lalita Udpa	Michigan State University, USA
15:30-16:00	Detection of Early-Stage Corrosion in Reinforced Concrete Using Ultrasonic and Electromagnetic Methods	Prof. David Z Fan	NTU, Singapore

OPEN SESSION (e-Poster Session-I, Visit to Exhibition & Tea Break)

12TH DECEMBER 2024 - 16:00 -17:00 hrs

E-Poster Panel No	Abstract No.	Title of the Poster	Name of the Speaker	Organization
1	CP143	Electromagnetic Simulation Studies for The Detection of Defects In Magnetic Steel Using Third Harmonic Analysis Method	Dr., Chandra Sekhar, Angani	GITAM
2	CP97	PZN-PT Based Surface Acoustic Wave Transducer for NDE Application	Dr., Sarguna, R M	IGCAR, DAE
3	CP19	Development Of a Novel Laser Assisted Alignment Procedure for The Erection of EOT Cranes	Mr., Kaliamoorthy, Govindarajan	IGCAR, DAE
4	CP137	In-Situ Phased Array Ultrasonic Evaluation for Characterizing Solid-Liquid Interface During Continuous Casting of Steel	Mr., KARTIK, RAMESH, PAGE	IIT-Madras
5	CP138	Guided Wave Phased Array Imaging for Thin Plate Inspection Using Full Matrix Capture and Virtual Array Source Aperture	Mr., Kaushal, Jagannath, Bachhav	IIT-Madras
6	CP64	Eddy Current Thermography Technique for He Cooled Plasma Facing Components	Mr., Kedar, Satish, Bhope	IPR-Gandhi Nagar
7	CP16	Robotics And Automation In NDE	Mr., KULDEEP, SHARMA	Dura-Bond Industries
8	CP134	Study And Comparison of Different Staggered EMAT Configuration to Generate Ultrasonic Guided Wave in Pipe Structures	Mr., Pranaydeep, Garewal	IIT-Madras
9	CP133	Development of a Noise-Based Passive Structural Health Monitoring System for Composite Structure	Mr., Rahul, Kumar, Pandit	IIT-Madras

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10	CP129	Enhancing SNR In Bulk Wave EMATs Through Concentrated Static Magnetic Field in Eddy Current Regions	Mr., Vinay, Mudapaka	IIT Madras
11	CP132	Application Of Extreme Learning Machine (ELM) Algorithm for Predicting Life Expectancy of Concrete Structures Using Non-Destructive Test Results: A Comparative Study	Dr., Lukesh, Parida	IIT-Bombay
12	CP88	Advancement in Quantification of Early-Stage Local Damages in Metals through Nonlinear Ultrasonic Inversion and Bayesian Analysis	Mr., Pravinkumar, Ramchandra, Ghodake	IIT-Bombay
13	CP66	Understanding the Temperature Effects on PZT-Based Embeddable Transducers	Mr. Tejas, Shelgaonkar	NIT Warangal
14	CP192	Review and Comparison of NDT Methods for Wind Turbine Blade Inspection: A Comprehensive Overview	Mr., Arun Kumar Sharma	Shell India Markets Private Limited

WORKSHOP ON SCIENTIFIC WRITING BY SPRINGER

12TH DECEMBER 2024 - 16:00 -17:00 hrs

Hall	Hall C: RAMAN
Speaker:	Ms. Swati Meherishi, Editorial Director – Applied Science and Engineering, Springer Nature

APFNDT BOARD MEETING

12TH DECEMBER 2024 - 15:30 -18:30 hrs

Venue	Board Room
Attendees	APFNDT Board Members

STRUCTURAL HEALTH MONITORING

12TH DECEMBER 2024 - 17:00 -18:30 hrs

Session Number	1A			
Hall	Hall A: BHABHA			
Session Chairperson:	Dr Marc Kreutzbruck			
Keynote Speaker(s):	Prof. Balaji Srinivasan			
Time	Abstract No.	Title of the talk	Name of the Speaker	Organization
	From	To		

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17:00	17:25	IT15	Opportunities for Distributed Fiber Sensors for 3P in Industrial Environments	Prof. Balaji Srinivasan	IIT-Madras
17:25	17:38	CP79	Implementation of Structural Health Monitoring using Distributed Fiber Optic Sensing on Composite Aircraft Structure	Dr. Amitabha Datta	NAL, Bangalore
17:38	17:51	CP141	Baseline-Free SHM of Thin-Walled Structures using Non-Contact Sensing	Mr. M. Kannusamy	CSIR-SERC, Chennai
17:51	18:04	CP46	Evaluation Of Measurement Uncertainty Of Silicon Elastomer Based Impression Technique For Quality Control Of Fine Defect Standards For NDT Sensor Calibration	Ms. Samadrita Chakraborty	BARC, Mumbai
18:04	18:17	CP108	Wavelet Packet Transform-based Bridge Monitoring under Moving Loads using Limited Sensors	Dr. J. Prawin	CSIR-SERC, Chennai
18:17	18:30	CP160	Towards Optimal Safety Factors in Hydrogen Vessels	Prof., Yoshihiro Mizutani	Institute of Science Tokyo

ADVANCES IN RADIOGRAPHY IMAGING

12TH DECEMBER 2024 - 17:00 -18:30 hrs

Session Number		IB			
Hall		Hall B: KALAM			
Session Chairperson:		R Gunasekaran			
Keynote Speaker(s):		Hajo Schulenberg			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
17:00	17:25	IT02	Industrial 4.0 – NDT 4.0 – AI - Is this enough to have a good X-ray system ?	Hajo Schulenberg	Visi Consult, Germany
17:25	17:38	CP38	Radiography Inspection of Weld on Pipe using Flexible Detectors	Mr., Sheri, George	Baker Hughes
17:38	17:51	CP153	Discovering bendable detectors in NDT	Mr., Steven, Wissels	Waygate Technologies
17:51	18:04	CP32	Study of NDE Imaging Qualities of High-Energy RT System	Dr., Lakshminarayana, Yenumula	BARC
18:04	18:17	CP114	Automatic X-Ray Based PHWR Fuel Pin Scanning System	Mr., Sayan, Banerjee	BARC
18:17	18:24	CP151	Performance Evaluation of Array Based Digital Detector Used in Radiography Testing of End Plug Welds of Fast Breeder Reactor Pins	Mr., Altaf, Ali	NFC
18:24	18:31	CP55	End Plug Weld Evaluation of FBTR Fuel Pins by Computed Radiography	Mrs., Jyoti, Gupta	BARC

Short Paper

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NDE FOR AEROSPACE: METALLIC COMPONENTS-I

