

**Two-day theme meeting on  
Novel and Innovative Measurements in Non Destructive Evaluation  
(NIM-NDE-2012)**

**February 23-24, 2012  
SRI Convention Center, Anupuram (Kalpakkam)**

**Organised by  
Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam  
Board of Research in Nuclear Sciences (DAE-BRNS), Mumbai**

## **Background**

Non-destructive evaluation (NDE) plays a vital role in ensuring safe and reliable operation of engineering components. NDE involves measurement of response of a defect or a discontinuity either naturally occurring or to an external stimuli. NDE measurements are made on raw materials, during manufacturing stages and also on operating components. NDE measurements enable assessment of quality and safety of a product and enhance profitability through better quality and plant availability. In recent years, several novel and innovative technologies have been developed in NDE as solution to challenging inspection problems in engineering and also in societal applications. These technologies have exploited new sensing modalities as well as modification of the existing sensing and measurement procedures. Numerical modeling, signal & image processing, imaging, tomographic reconstruction, microscopy and image analysis have enabled quantitative evaluations. There is a definite need to provide a forum for focused state-of-the-art as well as futuristic discussions on novel and innovative NDE measurements for their effective utilization. With this objective, two-day theme meeting on '*Novel and Innovative Measurements in Non Destructive Evaluation (NIM-NDE-2012)*' has been planned during February 23-24, 2012 at SRI Convention Center, Anupuram (Kalpakkam).

## **Scope**

The objective of NIM-NDE-2012 is to enable discussion on novel and innovative NDE measurement technologies developed by specialists and to provide young researchers and students working in this domain an opportunity to know the advances and to interact with the experts. NIM-NDE-2012 covers all types of measurements using various NDE techniques, but not limited to the following:

- NDE techniques for quality and in-service inspection
- Magnetic and electromagnetic sensors for advanced applications
- High temperature piezoelectric and vibration sensors
- Optics, holography and Laser scattering based NDE techniques
- Fiber-optic sensors for temperature and strain measurements
- In-situ metallography, microscopy and stereology
- Signal analysis and image processing methods in NDE
- Theoretical simulation and numerical modeling in NDE
- Radiography and tomography
- NDE for finger printing and conservation of archeological structures
- Spin-off NDE in societal application

## Who can attend?

Scientists, engineers and professionals from national institutes, R&D organisations, academic institutes and industries working in the areas of NDE techniques, quality assurance, in-service inspection and automation can take part in NIM-NDE-2012. Students and Ph. D scholars working in the area of NDE can take part as well.

Interested participants may display their research on novel and innovative NDE measurements as a poster (1m x 1m). A half-page abstract describing the scope of the poster must be sent to [ndeevents@igcar.gov.in](mailto:ndeevents@igcar.gov.in) before **February 15, 2012**.

## Registration and support

There is no registration fee for attending NIM-NDE-2012. Interested participants are requested to send their details to [ndeevents@igcar.gov.in](mailto:ndeevents@igcar.gov.in) before **February 15, 2012**. For students and scholars pursuing course/ research activity related to NDE, travel support will be provided, on first-come-first-serve basis.

## Local organising committee

Dr. T. Jayakumar, Chairman  
Dr. B.P.C. Rao, Convener  
Dr. C.K. Mukhopadhyay, Co-Convener  
Dr. Anish Kumar, Secretary  
Dr. John Philip  
Dr. A. Joseph  
Dr. P. Palanichamy  
Dr. (Mrs.) Vaidehi Ganesan  
Dr. K.V. Rajkumar  
Mr. S. Mahadevan

Mr. S. Thirunavukkarasu  
Mr. G.K. Sharma  
Mrs. B. Sasi  
Mr. M. Kasinathan  
Mr. M.M. Narayanan  
Mrs. S. Sosamma  
Mr. G.M.K. Chaitanya  
Mr. G.V.K. Kishore  
Mr. S. Arun Kumar  
Mr. M. Kalyan Phani

## How to reach Kalpakkam / Anupuram

Kalpakkam is situated about 80 km South of Chennai. It takes about 2 hours to reach Kalpakkam by bus or taxi. All North bound trains are terminated at Chennai Central Railway Station and South bound trains at Egmore Railway Station. The State Transport Buses for Kalpakkam (Route No. 108, 119, 118, 188, ECR) start from Koyambedu bus stand (CMBT). More details can be obtained from the website: <http://www.igcar.ernet.in/igc2004/kal.htm>. SRI, Anupuram (Venue) is about 5 km from IGCAR, Kalpakkam and regular shuttle buses ply between Kalpakkam and Anupuram townships. Suitable accommodation and transport pick-up/drop will be arranged to all the participants attending NIM-NDE-2012.

## Address for correspondence

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