

DETAILED SCHEDULE FOR NSRD-2003

15-12-2003 (MONDAY)

Inauguration Session (10.00- 11.15)

10.00-10.15: Inauguration

10.15-10.30: About the Symposium by Prof. J. S. Rao, the President, The Vibration Institute of India, (TVII) Bangalore.

10.30-10.40: Welcome address by Prof. A. D. Sahasrabudhe, Deputy Director, IIT Guwahati.

10.40-11.10: Address by the Chief Guest: Mr. M. B. Verma, Programme Director (CA) & Director, Aeronautical Development Agency, Bangalore.

11.10-11.15: Vote of thanks by Dr. R. Tiwari, Convener NSRD-2003, IIT Guwahati

11.15-11.40: High Tea

Session I: (Session Chairman: Prof. N S Vyas, IIT Kanpur)

11.40-12.20: Keynote speech by Prof. J. S. Rao: *Power plant asset management through real time remote condition monitoring and diagnostics and development of knowledge base.*

12.20-01.00: Keynote speech by Prof. K. Gupta: *Rotor crack detection strategies- A review.*

01.00-02.00: Lunch (IIT Guest House)

Session II: (Session Chairman: Prof. J S Rao, Chief Technology Officer, QuEST, Bangalore)

02.00-02.40: Keynote speech by Prof. N.S. Vyas: *Virtual instrumentation and neural network based monitoring for power plant*

02.40-03.40: Contributory papers

K. Ramakrishna and M. Ghosh, *High vibration problem due to instability in high speed centrifugal compressors - Case Study.* Organization: BHEL. **(Paper no.: NSRD-2003_CP_01).**

M. R. Rao and J. P. Dash, *Detection of high vibration problem in a gear drive by vibration analysis technique.* Organization: Visakhapatnam Steel Plant. **(Paper no.: NSRD-2003_CP_07).**

M. R. Rao and J. P. Dash, *A case study on repair of generator rotor 'end bells' for a gas expansion turbine.* Organization: Visakhapatnam Steel Plant. **(Paper no.: NSRD-2003_CP_08).**

03.40-03.50: Tea

Session III: (Session Chairman: Prof. K Gupta, IIT Delhi)

03.50-04.30: Keynote speech by Prof. A. Sekhar: *New trends of shaft crack identification in rotor system.*

04.30-05.50: Contributory papers

V. R. Koushik and R.K. Ramanathan, *Dynamic Analysis of Combat Aircraft Wing Using Finesse.* ADA, Bangalore. **(Paper no.: NSRD-2003_CP_26).**

S. Mukherjee, P. Bhattacharya and S. Viswanath, *Whirl Flutter Analysis of Pusher Type Propeller-Nacelle System of SARAS using a 2-DOF Model,* NAL Bangalore **(Paper no.: NSRD-2003_CP_32).**

S. B. Nayak* and C. Padmanabhan, *Packeted Steam Turbine Bladed Disc Dynamic Analysis.* Organization*: TCS, Bangalore. **(Paper no.: NSRD-2003_CP_15).**

R. Pai, *Analysis of fluid film lubrication problems using computational fluid dynamics.* Organization: MIT, Manipal. **(Paper no.: NSRD-2003_CP_02).**

Cultural Event: 7.00-8.00 PM (IIT Guest House)

16-12-2003 (Tuesday)

Session IV: (Session Chairman: Dr. A. Rajamani, BHEL, Hyderabad)

09.00-09.40: Keynote speech by Prof. A. W. Lee: *Where next for condition monitoring and condition based maintenance (CBM)*

09.40-10.40: Contributory papers

S. Sarkar and K.T. Rao, *Analysis of high vibration in a feed air compressor and solving that through balancing taking clue from radial run out*. Organization: Visakhapatnam Steel Plant. (**Paper no.: NSRD-2003_CP_09**).

S. Asok kumar*, M. Thirumalai, V.Prakash and R.Prabhakar, *Rotor dynamic studies for large vertical pump*. Organization*: Indira Gandhi Centre for Atomic Research, Kalpakkam. (**Paper no.: NSRD-2003_CP_14**).

B. Cherian and R.K.L Narayanan, *Fault diagnosis & repair of a LD Gas Booster through Predictive maintenance technique*. Organization: Visakhapatnam Steel Plant. (**Paper no.: NSRD-2003_CP_20**).

10.40-10.50: Tea

Session V: (Session Chairman: Prof. A W Lees, University of Wales, Swansea, UK)

10.50-11.30: Keynote speech by Dr. R. Tiwari: *Experiment estimation of bearings rotordynamic parameters: a state of the art*.

11.30-12.50: Contributory papers

V. Arunkumar and Soumendu Jana, *Experimental Studies Related to the use of High Temperature Elastomers as External Damper for Rotating Systems*. Organisation: NAL, Bangalore. (**Paper no.: NSRD-2003_CP_13**).

A. A. Khan, S. A. Khan and A. H. Khan, *Polynomial Type of Stiffness Parameter Estimation Using Volterra and Wiener Series*. Organisation: Z.H. College of Engg. & Tech., AMU, Aligarh. (**Paper no.: NSRD-2003_CP_17**).

M. Mandal, A. Mishra and T. Thivagar, *Estimation of Bearing Dynamic Parameters in Rotor Bearing Systems*. Organization: IIT Guwahati. (**Paper no.: NSRD-2003_CP_23**).

