



Day – 2: November 27, 2015 Parallel technical sessions

Session 1A : **NDE for Condition Monitoring and In-service Inspection**
Room No : **MRG 0.2**
Session Chair : **Y Subba Rao, NFC**

Paper No:	Title of Talk	Authors	Institution	Time
195-I	NDE for Condition Monitoring and Structural Health Monitoring: Advances and Challenges	B.P.C. Rao	IGCAR	0930-1000
133-C	In-Service Inspection For Assessment Of Weld Degradation In Ss 310s Reduction Retort	CHVS Murthy, Kalpana Naik, MK Yadav, K S Lakshmi, Komal Kapoor	NFC	1000-1015
14-C	Identification of leakage in plate type Air Preheater using ultraviolet light test	Ketan Amin	GNVFC	1015-1030
224-C	Wire ropes condition monitoring: conception and embodiment	Alexander Mironenko	INTRON/NDTS	1030-1045
129-C	Condition Monitoring: A Study on Ageing in Inconel 718	Vidhi Acharya and Dr. GVS. Murthy	Indus Institute of Technology	1045-1100

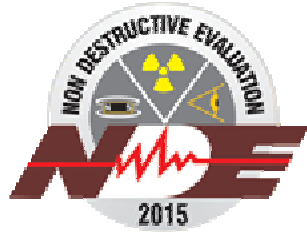


Day – 2: November 27, 2015

Parallel technical sessions

Session 1B : Advances in RT-Computed Tomography
Room No : MRG 0.3
Session Chair : Dr. B Venkatraman, IGCAR

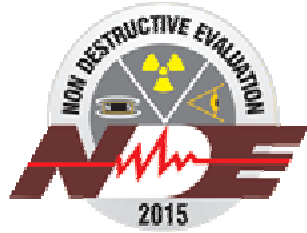
Paper No:	Title of Talk	Authors	Institution	Time
226-I	Advanced Volumetric CT System for Non-destructive Evaluation	Debasish Mishra	GE Global Research	0930-1000
82-C	Computed Tomography (CT) - for failure analysis of Delay Pyro	C. Muralidhar, M. P. Subramanian V. Ravi Shankar	DRDO/DRDL	1000-1015
33-C	X-ray Industrial Computed Laminography (ICL) Simulation Study of Planar Objects: Optimization of Laminographic Angle	Lakshminarayana Y, Umesh Kumar Ashutosh Dash	BARC	1015-1030
154-C	X-ray computed tomography based detection of casting defects in fatigue samples	K. Arunmuthu, T. Saravanan, John Philip B. Purna Chandra Rao	IGCAR	1030-1045
21-C	Extracting the pore structure features of cement based materials using 3D X-ray Computed Tomography	Murugan M	IITM	1045-1100



Day – 2: November 27, 2015 Parallel technical sessions

Session 1C : Applications of Ultrasonics in NDE
Room No : MRG 0.4
Session Chair : Dr. P Nanekar, BARC

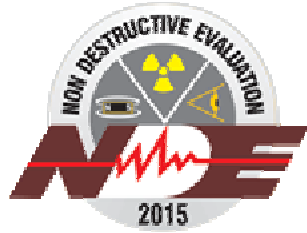
Paper No:	Title of Talk	Authors	Institution	Time
45-I	Use of advance NDT techniques(TOFD-PAUT) for reduction of project duration	Himangshu Pal	EIL	0930-1000
83-C	Advances in Ultrasonic Instrumentation for Core-mapping of Fast Breeder Reactors	Patankar V.H. and Eagle kumar Tarpara	IGCAR	1000-1015
150-C	3D simulation and underwater experimental validation towards ultrasonic detection of protrusion of sub-assemblies in PFBR	Dr. K.V.Rajkumar	IGCAR	1015-1030
65-C	Pipeline inspection using EMAT	Suwendu Lenka	NDT Training Consultancy	1030-1045
17-C	Ultrasonic Simulation Studies for Sizing of Planar Flaws in Thick Carbon Steel Welds	Alok Prakash	BARC	1045-1100



Day – 2: November 27, 2015 Parallel technical sessions

Session 1D : NDE- Process Plants and Power Industry
Room No : MRG 0.5
Session Chair : Diwakar Joshi, Insight Quality

Paper No:	Title of Talk	Authors	Institution	Time
252-I	Improved Inspection of CRA-Clad Pipe Welds with off-the-shelf Ultrasonic Phased-Array Technology	Andre Lamarre, Olivier Dupuis	Olympus Scientific Solutions Americas	0930-1000
171-C	Frequency-Scanning Eddy Current Testing (F-SECT) for Condition Assessment of Multiple Layers of Coating on Gas Turbine Blades	A.K. Das Amit Chhabra, Dr. Avijit Mondal, Satish Chand L.K. Pegu	NTPC	1000-1015
181-C	Non-Destructive Evaluation - A Tool For Analysis Of Defects Revealed In Proof Testing.	K.Monagurubaran, H.Nikhil, L.Marimuthu T.Gurunathan	BHEL Trichy	1015-1030
11-C	Development of an EMAT Ultrasonic Thickness Gauge for testing in harsh environments	Helmut Wolf	QNET Quality Net	1030-1045
223-C	Helium Mass Spectrometric Leak Detection In Vacuum Systems with very small Pumping Time Constants	Venkat N. Ramani	Plasvac	1045-1100



Day – 2: November 27, 2015 Parallel technical sessions

Session 1E : Statistics and Reliability of NDE
Room No : MRG0.5
Session Chair : Dr. Bikash Ghose, HEMRL

