NON DESTRUCTIVE EVALUATION



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

Theme
eNDEavours from
detection to prediction

Clarks Exotica Convention Resorts & Spa, Bengaluru

Conference Programme

NDE 2019

conference & exhibition on

NON DESTRUCTIVE EVALUATION



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Clarks Exotica Convention Resorts & Spa, Bengaluru

Date: 5th December 2019	Thursday	
09:00 - 10:30 Hrs	Conference Inauguration	
10:30 - 11:30 Hrs	Inauguration of Exhibition & Tea Break	



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Date: 5th Decem	her 2019	Thursday
Date. Jul Detelli	NEI ZUIJ	illuisuay

Session on Mem	norial Talks (11:30 - 13:00 Hrs)	Dr Vikram Sarabhai Hall
Chairman	Prof. Krishnan Balasubramaniam	
Dr Baldev Raj Memo	orial Talk	
11:30 - 12:15 Hrs	Prof. Srinivasa Ranganathan	NDE contributions to recreating our past cultural heritage
Shri Ramesh Bhai Pa	arikh Memorial Talk	
12:15 - 13:00 Hrs	Ashok Mandal	Management of Safety on Indian Railways through Non-destructive Testing

13:00 - 14:00 Hrs	Lunch
14:00 - 15:00 Hrs (Open Session)	Poster Session - I at Exhibition Area
	Availability of Authors of Poster Presentation at Poster Area
	Quiz Competition
	Visit to Exhibition Area



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Date: 5th December 2019 Thursday

Plenary Session - I (15:00 - 16:15 Hrs)		Dr Vikram Sara	abhai Hall
Chairman			
15:00 - 15:25 Hrs	Prof. Krishnan Balasubramaniam	IIT Madras, India	Air Coupled Ultrasonic NDE: An Overview eluding to New Frontiers in Inspection
15:25 - 15:50 Hrs	Dr. Ernst Niederleithinger	BAM, Germany	Ultrasonic methods for concrete: To boldly see, what we have not seen before
15:50 - 16:15 Hrs	Vinay B Jammu	GE	Digital Twin: Fusion of Physical-Digital for Driving Digital Transformation

16:15 - 16:45 Hrs Tea Break



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Date: 5th December 2019 Thursday

Session	1 A		Acoustic Emission	C V Raman Hall
Chairm	an	Dr MR E	Shat	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
16:45	17:10	IT16	Dr CK Mukhopadhyay	Acoustic emission technique for process monitoring and structural integrity monitoring
				applications
17:10	17:25	CP032	C K Mukhopadhyay	Characterization of Plastic Deformation using Acoustic Emission during Bending of SS
				304L
17:25	17:40	CP036	TK Haneef	Use of Acoustic Emission Technique for Leak Detection in Pressurised Carbon Steel Piping
17:40	17:55	CP181	Nawalkishor BANJARA	Detection of Leakage in Pipelines using Passive Acoustic Emission Technique
17:55	18:10	CP335	P Anjali	Characteristics of Acoustic Emissions generated during Rebar Corrosion in Reinforced
-				Concrete



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Date: 5th December 2019 Thursday

Session	1B		Automation and Robotics in NDE	W C Röntgen Hall
Chairm	an	Krishna	Mohan Reddy	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
16:45	17:10	IT24	Dr Thomas Gramberger	Novel high performance robotic based system for NDT and Metrology
17:10	17:25	CP063	Christopher LANE	Advanced Inspection Technology for Automated NDE Applications
17:25	17:40	CP163	Ondrej DOUBEK	Automatic Visual Systems For Automotive Industry bearings
17:40	17:55	CP164	Ondrej DOUBEK	Automatic FPI Systems For Automotive Industry
17:55	18:10	CP337	Debdutta Mallik	Significance Of NDT For Monitoring Of Manufacturing Flaws In Railway Rails To Minimize
				Service Failures
18:10	18:17	CP084	Pranjal SHUKLA	DESIGN AND FABRICATION OF A NDT PIPE CRAWLING MECHANISM



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Date: 5th December 2019 Thursday

Session	1C		Code, Standard & Certification in NDT	Max Planck Hall
Chairm	an	N Sadas	ivan	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
16:45	17:10	IT25	Diwakar Joshi	NDT training and Certification - The Next level
17:10	17:25	CP022	Surendra Mungel	NABL Certification for NDT Laboratories
17:25	17:40	CP024	Mugdha Joshi	Different International Certification Schemes for Welding Inspectors
17:40	17:55	CP025	Diwakar Joshi	ASME Section V Edition 2019 Code Changes
17:55	18:10	CP136	Sangili Gunasekaran	API650 Code AnnexU Requirements for Ultrasonic Examination in lieu of Radiography
18:10	18:25	CP180	Santosh Vijay Gupte	Need Road Map For Getting Certified To API Specification Q2 For NDT Service
				Organizations in Oil Gas
18:25	18:32	CP021	Diwakar Damodar Joshi	SNTTC1A Edition 2016 Implementation



