

Pre-Conference Tutorial on 2D/3D Radiological imaging and applications - 2021 and beyond

December 3-4, 2021

Course Directors

Mr. Raj Venkatachalam , VMI- A Varex Imaging Company and Mr. Anand D. Bagdare, Godrej Precision Engineering

Sr No.	Time	Topic	Faculty
03rd December 2021 (Day 1)			
1	1145 – 1200	Course Overview	Mr. Anand Bagdare
2	1200 - 1300	Recent advances in Industrial Radiography	Mr. V.Manoharan , VisiConsult
Lunch 1300 – 1400			
3	1400 - 1500	Overview of X-Ray sources Technology	Mr. Odermatt Marcel, Comet
4	1500-1600	Industrial Computed Tomography – Inspection method and typical applications	Dr. Umeshkumar, BARC
Break 1600 - 1615			
5	1615 - 1715	Technology Overview of Digital Detector Arrays (DDAs) and Overview of Image quality Metrics	Mr. Raj Venkatachalam, Varex Imaging
Break 1715 - 1730			
6	1730 - 1830	Engineered Solutions with Digital Radiography for faster inspection	Mr. Raj Venkatachalam, Varex Imaging
7	1830 - 1930	Introduction to Computed Radiography and its applications	Mr. Clyde May, VMI
8	19:30-2030	2D and 3D X-ray Image Processing Toolkit for High Fidelity Imaging	Mr. David Nisius, Varex Imaging
04th December 2021 (Day 2)			
9	1030 - 1130	Automatic Defect Recognition in Radiography	Prof. Krishnan Balasubramaniam, IIT, Madras
10	1130 - 1230	Application of Digital Radiography in Boiler Industry	Mr. M. Maheshwaren, BHEL, Trichy
Lunch 12:30-13:30			
11	1330 – 1430	Lithium-ion Batteries – fast failure detection with computed radiography	Mr. Samaresh Changdar, Waygate Technologies
12	1430 – 1530	Leveraging Artificial Intelligence (AI) for interpretation of DR images	Mr. Lennart Schulenburg, VisiConsult
14	1530–1630	X-Ray Imaging Chain- Modelling & Simulation	Dr.Esha Sengupta, GE Research
Break 16:30-16:45			
15	1645-1815	Computed Radiography-Online Demo	Krishna Bhuta, Topax NDT
Break 18:15-18:30			
17	1830- 1945	Overview of Digital Radiography Standards	Henrik Lohmann, VisiConsult
18	1945-2000	Closing remarks	Anand Bagdare

Pre-Conference Tutorial on Recent Advancements in Acoustics and Electromagnetic NDE & Applications

December 3-4, 2021

Course Directors

Dr. Anish Kumar, Indira Gandhi Centre for Atomic Research, Kalpakkam
Mr. U. Anand, Reliance Industries Limited,

Day	Time	Topic	Faculty
03rd December 2021 (Day 1)			
1	1000 - 1100	Overview of recent advances in ultrasonic techniques	Prof. Krishnan Balasubramaniam, IIT Madras
Break 1100 - 1115			
2	1115 - 1215	Basics of phased array ultrasonic testing (PAUT) techniques	Mr. Sivarama Krishna, Detect Technologies.
3	1215 - 1315	Guided wave ultrasonic testing for long range inspection	Mr. Hari Kishore Maddi Sievert
Lunch 1315 - 1415			
4	1415 - 1515	Total focusing method based PAUT techniques	Dr. Anishkumar, IGCAR
5	1515 - 1545	Weld inspection using phase array ultrasonic technique	Mr. Anandamurugan, BHGE
Break 1545 - 1600			
6	1600 - 1630	Weld inspection using phase array ultrasonic technique	Mr. P Raghavendra L & T
8	1630 - 1730	A tutorial on numerical simulation of ultrasonic and electromagnetic NDE	Prof. C.V. Krishnamurthy, IIT Madras
04th December 2021 (Day 2)			
9	0900 - 1000	Overview of recent advancements in electromagnetic techniques	Mr. Arbind Kumar, BARC
10	1000 - 1100	Array based eddy current imaging	Mr. Jitender Yadav, EddyFi
Break 1100 - 1115			
11	1115 - 1215	Recent advances in eddy current inspection of steam generator tubes	Mr. MB Jadhav, NPCIL, Mumbai Dr. S. Thirunavakkarasu, IGCAR, Kalpakkam
12	1215 - 1300	Advanced ultrasonic and electromagnetic techniques for corrosion monitoring	Mr. Venkataraman.K.S, ESCON Singapore
Lunch 1300 - 1345			
13	1400 - 1445	Application of Ultrasound for distillation column corrosion monitoring	Mr. C H Anand, RIL
14		Application of PEC for corrosion monitoring of concrete coated carbon steel pipelines	Mr. Vineet Sharma, RIL
Break 1530 - 1545			
15	1545 - 1630	Materials characterization using ultrasonic and electromagnetic techniques	Dr. Anish Kumar, IGCAR
16	1630 - 1715	Applications of Artificial intelligence /machine learning in NDE	Dr MT Shyamsunder, Consultant
17	1715 - 1730	Closing comments	ISNT Team

Pre-Conference Tutorial on Codes and Standards

December 3-4, 2021

Course Directors

Mr. RaviKumar Thammana , Trinity NDE and Mr. M.Manimohan, Former Manager,BHEL Trichy

Sr No.	Time	Topic	Faculty
DAY 1- December 3, 2021			
1	12.45pm to 01.15pm	Overview of Codes and Standards	Mr Arul Prabhu, BHEL Trichy
2	01.15pm to 02.45pm	ASME codes	Mr. Parthapratim Brahma, LRIS
	02.45 pm to 03.00pm	Break	
3	03.00pm to 03.45pm	ISO 9712, PCN, CSWIP	Dr. R.J.Pardikar, TWI
4	03.45pm to 04.30pm	AWS Codes	Mr. N.Dhanasekaran, Consultant
5	04.30pm to 06.00pm	NDE Code Requirements for Nuclear Applications	Mr. M.V.Kuppusamy, IGCAR
	06.00 pm to 06.15pm	Break	
6	06.15pm to 07.00pm	ASTM Standards	Mr. R.Subburathinam, Consultant
7	07.00pm to 07.45pm	NDT Personnel Certification Schemes from India	Dr. Shyam Sunder, Chairman, ISNT NCB
	07.45pm to 08.00pm	Wrap-up for Day 1	
DAY 2- December 4, 2021			
8	12.00pm to 01.30pm	Discussion on requirements of selected API standards: API 1104, API 582 & API 934	Mr. Nishank Soni, RIL
9	01.30pm to 02.15pm	Employer based NDE Certification schemes	Mr. Diwakar Joshi, Insight Quality Services
10	02.15pm to 03.00pm	Indian Boiler Regulations	Dr.Daniel Sagayaraj, DDB, IBR
	03.00 pm to 03.15pm	Break	
11	03.15pm to 04.45pm	Codes & Standards For TOFD & PAUT	Mr. Anandamurugan, BakerHughes
12	04.45pm to 05.30pm	Interpreting codes and standards- Case Studies	Mr.A.M.Sharief, IITNDT
13	05.30pm to 06.15pm	Recent updates in Aerospace NDT standards	Mr Vijayaraghavan P, HAL(Rtd)
	06.15 pm to 06.30pm	Break	
14	06.30pm to 07.45pm	Codes & Standards For Digital Radiography	Mr. Henrik Lohman - VisiConsult Germany
	07.45pm to 08.00pm	Concluding Remarks & Feedback	