Paper No:	Title of Talk	Authors	Institution	Time
202-I	Simulation-Assisted Determination Of Probability Of Detection (POD) Curves: A Short Review	Prabhu Rajagopal S. Mohamed Subair	IITM	0930-1000
142-C	Challenges in Probability of Detection (POD) of Ultrasonic Testing -A Modelling Approach	Vamsi Krishna Rentala ¹ , Phani Mylavarapu ² , Jai Prakash Gautam ¹ , Vikas Kumar ³	UOH	1000-1015
131-C	Foreseeing The Hidden Defects In Rocket Motor Hardware Through NDT- A Case Study	Braj Mohan Jha, ¹ A R Murali Sankar ² , K.R.Mohan Ananthanarayanan	ISRO/VSSC	1015-1030
114-C	Probability of defect detection in conventional and advanced ultrasonic testing for different austenitic stainless steel weld joint configurations	K. Murugan, D.Chitra, Saju. T. Abraham, M.V.Kuppusamy, B Anandapadmanaban, B Venkataraman.	IGCAR	1030-1045
203-C	A Transfer Function Approach Based On Signal Noise For Pod Curve Determination	S. Mohamed Subair ¹ , Krishnan Balasubramaniam ¹ Prabhu Rajagopal ¹	IITM	1045-1100



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Parallel technical sessions

Session 2A : UT -General and Advanced
Room No : MRG0.2
Session Chair : Arvind Bhide, BITT

Paper No:	Title of Talk	Authors	Institution	Time
257-I	Developments in Ultrasonic Imaging for NDE	Anish Kumar	IGCAR	1130-1200
109-C	Advancements In Non-Destructive Evaluation - Practical Interpretation Of "Ultrasonic Test Indications" Of Single Side Butt Welded Joints Of Header Nozzles And Feeder Pipes.	Dilip Kumar Singh, V. Deepesh T. Gurunathan.	BHEL Trichy	1200-1215
127-C	Improving the sensitivity of ultrasonic examination of Nickel based super alloy tubes	Kapoor K	NFC	1215-1230
157-C	Ultrasonic imaging for interface characterization in multi-layer specimens	A. Viswanath, Anish Kumar B. Purna Chandra Rao	IGCAR	1230-1245
242-C	Sorting of ID and OD Flaws During The Ultrasonic Testing of Pressure Tubes of	M. Bhaskara Rao, P. Satish Kumar, P. Hanumanth Reddy, R. K Chaube, C. PhaniBabu, Y. Subba Rao, Dr. N. Saibaba	NFC	1245-1300
237-C	Ultrasonic inspection of mooring chain for fatigue cracks	John R Rudlin*, Channa Nageswaran Monika Ozarowska	TWI	1300-1315
57-C	Ultrasonic Examination Of Tube to Tube sheet Weld Joints In High pressure Heat Exchanger for The Urea process	Jigar Prajapati	ISGEC HITACHI ZOSEN LTD	1315-1330



Day – 2: November 27, 2015 Parallel technical sessions

Session 2B : NDE in Nuclear Fuel Fabrication
Room No : MRG0.3
Session Chair : RK Mistry, NFC

Paper No:	Title of Talk	Authors	Institution	Time
234-I	Trends in X-, Gamma and Neutron Radiographic Imaging at IGCAR Kalpakkam	B.Venkatraman, N.Raghu, M.Menaka and R.Anandraj	IGCAR	1130-1200
50-C	Role Of Non-Destructive Examinations In Leak Testing Of Glove Boxes For Industrial Scale Plutonium Handling At Nuclear Fuel Fabrication Facility Along With Case Study”	Sachin Aher	BARC	1200-1215
102-C	Non Destructive Evaluation of end plugs welds for Absorber pins of PFBR Control and safety rod and Diverse safety rod subassemblies	YRC Murthy, B.Ravinder, B.Kamalesh Kumar, R.K. Mistry, C.Phani Babu, Y.Subba Rao	NFC	1215-1230
56-C	Helium Leak Testing in Electro-Chemical Oxygen Sensors	N.Raghu	IGCAR	1230-1245
6-C	Detection of annular and solid pellet in PFBR Fuel element using high energy X-ray radiography	Nagendra Kumar	BARC	1245-1300
103-C	NDE during fabrication of Blanket Sub assemblies for Prototype Fast Breeder Reactor	YRC Murthy ¹ , Saju T Abraham ² , S. Ramesh ³ , B.Ravinder ¹ , B.Kamalesh Kumar ¹ , C. Phani Babu ¹ , R.K. Mistry ¹ , B. Anandapadmanaban ² , Y.Subba Rao ¹	NFC	1300-1315
104-C	Non-destructive Evaluation of Irradiated Nuclear Fuels and Structural Components from Indian Reactors	J. L. Singh, Umesh Kumar, H. N. Singh, Nitin Kumawat, Anil. Bhandekar, K. M. Pandit, Ashwini Kumar, R. S. Shriwastaw, M. P. Dhotre and Arun Kumar	BARC	1315-1330



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Parallel technical sessions

Session 2C : NDE using IR Thermography
Room No : MRG0.4
Session Chair : Dr M Ravibabu, IIT Ropar