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Session	1D		Tera Hertz and Microwave NDE	Michael Faraday Hall
Chairma	an	Prof. Kr	ishnan Balasubramaniam	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
16:45	17:10	IT10	Dr Phil Taday	Application of terahertz pulses to NDE of coatings
17:10	17:25	CP028	Pakkathillam Jayaram Kizhekke	Planar Printed E Field Sensor Array for Microwave NDE of Composites
17:25	17:40	CP085	Mercy LATHA A	Rapid Nondestructive Evaluation of Fireproof Coating Degradation using Terahertz Line
				Scanner
17:40	17:55	CP091	Harikrishnan KAIMAL	Rapid Terahertz Nondestructive Evaluation of GFRP wood Sandwich Composite using
				Adaptive Sampling Technique



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Date: 5th December 2019 Thursday

Session	1E		Ultrasonic Testing	Lord Rayleigh Hall
Chairma	an	Dr Anisl	n Kumar	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
16:45	17:10	IT17	Dr K Srinivas	Structural Integrity assessment of composite pressure vessels using Acousto-ultrasonic
				Techniques
17:10	17:25	CP045	Andrey Bulavinov	Ultrasonics in automobile industry measuring or testing
17:25	17:40	CP125	P. Chenthil Kumar	Development of Technique for Ultrasonic Testing of Small Bore Nozzle Welds
17:40	17:55	CP309	S Sarath	Methodology for ultrasonic examination of austenitic stainless steel using twin crystal
				longitudinal wave angle probe
17:55	18:10	CP321	C Ajay	Assessment of Spurious Ultrasonic reflections from grain boundaries in SS weld joints
18:10	18:17	CP322	C Ajay	Immersion Recordable UT of tube tube sheet joints
18:17	18:24	CP339	Ashutosh Singh	Significance of Flaw Characterization & Sizing Accuracy While Testing Heavy Forgings by
				Ultrasonic Testing (Pulse-Echo Method)
18:24	18:31	CP353	Shyam Sundar M	Fluid Level Measurement at Higher Temperatures Using Ultrasonic Bulk Waves



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Date: 5th December 2019 Thursday

Industry Session - 1 (17:00-18:30 Hrs)

Exhibition Area

Reinforcing Gaps in Codes and Standards for NDE				
Name of the speaker Organisation Topic				
Sh. P Raghavendra	L&T	Reinforcing gaps in Codes and Standards for NDE		
Sh N Sadasivan	Materials Evaluation Services	Reinforcing gaps in Codes and Standards for NDE		
Dr. V Chandiramani	ASME Sec VIII Committee Member	Reinforcing gaps in Codes and Standards for NDE		

18:30 Hrs onwards

Cultural Programme followed by Networking Dinner



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Date: 6th December 2019 Friday

Session	2A		Multi NDE	C V Raman Hall
Chairma	an	Dr Phil 1	Гаdау	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
9:00	9:25	IT06	G Levin	Role of NDE in the Success Story of Indian Space Programme
9:25	9:40	CP053	Krishna Kumar Rai	Inspection of Concrete Lined Seawater Carrying Pipeline A case study
9:40	9:55	CP106	Abinash Behera	NDT IN MRO OF AEROENGINE COMPONENTS AT MILITARY AVIATION INDUSTRY
9:55	10:10	CP274	Rajakishore Sahoo	Non Destructive Inspection of Replaceable Tooth Flank Used in Gear Rim
				Applications A Failure Analysis Case Study
10:10	10:25	CP035	Laxmikant Sarjerao Mane	Study of Effect of Surface Roughness in Single Lap Joint SLJ of Carbon Fiber
				Reinforced Polymer CFRP Composites using Radiography and Thermography
10:25	10:32	CP312	Sangili Gunasekaran	Case Study Leak Testing Failures at Ultrasonic Valve Pit Area Gas Plant Piping
				Construction



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Date: 6th December 2019 Friday

Session	2 B		Radiation Safety and Regulation	W C Röntgen Hall
Chairm	Chairman V		haran	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
9:00	9:25	IT04	Dr A U Sonawane	Recent Regulatory Measures For Radiation Safety In Use Of Ionizing Radiation In
				Non-Destructive Evaluation Practices
9:25	9:40	CP141	Naranath NAUSHAD	Design Safety Criteria for Industrial XRay Machines Used For NDT Application
9:40	9:55	CP184	Subrata Pathak	Type Approval Testing of Co60 Based Indigenous Radiography Camera COCAM120
				for Industrial NDT Applications Regulatory Perspective
9:55	10:10	CP186	Ganesh Bokam	Radiation Surveillance Procedure in Industrial Radiography
10:10	10:25	CP259	Sasidharan Pillai Remakanthan	RADIATION SAFETY PRACTICES FOLLOWED IN RADIOGRAPHY OF LAUNCH VEHICLE
				AND SATELLITE COMPONENTS



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Date: 6th December 2019 Friday