12TH DECEMBER 2024 - 17:00 -18:30 hrs

***Short Paper**

Session Number		IC			
Hall		Hall C: RAMAN			
Session Chairperson:		Dr Srinivas Kuchipudi			
Keynote Speaker(s):		Smt M R Vijaya Lakshmi			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
17:00	17:25	IT03	Role of NDE in Damage Tolerant Design	M R Vijaya Lakshmi	GTRE, DRDO
17:25	17:38	CP123	Application of Automated inspection using Phased Array Ultrasonics for the Assessment of Weld joints of Aluminium alloy Propellant tanks of Satellite Launch Vehicles	Mr., SYAMKUMAR, S	LPSC, ISRO
17:38	17:51	CP100	Ultrasonic Inspection Methods in Aerospace Industry and the Benefits of Reverse Phasing Contour Adaptation Technique for Composites	Mrs., Neelam, Bhagasra	Waygate Technologies, Baker Hughes,
17:51	18:04	CP37	An Ultrasonic Figure of Merit Perspective for Airworthiness Qualification of High Pressure Turbine Rotors	Dr. Phani Mylavarapu	DMRL, DRDO
18:04	18:17	CP186	Fuzzy Logic-Based Computational Analysis of Ultrasonic NDT Data for Accurate Failure Prediction	Joseph, J, Kakkassery	Vel Tech
18:17	18:24	CP77	Enhancing Subsurface Defect Detection in AA2219 Aluminium Alloy Welds: A Comparative Study of X-ray Radiography Techniques	Mr., Kamesh Guru, G	ISRO Propulsion Complex
18:24	18:31	CP180	Analysis of DCSP-TIG weldment of Aluminium alloy AA2219 by phased array ultrasonic technique (PAUT) with and without flushing of weld beads for circumferential seam welds of propellant tankages for launch vehicles	Mr., SARVESH, KUMAR	LPSC, ISRO

***Short Paper**

NDE FOR ENERGY SECTOR-I

12TH DECEMBER 2024 - 17:00 -18:30 hrs

Session Number		ID			
Hall		Hall D: SARABHAI			
Session Chairperson:		Dr Deepesh Vimalan			
Keynote Speaker(s):		Dr David Alleyne			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
17:00	17:25	IT04	Guided Wave Testing over the last 4 decades	Dr David Alleyne	Guided Ultrasonics Limited, US

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17:25	17:38	CP2	Robotic inspections of storage tanks, pressure vessels, boilers using PetroBot Robots Field Experiences	Mr., Sahab, Singh, Gurjar	PETROBOT TECHNOLOGIES PVT LTD
17:38	17:51	CP10	Problem of proxy radiography of weld joints and its solution	Mr., VIKASH, PRATAP, SINGH	NTPC, New Delhi
17:51	18:04	CP182	Tethered Intelligent Pigging	Mr., Amar, Raghoba, Naik	NDT Technologies (P) Ltd
18:04	18:17	CP118	Automation of ID visual inspection of 30m long Alloy 800 steam generator (SG) tubes for 700 MWe PHWRs At Nuclear Fuel Complex, Hyderabad	Mrs., Tirumala Sudheer Kumar, Vuddanti	NFC, Hyderabad
18:17	18:30	CP35	Regaining the lost capacity of Boilers in power plant using NDE techniques	Dr., R, J, PARDIKAR	TWI INDIA PVT LTD
18:30	18:37	CP24	Non-Destructive Examination of Actively Cooled High Heat Flux Components Produced by Vacuum Brazing	Mr., Ravi, Pandey	IPR, Gandhi Nagar

*Short Paper

CULTURAL PROGRAMME & NETWORKING DINNER

12TH DECEMBER 2024 - 18:30 Onwards

END OF DAY I

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DAY 2: FRIDAY, 13th DEC 2024

PLENARY SESSION: II

13TH DECEMBER 2024 - 09:00 -10:00 hrs

Session Number	Plenary Session : II		
Hall	Hall A: BHABHA		
Session Chairperson:	Shri Diwakar D Joshi		
Time	Title of the talk	Name of the Speaker	Organization
09:00-09:30	Data Management in Ultrasonic Assessment of Concrete Structures	Prof. Herbert Wiggerhauser	Consultant in NDT in Civil Engineering
09:30-10:00	NABL Accreditation delivering confidence to NDT Laboratories	Anuja Anand	Director, Head Operations Testing, NABL

PANEL DISCUSSION ON INDIAN NDT CERTIFICATION

13TH DECEMBER 2024 - 10:00 -10:30 hrs

Session Number	Plenary Session : II		
Hall	Hall A: BHABHA		
Session Moderator	Ms Navita Gupta, Director, Satyakiran		
	Panellist	Organization	
	Dr Sajeesh Babu	Chairman, ICNDT	
	R Srikanth	Director, NABL	
	Dr Paritosh Nanekar	Chairman, NCB	
	C M Latkar	GM, Mazagon Dock	

TEA BREAK

13TH DECEMBER 2024 - 10:30 -11:00 hrs

INDUSTRY SESSION: NUCLEAR

13TH DECEMBER 2024 - 11:00 -12:30 hrs

Session Number	2A	
Hall	Hall A: BHABHA	
Session Lead	Shri Kamalesh Kumar, NFC Hyderabad	
Keynote Speaker(s):	Shri Sundar Singh	Outstanding Scientist and Associate Director (QA), NPCIL HQ
	Dr Paritosh Nanekar	Outstanding Scientist & Head, AFD & PIED, BARC BARC, Mumbai
	Dr Anish Kumar	Assoc. Dir, Materials Characterisation Group & Head, NDE Division IGCAR, Kalpakkam
	Shri Kamalesh Kumar	GM, NFC, Hyderabad
	Shri V Chinnasamy	Head QA/QC/NDE, L&T Heavy Engineering IC

INDUSTRY SESSION: EV & BATTERIES

13TH DECEMBER 2024 - 11:00 -12:30 hrs

Session Number	2B		
Hall	Hall B: KALAM		
Session Lead	Samaresh Changdar, Waygate Technologies		
	Name of the Speaker	Organization	Title of the talk
Keynote Speaker(s):	Mr Robin George, Vice President	Log9 Materials	Challenges & opportunities of LiB development in India the Crucial Role of Non-Destructive Evaluation batteries inspection.
	Dr. Raja Munusamy, Senior Vice President	Reliance India Battery R&D	The future prospect of LiB growth in India & Role of NDE for LiB manufacturing & Quality Control
	Mr. Ramprakash Head,	Vehicle Technology, Greencell Mobility	Current & Future Prospective of Commercial EV in India and the role of NDE
	Dr. C V Manohar, Head	Agratas, Tata Trust, Bangalore	Current & Future prospective of LiB demand in India for mobility and the Crucial Role of Non-Destructive Evaluation batteries inspection
	Mr. Bechir El Melki, Director	MENATI, Waygate Technologies	The global transformation towards EV & H2 powered vehicles & role of NDE for manufacturing & Quality Control
	Mr. Anshuman Roy, VP	Bajaj Auto, Pune	Current & Future prospective of EV in India and the Crucial Role of Non-Destructive Evaluation (NDE) in the 2 wheeler EV Segment (with focus on batteries)