Paper No:	Title of Talk	Authors	Institution	Time
240-I	High temperature challenges in Infrared <i>Thermography</i>	C.V.Krishnamurthy	IITM	1130-1200
153-C	A Microwave Assisted IR Thermography based Non-invasive Technique for Compositional Analysis of Minerals	S. Palit Sagar ¹ , Arpita Ghosh ¹ , Tarun Kr. Das ¹ , Rajesh Mukherjee ²	NML	1200-1215
151-C	Fatigue and creep-fatigue damage assessment in Ti-6Al-4V titanium alloy using IR-thermography	Jalaj Kumar S. Ganesh Sundara Raman Vikas Kumar*	DRDO/DMRL	1215-1230
138-C	Analysis of Spatiotemporal evolution of Portevin –Le Châtelier Deformation Bands using Infrared Thermography	Amretendu Mukhopadhyay Chandan Mondal	DRDO/DMRL	1230-1245
186-C	Evaluation of Damages on CFRP-Foam Sandwich Materials with Infrared Thermal Imaging	S. Kshama*, S. Kalyana Sundaram*, K.S. Hema**, S. Rajagopal**	NAL	1245-1300
134-C	Evaluation of APS thermal barrier coatings using Infra Red Thermography technique	Sony Punnose, S. Gokul Lakshmi, Amretendu Mukhopadhyay, K. Gopinath D.K. Das	DRDO/DMRL	1300-1315
132-C	Temperature evaluation in Friction Stir Welding through Thermographic Technique	B.Nagaraja Kowmudi ⁺ , K.Ramanjanailu [#] , G. Madhusudhan Reddy [*]	DRDO/DMRL	1315-1330

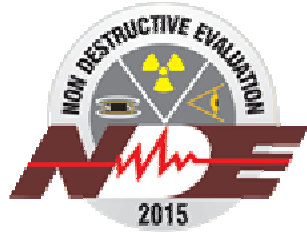


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Parallel technical sessions

Session 2D : NDE for Microstructural Characterization I
Room No : MRG0.5
Session Chair : Dr. Viplava Kumar, Dean, MGIT

Paper No:	Title of Talk	Authors	Institution	Time
254-I	Non-linear ultrasonic for damage assessment of in-service components: An approach at CSIR-National Metallurgical Laboratory	Sarmishtha Palit Sagar	NML-J	1130-1200
148-C	Application of electrical conductivity as an NDE tool for microstructural evolution during cold rolling and thermal ageing	Dr. K.V.Rajkumar	IGCAR	1200-1215
167-C	Detection Of Sensitisation In Austenitic Stainless Steels Through Lock In Thermography	M.Menaka, D.Sharath and B.Venkatraman	IGCAR	1215-1230
160-C	Ultrasonic Backscattered Inspection Technique to Monitor Progressive Creep Damage in an Aero-engine Component	Phani Mylavarapu ¹ , C.M.Omprakash ² , D.V.V.Satyanarayana ² ,	DRDO/DMRL	1230-1245
2-C	Assessment Of Localized Plastic Damage During Fatigue By Non-Collinear Nonlinear Ultrasonic Technique	Muhammed Thanseer P ² , Avijit Kr. Metya ² , J Hemalatha ¹ S Palit Sagar ²	NML	1245-1300
7-C	Monitoring of creep damage progression in power plant materials using second harmonic of ultrasonic signal	Minati Kumari Sahu	NML	1300-1315
74-C	Study of influence of grain size variation in ultrasonic non-linear measurements	Saju T Abraham, S. Shivaprasad, N. Sreevidhya, Shaju K Albert, Krishnan Balasubramaniam, B. Anandapadmanaban, B. Venkatraman	IGCAR	1315-1330



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Session 2E : Radiography Applications
Room No : MRG0.6
Session Chair : K Chandra Moorthy, Kalva Engineers

Paper No:	Title of Talk	Authors	Institution	Time
246-I	Determination of Sensitivity and saturation limit of phosphor imaging plates for photon energies up to 1.25MeV	A.M. Shaikh	BARC	1130-1200
249-I	Radiation Protection In Industrial Radiography Applications	<i>Dr.Avinash U. Sonawane,</i>	AERB	1200-1230
18-C	Radiation Protection & Personnel Safety In Industrial Radiography	Alok Kumar Banerjee	Siefert & Atlas	1230-1245
119-C	Challenges for Radiographic examination of critical dissimilar metals circumferential butt weld joint in heavy thickness tube below 25 MM OD	J.K. JAIN	NPCIL	1245-1300
60-C	Image Segmentation using level set-approach	Mukul Verma, Shubhabrata Sarkar, Prabhat Munshi	IIT-Kanpur	1300-1315
77-C	Bridging NDT's Digital Divide	Michael Beaugrand	PACISS	1315-1330



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Parallel technical sessions

Session 3A : Eddy Current Inspection
Room No : MRG0.2
Session Chair : M Shyamsunder, GE

Paper No:	Title of Talk	Authors	Institution	Time
90-C	Eddy Current Testing for Detection of Cracks in Austenitic Steel Cladded Pressure Vessel	Arbind Kumar, Manojit Shaw Paritosh Nanekar	BARC	1430-1445
20-C	Eddy Current Array Technology On CRA – Liner Pipes	Santanu Saha Venkatrao Burri	Intertec Inspec	1445-1500
25-C	Detection of void in sodium cooled fast reactors using eddy current based technique	Ranga Ramakrishna	IGCAR	1500-1515
128-C	On Eddy Current Examination (ECE) of Incoloy 800 SG tube using OD encircling and ID Bobbin coil	K Kapoor K Sunder Krishna S A Bakshu	NFC	1515-1530
89-C	Characterization of Defects having Complex Geometry by Eddy Current Testing	Manojit Shaw, S. Mukhopadhyay*, Arbind Kumar Paritosh Nanekar	BARC	1530-1545
238-C	Development of a Pulsed Eddy Current Method for Corrosion Detection in Pipework	John R Rudlin	TWI	1545-1600
225-C	In-service application of EMAT in Boiler Water Wall Tubes and High Temperature Pipelines	R Dhanasekaran, MukeshArora, Anil Krishnan A G	NDTS	1600-1615
19-C	Automated Eddycurrent Testing Systems	Mr. Ashok J. Trivedi Rajul R.Parikh	EEC	1615-1630



