

**ANNOUNCEMENT**

***PRE-CONFERENCE WORKSHOP***

***ON***

**CONDITION MANAGEMENT**

**IN**

**PROCESS INDUSTRIES**

**(COMPIN-02)**

**Dec. 2-4, 2002**

**Taj Connemara Hotel, Chennai**

**Organised by**

***Chennai, Kalpakkam & Sriharikota Chapters***

**Indian Society For**



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**Non-Destructive Testing**

## **WORKSHOP ON CONDITION MANAGEMENT**

The workshop on Condition Management has been specifically designed for the engineers, scientists, NDT professionals, operation and maintenance executives, plant engineers, R&D and middle management personnel. This workshop has obtained the consent of eminent speakers from India and abroad. The workshop would provide a unique opportunity from the participants to interact with leading specialist from the industry, academic and R&D institutes on key aspects of condition management. The lectures have been designed in such a way that the participants would be exposed to the fundamentals and advanced concepts. A hands-on practical session of the latest techniques has also been arranged.

Condition Management in Process Industries is one of the crucial inputs necessary for ensuring plant availability, reliability, safety and productivity. Known by various terms such as condition monitoring, predictive monitoring and predictive maintenance together with process data and artificial intelligence provides a strategic tool for the management decisions. The interest in condition management stems from the necessity to ensure the safety and reliability of the components and plants and avoid costly outages. Condition management is also the first step in any life extension program.

### **SCOPE**

This workshop covers the fundamentals, methods, analysis and interpretation of various condition management techniques such as Vibration Monitoring and Analysis, Acoustic Emission, Thermography / Thermal Imaging, Ferrography and In-situ Metallography which are widely used in Chemical, Petro-chemical, Fertiliser and Power Plants to assess the condition of process equipment. Vibration analysis in the areas of the trouble shooting of the most rotating machinery and the applications of acoustic emission techniques in machinery and plant equipment for diagnostics and detection of initiation and propagation of dynamic defects will be dealt. It is also aimed at to dwell the various factors, which affect the temperature determination and distribution in the thermal imaging which has emerged as an important tool for condition monitoring, with typical applications. In addition to the above, an in-depth exposure in the areas of principles and applications of Ferrography and in-situ metallography are also included.

The workshop consists of about 15 lectures by eminent experts from academic, research institutes and industry, including a few from abroad. The schedule of the workshop is so planned that there will be adequate opportunity for the participants to discuss and interact with the faculty and fellow participants to find solutions to typical problems faced in their industry. A case study presentation by participants is also envisaged.

## **NDE - 2002**

The workshop is followed by National Seminar on Non-Destructive Evaluation (NDE 2002), the annual national event of the Indian Society for Non-Destructive Testing (ISNT), at Taj Connemara Hotel, Chennai, during December 5-7, 2002. This is an event of global importance in which about 800 delegates and 50 exhibitors from India and abroad are expected to participate and present about 150 technical papers (including Invited and Contributed) and 100 Exhibition Stalls. Internationally acclaimed scientists from more than 10 countries have already confirmed participation. The theme for NDE 2002 is Predict Assure and Improve. NDE 2002 not only targets traditional areas of NDE for metals, ceramics, polymers and composites but also pays attention to Civil Engineering, NDE applications of concrete structures, bridges and roads.

**Full details and brochure on NDE – 2002 can be obtained on request from:**

Shri. V. Pari  
Convener NDE 2002 & Honorary Secretary, ISNT  
Indian Society for Non-Destructive Testing  
E1, Second Floor, J. P. Tower, Nungambakkam High Road  
Chennai 600 034  
Phone: 0091-44-8265984  
Fax: 0091-44-8265984  
E-mail: [isntho@eth.net](mailto:isntho@eth.net)  
[scanray@md3.vsnl.net.in](mailto:scanray@md3.vsnl.net.in)

## **VENUE**

**HOTEL TAJ CANNEMARA, CHENNAI**

## **REGISTRATION**

It is possible to accommodate only a limited number of participants. Hence, registration will be done on “First-come First-served” basis. The last date for registration for the Workshop is **November 20, 2002**. The Tutorial fee should be sent along with the request for registration.