Session	2C		NDE for Concrete	Max Planck Hall
Chairma	an	Dr Ernst	: Niederleithinger	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
9:00	9:25	IT23	Dr Abhijit Ganguli	Multimodal imaging methodologies for NDT of concrete structures
9:25	9:40	CP044	Andrey BULAVINOV	True 3D Tomography New Approach for Tomographic Imaging and Evaluation of
				Ultrasonic Concrete Testing Data
9:40	9:55	CP082	Gopinandan DEY	Estimation of Degree of Moisture Saturation in Cement Concrete Using Electrical
				Response at Low Radio Frequencies
9:55	10:10	CP060	Prasanna KUMAR M	Finite Element Simulation of Ultrasonic Waves Interacting with a Corroding Rebar
				in Concrete
10:10	10:17	CP305	Rohan Sunil Gurav	Review of Non Destructive Evaluation Techniques in Civil Engineering
10:17	10:24	CP205	Indrani Mukherjee	Phase Sensitive Detection of Extent of Corrosion Using Anisotropic
				Magnetoresistive AMR sensor in Steel Reinforcing Bars Rebars



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Date: 6th December 2019 Friday

Session	2D		NDE Systems, Instrumentation & NDE4.0	Michael Faraday Hall
Chairm	Chairman		babu Mulaveesala	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
9:00	9:25	IT09	Viktor Klein	Robotic Inspection in Confined Spaces, from manual operation to a full digital
				solution – feedback and experiences gained in commercial inspections
9:25	9:50	IT01	C P Madhusudan	NDT Market Directions and Emerging Business Opportunities
9:50	10:05	CP338	V Vinod	Equipment Reliability and Energy Conservation using Ultrasound Technology
10:05	10:20	CP152	Lakshmi Atla Vijaya	A Thermographic System for Quantitative and Automated Subsurface Detail
				Visualization
10:20	10:35	CP225	Chris Udell	Making the Shift from CapEx to OpEx for Ultrasonic Flaw Detector Equipment



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Date: 6th December 2019 Friday

Session	2 E		NDE in Nuclear Industry	Lord Rayleigh Hall
Chairma	an	Dr BPC	Rao	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
9:00	9:25	IT19	Dr Anish Kumar	Recent developments in advanced ultrasonic methodologies for in-service
				inspection of PFBR
9:25	9:40	CP096	Alka Kumari	Uncertainty in Hardness Measurement of hard faced FBR components
9:40	9:55	CP204	G Kaliamoorthy	Development of Vacuum Cup to ensure leak tightness of Terminal pipeline weld
				joints in Nuclear Projects
9:55	10:10	CP272	Veera Shiva Beloor Reddy	Ultrasonic Imaging for Quality Evaluation of PHWR Fuel Bundle End plate to
				Element Welds
10:10	10:25	CP325	Mayank Chhapre	PreService Inspection of PHWRs in India
10:25	10:32	CP341	K. S. S. Reddy	Assessment of Integrity of Thin Wall Nickel Tubes for LMFBR Steam Generator
				Leak Detection Application



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Date: 6th December 2019 Friday

Industry Session - 2 (09:00-10:30 Hrs)

Exhibition Area

NDE in Oil and Gas						
Name of the speaker	Organisation	Topic				
Sh Ajay Bharaiya	RIL Oil and Gas	Challenges in NDE - Oil & Gas Industry Upstream sector				
Sh N H Gosale	BPCL, Mumbai	Challenges in NDE - Refinery Assets				
Sh V Sathyan	Kochi Refinery	Challenges in NDE - Refinery Assets				

10:30-11:00 Hrs

Tea Break



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Date: 6th December 2019	Friday

Plenary Session	n - II (11:00 - 12:15 Hrs)	Dr Vikram Sarabhai Hall	
Chairman 11:00 - 11:25 Hrs	Dr R J Pardikar Dr. Pierre Calmon	CEA France	Recent advances at CEA LIST for the development of Guided Waves SHM solutions : Techniques, Imaging and simulation
11:25 - 11:50 Hrs	Sandeep Thakur	Airbus	NDI, A Big role to play! - The challenges faced by Aerospace Industries
11:50 - 12:15 Hrs	Neil Harrap	TWI, UK	Use of Artificial Intelligence for Phased-Array Data Analysis

Plenary Session on Women Empowerment (12:15 - 13:00 Hrs)

13:00 - 14:00 Hrs	Lunch
14:00 - 15:00 Hrs (Open Session)	Poster Session - II at Exhibition Area Availability of Authors of Poster Presentation at Poster Area Quiz Competition Visit to Exhibition Area



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Date: 6th December 2019 Friday

Session	3A		NDE for Composites	C V Raman Hall
Chairma	n	Dr K Srir	nivas	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
15:00	15:25	IT07	Dr M R Bhat	Experimental Investigations on NDE of Fiber Metal Hybrid Composites
15:25	15:50	IT02	Dr Ivan Panteleev	Acoustic emission study of spatial-temporal damage evolution under uniaxial
				tension of woven glass/epoxy laminates
15:50	16:10	CP342	Joseph J Kakkassery	Accurate Determination of Acoustic Emission Source Location through Thickness
				Direction in Composite Laminates by a Combination of Ultrasonic Data and
				Theoretical Model
16:10	16:25	CP343	Joseph J Kakkassery	Deploying Non Destructive monitored data with Fuzzy Logic Approach to Control
				the Parameters for diminishing the Damage Area during Drilling Operation in
				Composite Laminates
16:25	16:32	CP165	Akhilendra Singh Gangwar	Mixing of Lamb waves at Delamination Defect in a Unidirectional GFRP Laminate



