SCHEDULE

26 February 2018 (Monday)

08:30 – 09:30	Registration
09:30 – 10:15	OPENING CEREMONY
10:15 – 11:00	Keynote Talk 1: Dr. Jezdimir Knezevic, MIRCE Akademy, Exeter, UK Topic: Reliability Beyond the First Failure
11:00 – 11:30	High Tea
11:30 – 13:00	Oral Session 1; Oral Session 2
13:00 – 14:00	Lunch Break
14:00 – 14:45	Keynote Talk 2: Prof. S. Dharmaraja, Indian Institute of Technology Delhi Topic: Reliability Modeling of Spacecraft Systems
14:45 – 15:00	Tea break
15:00 – 16:30	Oral Session 3; Oral Session 4; Oral Session 5
16:30 – 18:00	Oral Session 6; Oral Session 7; Oral Session 8
18:00 - 19:00	Meeting of SRESA (closed group meeting)
19:00	Conference Dinner

27 February 2018 (Tuesday)

09:15 – 10:00	Keynote Talk 3: Prof. Ming J. Zuo, University of Alberta, Edmonton, Alberta, Canada Topic: Dynamic Simulation of Gearbox Operation for Prognostics and Health Management
10:00 – 10:45	Keynote Talk 4: Prof. Raghu V. Prakash, Indian Institute of Technology Madras Topic: Fracture Mechanics and Structural Reliability – Applications to Aerospace, Railway Industries.
10:45 – 11:00	Tea break
11:00 – 12:30	Oral Session 9; Oral Session 10; Oral Session 11
12:30 – 13:45	Oral Session 12; Oral Session 13
13:45 – 14:45	Lunch Break
15:00	Local sightseen visit

28 February 2018 (Wednesday)

09:15 – 10:00	Keynote Talk 5: Prof. S.P. Harsha, IIT Roorkee, India Topic: Failure Pattern Analysis of High Speed Bearings Using Soft Computing Techniques
10:00 – 11:30	Oral Session 14; Oral Session 15
11:15 – 11:45	Tea break
11:45 – 13:00	Oral Session 16 Oral Session 17
13:00 – 14:00	Lunch Break
14:00 – 14:45	Keynote Talk 6: Prof. P.K. Kapur, Amity University Noida Topic: Modeling Reliability Growth and Vulnerability Discovery Process of a Software System: An Interdisciplinary Approach
14:45 – 15:15	Valedictory Function

Day-1

Oral Session 1: Reliability Issues in Electrical Distribution Systems

26 February 2018 Venue-CR-102 Dr. R.B. Solanki 1130 – 1300

RI1	Umesh Agarwal and Naveen Jain, Reliability Enhancement using Network Reconfiguration Technique Considering Cost, Customer Load Type and Sector Customer Damage Function
RI2	Nidhi Mishra, Rajeev Chauhan and R.A. Sharma, Power System Network Reliability Evaluation Considering Phasor Measurement Units (PMU): A Case Study
RI3	Rajeev Chauhan, T. Ghose and Prakash Triphathi, Multistage Distribution System Network Expansion Planning Considering Investment, Operational Cost and Reliability of System
RI4	Joice G. Philip and Trapti Jain, Optimal Placement of PMUs of Different Channel Capacity for Complete Observability with Increased Measurement Redundancy
RI5	R.B. Solanki, Harshwardhan Kulkarni, Suneet Singh, P.V. Varde, A.K. Verma, Artificial Neural Network (ANN) Based Response Surface Approach for Passive System Reliability Assessment

Oral Session 2: Condition Monitoring Techniques and Applications

26 February 2018 Venue-CR-103 Dr. D.H. Pandya 1130 – 1300

CM1	Neelesh Kumar Sahu, Atul B.Andhare, Abhay Khalatkar, Tool Condition Monitoring in End Milling of Ti-6Al-4V using Multi-Sensory Approach
CM2	Tapan Shah, Aditya Karnik and Babu Narayanan, An Analytic Approach to Monitor Main Bearing Health
CM3	A.A. Darji, P.H. Darji and D.H. Pandya, Envelop Spectrum Analysis with Modified EMD for Fault Diagnosis of Rolling Element Bearing
CM4	C.J. Mevada, H.M. Trivedi, A.A. Darji and D.H. Pandya, Experimental Investigation of Chatter in CNC Turning using Different Shim Materials
CM5	A.B. Gholap, M.D. Jaybhaye, Condition Based Maintenance Modeling using Vibration Signature Analysis