INDUSTRY SESSION: AEROSPACE

Tackling Material Inspection Challenges with Cutting-Edge NDE Innovations

13TH DECEMBER 2024 - 11:00 -12:30 hrs

Session Number	2C		
Hall	Hall C: RAMAN		
Session Chair	Dr PVS Kuramanath, SDSC, SHAR		
Session Lead	Dr Debashish Mishra, GE Aerospace		
11:00 -11:05	Welcome and kick off session	Dr Debasish Mishra	
11:05-11:20	Invited lecture 1 : Aviation	Dr K Sriram, Principal Scientist, GE Aerospace	Composite Materials in Aircraft Engines: Challenges and Innovations in Manufacturing and Inspection
11:20 -11:35	Invited lecture 2 : Space	Sri S Harikrishna, ISRO	
11:35 – 11:55	Invited lecture 3 : NDT Services	Sri Shashidhar Pallaki, Pallaki NDT	The role of NDE service providers in the aerospace industry, as well as challenges and opportunities
12:00 – 12:30	Panel discussion Inspections best practices in Aerospace to improve Product Safety/Quality		
	Moderator	Mr Sujan Lingala, Global Flight Safety Leader, Product Safety and Airworthiness & Certification, Flight Safety Office, GE Aerospace	
	Panelist 1	Shakti Singh, Corporate Quality, Tata Advanced Systems Ltd, India	
	Panelist 2	Dr K Sriram, Principal Scientist	
	Panelist 3	Sri S Harikrishna, ISRO	
12:30-12:35	Wrap up and vote of thanks	Dr PVS Kuramanath	

INDUSTRY SESSION: OIL & GAS

13TH DECEMBER 2024 - 11:00 -12:30 hrs

Session Number	2D		
Hall	Hall D: SARABHAI		
Time	Topic and Speaker		
14:00 - 14:05	Welcome note	Sh U Anand, Convener ISNT NDE 2024	
14:05 - 14:20	Introduction of participants		
14:20 - 14:30	Advanced NDE in a Process Industry	Sh Chirag Darji, RIL	
14:30 - 14:40	Application of NDE	Sh Devang Majithia, HPCL	
14:40 - 14:50	Improvising NDE techniques for specific applications in process Industries	Prof. Krishnan Balasubramanian, IITM	
14:50 - 15:20	Open forum for discussion and query		
15:20 - 15:30	Closeout remarks	Sh U Anand	

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JOINT SESSION OF PROFESSIONAL SOCIETIES

13TH DECEMBER 2024 – 11:00 -12:30 hrs

Session Number	2E
Hall	Hall E:BOSE
Session Moderator:	Dr M T Shyamsunder
Panelists	From different Professional Societies

LUNCH

13TH DECEMBER 2024 – 12:30 -14:00 hrs

STUDENT SESSION

*NDT for Career Opportunities & Enabler for
Entrepreneurship*

13TH DECEMBER 2024 – 14:00 -15:30 hrs

Session Number	3A		
Hall	Hall A: BHABHA		
Session Lead	Dr Joseph J Kakkassery, Veltech University		
Time	Title of the talk	Name of the Speaker	Organization
14:00 – 14:30	NDE Overview & Career Opportunities	Dr Prabhu Rajagopal	IIT Madras
14:30 -14:40	Career Pathways in Non-Destructive Evaluation	Dr Jyotirmayee Dash	Tera Lumen Solutions
14:40 – 14:50	How I landed up here – An NDE Career in Aerospace	Dr Esha Sengupta	GE Aerospace Research
14:50 – 15:00	A Journey on the less travelled	Dr Menaka	IGCAR
15:00 – 15:10	Unlocking Potential: A research Scholar's path in NDE	Loheshwaran Chandran	CNDE, IITM
15:10 – 15:30	Q&A Session		

NDE FOR AEROSPACE: METALLIC COMPONENTS-II

13TH DECEMBER 2024 – 14:00 -15:30 hrs

Session Number		3B			
Hall		Hall B: KALAM			
Session Chairperson:		Mrs M R Vijaya Lakshmi			
Keynote Speaker(s):		Dr Esha Sengupta			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
14:00	14:25	IT05	From X-rays to THz: The Evolution of Aerospace Inspection	Esha Sengupta	GE Aerospace
14:25	14:38	CP33	Development of an FDTD tool for wave propagation simulations in 3D polycrystals	R Sooraj	IIT-Madras
14:38	14:51	CP116	AUTOMATION OF PROCESSING OF X-RAY FILMS FOR RADIOGRAPHY OF SOLID PROPELLANT MOTORS	Mr., NAGARAJAN, K	VSSC, ISRO
14:51	15:04	CP162	Non-Destructive Evaluation Approach for Linear Bellow Systems in Indian Launch Vehicle Heat Shield Separation Mechanisms	Mr., Rajeev, J	VSSC, ISRO
15:04	15:17	CP187	Optimization of Eddy Current Testing Data Using Bio-inspired Algorithms for Enhancing Automation Systems	Dr R Gowari Shankar Rao	Vel Tech
15:17	15:24	CP72	Optimization of Film-to-X-ray Source Distance for Enhanced Subsurface Indication Detection in Multi-Layered Specimens using Radiography	Mr., ANTONY, PRABHU	ISRO Propulsion Complex

*Short Paper

ADVANCES IN UT: PHASED ARRAY-I

13TH DECEMBER 2024 – 14:00 -15:30 hrs

Session Number		3C			
Hall		Hall C: RAMAN			
Session Chairperson:		Dr Paritosh Nanekar			
Keynote Speaker(s):		Prof.Ik-Keun Park			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
14:00	14:25	IT06	Development of Simulation-Based Phased Array UT(PAUT) Demonstration Technology – Improvement of Inspection Accessibility and Replacement of RT with PAUT	Prof.Ik-Keun Park	Seoul National Univ of Science and Technology
14:25	14:38	CP161	Girth weld inspection with DLA probes and Adaptive TFM	Mr., Cyril, Thibault	TPAC
14:38	14:51	CP92	Solving 2D Corrosion Mapping Ultrasonic Inspection Challenge	Mr., Ajay, Bhatt	Evident Scientific pvt. Ltd.
14:51	15:04	CP179	Ultrasonic Imaging Technique for NDE: Arbitrary Virtual Array Source Aperture using Sign Coherence Factor	Dr., Thulsiram, Gantala	IIT-Hyderabad

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15:04	15:17	CP135	Development of Phased Array Ultrasonic Inspection Methodology for Inspecting Keyways in the Turbine Rotor Wheel Hubs	Dr., GMSK, CHAITANYA	IGCAR
15:17	15:30	CP69	Comparative study on over 150m of welded joints using established (PA/TOFD) and emerging (PCI/TFM) ultrasonic imaging methods	Florin, TURCU	Evident Scientific