## **FEE**

Non-residential fee structure per participant as indicated below (This includes notes, participant’s kit, lunch & refreshment) shall be remitted in advance by Demand Draft drawn in favour of “**ISNT-NDE 2002**” payable at Chennai.

Workshop only (2-4, Dec. 2002) – **Rs. 5000/-**  
Workshop + Seminar (2-4 & 5-7, Dec. 2002) - **Rs. 6500/-**  
(For ISNT Members)  
Workshop + Seminar (for Non-Members) - **Rs. 7000/-**

## **ACCOMMODATION**

Participants are advised to make their own arrangement for accommodation. However, arrangements for booking of Hotel accommodation for a limited number of requests may be entertained on chargeable basis. Such accommodation requests with full details should reach the Convener, in advance but not later than **November 1, 2002**.

## **CORRESPONDENCE**

All Correspondence with regard to the **“PRE-CONFERENCE WORKSHOP ON CONDITION MANAGEMENT IN PROCESS INDUSTRIES”**, shall be addressed to:

**SHRI M.PALANIAPPAN,**  
**Convener- CM & Head, NDT&F, QAD,**  
**Indira Gandhi Centre For Atomic Research**  
**Kalpakkam 603 102, Tamil Nadu**  
**PHONE: 04114 – 480071, FAX: 04114 – 480209**  
**E-MAIL: [mpp@igcar.ernet.in](mailto:mpp@igcar.ernet.in)**

## **FACULTY**

**Dr. Baldev Raj,** Indira Gandhi centre for Atomic Research, Kalpakkam

**Dr. G. Venkatraman,** Retd., AGM, WRI, BHEL, Trichy

**Dr. Udo Netzelmann.** Fraunhofer Institute of NDT, Saarbrücken, Germany

**Shri A. K. Sinha,** DCE, MPDO, NPCIL, Mumbai

**Shri Shah,** Head, NDT & Quality Evaluation Section, AFD, BARC, Mumbai

**Prof. S, Narayanan,** Dean (Academic Research) and Prof., Applied Mechanics, IIT

**Dr. T. Jayakumar,** Head, NDT and E Section, DPEND, IGCAR, Kalpakkam

**Shri M. G. Poduval,** MD, Vibration Engineers and Consultants, Chennai

**Shri Shaik Masood Ahamed,** Manager, Predict Tech. India Pvt. Ltd., Hyderabad.

**Shri B.Venkatraman.** NDT and E Section, DPEND, IGCAR, Kalpakkam

## **PROFILE OF FACULTY**

### **Dr. Baldev Raj**

Dr. Baldev Raj, BE (Ravishankar University), PhD (IISC), Distinguished Scientist & Director, Metallurgy & Materials, chemical and Reprocessing Groups, Indira Gandhi Centre for Atomic Research, Kalpakkam, Tamil Nadu. Steer the activities and programmes of about 900 science and technology personnel in multi and inter-disciplinary programmes of the Centre. His specialization includes material characterization, testing and evaluation using nondestructive evaluation methodologies, materials development and performance assessment and R&D management. He has 30 years of experience, which had led many firsts of its kind observations and discoveries in laser, acoustic and magnetic methods of material characterization and application.

He has won numerous awards including NDT Man of the Year 1985 and National metallurgist 1986. He has also won Materials Research Society of India Medal 1992, sir C.V.Raman award 1992, Keith Hartly Memorial award 1992, Vasvik award 1994, AEWG Gold medal 1994, G.D.Birla Gold Medal 1996, M.S.Narayan Memorial award 1999 and SAIL Gold Medal 1999.

He has more than 380 publications in leading national and international journals, referred books, status articles, honour, plenary, keynote and invited lectures. 20 books (4 books, 3 monographs and 13 edited), 4 Indian Standards to his credit and has filed 11 patents in the area of NDT. He has contributed 6 articles in Encyclopedia of Material Science and Technology. He also has numerous publications in Conference Proceedings and popular articles. He has been invited to be a Subject Editor in the area of Materials Testing, Mechanical and Non-Destructive Encyclopedia of Materials Science & Technology published by Elsevier Science Publications, Oxford, UK.