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Parallel technical sessions

Session 3B : Application of IR Thermography
Room No : MRG0.2
Session Chair :Dr C Muralidhar, DRDL

Paper No:	Title of Talk	Authors	Institution	Time
230-I	Advances in Infrared Thermographic Techniques for Non-destructive Testing and Evaluation of Materials	Ravibabu Mulaveesala	IIT Ropar	1430-1500
69-C	Advances In Quadratic Frequency Modulated Thermal Wave Imaging	Dr V S Ghali	KL University	1500-1515
232-C	Golay Coded Thermal Wave Imaging for Non-destructive Testing and Evaluation of Materials	Vanita Arora Ravibabu Mulaveesala*	IIT Ropar	1515-1530
139-C	A Comparative Study of Pulsed and Lock-in Thermography Techniques for Defect Detectability in AISI 316 L SS	Sharath D*, M. Menaka B. Venkatraman	IGCAR	1530-1545
233-C	Frequency Modulated Thermal Wave Imaging for Non-destructive Testing and Evaluation of Reinforced Concrete Structures	Geetika Dua Ravibabu Mulaveesala*	IIT Ropar	1545-1600
217-C	The effect of surface breaking crack orientation in detection capability: A Laser Thermography Numerical modeling approach	Nithin Puthiyaveetil ¹ , Sreedhar Unnikrishnakurup ¹ , C V Krishnamurthy ¹ , Mathias Zeigler ² , Philipp Myrach ² , Krishnan Balasubramaniam ¹	IIT-M	1600-1615



Day – 2: November 27, 2015 Parallel technical sessions

Session 3C : NDE in Aerospace: Non-Metallic Components
Room No : MRG0.4
Session Chair : P V Sai Suryanarayana, SHAR, ISRO

Paper No:	Title of Talk	Authors	Institution	Time
91-C	NDE of Solid Rocket Motor Critical Interfaces using Long Range Ultrasonic Testing.	VK Ravindran ⁺ , PV Sai Suryanarayana ^{&} , Seka Nataraj ⁺ , B. Karthikeyan ^{&} , S Somanathan, SS Manna ⁺ , R Sumangali ⁺ and Dr. B Valsa ⁺	ISRO/VSSC	1430-1445
101-C	Non-Destructive Evaluation of Electronic Components for Aerospace Applications	G.Kamalakar, Mukesh Kumar, S.GiridharRao	DRDO/ASL	1445-1500
116-C	Damage Evolution Studies in Carbon Fiber Reinforced Polymer Composites using Active and Passive Thermography	Sukanta Das ¹ , Dr. Gangadharan Raju ² , Naresh Reddy ³	IITH	1500-1515
93-C	Air coupled Ultrasonic Testing for in-situ integrity evaluation of multi-layered interfaces of composite case - insulation bond-lines	VK Ravindran ⁺ , PV Sai Suryanarayana, ^{&} Sekar Nataraj ⁺ , PVS Kurmanath ^{&} , S Somanathan ⁺ SS Manna ⁺ , R Sumangali ⁺ and Dr. B Valsa ⁺	ISRO/VSSC	1515-1530
122-C	Quantitative Assessment of Impact damage in Composites by IR Thermography	YLVD Prasad ¹ , Dr. S.K. Majee ^{*1} , P. Ramasubba Reddy ² , A.O. Siddiqui ¹ , Dr. V. Madhu ² , BVSR Murthy ¹	DRDO/ASL	1530-1545
159-C	Application of Non-Contact Ultrasonic Testing for Interface Inspection of Multi-layered Pressure Vessels	AhireNitin*, Kumar Satveer Khan Lubna S, Mali Umesh, Rao T V J, Mehta P K	DRDO/ACE M, TBRL	1545-1600
163-C	Rapid non-contact guided ultrasonic method for inspection of hidden and curved regions in composite aerospace structures	Dileep Koodalil	IITM	1600-1615
205-C	A study on the application of conventional and digital radiography systems on NDE of critical launch vehicle components	Madheswaran G, Ramesh Kumar KG, Ratheesh S, Elizabeth John	ISRO/VSSC	1615-1630

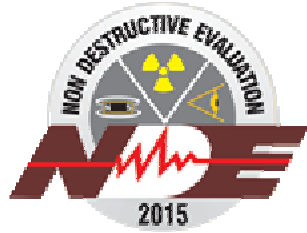


Day – 2: November 27, 2015

Parallel technical sessions

Session 3D : Phased Array Ultrasonic Testing
Room No : MRG0.5
Session Chair : Dr. Anish Kumar, IGCAR

Paper No:	Title of Talk	Authors	Institution	Time
256-I	Full Matrix Capture, Total focusing method and phased array technology	Laurent Le Ber K. Sy	CEA France	1430-1500
12-C	Inspection of Manufacturing Defects in Fiber Reinforced Composite Laminates using Ultrasonic Phased Array Probe	Zhao Yian, Abhiskeek Chawan, Fan Zheng David, Sridhar Idapalapati	Nanyang Technology	1500-1515
68-C	Quality Assessment Of Electron Beam Welds Of Inconel-718 Plates Using Phased Array Ultrasonics And Its Comparison With Radiography Inspection	Girish N Namboodiri	ISRO/VSSC	1515-1530
125-C	Phased array ultrasonic inspection of high strength steel shear bolts used in Light alloy structures of new generation satellite launch vehicle	N.Nitesh*, M.Arumugam**, A. Shunmugavel*, K.S.Narayanan*, Georgekutty Oommen*** Hariharaputhran J***	ISRO/VSSC	1530-1545
236-C	Enhanced Inspection Capability for Specific Applications using Ultrasonic Phased Array	John Russell Rudlin *, Fredrik Hagglund , Channa Nageswaran	TWI	1545-1600
15-C	Characterization of Stress Corrosion Cracking in Pipeline Welds using Ultrasonic Phased Array Technique	N Jyothi Lakshmi Paritosh Nanekar	BARC	1600-1615
46-C	Next Generation Phased Array Ultrasound: Advancements in Total Focusing Method and Full-Matrix Capture Techniques	Gavin Dao	Advanced OEM Solutions	1615-1630



