NSRD 2016 Programme Schedule

Day-1 January 07, 2016	
8.30 am to 9.30 am	Registration
9.30 am to 10.45 am	Inaugural function
9.30 am 9.35 am 9.40 am 9.45 am 9.50 am 9.55 am 10.15 am 10.20 am 10.40 am	Invocation Welcome Lighting the lamp About the symposium Introducing chief guest Address by chief guest Felicitating guest of honor Director address Vote of thanks
10.45 am to 11.00 am	High tea
Keynote session	
11.00 am to 11.30 am	"**Rotors from Ancient Times**" **Invited Talk** by Prof. J.S. Rao, Kumaraguru College of Technology, Coimbatore
11.30 am to 12.00 pm	Technical Session-I(Chaired by Prof. J.S.Rao)
12.00 pm to 12.30 pm	"**Non-contact power transmission device-An exploratory study and possible practical applications**" **Invited talk** by Prof. V. Arun Kumar, AIT, Bangalore
12.30 pm to 1.15 pm	Technical Session-II(a) (Chaired by Prof. V. Arun Kumar)
1.15 pm to 2.00 pm	Lunch break
2.00 pm to 2.30 pm	Technical Session-II(b)
2.30 pm to 3.00 pm	**"Ball bearing diagnosis: Detection of damaged rolling elements"** **Invited talk** by Prof. A.K. Darpe, IIT-Delhi, New Delhi
3.00 pm to 3.45 pm	Technical session-III(a) (Chaired by Prof. A. K. Darpe)
3.45 pm to 4.00 pm	Tea Break
4.00 pm to 4.30 pm	Technical Session-III(b)
4.30 pm to 5.00 pm	"**Last Stage Steam Turbine Mistuned Bladed Discs: Free Vibration Analysis**" **Invited talk** by Prof. Rzadkowski, Polish Academy of Sciences Fiszera 14, 80-952 Gdańsk, Poland
5.00 pm to 5.45 pm	Technical Session-IV(Chaired by Prof. Rzadkowski)
Day-2 January 08, 2016	
9.00 am to 9.30 am	**"Application of Active Magnetic Bearings for Rotor-System Condition Monitoring"** **Invited talk** by Prof. R. Tiwari, Indian Institute of Technology ,Guwahati

9.30 am to 10.45 am	Technical Session-V(a) (Chaired by Prof. R. Tiwari)
10.45 am to 11.00 am	Tea break
11.00 am to 11.30 am	**"The Rail - Wheel Dynamics Related to Derailments"** **Invited talk** by Prof. P. K. Sarkar, I.S.M., Dhanbad
11.30 am to 12.15 pm	Technical session-V(b) (Chaired by Prof. P. K. Sarkar)
12.15 pm to 12.45 pm	**"Evaluation of Alternate Materials for High Temperature Foil Bearing"** **Invited talk** by Dr. S. Jana, NAL, Bangalore
12.45 pm to 2.00 pm	Lunch break
2.00 pm to 2.30 pm	**"Dynamic Analysis of Wind Turbine Drive Train: Some Recent Studies"** **Invited talk** by Prof. A.S. Sekhar, IIT-Madras
2.30 pm to 3.45 pm	Technical session-VI(a) (Chaired by Prof. A. S. Sekhar)
3.45 pm to 4.00 pm	Tea break
4.00 pm to 4.30 pm	'**Viscoelastic studies in rotordynamics**' by Prof. H. Roy, NIT Rourkela
4.30 pm to 5.15 pm	Technical session-VI(b) (Chaired by Prof. H. Roy)
6.15 pm to 8.15 pm	Cultural program
8.30 pm to 9.30 pm	Dinner
Day-3 January 09, 2016	
9.00 am to 9.30 am	**Invited talk** by Prof. M. Tiwari, IIT-Patna
9.30 am to 10.45 am	Technical session-VII (Chaired by Prof. M. Tiwari)
10.45 am to 11.00 am	Tea break
11.00 am to 11.30 am	**"Mathematical techniques to solve problems involving solid deformations**" **Invited talk** by Prof. Rajasekhar, IIT- Kharagpur
11.30 am to 12.45 am	**Industry Session on Rotordynamic products** **Lecture from Micro-Pro**
12.45 am to 2.00 pm	Lunch break
2.00 pm to 3.45 pm	NSRD Committee Meeting
3.45 pm to 4.00 pm	Tea break
4.00 pm to 4.30 pm	Valedictory and certificate distribution