APPLICATIONS OF NDE IN ENERGY SECTOR-II

13TH DECEMBER 2024 – 14:00 -15:30 hrs

Session Number		3D			
Hall		Hall D: SARABHAI			
Session Chairperson:		A K Das			
Keynote Speaker(s):		Dr. S. Thirunavukkarasu			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
14:00	14:25	IT07	Multi-NDE Inspection of Heat Exchanger Tubes	Dr. S. Thirunavukkarasu	IGCAR
14:25	14:38	CP14	Role of NDE in Qualification of Structural and Fuel Cladding Tubes for Nuclear Applications	Mr, Swarup, Acharya	NFC
14:38	14:51	CP29	Helium Leakage Measurement in a Set up for Permeation Rate Study	Mr., Hardik, R, Prajapati	Plasma and Vacuum Technologies
14:51	15:04	CP42	Quality Assurance challenges during Manufacture of Taper Roller Bearings for High Temperature Applications	Mr., Ramesh, G	IGCAR
15:04	15:17	CP178	Application of NDT Technique for Detecting Weld Joint Defects in Small Bore Connections and Dead Ends in Refinery and Chemical Plant Facilities	Aishwarya Gupta	HPCL-Mittal Energy Ltd.
15:17	15:24	CP25	Non-Destructive Examination & Testing of Integrated Vacuum Vessel Components	Mr., ATUL, KUMAR, PRAJAPATI	IPR, Gandhi Nagar
15:24	15:31	CP31	Ultrasonic Evaluation of Explosion Welded Joint with SS-Cu-Al	Mr., Ashutosh, Srivastava	BARC
15:31	15:38	CP155	Detection of Surface Opening Flaws Using Eddy Current Array Technique	Mr., Praveen, Dattatray, Bhosale	NPCIL

*Short Paper

COMPUTED TOMOGRAPHY

13TH DECEMBER 2024 – 14:00 -15:30 hrs

Session Number		3E			
Hall		Hall E: BOSE			
Session Chairperson:		Dr Andrey Bulavinov			
Keynote Speaker(s):		R Gunasekaran			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
14:00	14:25	IT08	Computed Tomography for NDE of Ordnance Systems in Indian Space Programme	R Gunasekaran	VSSC, ISRO

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14:25	14:38	CP49	Development of a Fluoroscopy-Based Cone Beam CT System: Design and Implementation	Mr., ANANT, MITRA	BARC
14:38	14:51	CP111	Gamma-ray Computed Tomography System for NDE of Industrial Object	Mr., RAMAR, R	IGCAR
14:51	15:04	CP48	Comparative Evaluation of Fluoroscopy-Based and Flat-Panel Detector CT Systems: Performance and Application Insights	Mr., ANANT, MITRA	BARC
15:04	15:17	CP63	Implementation and Operational Safety of a High-Energy Radiation Application Facility for Non-Destructive Testing	Mr., Rajesh, V, Acharya	BARC
15:17	15:30	CP62	HeXRyNet: A foundation model for Automatic Defect Recognition In Digital Radiographic Images Of Castings	Mr., Soumendra, Prasad, Dhaneer	V J Imaging Technologies Pvt Ltd
15:30	15:37	CP172	Multi- Format CT	Mr., Digambar, Chandrakant, Raskar	MQS Technologies

*Short Paper

ICNDT IEC MEETING

13TH DECEMBER 2024 - 14:00 -16:00 hrs

Venue	Board Room
Attendees	ICNDT IEC Members

OPEN SESSION (e-Poster Session-II, Visit to Exhibition & Tea Break)

13TH DECEMBER 2024 - 15:30 -16:30 hrs

E-Poster Panel No	Abstract No.	Title of the Poster	Name of the Speaker	Organization
1	CP20	Accelerating The Total Focusing Method using Sparse Arrays with nth Coherence Factor Weighted Delay and Sum Beamforming	Mr., Abhinav, Kumar, Singh	IIT Gandhinagar
2	CP176	A Novel Approach to Frequency Modulated Thermal Wave Imaging Data Analysis: Constrained Autoencoder for Enhanced Defect Visualization	Mr., Ishant, singh	IIT-Delhi
3	CP158	Inspection of Barely Visible Impact Damage in Carbon Fibre Reinforced Composite plate using an Acoustic camera	Mr., Manish, Sharma	NIT-Rourkela
4	CP173	Complementary Golay Coded Thermal Wave Imaging Scheme for Detection of Sub-Surface Corrosion in Metallic Sample.	Ms., Sameeha, Sharma	IIT-Delhi
5	CP4	Wave Scattering Dynamics in Clusters of Nonlinear Solid and Elastically Hollow Inclusions	Mr., Pravinkumar, Ramchandra, Ghodake	IIT-Bombay
6	CP23	GPR Inspection of Concrete for Delamination Detection, Mapping and Localization	Mr., RISHIKESH, YADAV	IIT-Jammu
7	CP89	Microwave Non-Destructive Evaluation of Bituminous Concrete (BC) Pavement Layer Using Machine Learning	Mr., Shankar, Aenagandula	VNIT-Nagpur

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8	CP52	GPU-Accelerated Implementation of Rotated Vector Sum Algorithm to Mitigate Intensity Fading in Distributed Acoustic Sensing	Mr., Sumeeth, C, Muchandimath	IIT Madras
9	CP136	Nonlinear Ultrasonic Wave Mixing Technique for Detecting Micro-Damage Evolution in Concrete	Mr., Abhishek, Sharma	IIT-Jammu
10	CP110	Monitoring of Prestress Loss using Nonlinear Ultrasonic Methods	Ms., Sukanya, Basu	CSIR-SERC
11	CP170	Impact of LED-Based Heating on Defect Detection in Active Thermography of Metal Samples	Mr., Suresh, Kumar, Bhambhu	IIT-Delhi
12	CP185	Assessment of Localised Material Nonlinearity in Isotropic Media Using Non-Collinear Wave Mixing	Mr., Akhil, Balachandran	IIT Madras
13	CP193	Integration of Robotics Platforms for NDE: Enhancing Situational Adaptability	Mr., Munjal, Pravinkumar, Shah	Shell India Market Pvt Ltd
14	CP168	To estimate the thermo-physical properties of the hidden defects in the materials using ML models	Ms., Jasleen, kaur	IIT Delhi

ELECTROMAGNETIC NDE

13TH DECEMBER 2024 - 16:30 -18:00 hrs

Session Number		4A			
Hall		Hall A: BHABHA			
Session Chairperson:		Dr. S. Thirunavukkarasu			
Keynote Speaker(s):		Dr. Jyotirmayee Dash			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
16:30	16:55	IT09	Terahertz Technology for Non-Destructive Testing and Real-Time Monitoring: Applications in Composites and Lithium-Ion Battery Electrode Coating	Jyotirmayee Dash	Tera Lumen
16:55	17:08	CP9	Non-Contact Magnetometric Diagnostics of Pipelines Using the Metal Magnetic Memory Method	Mr., Sergey, Kolokolnikov	Energodagnostika Co. Ltd
17:08	17:21	CP152	Role of NDE in Qualification of Biocompatible Implants	Mr., Subhash, N. N.	IIT Madras
17:21	17:34	CP93	Thickness Profiling of Multi-layer Functional Coating using THz-Time Domain Spectroscopy System	Mr., Rishi, Ranjan	CSIR-Central Electronics Engineering Research Institute, Chennai Centre
17:34	17:47	CP12	Distortion and Harmonic Analysis of Magnetic Excitation Signal (DHAMES) A Simplified New Approach in Magnetic Measurements for Evaluation of Ferromagnetic Steel Components	Dr., MOORTHY, VAIDHIANATHASAMY	SAVI3M, Chennai, India
17:47	18:00	CP91	THz Image Enhancement Techniques for Non-destructive Evaluation of GFRP Composites	Mr., Rishi, Ranjan	CSIR-Central Electronics Engineering Research Institute, Chennai Centre
18:00	18:07	CP74	Development and Application of Eddy Current Testing for Helical Coiled Tubes of Steam Generator	Mr., Manojit, Shaw	Bhabha Atomic Research Centre