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Date: 6th December 2019 Friday

Session	3B		Radiography Inspection Technologies	W C Röntgen Hall
Chairma	ın	Dr Ume	sh Kumar	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
15:00	15:25	IT30	Dr Thomas Wenzel	X-RAY SOLUTIONS IN THE DIGITAL WORLD: New added values for the
				manufacturing industry
15:25	15:40	CP188	Vikash Behari	An Assessment of Radiographic Image Detector Technology
15:40	15:55	CP300	Dhruv GAMDHA	Simulation Assisted Annotated XRay Image Data Generation for Deep Learning
				Applications
15:55	16:10	CP313	Changdar Samaresh	1000 KM WELD INSPECTION ON PIPELINES IN THE OUTBACK WITH CR
16:10	16:25	CP233	K Rasindh	Corrosion Measurement on Insulated Pipes
16:25	16:32	CP224	Lubna Shadab Khan	Assessment of Sensitivity of Radioisotope based Radiometry Data during
				Inspection of Large Sized Solid Rocket Motors
16:32	16:39	CP016	Nitesh Keshri	Performance evaluation for Computed Radiography System in Aerospace
				Industry



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Date: 6th December 2019 Friday

Session	3C		NDE Sensor, System and Inspection Robotics	Max Planck Hall
Chairma	Chairman		eric Cegla	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
15:00	15:25	IT05	Dr Prabhu Rajagopal	Inspection Robotics - CNDE-IITM experience and perspectives
15:25	15:40	CP010	Arun Kumar Yadav	Development of Portable Wireless NonDestructive Crack Identification Method by
				Using GMR Sensor Array for Overhead Crane Bridges
15:40	15:55	CP227	Chris Udell	Improving ultrasonic inspector productivity with modern mobile technology
15:55	16:10	CP207	Goravar SHIVAPPA	Automated analysis of eddy current images for crack detection using advanced
				machine learning techniques A Review
16:10	16:25	CP170	Deepak Rana	Experimental assessment of an RFID based wireless sensor for surface crack
				detection and characterization on metal
16:25	16:40	CP115	Debmalya Mukherjee	Development of Sectored External Pipeline Inspection Gauge for health monitoring
				of industrial carbon steel pipelines



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Session	3D		Electromagnetic NDE Methods - I	Michael Faraday Hall
Chairma	Chairman		yan Sundaram	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
15:00	15:25	IT03	Uday Godbole	Evolution of Instrumentation in Eddy Current and Electromagnetic NDE systems
15:25	15:40	CP027	Jitender YADAV	Eddy Current Array for Fuel Rod Inspections and Beyond From Manufacturing to
				Endoflife Management
15:40	15:55	CP064	Sumedha MOHARANA	Monitoring and Diagnosis of Thermal Expansion of Rails and Rail Joints Using
				Piezoelectric Sensor for ElectroMechanical Impedance Technique
15:55	16:10	CP092	Vijayachandrika THULASI	POD Studies of Axial and Radial Type Receiver Coils in Remote Field Eddy Current
				Technique
16:10	16:17	CP183	Ram Kumar	Eddy Current Testing for detecting Air Gaps in Sandwiched Tube Element of
				Reactor ShutOff Rods
16:17	16:24	CP216	Jacob Ashish Antony	THICKNESS ESTIMATION OF MARINE STRUCTURES USING AN ROV BASED PULSED
				EDDY CURRENT TECHNIQUE
16:24	16:31	CP155	Tarun Kumar Das	Reliability in Defect Classification and Characterization in Eddy Current Non
				Destructive Evaluation



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Date: 6th December 2019 Friday

Session	3E		Advanced Ultrasonics	Lord Rayleigh Hall
Chairm	an	Dr Sarm	ishtha Palit Sagar	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
15:00	15:25	IT13	Dr Bo Lan	Characterising polycrystalline materials with elastic waves
15:25	15:40	CP039	R Dhayalan	Inspection of Misaligned Austenitic Stainless Steel Welds using Single Channel SH
				wave EMATs
15:40	15:55	CP151	A Thirumalaiselvi	Damage Assessment of Concrete Bridge Structures Using Ultrasonic Tomography
				Technique
15:55	16:10	CP275	Akash UPADHYAY	Hydrotreater REACDSS Inspection using Advanced NDE
16:10	16:25	CP168	Tomas ZAVADIL	Detection of microstructure and stressstrain condition changes by ultrasonic
				testing assessment of the detection sensitivity



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Industry Session - 3 (15:00-16:30 Hrs)