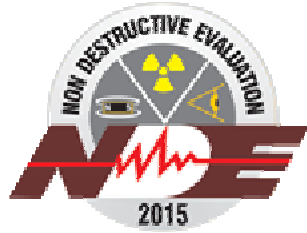
Day – 2: November 27, 2015 Parallel technical sessions

Session 3E : Training and Certification in NDE
Room No : MRG0.6
Session Chair : RB Bhardwaj, NPCIL

Paper No:	Title of Talk	Authors	Institution	Time
248-I	Training and Certification in Non-Destructive Testing – the 'Make in India' perspective	Diwakar Joshi and Surendra Mungel	Insight Quality Services	1430-1500
36-C	Development of Software Application to Auto-Generate RT-1 Examination Question Paper	Parag Walinjkar, Shruti Bhalekar, Umesh Kumar A. Dash	BARC	1500-1515
16-C	Nde Certification On Aerospace	Prakash	INICO Inspection Services	1515-1530
206-C	Simplification of AUT Validation Process in line with ASME	¹ Pragneshkumar J Patel ² Yokesh Ravichandran ³ Selva G Kumar ⁴ Karthikeyan C Thandayathapani ⁵ Sarath S ⁶ Pemmaraju Raghavendra	L&T HED	1530-1545
228-C	Training and Certification in Non-Destructive Testing	Vasanth Praveen Kumar	NDTS	1545-1600
247-C	Role of NDE In Regulatory Oversight of Nuclear Power Plants	R.P.Gupta	Atomic Energy Regulatory Board	1600-1615

Tea Break

- 1630-1830 Visit to Posters (for evaluation)
- 1630-1830 AGM MRG0.5 & 0.6
- 1845 Bus leaves for cultural program
- 1900-2000 Cultural Program at Rock Heights, Shilparamam
- 2000-2200 Happy Hours and dinner



Day – 3: November 28, 2015 Parallel technical sessions

Session 4A : Signal and Image Processing in NDE

Room No : MRG0.2

Session Chair : BPC Rao, IGCAR

Paper No:	Title of Talk	Authors	Institution	Time
95-I	Application of Fractals in the Acoustic Emission Study of Microcracking and Fracture Development in Brittle Rock	M.V.M.S. Rao	NGRI	0930-1000
118-C	Indirect Error Representation using Kanpur Theorem - 1	Anurag Maan ¹ , Prabhat Munshi ²	IIT Kanpur	1000-1015
48-C	Digital processing of Radiographic images of Aerospace Components For Hidden Features Extraction	Sambamurthy Enugula	ISRO/VSSC	1015-1030
216-C	Novel Membership Function for the Fuzzy Based Segmentation to Extract Hotspot from PCB Thermograph	M.S.Sangeetha N.M.Nandhitha	Satyabhama	1030-1045
208-C	A novel method for reverberation cancellation of systems based on pulse echo method which uses single ultrasonic transducer	Subodh P S ¹ Nimmy Mathew ² .Murali R ³ Byju C ⁴	CDAC	1045-1100



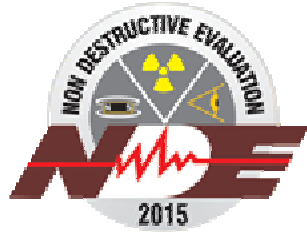
Day – 3: November 28, 2015 Parallel technical sessions

Session 4B : Radiography-Special Applications

Room No : MRG0.3

Session Chair : SantanuSaha, Intertec Inspec

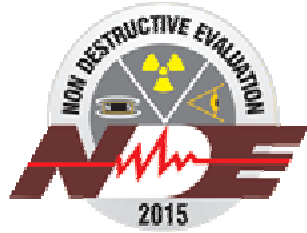
Paper No:	Title of Talk	Authors	Institution	Time
235-I	Indigenous Pulsed X-ray and Neutron Sources for Non-destructive Material Characterization	T C Kaushik, R K Rout, S C Andola Ram Niranjana, S. C. Gupta	BARC	0930-1000
35-C	Development of a gamma ray based liquid level sensor for detecting level of liquid inside an opaque container for industrial applications	AnantMitra, P. B. Walinjkara, Umesh Kumar, Ashutosh Dash	BARC	1000-1015
3-C	Flash X-Ray Radiography Technique to study the high velocity impact of soft Projectile on E-Glass/epoxy Composite Material	Venkataramudu Bodepati, C Jayarami Reddy, K Gopinadha Reddy, G Seshagiri Rao, V Madhu	DMRL-DRDO	1015-1030
106-C	A Flash X-Ray System Based on Flat Pulse Marx Generator and an industrial pinch diode for Radiographic applications	Ritu Agrawal, Archana Sharma A.M. Shaikh	BARC	1030-1045
27-C	Quantitative Interface Evaluation of RF connectors by Non-Destructive Testing (NDT)	B.Karthikeyan, B.Srinivasa Rao, PV Sai Suryanarayana, BV.Subba Rao Dr.SV.Subba Rao	ISRO/SHAR	1045-1100