Short Paper

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NDE FOR AEROSPACE: NON-METALLIC COMPONENTS

13TH DECEMBER 2024 - 16:30 -18:00 hrs

Session Number		4B			
Hall		Hall B: KALAM			
Session Chairperson:		V Manoharan			
Keynote Speaker(s):		Dr Srinivas Kuchipudi, Dr. Digendranath Swain			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
16:30	16:55	IT10	Non-destructive Evaluation of High-Energy Materials and Interfaces Using Low-Frequency Proton NMR	Dr Srinivas Kuchipudi	ASL, DRDO
16:55	17:20	IT11	The emergence of India Make Portable and Real-time Shearography System (IMPRESS)	Dr. Digendranath Swain	VSSC, ISRO
17:20	17:33	CP36	Non-Contact Non-destructive Testing for Characterizing Low Velocity Impact Damage in Composite Structures	Mrs., Aparna, Aradhya	CSIR-NAL
17:33	17:46	CP115	Mapping of Brittle Failure of A Composite Structure using Acoustic Emission Technique	Mr., B BINU, .	VSSC, ISRO
17:46	17:59	CP112	DeFinder: Advanced Shearography Solution for Precise and Efficient Non-Destructive Testing of Composites and COPVs	Mr., Laurent, Malfaire	Opttron

ADVANCES IN UT: PHASED ARRAY-II

13TH DECEMBER 2024 - 16:30 -18:00 hrs

Session Number		4C			
Hall		Hall C: RAMAN			
Session Chairperson:		Dr Anish Kumar			
Keynote Speaker(s):		Prof., Anthony, Croxford			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
16:30	16:55	IT12	Data based techniques to enhance phased array performance	Prof., Anthony, Croxford	University of Bristol
16:55	17:08	CP109	Phase Coherence Imaging (PCI) Of SS Cladding	Mr., Peter Santan, F, Rodrigues	BHEL, Trichy
17:08	17:21	CP30	An adaptive approach of the total focusing method for the inspection of parts with a complex shape	Sandeep	TPAC
17:21	17:34	CP105	Smart Inspection Of Rail Wheels Using Matrix Array Ultrasonic Probes	Mr., SANDEEP, BHANDARI	Waygate Technologies
17:34	17:47	CP65	UT is UT: Understanding Advanced Ultrasonic Technologies and How They Compare to Each Others.	Mr., Prasanth, Geddiam	Evident Scientific
17:47	18:00	CP103	Phased Array UT Solution For Composite, Corrosion And Sheet Metal Applications With Innovative Ultra-Portable Electronics	Mr., Anish, DSouza	Waygate Technologies
18:00	18:07	CP90	Application of Phased Array Ultrasonic Testing in NDE of Liquid Propulsion Systems: Case Studies	Mr., M., ANVER, ALI	LPSC, ISRO

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APPLICATIONS OF NDE IN ENERGY SECTOR-III

13TH DECEMBER 2024 - 16:30 -18:00 hrs

Session Number		4D			
Hall		Hall D: SARABHAI			
Session Chairperson:		Dr V H Patankar			
Keynote Speaker(s):		Dr. Christian Els, Paresh Haribhakti			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
16:30	16:55	IT13	A practical concept for using AI in NDE applications - Introducing CID (Critical Image Detection) and SIDA (Single Image Detail Analysis)	Christian Els	Sentin AI
16:55	17:20	IT14	What, When, and How to Inspect : Unlocking the Secrets to Effective Asset Integrity	Paresh Haribhakti	TCR Advanced
17:20	17:33	CP56	NDE 4.0 & QC aspects in Thermal Power Generation- Present scenario and Way forward	Mr. Vinay Gaddu	ADANI POWER
17:33	17:46	CP121	Development of High Frequency Guided Wave based Methodology for Inspection of Drywell Liner Vessel of Boiling Water Reactor	Dr., DHAYALAN, R	IGCAR
17:46	17:59	CP18	Heat Exchanger and Boiler Tube Inspection using APRIS	Mr., Vignesh, Sivanandam	TALCYON PTE LTD
17:59	18:13	CP8	On the resilience and re-use of Spring Energised Metallic seal joints by Helium Leakage Rate measurements under Pressure and Vacuum conditions	Dr., Venkat, N, Ramani	PLASMA AND VACUUM TECHNOLOGIES

SENSORS FOR NDE

13TH DECEMBER 2024 - 16:30 -18:00 hrs

Session Number		4E			
Hall		Hall E: BOSE			
Session Chairperson:		Prof Lalita Udpa			
Keynote Speaker(s):		Dr Andrey Bulavinov			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
16:30	16:55	IT01	Novel trends in the ultrasonic imaging for non-destructive material evaluation: quantitative, automated, real-time	Dr Andrey Bulavinov	Acoustic Control Systems – ACS Group, Germany
16:55	17:08	CP51	Design of a Wireless Antenna Sensor with Resonator Array for Real-Time Structural Health Monitoring	Dr., Neeraj, Rao	Visvesvaraya National Institute of Technology - Nagpur
17:08	17:21	CP149	CFD Simulation and Analysis of Natural Gas Leakage in Buried Pipelines: Development of Temperature-Based Leak Detection and Monitoring using Distributed Temperature Sensing (DTS) Technology	Dr., Arsath, Abbasali, Ayubali	IIT-Madras
17:21	17:34	CP3	AI Flow Scanner Technology for Oman's™s Water Transmission Pipeline Monitoring and Management	Dr., Arthur, Davis, Nicholas	University of Technology and Applied Sciences, Oman

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17:34	17:47	CP101	Ultrasonic waveguide sensors for fluid level and temperature simultaneous measurements	Dr., Suresh, Periyannan	NIT-Warangal
17:47	17:54	CP146	Investigation of Sensitivity and Real-Time Processing of Distributed Acoustic Sensing Data	Mr., Kishore, Kumar	IIT-Madras
17:54	18:01	CP26	Application of derivative based methodology for accurate estimation of TOA (Time of Arrival) along with distinguishing multiple loose parts on structure for Loose Part Monitoring System	Mrs., VIDYALAKSHMI, R	IGCAR

Short Paper

OPEN SESSION (e-Poster Session-III, Visit to Exhibition)