Exhibition Area

NDE in Concrete Structures				
Name of the speaker Organisation		Topic		
Sh Chetan Raikar	StructWell. Mumbai	Challenges in NDE - Inspection of Civil structures for Human Occuptaion		
Sh Ravi Ranjan	RIL. Jamnagar	Challenges in NDE - Inspection of Civil structures in Hydrocarbon industry		
Sh Anirwan Sengupta	L&T Construction	Challenges in NDE - Inspection of Concrete Bridges		

16:30-17:00 Hrs

Tea Break



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Date: 6th December 2019 Friday

Session	4A		Ultrasonic Guided Wave	C V Raman Hall
Chairma	Chairman Dr		jit Ganguli	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
17:00	17:25	IT28	Dr Sauvik Banerjee	Ultrasonic guided waves for pitting corrosion assessment of reinforced concrete
				structures using bondedpiezoelectric wafer transducers
17:25	17:40	CP120	Balasubramaniam KALEESWARAN	Damage Assessment for a Sandwichlike Panel using Experimental and Numerical
				Analysis of Guided Waves
17:40	17:55	CP345	Sanjay Sharma	Model Assisted POD for Guided Wave-Based SHM of Growing Cracks
17:55	18:10	CP230	Nived Suresh	Coded Excitation for Low Power Operation and Fast Acquisition in Guided Wave
				Ultrasonic NonDestructive Evaluation
18:10	18:17	CP040	Avijit Kumar Metya	Evaluation of Plastic Strain using Nonlinear Lamb Wave Mixing
18:17	18:24	CP226	Sandeep Kumar	Improved Nonlinear Ultrasonic Detection of Imperfect Joint using Waveguide
				Metamaterial Rod
18:24	18:31	CP285	Dileep KOODALIL	Generation of Pure Guided Wave Modes Using Comb Transduction
18:31	18:38	CP354	C Raju	Level Measurement at Higher Temperature Using Ultrasonic Guided Waves



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Date: 6th December 2019 Friday

Session	4B		Advanced NDE and Robotics	W C Röntgen Hall
Chairm	an	Dr Thon	nas Gramberger	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
17:00	17:25	IT22	Dr Frederic Cegla	Low power EMATs, coded excitation and robotic inspection
17:25	17:40	CP038	R Dhayalan	EMAT Phased array Inspection of Thick Austenitic Stainless Steel and Dissimilar
				Metal Welds
17:40	17:55	CP113	N.S.V.N Hanuman	Bicoherence Based Study of Nonlinear Intermodulation in Delaminated CFRP Plate
17:55	18:10	CP218	Dharmveer SINGH	Industry 4.0 and NDT
18:10	18:25	CP340	B Arun Sundaram	Studies on using FBG Sensor as a tool for Identifying Corrosion in Pipelines
18:25	18:32	CP308	C T Manjunath	Ultrasonic Beam Steering in Bulk Medium using GRIN structures



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Date: 6th December 2019 Friday

Session	4C		Imaging in NDE	Max Planck Hall
Chairma	an	Dr Deba	shish Mishra	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
17:00	17:25	IT12	Krishna Mohan Reddy	Digital Imaging for Industry 4.0 – A Technical Perspective
17:25	17:40	CP030	Nagarajan Srinivasan	New Methodologies for Strain Mapping at Microscale using Digital Image
				Correlation
17:40	17:55	CP073	Sai Reddy Chamanth	Prediction of Failure Process in GeoMaterial Using Finite Element based Digital
				Image Correlation DIC Method
17:55	18:10	CP228	Calum HOYLE	Ultrasonic Back Projection Imaging
18:10	18:17	CP083	Sumedha MOHARANA	Pore Evaluation and Distribution in Cement Mortar Sample Using Digital Image
				Processing



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Date: 6th December 2019 Friday

Session	4D		Quality Control, Quality Assurance & Safety	Michael Faraday Hall
Chairma	an	Dr Chris	tian Boller	
Start Time	End Time	Paper ID	Name of Speaker	Title of Paper
17:00	17:25	IT18	Dr BPC Rao	Challenges for ensuring quality and safety in large engineering projects and ways to mitigate
17:25	17:40	CP291	Pratik Ramchandra Deshpande	High Pressure Pneumatic Testing of Pressure Vessel
17:40	17:55	CP128	Peter Amin	The Capabilities And Effectiveness Of Remote Visual Inspection Using UAV Unmanned Arial Vehicle
17:55	18:10	CP118	Dinesh Gupta	Quality Control on Water Couplant for reliable immersion ultrasonic testing
18:10	18:25	CP042	Rohit Kumar	Ultrasonic Examination of HardSurfacing Overlay in Valve Body Seating Area Using Focused Beam Immersion Technique
18:25	18:32	CP310	Sangili Gunasekaran	GRE Pipe Manufacturing Defects Installation and NDE Requirements



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Date: 6th December 2019 Friday