Day – 3: November 28, 2015 Parallel technical sessions

Session 4C : Applications of NDE in Aerospace-Metallic Components
Room No : MRG0.4
Session Chair : Dr. C V S Murthy, DRDL

Paper No:	Title of Talk	Authors	Institution	Time
13-C	Robotic Ultrasonic Thickness Measurement for Turbine Airfoils	SRIRAM.P Chibi Chakaravarthy.C	PRATT & WHITNEY	0930-0945
26-C	Health Monitoring of Aero Engine Components by Automated Eddy Current Inspection	N. Venkata Sita Ramulu	HAL	0945-1000
155-C	Development of eddy current sensors for turbine blade tip clearance measurement	V. Arjun, S. Thirunavukkarasu, C. Babu Rao, C.K. Mukhopadhyay B. Purna Chandra Rao	IGCAR	1000-1015
162-C	An Overview of NDE for Thermal Barrier Coatings	Esha Sengupta	GE Global Research	1015-1030
197-C	NDE During Manufacture And Maintenance Of Aircrfts, And Helicopters	P. Vijayaraghavan	HAL-Retd	1030-1045
227-C	Applications of Visual Testing in NDE of Aero Engine Components –Case Studies	M.R.Vijaya Lakshmi*, A.K.Mondal, M.V.Subbaraju, V.Thangavelu, B.V.Ravi Dutta, Sreelal Sreedhar	DRDO/GTRE	1045-1100



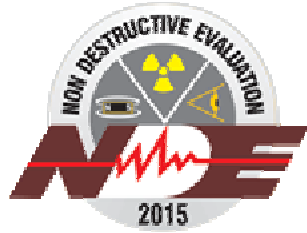
Day – 3: November 28, 2015 Parallel technical sessions

Session 4D : Applications of NDE in Industry

Room No : MRG0.5

Session Chair : Dr. Ujwal Kumar Behara, Singareni Collieries

Paper No:	Title of Talk	Authors	Institution	Time
229-I	Extended Major Turn Around at Heavy Water Plant (Kota) - A Great Challenge	Maria Michael Raj R.D.Patel	HWB	0930-1000
144-C	Heliborne Time-Domain Electromagnetic (TEM) Surveys For Uranium Exploration	A. K. Chaturvedi	AMD	1000-1015
88-C	Estimation of Rebar Diameter in Concrete Structural Elements using Ground Penetrating Radar	Bhaskar Sangoju, Ramanjaneyulu, K.	SERC	1015-1030
123-C	Non Destructive Evaluation Technique In Repair Rehabilitation And Strengthening Of Chlorination Building – A Case Study	Babu V Sundararaman ¹ Vinayak M Bhat ² B S V S Kameswara Rao ³	NFC	1030-1045
9-C	Assessment of integrity of reinforced concrete structures using “Relaxation ratio” analysis of acoustic emissions	R.Vidya Sagar ¹ M.V.M.S.Rao ²	IISc	1045-1100



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Session 4E : Acoustic Emission
Room No : MRG0.6
Session Chair : MVMS Rao, Ex-NGRI

Paper No:	Title of Talk	Authors	Institution	Time
IT-/ CP-110	Potential application of acoustic emission technique for weld structure integrity monitoring under dynamic loading	S.V. Ranganayakulu	Guru Nanak Institutions	0930-1000
CP-71	A Study on the Crack Growth of AA2219 Aluminium Alloy material Using Acoustic Emission Signal Analysis	B Binu, K K Purushothaman, Jeby Philip	ISRO/VSSC	1000-1015
CP-105	Evaluation of Young's modulus of metals using Acoustic emission technique	R. Gopikrishna, M. Varadanam	DRDL	1015-1030
CP-250	Acoustic emission monitoring during proof pressure testing of a solid rocket motors	Nilesh Mane, Anurag Shukla, Sandeep Jain, K R Mohanananthanarayanan, A K Mishra	VSSC, Trivandrum	1030-1045



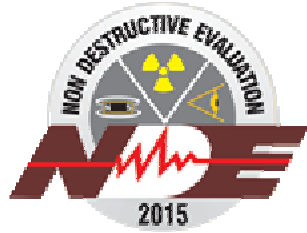
Day – 3: November 28, 2015 Parallel technical sessions

Session 5A : Application of TOFD & Guided Wave techniques

Room No : MRG0.2

Session Chair : Dr. Komal Kapoor

Paper No:	Title of Talk	Authors	Institution	Time
259-I	Sound Beam Focusing Techniques using Phased Arrays	Paritosh Nanekar	BARC	1130-1200
10-C	Long Range Ultrasonic Testing - Case Studies	Prawin Kumar Sharan	SIEVERT India	1200-1215
4-C	Experimental Study of Ultrasonic Lamb Wave Mixing during Tempering of Modified 9Cr-1Mo steel	Avijit Kumar Metya	NML	1215-1230
43-C	PAUT as tool for Corrosion Damage Monitoring	Shivputra R Tangadi	SIEVERT INDIA PVT	1230-1245
207-C	Detection and Sizing Accuracy of flaws in Blind zones of TOFD	Pragnesh Kumar J Patel Yokesh Ravichandran, Selva G Kumar Karthikeyan C Thandayathapani Sarath S Pemmaraju Raghavendra	L&T HED	1245-1300
187-C	Locating a Damage in an Aluminium Plate using Lamb Waves	Faez. A. Masurkar Nitesh. P. Yelve	VIMEET	1300-1315
214-C	Advances in detection and characterisation of metal loss in pipelines using guided wave ultrasonic testing	Peter Mudge	TWI	1315-1330