### **Dr. Venkatraman**

Obtained his Masters and Doctoral degrees in Metallurgy from IIT, Bombay in 1965 and 1970 respectively. He was faculty in Metallurgical Department of IIT, Bombay from 1967 to 1979. He has joined BHEL, Trichy as Asst. Supt. QA in 1979. He did his postdoctoral research on High Temperature Alloys at US Air Force head Qtrs., Dayton, Ohio, US Military filled 3 patents along with him. He became AGM, WRI, BHEL, Trichy in 1989. Presently he is the Consultant to M/s Thermax Babcock & Wilcox India Ltd. Pune in Condition assessment and Remaining Life Assessment of pressure parts for power & process boilers. He had many awards like National Metallurgist Award, NRDC Invention Awards, ASM International Award etc. He is life fellow of IIM, Fellow of IEI (India) and Member of IIW and ISNT.

### **Shri A. K. Sinha**

After graduation in Mechanical Engineering he joined NPCIL in 1983. He obtained Diploma in System Management (DSM) from Jamnalal Bajaj Institute of Management, Mumbai. Presently, he is working as Deputy Chief Engineer, Maintenance Performance in Directorate of Operations, NPCIL Head Quarters. Initially he was involved in design and development of different types of manipulators and special purpose machines (SMS), to be operated remotely for maintenance and rehabilitation works in the radiation field and inaccessible areas in the BWR / PHWR reactors. He has served as a member of Steering Committee of Nuclear Maintenance Application Centre (NMAC), USA. He has successfully implemented Ferrography Technique (Wear Particle analysis), Maintenance performance indicators, Reliability Centered Maintenance on critical equipments and components. He has presented more than 50 technical papers in various national and international conferences.

### **B. K. Shah**

He obtained his B.Sc. Eng. (Metallurgy) from Regional Institute of Technology (RIT), Jamshedpur and M.Tech (Corrosion Sc. & Eng.) from IIT, Mumbai. He joined BARC in 1973. He is presently working as Head, NDT & Quality Evaluation Section, AFD, BARC. His field of work includes QA of Nuclear Fuel and Reactor core components during manufacturing, Mechanical characterisation by NDT, Failure Analysis, ISI, Corrosion studies on Reactor Materials. He has published more than 150 technical papers in various National and International conferences and Journals. He is one of the best paper awardees in the 14<sup>th</sup> WCNDT. He has been awarded NDT National Award in 1998 by ISNT and NDT Achievement Award from ISNT, Mumbai chapter. He is a life fellow of ISNT and regional Controller of examinations (Western Region), National Board on NDT. He is life member of IIM, INS, IVS and NAARRI.

### **Dr. T. Jayakumar**

He did his bachelor degree in metallurgy in 1977, MS in 1989 and Doctorate in 1996. He joined in Department of Atomic Energy in 1978. He has wide experience in the field of Non-Destructive Testing. At present he is heading the Non-Destructive Testing and Evaluation Section, DPEND, IGCAR, Kalpakkam. He has been involved in development and application of advanced non-destructive testing techniques and analysis, procedures for characterisation of microstructures, residual stresses, deformation and fracture process, creep and fatigue damage in important alloys of interest to nuclear, space, power, chemical and petro-chemical industries. He is also made major role in assessment of structural integrity and life extension of critical components in strategic (Nuclear, defense and space) and core (power, chemical and petro-chemical) sectors. He had authored three books and edited two. He had a major contribution of around 235 publications in the National, International conferences and Journals. He has also filed four patents. He had many awards in his credit namely Homi Bhabha Science and Technology award from DAE, National NDT award from ISNT, Sir C.V.Raman award from ASI, NUCOR Group award from IIW and he had SAIL Gold Medal from IIM and Metallurgical and Materials Engineering Division Medal by IE. He is Life fellow of ISNT, Life Member in MRSI, ASI, IIW, member in AEWG (I). He is also one of the committee member for NDT in BIS. He is the associate Editor of Journal of Non-Destructive Evaluation.