Session	4E		NDE Education & Training	Lord Rayleigh Hall
Chairma	Chairman Diwa		r Joshi	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
17:00	17:25	IT08	Dr Christian Boller	High Level Based NDT Academic Education in Germany and its Potential Impact
				on India
17:25	17:40	CP166	Tomas ZAVADIL	ASME ANDE12020 news related to new version 2020
17:40	17:55	CP167	Tomas ZAVADIL	Proficiency assessment of NDT suppliers for corporations via inter laboratory
				proficiency testing
17:55	18:10	CP058	Sujit CHAKRAVARTY	Incorporation of Information Technology in The Curriculum in NDT Training to
				Accomplish Reliability of Automated NDT Result to Detect Key Flaws
18:10	18:25	CP146	Navita Gupta	Specifying the Specific for Effective NDT Trainings



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Date: 6th December 2019 Friday

Industry Session - 4 (17:00-18:30 Hrs)

Exhibition Area

NDE in Manufacturing and Metal Processing				
Name of the speaker	Organisation	Topic		
Sh Balamurugan	TataSteel	Challenges in NDE - Steel Plant		
Sh P Thiyagarajan	TVS Sundaram Clayton	Challenges in NDE - Automobiles		
Sh Satish Shinde	Bharat Forge	Challenges in NDE - Forging Industry		

18:00 - 19:00 Hrs Annual General Body Meeting (Only for members of ISNT)

19:00 Hrs onwards Gala Dinner



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Date: 7th December 2019 Saturday

Session	5A		SHM & Condition Monitoring	C V Raman Hall
Chairma	an	Dr Bo La	n	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
9:00	9:25	IT14	Dr Sarmishtha Palit Sagar	Sensors and Devices for Non-destructive Evaluation and Structural Health
				Monitoring @CSIR-NML
9:25	9:40	CP018	D.Umapathi	Condition assessment of Sulphuric acid storage tanks Case study
9:40	9:55	CP142	Shri Krishna Tripathi	NDE of Dissimilar and Thin Weld joint during Manufacture of Large Diameter
				Inconel Bellows for FBR
9:55	10:10	CP174	Ayush Gangwar	Failure Analysis of Attemperator Nozzle in Heat Recovery Steam Generator Units
10:10	10:25	CP199	Suresh Periyannan	Ultrasonic Waveguide Technique for Temperature Measurement using T01 Wave
				mode
10:25	10:40	CP147	A.Ghosh	Development of a Smart Sensing System to Predict the Criticality of a Component
10:40	10:55	CP344	Venkat N. Ramani	Vacuum and Helium Leak Testing Techniques Used for Very Large Size Vacuum
				Chambers
10:55	11:02	CP015	D.Umapathi	Condition assessment of Annular plates Piping Supports with Short Range
				Ultrasonic Testing SRUT
11:02	11:09	CP348	Nishank Soni	Furnace tubes Intelligent Pigging in a Refinery: A Case Study



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Date: 7th December 2019 Saturday

Session	5B		Radiography Technologies	W C Röntgen Hall
Chairman		Dr Thomas Wenzel		
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
9:00	9:25	IT29	Dr Umesh Kumar	X-ray and Gamma-ray based Radiological Evaluation of Typical Industrial
				Specimen for Defect Visualisation and Quality Assessment
9:25	9:40	CP019	Saravanan T SARAVANAN	An Improved Quality Assessment of Fuel pin End plug Welds using Digital Xray
				Radiography
9:40	9:55	CP109	Girish N Namboodiri	Improvements in quality of Neutron Radiography images of pyro components used
				in aerospace applications using image processing tools
9:55	10:10	CP153	Ayaz Jhanorwala	Analysis of an Ambiguous Indication in Digital Radiography of Dissimilar Material
				Weld Joint A Case Study
10:10	10:25	CP243	Satya KORLIPARA	Fast Inline DR CT Solution for Light Metal Industry with Emphasis on Automotive
				Applications
10:25	10:40	CP282	S Keerthivasan	Radiography Testing Of Tube To Tube Sheet Joints in Vessel for Petrochemical
				Industries
10:40	10:47	CP131	Lakshminarayana Yenumula	Experimental Evaluation of Xray Digital Radiographic and Computed Tomographic
				System using an Indirect FPD for Nondestructive Examination



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Date: 7th December 2019 Saturday

Session	5C		Thermography	Max Planck Hall
Chairma	Chairman Dr Ole		Plekhov	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
9:00	9:25	IT15	Dr Ravibabu Mulaveesala	Pulse Compression Favorable Coded Excitation Schemes for Thermal Non-
				Destructive Testing and Evaluation of Solids
9:25	9:40	CP187	M Menaka	Characterization of Vertical Cable Fires using Thermal Imaging
9:40	9:55	CP262	M Jijith	Study of Tensile Instabilities Using Infrared Thermography
9:55	10:10	CP267	S K Shama	Degradation Studies on Helicopter Tail Rotor Blades Sandwich Structure with
				Infrared Thermal Imaging for Life Extension
10:10	10:25	CP284	D Sharath	Signal Processing Approaches in Pulsed Thermography for Defect Characterization
				in Stainless Steel Materials
10:25	10:40	CP149	Gopi Tilak Vesala	Proper Orthogonal Decomposition based Coating Thickness Estimation in
				Quadratic Frequency Modulated Thermal Wave Imaging
10:40	10:55	CP298	Puthiyaveettil NITHIN	Crack detection real cracks in metalic sample at high temperature