S. P. Harsha, R. Prakash and K. Sandeep, *Nonlinear Dynamic Analysis of Complex Rotor Bearing System*, BITS, Pillani. (**Paper no.: NSRD-2003_CP_27**).

12.50-02.00: Lunch (IIT Guest House)

Session VI: (Session Chairman: Prof. R. W. Shende, IIT Bombay)

02.00-02.40: Keynote speech by Dr.V. Arun Kumar: *Advanced squeeze film dampers-an indigenous exploratory study*.

02.40-03.40: Contributory papers

N. Lakshmanan and R.Thirumurugan, *Rotor Dynamic Analysis on Multi-Stage Submersible Pump*. Organization: Dr. Mahalingam College of Engineering & Technology-Pollachi. (**Paper no.: NSRD-2003_CP_19**).

M. Kalita and S K Kakoty, *Analysis of Synchronous and Sub-synchronous Whirl of Rotor with Timoshenko Beam Element Mounted on Circular or Non-circular Fluid-film Bearings*, IIT Guwahati. (**Paper no.: NSRD-2003_CP_28**).

J.K. Dutt, S.K. Nandi and P. Saraswat, *Stability Improvement of Rotor Shaft System on Lightly Loaded Fluid Film*, IIT Kharagpur. (**Paper no.: NSRD-2003_CP_30**).

03.40-03.50: Tea

Session VII: (Session Chairman: Dr. V. Arunkumar, NAL, Bangalore)

03.50-04.30: Keynote speech Dr. J. K. Sinha: *Significance of vibration diagnosis of rotating machines during commissioning: Few case studies.*

04.30-05.50 Contributory papers

M. Kaushik, *Methods to reduce rotating shaft failures*. IIT Delhi. (**Paper no.: NSRD-2003_CP_06**).

N. Dharmaraju, R. Tiwari and S. Talukdar, *Identification of an Open Crack Model Parameters in a Cracked Beams*, IIT Guwahati (**Paper no.: NSRD-2003_CP_33**).

N. Tandon and A. Parey, *Fault Detection of Epicyclic Gearbox Using Wavelet Analysis*. Organization: ITMMEC, IIT Delhi. (**Paper no.: NSRD-2003_CP_18**).

R. Kumar, D. P. Jena, N. Kumar, and R. Kumar, *Application of Acoustics and Wavelet Transform in Determination of Operating Frequency and Diagnosis of Fault in Rotary Machine*. Organization: Sant Longowal Institute of Engineering and Technology, Longowal. (**Paper no.: NSRD-2003_CP_22**).

Cultural Event: 7.00-8.15 PM (IIT Guest House)

17-12-2003 (Wednesday)

Session VIII: (Session Chairman: Mr. Bhagwat Singh, LPSC, ISRO, Trivendrum)

08.30-09.10 Keynote speech by Prof. R. W. Shende: *The state of the art in rotor dynamics of aerospace propulsion system.*

09.10-10.10 Contributory papers

Pradeep.K, Paul.P.George, S.R Dhandapani, D.Sam Dayala Dev, *Rotordynamic study on high speed rocket engine turbopumps*, ISRO, Trivendrum. (**Paper no.: NSRD-2003_CP_31**).

S. Madhavan, R.K. Giridhar, S.G. Barad, T.N. Suresh, *Vibration Induced by Rubs and Bearing Clearances of Aero Gas Turbine – Case Histories*. Organization: GTRE, Bangalore. (**Paper no.: NSRD-2003_CP_21**).

J.S. Rao and B.H. Babu, *Dynamic Balancing of Rotors*. Organization: IIT Guwahati. (**Paper no.: NSRD-2003_CP_24**).

10.10-10.20 Tea

Session IX: (Session Chairman: Mr. S. Asokkumar, IGCAR, Kalpakkam).

10.20-11.00 Keynote speech by Dr. A. Rajamani: *Trends in condition monitoring and assessment of rotating machinery.*

11.00-12.20: Contributory papers

N.V. Srinivasulu, *Torsional Vibrations and Stability of Lengthy Thin Walled Open Section Beams on Elastic Foundation*. (**Paper no.: NSRD-2003_CP_29**).

T. S. Aravindhan and K. Gupta, *Application of Magnetorheological Fluid Dampers to Rotor Vibration Control*. Organization: IIT Delhi. (**Paper no.: NSRD-2003_CP_25**).

K. Ramesh* and C. Padmanabhan, *Dynamic Analysis of Turbine Bladed-Disc using Cyclic Symmetry*. Organization*: TCS, Chennai. (**Paper no.: NSRD-2003_CP_16**).

12.20-12.30: Tea

Valedictory Session (12.30-01.35)

12.30-12.40: Address by Prof. M. K. Chaudhury, Dean R&D, IIT Guwahati

12.40-12.55: Feedback session

12.55-01.00: Address by Prof. G. Barua, Director, IIT Guwahati

01.00-01.10: Address by Mr. A. S. Saikia, Chairman, BOG, IIT Guwahati

01.10-01.20: Concluding remarks by Prof. A. W. Lees, Hon. Industrial Professor, University of Wales, Swansea, UK

01.20-01.30: Concluding remarks by Prof. J. S. Rao, The President, TVII

01.30-01.35: Vote of thanks Dr. P. S. Robi, Chairman, NSRD-2003, IIT Guwahati

01:40-02:40: Lunch (IIT Guest House)

Site-seeing tour to Guwahati city (03:00 PM Onwards) from IIT Guest House.