13TH DECEMBER 2024 - 18:00 -19:00 hrs

E-Poster Panel No	Abstract No.	Title of the Poster	Name of the Speaker	Organization
1	CP175	Testing and Evaluation of Carbon Fiber Reinforced Polymers using frequency modulated thermal wave imaging	Mr., Suresh, Kumar, bhambhu	IIT-Delhi
2	CP66	Understanding the Temperature Effects on PZT-Based Embeddable Transducers	Mr., Tejas, S., Shelgaonkar	NIT-Warangal
3	CP28	Nonlinear Guided Waves for Debond Imaging in FRP-Strengthened Concrete Beams	Mrs., Udita, Pant	IIT-Bombay
4	CP40	On-field Testing of Pipes with Multiple Defects using a Smart FPGA-based Ultrasonic Guided Wave SHM System	Ms., Sheetal, Shivaji, Patil	IIT-Bombay
5	CP45	From Self-Sensing to Self-Awareness: Advancements in Monitoring Hydration and Microstructure in Conductive Cementitious Composites	Dr., Amarteja, Kocherla	NYU, Abu Dhabi
6	CP177	Design and development of an EMAT probe to determine the remnant thickness of the pipeline	Mr., MOHAMAD, AHMAD, ALALI	IIT Madras
7	CP142	A Robust Data Driven Framework for The Automated Identification of Weld Damage in Portal Steel Frames Using Impedance-Based Diagnostics	Dr., Lukesh, Parida	IIT-Bombay
8	CP174	Pulse Compression Favorable Thermal Wave Imaging Techniques for Detection of Sub-Surface Corrosion in Metallic Sample	Ms., Sameeha, Sharma	IIT-Delhi
10	CP128	Enhanced Subwavelength Ultrasonic Imaging with Structured Channel Metalenses and Array Transducers	Mr., Loheshwaran, Chandran	IIT Madras
11	CP184	Super-Resolution Ultrasonic Imaging of Biological Tissues Using Structured Channel Metamaterial Lenses	Mr., Sreehari, K C	IIT Madras
12	CP139	Eccentric Virtual Array Source Aperture (EVASA) Ultrasound Imaging Technique Using Phased Array Excitation	Mr., Setu, Rameshbhai, Thacker	IIT-Madras
13	CP59	Qualification of Thin-Walled Nickel Tubes for Hydrogen Detection Using Helium Leak Testing	Mr., SP, Manivannan	IGCAR, DAE

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ISNT ANNUAL GENERAL BODY MEETING

13TH DECEMBER 2024 - 18:00 -19:00 hrs

Venue	Hall A: BHABHA
Attendees	ISNT Members

GALA DINNER

13TH DECEMBER 2024 - 19:00 Onwards

END OF DAY II

DAY 3: SATURDAY, 14th DEC 2024

PLENARY SESSION: III

14TH DECEMBER 2024 - 09:00 -10:30 hrs

Session Number	Plenary Session : III		
Hall	Hall A: BHABHA		
Session Chairperson:	Prof. Satish Udpa		
Time	Title of the talk	Name of the Speaker	Organization
09:00-09:30	Automation & Data Engineering in NDE and Beyond	Prof. Prabhu Rajagopal	IIT-Madras
09:30-10:00	Data to Decision through Digitalization: Trending paradigm in NDE	Dr M T Shyamsunder	Azeriri
10:00-10:30	Manual Inspection or R2-D2? – Robotics and AI boosting the trend towards fully automated NDT	Marc Kreuzbruck	Univ of Stuttgart

TEA BREAK

14TH DECEMBER 2024 - 10:30 -11:00 hrs

NDE FOR CONCRETE INDUSTRY-I

14TH DECEMBER 2024 - 11:00 -12:45 hrs

Session Number	5A					
Hall	Hall A: BHABHA					
Session Chairperson:	Dr. Sauvik Banerjee					
Keynote Speaker(s):	Dr Ernst Neiderleithinger, Dr. Saptarshi Sasmal					
Time	From	To	Abstract No.	Title of the talk	Name of the Speaker	Organization
	11:00	11:25	IT16	Paths towards digitalization in NDT for Civil Engineering	Dr Ernst Neiderleithinger	BAM, Germany
	11:25	11:50	IT17	Nonlinear Ultrasonics- A Powerful NDE Tool for Early-Stage Damage Detection in Concrete	Saptarshi Sasmal	CSIR-SERC
	11:50	12:03	CP183	Phase Space Dissimilarity Measures of Nonlinear Vibration Responses for Detection of Subtle Damages in Concrete Structures	Dr., Srinivas, Voggu	CSIR-SERC

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ISNT-NDE 2024: Conference Program

12:03	12:16	CP147	Elastic Reverse Time Migration for Improved Ultrasonic Imaging of Concrete Constructions	Maria, Grohmann	BAM-Germany
12:16	12:29	CP126	Feasibility of Monitoring Bond Integrity in GFRP-Concrete Members Using Impedance-Based Monitoring Systems: A Novel Power Spectral Based Approach	Dr., LUKESH, PARIDA	IIT-Bombay
12:29	12:36	CP144	Experimental Investigations on the Scale Model of Prestressed Concrete Bridge Girders to Study the Effect of Prestressing Force on the Time and Frequency Domain Responses	Mrs., SEETHALAKSHMI, B R	CSIR-SERC
12:36	12:43	CP75	Microcrack Formation In Steel Fiber Reinforced Concrete Under Uniaxial Compression By Monitoring Acoustic Emissions	Mr., Anuj, Meena	IISc-Bangalore
12:43	12:50	CP67	Evaluating 3D-Printed Concrete Beams With Weak Interfaces Under Bending: Insights Into Crack Dynamics From Acoustic Emission (AE) And Digital Image Correlation (DIC)	Mr., Murali, Duddi	IIT-Hyderabad

*Short Paper

ADVANCES IN ULTRASONICS: INSTRUMENTATION & ACQUISITION

14TH DECEMBER 2024 - 11:00 -12:45 hrs

Session Number		5B			
Hall		Hall B: KALAM			
Session Chairperson:		Dr Anthony Croxford			
Keynote Speaker(s):		Dr V H Patankar			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
11:00	11:25	IT18	Ultrasonic Instrumentation for NDE of Components & Structures and Way Forward	Dr V H Patankar	BARC
11:25	11:38	CP104	In-House Development of a PC-Based Ultrasonic Flaw Detection System for Nuclear Component Testing	Mr., Nageswara, Rao, T.S.V.R	NFC
11:38	11:51	CP11	Enhancing Ultrasonic NDT Machines: Addressing Bottlenecks and Improving Inspection Efficiency	Mr., Niko, Bayer	Ultrasonic Sciences Ltd
11:51	12:04	CP140	Scalable Open Software and Hardware Platform for Conventional, Phased-array, Full Matrix Capture and Advanced Ultrasonic Testing.	Mr., Tibin, Thomas	TPAC (The Phased Array Company), India
12:04	12:17	CP98	Testing Machines for Highspeed In-Line Ultrasonic Inspection of Bar and Wire Stocks	Mr., Balaji, Ramamoorthy	Waygate Technologies, Baker Hughes
12:17	12:30	CP156	Studies showing the significance of dual-mode second-harmonics (DMSH) generated on plate and cylindrical structures	Dr., Krishnadas, V, Kanakambaran	IIT Madras
12:30	12:37	CP191	Inspection of 10" LPG Transfer Pipeline (Non-Piggable) Using High Resolution Ultrasonic Inspection Pipeline Integrity Gauge (ILI PIG)	Mr., Muthu, Vijayan, KSM	Chennai Petroleum Corporation LTD
12:37	12:44	CP131	In-Situ Process Monitoring of Newtonian Fluids Using a Portable Ultrasound Viscosity Sensor	Mr., Shashank, Sisodia	IIT Madras