Detailed Schedule of Technical Sessions

Technical session-I (12.00 pm-12.45 pm)	**Rotors balancing and classical approaches**
N. Moharana and R.K. Satpathy	Pap-25: Balancing requirements for high speed rotors of modern fighter class aero-engine.
Technical session-II(a) (Day 1||12:30 pm-1:15 pm)	**Aeroengine rotors and maintenance**
Asish Kumar Panda and Rajiv Tiwari.	Pap-3: Prediction of cavitations in centrifugal pumps using Support vector machine algorithms based on vibration measurements
Ajit Kumar, Iqbal Momin, Giridhar Ramakrishna, Pravin Kamanat and Suresh Kumar	Pap-5: Maneuver Load analysis of a twin spool aero gas turbine engine rotor system using SAMCEF software.
Purushottam Gangsar and Rajiv Tiwari	Pap-17: Multiple fault diagnosis of induction motor based on Gram-Charlier Orthogonal expansion coefficients of vibration signal using SVM algorithm
Technical Session-II(b) (Day 1|| 2:00 pm-2:30 pm)	**Aeroengine rotors and maintenance**
Thimothy Harold Gonsalves	Pap-26: Dynamic behaviour of the composite shaft rotor system of an aero gas turbine engine.
V.V.S. Nikhil Bharadwaj	Pap-30: Design and analysis of hybrid UAV
Technical Session-III(a) (Day 1|| 3:00 pm-3:45 pm)	**Bearing systems and Condition monitoring**
Jignesh P. Patel and Sanjay H. Upadhyay	Pap-12: Predictions of combined localized defects in roller bearings by using wavelet packet transform
Dhananjay Kumar, Dr. Somnath Sarangi and Dr. Mayank Tiwari	Pap-23: Vibrations in rolling element bearings caused by surface defects
Technical Session-III(b) (Day 1|| 4:00 pm-4:30 pm)	**Bearing systems and Condition monitoring**
Maheedhara Reddy Gundam, Diwakar Reddy V. (abstract only)	Pap-10. Theoretical and experimental investigations on dimensional anal1`ysis of rolling bearing elements by using Buckingham PI: Theorem and Taguchi Method
Rahul Singh	Pap-9: Dynamic identification of foil bearing rotor system
M.Rajasekhar	Pap-8: Dynamic modeling of rotors mounted on ball bearings with elastohydrodynamic point contacts
Technical session-IV (Day 1|| 5:00 pm-5:45 pm)	**Coupled rotordynamic systems**
Peeus Kumar	Pap-21: Response studies on bladed disk with under-platform dampers

Jakeer Hussain Shaik S	Pap-32: Analysis and Optimal modeling of end-mill spindles for improvising dynamic stiffness using neuro-genetic approach
8th January 2016, Day-2	
Technical session-V(a) (Day 2|| 9:30 am-10:45 am)	**Modeling and identification of rotors**
Soumava Ghosh, Sumanta Neogy and Arghya Nandi	Pap-2: Dynamics of accelerating rotors on viscoelastic supports
Sanjeev Lambha, Rajiv Verma and Vinod Kumar	Pap-4: Chaos and bifurcation analysis of a flexible rotor supported by coupled stress fluid-film bearing
Smitadhi Ganguly, Arghya Nandi and Sumanta Negoy	Pap-7: A state space viscoelastic Timoshenko shaft finite element for analysis of rotors
Rajasekhara Reddy Mutra	Pap-14: Vibration analysis of floating ring journal bearing supported rotor system for turbocharger run/up condition.
R. Srinath, Abhijit Sarkar and A. S. Sekhar	Pap-18: Parametric vibrations in rotating shaft system
Technical Session-V(b) (Day 2||11:30 am-12:15pm)	
Ritesh Kumar, Akhilendra Singh and Mayank Tiwari	Pap-19: Effect of material density on critical speed of a crack and non-crack rotor using finite element analysis in ANSYS
Chandan Kumar and Dr. Somnath Sarangi	Pap-22: Nonlinear dynamics of unbalanced rigid rotor supported by long hydrodynamic journal bearing
Chandrani Guha, Sumanta Neogy and Arghya Nandi	Pap.6: Phase field balancing of small rotors on rigid supports
Technical session-VI(a) (Day 2|| 2:30 pm-3:45 pm)	**Vibration minimization in rotors**
Pravin Kamanat and Sivakumar Sadasivan Nair	Pap-31: Multiple linear regression technique for vibration minimization of an aero gas turbine engine
Siddappa Bekinal, Kiran D. Kattimani, Soumendu Jana and Rutvij Naik	Pap-13: Permanent magnet bearings for high speed rotating machinery. A review of analytical, FEA and experimental approaches
Sarthak Rout and Suraj Kumar Behera	Pap-16: Design and analysis of active magnetic bearings for high speed rotor
Technical Session-VI(b) (Day 2|| 4:30 pm-5:15 pm)	
Balaji Sankar, Santosh Kumar, Brijeshkumar Shah and Soumendu Jana	Pap-20: Analysis of active magnetic thrust bearing under varying load conditions
V V Kondaiah, Jagu S Rao and V V Subba Rao	Pap-28: Optimum air gap for minimum power loss of an active magnetic thrust bearing.
9th January 2016, Day-3	
Technical session-VII (Day 3|| 9:30 am-10:45 am)	**Mathematical modeling of beams and numerical methods**
Ritesh Kumar, Mayank Tiwari and Akhilendra Singh	Pap-15: Numerical analysis of an oscillator with nonlinear clearance using smoothening function
Ratnadeep Pramanik, Arghya Nandi and Sumanta Neogy	Pap-1: Stability analysis of a simultaneously precessing and nutating beam with corresponding angular accelerations