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Date: 7th December 2019 Saturday

Session	5D		Modeling and Simulation	Michael Faraday Hall
Chairma	Chairman		e Calmon	
Start	End	Paper	Name of Speaker	Paper Title
Time	Time	ID		
9:00	9:15	CP033	Krishna C GHANAKOTA	Numerical Analysis of Partial Discharge Source Localization using Time of Arrival
				Measurements and Nonlinear Least Squares Search
9:15	9:30	CP099	Ranjani Jayaraman	Numerical Modeling of Remote Field Eddy Current Testing of Steam Generator
				tubes
9:30	9:45	CP302	Sivaramanivas Ramaswamy	Grain Size Distribution Effects on Ultrasonic Attenuation
9:45	10:00	CP080	Aurovinda Kumar Mitra	Adiabatic Guided Wave Propagation Through a Honeycomb Composite Sandwich
				Structure with Smoothly Varying Core Thickness
10:00	10:15	CP346	K P Sruthi Krishna	Simulation Assisted Neural Network Model for Thermal Barrier Coating Thickness
				Prediction
10:15	10:22	CP299	Amar Kailas Borawake	Understanding Basic Phased Array Beam Computation and Inspection Simulation
				with CIVA 2020
10:22	10:29	CP017	Bharath Chandra Thakkallapally	Defect Classification from Weld Radiography Images Using VGG19 Based
				Convolutional Neural Network



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Date: 7th December 2019 Saturday

Session	5E		Phased Array Ultrasonic	Lord Rayleigh Hall
Chairman Gav		Gavin D	ivin Dao	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
9:00	9:25	IT27	Dr Paritosh Nanekar	Sound Beam Focusing using Phased Array - SAFT
9:25	9:40	CP132	Srinivas KUMAR	Real Time Total Focusing Method Applied To The Detection Of HTHA And HIC In
				Pressurized Vessels
9:40	9:55	CP169	Sumana	Parametric study on resolution achieved using FMCTFM based phased array
				ultrasonic imaging
9:55	10:10	CP173	S Kumar	Phased Array Ultrasonic Inspection of Dissimilar Weld Joints in Nuclear Facility by
				Experiment and Simulation
10:10	10:25	CP221	Y Siva	TFM Imaging Of Thick Section Composite Materials
10:25	10:40	CP297	Jeyaraman Satheesh	A Comparative Study of Plane Wave Imaging and Total Focusing in Imaging Defects
10:40	10:47	CP234	Thulsiram GANTALA	Numerical study of Phased Array ultrasonic beam parameters affecting the
				FMCTFM image resolution for defect characterization
10:47	10:54	CP240	Franã§Ois-CôMe BEAUPRé	Ultrasonic Phased Array Testing In lieu of Radiography Testing for Thin-Walled
				Heat Exchanger Welds An In the Field User Case



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Date: 7th December 2019 Saturday

Session	6A		In-service Inspection & Life Assessment	C V Raman Hall
Chairma	an	Dr C K Mukł	nopadhyay	
Start	End	Paper ID	Name of Speaker	Title of Paper
Time	Time			
11:30	11:55	IT11	Dr Oleg Plekhov	Nondestructive Evaluation of Service Life of Metals Materials and Structures
				Based on Infrared Thermography
11:55	12:20	LT (CP350)	Hari Kishore Maddi	Advanced NDT techniques for in Service high Temperature applications
12:20	12:35	CP009	Muthu GANESAN	Process Control in Magnetic Particle Testing
12:35	12:50	CP144	Hussain Ebrahim Vasadwala	Inspection of Ammonia Synthesis Converter
12:50	13:05	CP175	Govind Kumar Sharma	InService Inspection of Fast Breeder Test Reactor Components
13:05	13:20	CP241	Franã§Ois-CôMe BEAUPRé	InService Corrosion MappingChallenges for the Industry
13:20	13:27	CP029	Girish Maruti Shejale	Replica Metallography Case Study A NDT Technique for Life Assessment of Gas
				Turbine Wheel



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Date: 7th December 2019 Saturday