Oral Session 3: Optimization and Machine Learning Techniques for Industrial Applications

26 February 2018 Venue-CR-102 Dr. K.S. Ramprasad 1500 – 1630

OM2	Jayeep Patel, Vimal Savsani, Vivek Patel and Rajesh Patel, Exploring The Effect of Passing Vehicle Search (PVS) for the Wind Farm Layout Optimization Problem
OM3	Vimal Savsani, Poonam Savsani, Rhythm Patel, Akash Vasani, Parametric Analysis of Genetic Algorithm Toolbox for Truss Problem Optimization
OM4	Mahesh Bhiwapurkar, Mechanical Faults Detection in Steel Plant with Infrared Thermography: Field Cases
OM14	Vimal Savsani, T. Ramprabhu, M. Sheth, N. Radadia, S. Parsana, N. Sheth, R. Mishra, Comparative Analyisis of Multiobjective Algorithms for Machining Parameter Optimization
OM15	K.S. Ramprasad and Prabhat Kumar, Enhancement of Human Performance by Competency Development in High Reliability Organizations (HROs)

Oral Session 4: Reliability Issues in Electrical Distribution Systems

26 February 2018 Venue-CR-103 Dr. Sachin K. Jain 1500 – 1630

RI6	Ashish Gupta and Arvind Jain, Steady state analysis of self-exited induction generator to enhance reliability in isolated mode
RI7	Akash Sahu, Shalini Vaishya and Rajeev Chauhan, 200 KVA Distribution Transformer Life Time Cost Evaluation Including Environmental Cost
RI8	Khushboo Vishwakarma and Rajeev Chauhan, Technical Loss Evaluation of Transformers and Feeders in Distribution System by Considering Load Factor and Load

	Loss Factor
RI9	Kshirodra Kumar Bhoi and Prasanna Kumar Sahu, Improvement of DC Characteristic of AlGaN/GaN HEMT and MOSHEMT

Oral Session 5: Performance/Failure Analysis of Materials in Service
26 February 2018 Venue-CR-201 Prof. Puneet Tandon 1500 – 1630

PA1	P. Athanker and A.K. Singh, Finite Element Analysis and Failure mechanisms of Porous Biomaterial Architecture for Prosthetic Device
PA2	P. Shrivastava and P. Tandon, Deformation Induced Surface Roughness and Global Spring Back Resulted with Different Plastic Strain Levels in Incremental Forming of Original and Preheated Sheet Samples
PA3	Deepak Mehra, Vinod M Nistane, M.M. Mahapatra, S.P. Harsha, Reliability Analysis of Cutting Tool for Turning of RZ5-10wt%TiC Composite
PA4	Mradul Awasthi, Suhail Ahmad and S. Patel, Safety Assessment of Femur
PA5	M. Karthick, C. Senthil Kumar and T. Paul Robert, An Investigation of Human Errors using Fuzzy- Bayesian Belief Networks

Oral Session 6: Optimization and Machine Learning Techniques for Industrial Applications
26 February 2018 Venue-CR-102 Dr. Vimal Savsani 1630 – 1800

OM5	Vimal Savsani and Vivek Patel, Effect of combining Teaching Learning Based Optimization(TLBO) with Different Search Techniques
OM6	N. Dave, V. Vakharia, U. Kagathara and M.B. Kiran, Feature Extraction and Classification from Texture Image of Machined Surfaces Using Multilevel Wavelet Decomposition and Logistic Regression
OM7	Chintan Patel and Nishant Doshi, Industrial Internet of Things: A Comprehensive Overview
OM8	N.J. Chotai, Vimal Savsani, V.K. Patel, Air Engine Efficiency Improvement using Control System
OM9	D. Saikiran1, A.K. Rouniyar and P. Shandilya, Process Parameters Optimization for Inconel-825 in Wedm Using TLBO Algorithm
OM12	M. M. Bhavani and A.Valarmathi, Optimal Traffic Route Finder System

Oral Session 7: Diagnostics and Prognostics of Mechanical Systems
26 February 2018 Venue-CR-103 Dr. Neeraj Kumar 1630 – 1800