*Short Paper

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NDE 4.0- WAY FORWARD**14TH DECEMBER 2024 - 11:00 -12:45 hrs**

Session Number		5C			
Hall		Hall C: RAMAN			
Session Chairperson:		Dr M T Shyamsunder			
Keynote Speaker(s):		Pranay Wadayalkar			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
11:00	11:25	IT19	NDE N_Ext for Future Labs	Pranay Wadayalkar	OMS Software, Australia
11:25	11:38	CP96	Conventional Ultrasonic Imaging Applications Using Ultra-Portable Ultrasonic Device	Mr., Kshitij, Shrivastava	Waygate Technologies, Baker Hughes
11:38	11:51	CP68	Deep learning model for pipeline feature detection using MFL signal	Mr., Roshan, R, Sahu	Bhabha Atomic Research Centre
11:51	12:04	CP164	NDE 4.0. Realizing zero-defect mass production of spotwelds by integrating AI into the advanced ultrasonic quality monitoring process.	Mr., ROUSLAN, RAKHOUTINE	Tessonics Inc.,
12:04	12:17	CP43	How AI, Image Processing, and Automation are offsetting NDT challenges	Mr., Kathiravan, Selvam	Waygate Technologies
12:17	12:30	CP166	Evaluation of Data Processing Techniques for Enhanced Defect Detection in Active Thermography of composite material	Mr., Ishant, singh	IIT-Delhi
12:30	12:37	CP122	Scalable Deep Learning Model for Detecting and Classifying Welding Defects in Radiographic Images of Pressurized Cylindrical Welds.	Mr., SAMUEL, KUMARESAN	SALPHAN ENERGY PVT LTD
12:37	12:44	CP167	To design a Deep-Learning Architecture for fast and reliable defect detection in solids	Ms., Jasleen, Kaur	IIT-Delhi
12:44	12:51	CP171	DPAI: Data-driven Simulation-Assisted-Physics learned AI for Modelling Heat Diffusion in Voronoi-Based Polycrystalline Materials	Ms., Nishi, Rajesh, Bhemani	IIT-Madras

*Short Paper

INFRARED THERMOGRAPHY**14TH DECEMBER 2024 - 11:00 -12:45 hrs**

Session Number		5D			
Hall		Hall D: SARABHAI			
Session Chairperson:		Dr Ravibabu Mulaveesala			
Keynote Speaker(s):		Dr Shruti Bharadwaj, Dr.Vanita Arora			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
11:00	11:25	IT20	Thermography as a Diagnostic Tool: Exploring its Applications in Healthcare	Dr Shruti Bharadwaj	IIT-Delhi
11:25	11:50	IT21	Advances in Infrared Vision Systems for Thermal Non-Destructive Testing and Evaluation Applications	Dr.Vanita Arora	SS Automation Solutions Pvt Ltd
11:50	12:03	CP5	Application of Image Enhancement in Pulsed Thermography Testing on Carbon Fibre Reinforced Plastic (CFRP) Sandwich Composites	Mr., Sobhanan, M, B	Vikram Sarabhai Space Centre

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ISNT-NDE 2024: Conference Program

12:03	12:16	CP157	Infrared Thermal Imaging of Composites by cooling	Mrs., Navita, Gupta	Satyakiran Engineers Private Limited
12:16	12:29	CP61	High Resolution Lock in Thermography Using Structural IR-Excitation	Prof., Marc, Kreutzbruck	University of Stuttgart
12:29	12:42	CP154	A unique approach to identify surface and sub-surface flaws by IR imaging	Dr., Govind, Kumar, Sharma	IGCAR

NDE FOR STRUCTURAL INTEGRITY-I

14TH DECEMBER 2024 - 11:00 -12:45 hrs

Session Number		5E			
Hall		Hall E: BOSE			
Session Chairperson:		Dr Phani Mylavarapu			
Keynote Speaker(s):		Dr. Sanjay Kumar Rai			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
11:00	11:25	IT22	Synchrotron Radiation: An Emerging Tool for Non-Destructive Assessment of Stress and Microstructure in Engineering Components	Dr. Sanjay Kumar Rai	RRCAT, Indore
11:25	11:38	CP54	NDE Tools for In-situ Measurement of the Effectiveness of the Shot Peening for Improvement of Steam Oxidation Resistance of Austenitic Stainless Steel Boiler Tubes	Mr., ANIL, KUMAR, DAS	NTPC, Netra
11:38	11:51	CP165	X-ray Fluorescence Method-A Rapid and Reliable Alternate for Thickness Measurements on Multi-layer metallic coatings	Mr., Raju, G	VSSC, ISRO
11:51	12:04	CP102	Use of Backwall Echo Attenuation Method in Ultrasonic Testing of Ductile Iron Castings	Mrs., Madhu, Bala	Waygate Technologies, Baker Hughes
12:04	12:17	CP85	Radiography Evaluation Of Defects In Carbon Composite Motor Case At Different Processing Stages	Mr., MOIDEENKUTTY, K, K	VSSC, ISRO
12:17	12:30	CP194	Review of Non-destructive Techniques for In-service inspection, Repair, and Continuous monitoring of FRP Components	Mr., Prakhar, Nama	Shell India Markets Private Limited
12:30	12:37	CP150	Evaluation on Autonomic Self-healing of Micro- Crack Using Non-Destructive Monitoring Technique.	Ms., MADHUMITHRA, ELANGO	CSIR-CBRI
12:37	12:44	CP53	Acoustic Emission Data Filtering and Analysis Using Simple and Complex Approaches for Different Materials	Mr., Nikhil, Holsamudrkar	IIT-Bombay

*Short Paper

LUNCH

14TH DECEMBER 2024 - 12:45 -14:00 hrs

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NDE FOR CONCRETE INDUSTRY-II

14TH DECEMBER 2024 - 14:00 -15:30 hrs

Session Number		6A			
Hall		Hall A: BHABHA			
Session Chairperson:		Herbert Wiggenhauser			
Keynote Speaker(s):		Prof Sauvik Banerjee			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
14:00	14:25	IT23	Condition Assessment of Reinforced Concrete Structures Using NDT: Field Experiences and Laboratory Studies	Prof Sauvik Banerjee	IIT-Bombay
14:25	14:38	CP189	Image-Based Correlation Technique for Characterization of Fracture Related Properties of Engineered Concrete	B S Sindu	CSIR-SERC
14:38	14:51	CP145	Applications of Multi-Channel Ultrasound System for Assessing Large Concrete Structures	Dr., Ernst, Niederleithinger	BAM, Germany
14:51	15:04	CP159	Embedded Sensors for Quality Control and Structural Integrity Monitoring of Large-scale 3DCP Structures	Dr., Amarteja, Kocherla	NYU, Abu Dhabi
15:04	15:17	CP188	In-Situ Stress Evaluation of Pre-stressed Concrete and Masonry Structures through Non-Destructive Methods	B Arun Sundaram	CSIR-SERC
15:17	15:30	CP95	High-Resolution and Real-Time Localization of Steel Rebars in Reinforced Cement Concrete Structures using Finite Mixture Models to Analyze Pulsed Eddy Current Sensor Data	Prof., Siddharth, Tallur	IIT-Bombay