### **Prof. S. Narayanan**

Prof. Narayanan obtained his Bachelor and Masters degree in Mechanical engineering from Coimbatore Institute of Technology, Madras University and Doctoral in Aeronautics from IIT, Kanpur. He had Post Doctoral Fellow from Alexander Von Humboldt at Institute of Technical Acoustics, Technical University, Berlin during 1984-85. He has rich experience in the field of Theory of Vibration, Random Vibration, Dynamics of Machinery, Engineering Mechanics etc. He has more than 30 years of teaching experience at IIT Kanpur and Chennai. At present he is dean (Academic Research) and Professor of Department of Applied Mechanics, IIT, Chennai. He has authored two books on Random Vibration and Structural Dynamics. He has guided many students for their Ph.D. and M.Tech projects. He had published more than 140 publications in the national and international conferences and journals. He was a visiting research scientist In the Department of Mechanical Engineering at Concordia University, Montreal, Canada. He is a Fellow of Indian National Academy of Engineering, Aeronautical Society of India. Currently he is the president of Acoustical Society of India and Member of the editorial board of the Journal of Aeronautical Society of India.

### **Shri M. G. Poduval**

As a mechanical engineer he started his career with M/s BHEL in 1968. In 1981 he started his enterprise in the field of Condition Monitoring. He is the Managing Director of Vibration Engineers and Consultants and Indian Institute of Maintenance & Software Services Ltd. He is a visiting faculty for many Universities and Institutions. He is a renowned expert in the field of Machine maintenance and vibration analysis, Dynamic analysis. He has trained many engineers and managers in this field. He has conducted many seminars with the support of IIT, Chennai. Identifying and solving very complex machinery problems by the application of Machine Dynamics including Rotor dynamics is his specialty.

### **Shaik Massood Ahamed**

He is a mechanical engineer. Presently he is the Manager – Technical at Predict Technology India Pvt. Ltd., Hyderabad. He has wide experience in Condition monitoring. He had contributed in the fields of Vibration monitoring and analysis, Shock Pulse analysis and Ferrography of condition monitoring. He is one of the life members of Tribology Society of India.

### **Dr. Udo Netzelmann**

Dr. Netzelmann is from the Fraunhofer Institute of NDT, Saarbrücken, Germany. He is an expert in the field of dynamic thermal imaging methods and has developed methodologies for the quantitative detection of defects based on pulsed thermographic methods and thermal effusivity measurements. He has number of publications in the Journals and Conferences.

### **Shri B. Venkatraman**

He is a postgraduate in Physics. He has joined the Indira Gandhi Centre for Atomic Research, Kalpakkam in 1984. He has over 18 years of experience. He has specialised the areas of micro-focal and real time radioscopy, neutron radiography and thermal

imaging for material characterisation and condition monitoring applications. He is ASNT Level II in RT, PT, VT and NRT. He is the fellow member and member of National Governing Council of ISNT, Deputy Controller of Examination of National Certification Board of ISNT and member of Bureau in Indian Standard Subcommittee on Radiography. He has over 75 publications in journals and conferences including two monographs and two books. He has been invited by Elsevier publications, UK to contribute to the Encyclopedia on NDT and has been invited by the International Atomic Energy Agency (IAEA), Vienna to contribute to the guidebook on Digital Industrial Radioscopy being prepared by IAEA. He is the recipient of the D&H Schereon Award in 1993, NDT Man of the Year award in 2001. He has won the best paper awards during 1996 (14<sup>th</sup> WCNDT), 1998, 1999 and 2001.



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CONDITION MANAGEMENT IN PROCESS INDUSTRIES  
(COMPIN- 02)**

[Pre-Conference (NDE 2002) Workshop]

**Dec. 2-4, 2002 - Taj Connemara Hotel, Chennai**

**REGISTRATION FORM**

- I Intend to participate in the Workshop  
 I Intend to participate in the Workshop and National seminar

1.	Name	
2.	Designation	
3.	Organisation	
4.	Address	
5.	Phone	(O) (R)
6.	Fax	
7.	E-Mail	
8.	Registration fee Enclosed	YES / NO
	Amount	
	DD No. / Dt	
	Drawn On Bank	
	Signature	

**Please send the completed registration form to:**

**SHRI M. PALANIAPPAN**  
Convener- CM & Head, NDT&F, QAD  
Indira Gandhi Centre For Atomic Research  
Kalpakkam 603 102, Tamil Nadu  
PHONE: 04114 – 480071, FAX: 04114 – 480209  
E-MAIL: [mpp@igcar.ernet.in](mailto:mpp@igcar.ernet.in)