

It is a platform to bring Industries and students together to discuss career opportunities in NDE and understand the aspirations of Students becoming Entrepreneurs. Also it's an opportunity for students to interact with the NDT industries, service providers and start-ups in the niche areas of NDT & E and visit their Exhibition stalls to get the first hand information on the vast opportunities that lies ahead to shape their career.

## Who can attend this Session?

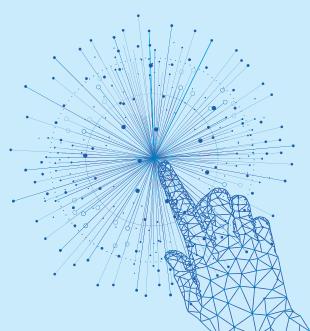
- Students who are pursuing research degrees Master's or Ph.D. in Science or engineering or technology particularly with a focus on NDE. Bachelors or Masters students who are interested in NDE are welcome to participate.
- Any industries that carry out NDT, NDT service organisations, NDT training institutes, Research organizations, and Academic institutes that can help students build a career in NDE.



# Agenda

### Session Chairman: Shri V Manoharan PFMB, ISNT

| 02:00 pm - 02:30 pm | NDE Overview & Carrer Opportunities<br>Prof. Prabhu Rajagopal<br>IIT Madras                        |
|---------------------|--|
| 02:30 pm - 02:40 pm | How I landed up here - An NDE career in Aerospace Dr. EshaSengupta, GE Aerospace                   |
| 02:40 pm - 02-50 pm | Career Pathways in Non-Destructive Evaluation Dr. Jyotirmayee Dash, Tera Lumen Solutions           |
| 02:50 pm - 03:00 pm | A Journey on the less travelled  Dr. Menaka  |
| 03:00 pm - 03:10pm  | Unlocking Potential: A Research Scholar's Path in NDE -<br>Mr. Loheshwaran Chandran,<br>CNDE, IITM |
| 03:10 pm - 3:30pm   | Q& A   |
| 03:30 PM onwards    | Visit to exhibition  |





## Prof. Prabhu Rajagopal

Trained at IIT Madras (BTech & DD MTech) and Imperial College London (PhD, Postdoc), Prof. Prabhu Rajagopal has expertise in Non-Destructive Evaluation (NDE) and Structural Health Monitoring (SHM), co-leading the Center for NDE. With over 30 funded projects, 200+technical articles and 33 granted IPs, he is widely recognised for his pioneering work on remote inspection technologies for digital transformation in the industrial (energy and mobility) and social (water, health and sanitation) contexts. He is recipient of India's most prestigious award for mid-career scientists, the Shanti Swarup Bhatnagar prize under the category of Technology and Innovation (2024). Prof Prabhu's research is collaborative, cross-disciplinary and international, with ongoing engagements with industry and academic institutions across the world; particularly the UK and Kenya. At IIT Madras he is also a founding member of the Centers of Excellence in Quantum Information Communication & Computing, Cybersecurity, Trust & Reliability, and Space Manufacturing, as well as the one on Research on Startups & Risk Financing.

Prof. Prabhu is passionate about service-oriented engineering education and technology translation, co-founding several Startups(Planys, Solinas, Xyma, Plenome to name a few) that are disrupting the infrastructure maintenance space with their original offerings in digital asset integrity monitoring. Recipient of prestigious Early Career awards (National Design Award from Institution of Engineers (India), National Young Scientist Awards from: Indian Society for NDT and Institute for Smart Structures and Systems, Institute R&D Award from IIT Madras and the National Swarnajayanti Fellowship from DST, Govt of India), Prof. Prabhu is member of the Editorial Boards of international peer-reviewed journals, Ultrasonics and NDT&E International. At IIT Madras, he is the faculty in-charge of the maker space Center for Innovation and the preincubator Nirmaan. He is on the Advisory Board of the Techin, the Incubator of IIT Palakkad, as well as serving on their Global Sanitation Center of Excellence. Prof. Prabhu's work has also been featured widely in popular media.

**Speakers** 



Ms. Esha Sengupta

Esha Sen Gupta is presently working in GE Aerospace Research as a Senior Scientist in the Material Systems and Inspection team. Graduated with a Masters in Physics and PhD from Max Planck Institute, Germany in the field of material science and characterization and a post-doctoral fellowship from the university of Washington. An experimental physicist engaged in the multidisciplinary areas of electromagnetics, optics, radiation physics and magnetic measurements. Devised state of the art, innovative technologies for industrial NDE solutions using simulations, experiments, and analytics.



**Dr. Jyotirmayee Dash** 

The first Terahertz company in India, TeraLumen Solutions, was founded and is led by Dr. Jyotirmayee Dash. She received her degree in photonics from CSIR CEERI Chennai, and she has three filed patents along with one US granted patent, in addition to publishing over thirty papers in international journals and conference proceedings.

With the mission of creating affordable, indigenous Terahertz devices that are customizable for a range of non-destructive industrial and biomedical uses, she created TeraLumen Solutions in 2019. Along with private financing from Pfizer Indovation, the company has received other renowned government awards, including NIDHI-PRAYAS from the Department of Science and Technology and BIRAC-BIG from the Department of Biotechnology. The company has successfully commercialized Terahertz devices for various industrial and research organisations.



Ms. Menaka

Ms.Menaka, a postgraduate in physics and has over 23 years of experience in the field of NDE for materials characterization. She has specialized in the areas of thermal imaging, image processing and Digital Radiography. She is presently Heading, Radiation and Meterology Section of Radiation Application and Technology Division in Indira Gandhi Centre for Centre Research, Kalpakkam. Her field of interests are Material Characterisation using thermal NDE and Thermal imaging as diagnostic tool in healthcare. She is an ASNT certified Level – III in Infrared Thermal Testing. She has more than 70 publications in international and national journals and 80 publications in conferences. She has more than 1085 citations for her credit.

She has won the best paper awards during the IIM NMD-ATM 2005 and NDE 2007. She has also won the best paper award in the R&D Category for the paper published in Journal of NDE. She is a recipient of the Group Achievement Award of Department Atomic Energy- for the year 2009. She has been bestowed with Science and Technology Excellence Award by Department of Atomic Energy for the year 2020. She has guided more than 10 engineering and science post graduate students in their projects.

She has been an active member of ISNT Kalpakkam Chapter for over 20 years and was a member of the technical committee of 14th APCNDT. She is a member of the QIRT Asia 2015 Steering Committee and has been a regular faculty for the Level – II and Level – III courses that have been conducted by ISNT Kalpakkam.



Mr. Loheshwaran Chandran

LoheshwaranChandran is a dedicated research scholar who completed his M.Tech in Mechanical Engineering at IIITDM Chennai in 2021 before beginning a Ph.D. at the Centre for Non-Destructive Evaluation (CNDE) at IIT Madras. Specializing in super-resolution ultrasonic imaging, he's now part of an international Joint Ph.D. program between NTU Singapore and IIT Madras, blending cutting-edge research with a global outlook.



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