Session	6B		Computed Tomography	W C Röntgen Hall
Chairma	Chairman		sh Kumar	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
11:30	11:55	IT21	Dr Debashish Mishra	Industrial Volumetric CT Trends and Challenges
11:55	12:10	CP156	Sharan Srinivas Jagathrakshakan	A Comparative Study of Industrial XRay CT Reconstruction Algorithms Driven by
				GPU Infrastructure
12:10	12:25	CP242	Shashi Shekhar NAGABHUSHANA	Extending CT Applications Large Objects ROI Scanning and Quantitative CT
12:25	12:40	CP296	Dr. Daniel Shedlock	Application Tools for Improvements and Enhancements of 2D Radiographs and 3D
				ConeBeam Computed Tomography CBCT
12:40	12:55	CP069	Manu Joseph	Computed Tomography CT is an Asset to ensure the Quality and Reliability of Parts
				in Aerospace Applications
12:55	13:02	CP198	Anis Fatima	3D Characterization of Ore Mineral Phases Using High Resolution Synchrotron
				Microcomputed Tomography CT
13:02	13:09	CP177	R Ramar	Assessment of Performance Gammaray CT System Based on the Image Quality
13:09	13:16	CP210	Rajesh ACHARYA	Scheme for Gamma and XRay Based Computed Tomography Scanning
13:16	13:23	CP211	Rajesh ACHARYA	Software Application for Gamma Ray Computed Tomography Data Acquisition
				with Discrete Detectors



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Date: 7th December 2019 Saturday

Session	6C		NDE in Power Sector	Max Planck Hall
Chairma	ın	Dr R J Pa	ardikar	
Start Time	End Time	Paper ID	Name of Speaker	Title of Paper
11:30	11:55	IT31	M K Asthana	Challenges in Application of Advanced NDE Techniques such as PAUT, TOFD, Digital RT in examination of site welded joints in High Pressure Piping & Steam Generators of thermal power plants based on Super Critical Steam, & Ultra Super Critical Steam Technology
11:55	12:10	CP093	M Janardhana	Nondestructive test for Detection of Magnetite deposits in Stainless steel tube bends of Steam Generating stations
12:10	12:25	CP273	Tarla MALLIKHARJUNA RAO	Applications Of Thermography For Condition Monitoring Of Power Plant Equipment CPRI Experience
12:25	12:40	CP189	Kishore Kumar Gulipilli	Laser scan of Butterfly valve for Corrosion Damage Assessment of Hydropower Plant
12:40	12:47	CP095	Venkateswararao MUSHINI	Insitu Metallography a NDE Tool for Remaining Life Assessment of High Temperature Thick Section Boiler Components
12:47	12:54	CP190	Kishore Kumar Gulipilli	Non Destructive Testing and Evaluation of Electrical Steels
12:54	13:01	CP232	M Janardhana	NDT Inspection of Boiler Riffle Tubes and Laboratory Analysis



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Date: 7th December 2019 Saturday

Session	6D		Electromagnetic NDE Methods - II	Michael Faraday Hall
Chairman		Uday Godbole		
Start	End	Paper ID	Name of Speaker	Title of Paper
Time	Time			
11:30	11:55	LT(CP172)	A K Das	Nondestructive Evaluation of Post Weld Heat Treatment Quality of
				Ferromagnetic Steel P91 Weld by Magnetic Coercive Force MCF Measurement
11:55	12:10	CP238	Tien Shung Chai Dennis	Detecting Stress Corrosion Cracking with Eddy Current Array Technology
12:10	12:25	CP266	Chandra Sekhar Angani	Detection of Cracks in Stainless Steel Structures Using Transient Eddy Current
				Oscillations Method
12:25	12:40	CP081	Manali Nandy	Visual Detection of Defects in Ferromagnetic Steels Using Magnetic Nano
				emulsions
12:40	12:55	CP171	Indrani Mukherjee	Eddy Current Based Non Invasive Sensing of Extent of Corrosion in Steel
				Reinforcing Bars Rebars
12:55	13:10	CP119	P Mahesh Raja	Design of an eddy current array probe for non destructive testing of thin walled
				stainless steel tubes



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Date: 7th December 2019 Saturday

Session	6E		TOFD and Phased Array Ultrasonics	Lord Rayleigh Hall
Chairman [Dr Parit	osh Nanekar	
Start	End	Paper	Name of Speaker	Title of Paper
Time	Time	ID		
11:30	11:55	LT	Cyril Thibault	Adaptive Total Focusing Method for Complex Surface Geometry with Linear and
		(349)		Matrix Phased Arrays
11:55	12:10	CP066	Manu Joseph	Phased Array Ultrasonic Testing PAUT is an apt tool for reliable integrity
				assessment of aerospace parts and systems
12:10	12:25	CP110	Abhishek SAINI	Improved 3D Ultrasonic Imaging of Surface Breaking Cracks by Linear Phased Array
12:25	12:40	CP347	Krishna Bhuta	PAUT Paint Brush Application
12:40	12:55	CP235	Siva Y	Effect of Probe Parameters on Defect Detectability Using TOFD Technique on Thin
				Wall Butt Weld Joints
12:55	13:10	CP088	S Anandamurugan	Study Of Ultrasonic Weld Application using Total Focusing Method
13:10	13:25	CP239	Tien Shung Chai Dennis	Building TFM Procedures for Challenging Inspections such as ERW hook crack Girth
				Welds HTHA and others

13:30 - 15:00 Hrs	Lunch
15:00 - 15:20 Hrs	Panel Discussion
15:20 - 16:30 Hrs	Valedictory Function and Award Distribution
16:30 - 17:00 Hrs	Tea