ADVANCES IN UT: IMPACT OF AI, GUIDED WAVE, NON-LINEAR ULTRASONICS

14TH DECEMBER 2024 - 14:00 -15:30 hrs

Session Number		6B			
Hall		Hall B: KALAM			
Session Chairperson:		Dr David Allyene			
Keynote Speaker(s):		Dr Anandmurugan Subramaniam			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
14:00	14:25	IT24	Futuristic Role of Artificial Intelligence at the different stages of UT Inspection	Anandamurugan Subramaniam	Waygate Technologies
14:25	14:38	CP57	Optimised detection and sizing of pipe corrosion at supports using guided wave technology	Dr., Chien, An, Chua	Guided Ultrasonics Ltd.
14:38	14:51	CP121	Development of High Frequency Guided Wave based Methodology for Inspection of Drywell Liner Vessel of Boiling Water Reactor	Dr., DHAYALAN, R	IGCAR
14:51	15:04	CP106	Analysis of Ultrasonic Guided Wave Resonance Based Technique in Localizing Defects in Thin Metallic Plates	Mr., Supriya, Gain	TCS Research
15:04	15:17	CP107	Noncontact NDE: Flaw Detection in Metal Structure Using Nonlinear Ultrasonic Features	Dr., Thirumalaiselvi, A	CSIR-SERC
15:17	15:30	CP119	Finite Element Simulation of Ultrasonic Wave Propagation in Anisotropic Austenitic Stainless Steel Weldments	Mr., Deepak, Patel	IGCAR

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APPLICATIONS OF NDE IN THE PROCESSING INDUSTRY

14TH DECEMBER 2024 - 14:00 -15:30 hrs

Session Number		6C			
Hall		Hall C: RAMAN			
Session Chairperson:		Dr Saptarshi Sasmal			
Keynote Speaker(s):		Dr S Balamurugan, Dr. Shivaprasad Shridhara Bhat			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
14:00	14:25	IT25	NDE and Industry 4.0 for Steel Industry	Dr S Balamurugan	TATA Steel
14:25	14:50	IT26	Automated NDT and AI-Driven Inspection of Cladded Tenanted Railway Arches	Dr. Shivaprasad Shridhara Bhat	MTC, UK
14:50	15:03	CP71	Progressive Web App for AWS D1.1 UT Environment	Mr., Dinesh, Gupta	Satyakiran Engineers Private Limited
15:03	15:16	CP80	Normalizing Rolling Of Plates And Its Significance To NDT	Mr., Swapnil, Shivaji, Bhosale	Reliance Industries Limited
15:16	15:29	CP84	ROLE OF NDE IN DETECTING QUALITY PROBLEM IN HEAVY STEEL FORGINGS	Mr., KRISHNA, KANT, JHA	CHAKAN TESTING AND RESEARCH LAB, PUNE
15:29	15:36	CP50	Challenges in NDE of Nuclear Steam Generator Forgings	Mr., RAHUL, ARVINDBHAI, BHUVA	L&T SPECIAL STEEL AND HEAVY FORGING

*Short Paper

TRAINING FOR EMPOWERMENT- IMPACT OF AI AND THE WAY FORWARD

14TH DECEMBER 2024 - 14:00 -15:30 hrs

Session Number		6D			
Hall		Hall D: SARABHAI			
Session Chairperson:		Dr Sajeesh Babu			
Keynote Speaker(s):		Shri Diwakar Joshi, Dr Ajay Pasupuleti			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
14:00	14:25	IT27	NDE Training Centres- A Key Factor in Qualification and Certification Process of NDE Personnel	Shri Diwakar Joshi	IQS
14:25	14:50	IT28	Entrepreneurship in NDT Industry	Ajay Pasupuleti	Ooga Technologies, USA
14:50	15:03	CP13	SNT-TC-1A and its Application	Mr., Prakash Gokulanandam	ASNT
15:03	15:16	CP17	NDT Professionals Employability Outlook in Respect of Future Deployment of Automation, Artificial Intelligence and Machine Learning in the Service Industry.	Mr., Sujit, Chakravarty	Velosi (M) Sdn. Bhd.

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15:16	15:29	CP124	NDE Using Drone	Suvendu Lenka	NDT Training Consultancy & Inspection Services Pvt. Ltd
15:29	15:36	CP27	Enhancing NDE with Digital Ecosystems: Bridging Gaps in Procurement, Training, and Asset Management	Srijan Tiwari	IIT-Madras

***Short Paper**

NDE FOR STRUCTURAL INTEGRITY-II

14TH DECEMBER 2024 - 14:00 -15:30 hrs

Session Number		6E			
Hall		Hall E: BOSE			
Session Chairperson:		Dr Sanjay Rai			
Keynote Speaker(s):		Dr Nishal Ramadas			
Time		Abstract No.	Title of the talk	Name of the Speaker	Organization
From	To				
14:00	14:25	IT29	Powering the future: Ultrasonic NDT for in-line inspection of battery quality in gigafactories	Nishal Ramadas	Azeriri
14:25	14:38	CP58	Leveraging Digital Solutions to Optimize Asset Integrity Management	Mr., Anurag, Gautam	BPCL,Kochi
14:38	14:51	CP190	Comprehensive Evaluation of Austenitic Stainless Steel Weld Indications in Ultrasonic Testing using advance NDE Techniques	Mr., S, Sarath	L&T, Hazira
14:51	15:04	CP78	Nonlinear Ultrasonic Inspection of Areca Nut Natural Fiber Reinforced Composite Balustrades	Dr., Kiran, Kumar, Amireddy	CBIT, Hyderabad
15:04	15:17	CP117	Characterization of Ultrasonic Test Signals for Inspection of PHWR Fuel End Cap Welds	Mr., Mohit, Narang	NFC
15:17	15:24	CP81	Assessment of Integrity of FCCU Cold Wall Riser thru Finite Element Analysis	Mrs., NAMRATA, KESHRI	INDIANOIL CORPORATION LIMITED
15:24	15:31	CP41	Advanced Condition Monitoring of Studs and Bolts	Mr., Gnanasekaran, Selvanandam	spXtra advance system

***Short Paper**

TEA BREAK

14TH DECEMBER 2024 - 15:30-16:00 hrs

VALEDICTORY FUNCTION

14TH DECEMBER 2024 - 16:00-16:30 hrs

34th Annual Conference and Exhibition on Non-Destructive Evaluation & Enabling Technologies (NDE 2024)

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