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Session 5B : NDE in Nuclear Components & structures

Room No : MRG0.3

Session Chair : G V S Hemantha Rao, RRF, DAE

Paper No:	Title of Talk	Authors	Institution	Time
253-I	Applications of Ultrasonic Phased Array Technique During Fabrication of Nuclear Tubing and Other Components for the Indian Nuclear Power Program	K Kapoor	Nuclear Fuel Complex	1130-1200
41-C	Non destructive evaluation of PI flask of PFBR by gamma radiometry	S.Viswanathan*, T.Ravi, R. Mathiyarasu, M.T.Jose and B.Venkatraman	IGCAR	1200-1215
126-C	Non-destructive evaluation of irradiated 240 MW PHWR fuel elements	H. N. Singh, Umesh Kumar, Nitin Kumawat and J. L. Singh	BARC	1215-1230
231-C	Role of Non Destructive Techniques for Monitoring structural Integrity of Primary Circuit of Pressurized Water Reactor Nuclear Power Plant	PK Sharma, P Sreenivas,	BARC	1230-1245
115-C	Weld defects analysis of 60 mm thick SS316L mock-ups of TIG and EB welds by Ultrasonic inspection for fusion reactor vacuum vessel applications	Ramesh Kumar Buddu, Shamsuddin Shaikh, P.M. Raole, B Sarkar	IPR	1245-1300
52-C	NDE On Indigenously Made Steam Generator And Pressurizer Forgings	Ashutosh Singh	L&T Special Steels and Heavy Forgings	1300-1315
1-C	Application of Radiometry Technique for Quality Control of Different components in Nuclear Industry	Sanjoy Das D. Mukherjee	BARC	1315-1330



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Session 5C : Application of NDE for Residual Stress Estimation

Room No : MRG0.4

Session Chair : Dr G Madhusoodan Reddy, DMRL

Paper No:	Title of Talk	Authors	Institution	Time
79-I	Residual stress evaluation in as cast and forged rolls using magnetic techniques	G.V.S.Murthy A.K.Panda, R.K.Roy, Abhishek kr Singh, Mr.Amit Prakashand A.Mitra	NML	1130-1200
96-C	Evaluation and Analysis of Residual-Stress in Dissimilar Weld-Joint by FEM	Nataraj JR ^{*1} , M.Krishna ¹ , Vikram NB, Vijayakumar MN ¹ , Vijayavithal Illa ²	R.V. College of Engineering	1200-1215
84-C	Internal Oxide Testing of Boiler Tubes for Residual Life Assessment	Helmut Wolf	QNET Quality Network	1215-1230
192-C	Magnetic Barkhausen emission technique for evaluation of residual stresses in P91 weldments	K. V. Rajkumar, S. Mahadevan, Anish Kumar B. Purna Chandra Rao	IGCAR	1230-1245
251-C	Electromagnetic Non-destructive Evaluation of Residual Stress in Ultra Low Carbon Steel Subjected to Fatigue	A.K. Panda, Subhash Koner ¹ , Avijit Metya, R.K.Roy, Amitava Mitra	National Institute of Technology, Tiruchirappalli,	1245-1300
147-C	Comparison of welding induced residual stresses austenitic and ferritic steel weld joints	Dr. K.V.Rajkumar	IGCAR	1300-1315
255-C	A Study on Residual Stress Distribution in the Dissimilar Metal Electron Beam Weldments of Ultrahigh Strength Steels	P.Venkata Ramana, P.Mastanaiah G.Madhusudhan Reddy	Mahatma Gandhi Institute of Technology, Gandipet, Hyderabad	1315-1330



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Session 5D : Modeling and Simulation in NDE-I

Room No : MRG0.5

Session Chair : Dr Prabhu Raj Gopal, IITM

Paper No:	Title of Talk	Authors	Institution	Time
212-I	Finite Element Modeling of Ultrasonic Guided Wave Propagation in Visco-elastic Media with Frequency Domain Analysis	Bikash Ghose	DRDO/ HEMRL	1130-1200
156-C	Finite element study of scattering of guided wave modes in thick austenitic stainless steel welds	M.M. Narayanan, Anish Kumar B. Purna Chandra Rao	IGCAR	1200-1215
86-C	Using 3D image data beyond visualization for NDE and material characterization: numerical analysis techniques	Yash Agarwal	Simpleware Ltd	1215-1230
58-C	Simulation and Experimental Validation of Pulsed Thermography Experiment for Damage Quantification	Aparna Gajendragadkar	NAL	1230-1245
213-C	Ultrasonic Guided Wave Propagation in Steel-Rubber Structure – Simulation and Experimental Study	Bikash Ghose, C V Krishnamurthy, Krishnan Balasubramaniam	DRDO/ HEMRL	1245-1300
85-C	Advances in NDE and Image-Based Modelling for Automotive and Defense	Theo Verbruggen	Simpleware Ltd	1300-1315
164-C	3D Elastic wave propagation and Heat diffusion studies using polycrystalline material models	S Shivaprasad ¹ Sreedhar Unnikrishnakurup ¹ , Sundararajan Natarajan ² , Krishnan Balasubramaniam ¹ , C V Krishnamurthy ³	IITM	1315-1330



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Session 5E : Advances in NDE-Sensors and Automation

Room No : MRG0.6

Session Chair : Dr BPC Rao, IGCAR

Paper No:	Title of Talk	Authors	Institution	Time
243-I	NDE Sensors: Advances, Challenges & Solutions	Shyamsunder Mandayam	GE	1130-1200
39-C	Indigenously Developed Fully Automated Tomography Gamma Scanner For Assay Of Drummed Nuclear Material	R. Ramar, G.V. Kishore, Makrand B Rajhans, S. Murugan, R. Baskaran, B. Venkatraman, SAV SatyaMurty	IGCAR	1200-1215
29-C	Automatic Inspection System for Pellets of Fast Breeder Reactor	Smt. S.V. Shrikhande, P. Rajasekhar, R.K. Mittal, S.D. Raut, R.M. Suresh Babu Dr. K.B. Khan	BARC	1215-1230
98-C	Automated Ultrasonic Testing of Plates in line for Longitudinal Submerged Arc Welded Pipes	Mr. Rajul R. Parikh Ashok J. Trivedi	EEC	1230-1245
219-C	Remotely operated vehicle (ROV) for inspection of underwater pipelines using bulk and guided ultrasonic waves	Tanuj Jhunjhunwala ^{1,2} Prabhu Rajagopal ²	IITM	1245-1300
218-C	Biologically inspired autonomous underwater vehicle (AUV) for structural inspection and survey in coastal regions	Santhosh Ravichandran Prabhu Rajagopal	IITM	1300-1315
220-C	MIKE: A remotely operated vehicle (ROV) for visual inspection of underwater structures	Tanuj Jhunjhunwala ^{1,2} , Vineet Upadhyay ^{1,2} , Rakesh Sirikonda ^{1,2} , Krishnan Balasubramaniam ² Prabhu Rajagopal ²	IITM	1315-1330



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Session 6A : Upcoming NDE Techniques

Room No : MRG0.2

Session Chair : C Phanibabu, NFC

Paper No:	Title of Talk	Authors	Institution	Time
42-C	NDE in Biomedical Engineering	Aditya Bhagwat	Pipe and Weld Services	1430-1500
196-C	A Digital Holographic NDT System for Tyre Testing and Prototype Optimization	Abhay Jith, Ajith Kumar P.T	Light Logics	1500-1515
117-C	Application of digital holography for NDE of metallic tubes using thermal loading	Retheesh R ¹ , Boni Samuel ¹ , P. Radhakrishnan ¹ , V. P. N. Nampoori ¹ , A. Mujeeb ^{1,2}	Cochin University	1515-1530
244-C	Microwave NDE : An Emerging technique for Inspection	Shyamsunder Mandayam	GE	1530-1545
239-C	Review on Structure Property Co-relation in biocomposites/ bionanocomposites materials by Non-Destructive Evaluation.	Kunal Das	Satyabhama	1545-1600



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Session 6B : Defect Detection in NDE

Room No : MRG0.3

Session Chair : Mr RJ Pardikar

Paper No:	Title of Talk	Authors	Institution	Time
99-C	RF MEMS Based Ultrasonic Testing In Service Inspection	Ganta Ravi Kumar	Mallareddy Institutions	1430-1500
149-C	Model based optimization of pulsed eddy current technique for detection of defects in stainless steel plates	Dr. K.V.Rajkumar	IGCAR	1500-1515
204-C	Classification of Flaw in TOFD Images of Austenitic Stainless Steel Weld based on Wavelet Descriptors	C.F.Theresa Cenate*, B.Sheela Rani, D.N.Sangeetha, B.Venkatraman	Sathyabhama Group of Institutions	1515-1530
211-C	Automatic Recognition of Voids in Digital Radiographs of Tubular Solid Rocket Propellant Grain	Jisha Reeteesh, Bikash Ghose, D K Kankane	DRDO/HEMRL	1530-1545



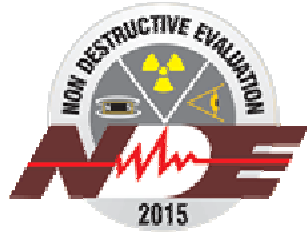
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Session 6C : NDE for Microstructural Characterization-II

Room No : MRG0.4

Session Chair : G V S Murthy, NML

Paper No:	Title of Talk	Authors	Institution	Time
CP-78	Ultrasonic signal analysis to detect MC type precipitation in Nimonic alloy	Abhik Das G.V.S.Murthy	NML	1430-1500
CP-193	Metal magnetic memory technique for early detection of damage in ferromagnetic steels	W. Sharatchandra Singh, C.K. Mukhopadhyay B. Purna Chandra Rao	IGCAR	1500-1515
CP-241	Microstructural characterization of Ti-6Al-4V using ultrasonic attenuation and its correlation with mechanical behavior	B.B. Jha, R. Sahoo T.K. Sahoo	CSIR AMTD	1515-1530
CP-87	Classification of Pores and Segregation in Continuously Cast High Carbon Billets through Ultrasonic Image Reconstruction	Arpita Ghosh ¹ , E. Z. Chacko ² S. Palit Sagar ¹	NML	1530-1545



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Session 6D : NDE applications in Nuclear Industry

Room No : MRG0.4

Session Chair : M Ravi, NPCIL

Paper No:	Title of Talk	Authors	Institution	Time
8-C	Case Studies in Ultrasonic Testing	V. Prasad, C. Satheesh, P V Varde	BARC	1430-1500
23-C	Deployment of Weld Inspection Manipulator for RPV upper shell welds of TAPS-1&2	JP Singh, R Ranjon, H Chatterjee, MP Kulkarni, RJ Patel	BARC	1500-1515
32-C	Innovative Tool for ID Measurement of Coolant Channels of PHWRs	G. Sharma, V.P. Bodile, S. Bhattacharyya, M. Dev, R.J. Patel	BARC	1515-1530
34-C	Reconstruction Filtering in Industrial gamma-ray CT Application	Lakshminarayana Y, Rajesh V Acharya, Umesh Kumar, Ashutosh Dash	BARC	1530-1545