DP1	A. Sharma, P.K. Kankar and M. Amarnath, Investigations on Nonlinearity for Health Monitoring of Rotor Bearing System
DP2	Sauabh Bhalerao, Adesh Paramane and Abhishek Chavan, Design and Development of Steering System for Formula Styled Vehicle
DP3	V.B. Lalwani, J.V. Desai and D.H. Pandya, Dynamic Motion Analysis of Reciprocating Vibro-Separator
DP4	Vinay Thute and Atul Andhare, Diagnosis of Inter Turn and Ball Bearing Faults in An Induction Motor using Vibration Data and Artificial Neural Network
DP13	Neeraj Kumar, J.Koley, A.P. Garg, C.S. Varghese and D.K. Shukla, Assessment of reliability of Digital I&C Systems used for Safety Applications in Indian NPPs

Oral Session 8: Software Reliability
26 February 2018 Venue-CR-201 Prof. Aparajita Ojha 1630 – 1800

SR1	Pratiksha Gautam and Hemraj Saini, Mutation Testing-Based Evaluation Framework for Evaluating Software Clone Detection Tools
SR2	Aman Varma, Arijit Saha, Sourav Kunal, Vivek Tiwari, Textual Dissection of Live Reviews using Machine Learning Techniques
SR3	P. Vaishnavi Madankumar and S. Ananthi, Environmental Impact Study on Carbon Foot Print Emission and Development of Software Architectural Framework to Measure the

	Level of Emission in Cloud Services
SR4	A. Alagesan, P. Vaishnavi Madankumar, Karthekeyan Rajamuthu, Development of Computational Decision Making Tool for Predicting the Growth and Development of Agricultural Crops using Location Specific Diurnal Air Temperature Data

Day-2

Oral Session 9: Optimization and Machine Learning Techniques for Industrial Applications
27 February 2018 Venue-CR-102 Dr. Vinay Vakharia 1015 – 1145

OM1	V. Vakharia, S. Pandya and P. Patel, Tool Wear Rate Prediction Using Discrete Wavelet Transform and K-Star Algorithm
OM10	V.K. Patel and B.D. Raja, An Industrial Heat Exchanger Optimization from Economic View Point
OM11	O.G. Vaghela, A.R. Majmudar, D.P. Mavani, S.A Patel, S.P. Mehta, H.K. Yadav and D.H. Pandya, Experimental Investigation of Non-Linear Dynamic Motion Analysis of Balanced Rotor Supported by Cylindrical Roller Bearing
OM13	Poonam Savsani, Multi-Objective Optimization of a Robotic Trajectory Problem using NS-TLBO

Oral Session 10: Diagnostics and Prognostics of Mechanical Systems
27 February 2018 Venue-CR-103 Dr. Anand Parey 1015 – 1145

DP5	Vikas Sharma and Anand Parey, Effect of Lubricant on The Stiffness and Damping Characteristics in a Single Stage Gearbox: A Theoretical Analysis
DP6	N. Upadhyay and P.K. Kankar, Integrated Model and Machine Learning Based Approach for Diagnosis of Bearing Defects
DP7	S. Bhardwaj, A. Sharma, A. Malik, K.L.A. Khan, Performance Assessment of a Dual Fuel Engine Operated with Agricultural Wastes and Diesel
DP14	Anurag Vijaywargiya and Mahesh Bhiwapurkar, Biomechanical Evaluation of Manual Material Handling Task in the workplace: A Comprehensive Review
DP15	Vivek Mishra and P.V. Varde, Quality Assurance in Sustaining Reliability of Nuclear Reactor Safety Systems

Oral Session 11: Health Monitoring and Management using Multi Sensors
27 February 2018 Venue-CR-201 Dr. Sukhjeet Singh 1015 – 1145

HM1	Snehsheel Sharma, S.K. Tiwari and Sukhjeet Singh, Diagnosis of Gear Tooth Fault in a Bevel Gearbox using Discrete Wavelet Transform and Autoregressive Modeling
HM2	Amrinder Singh Minhas, Sukhjeet Singh, Jyoteesh Malhotra and Navin Kumar, Machine Deterioration Identification for Multiple Nature of Faults Based on Autoregressive-Approximate Entropy Approach
HM3	Ankush C. Jahagirdar and Karunesh K. Gupta, Comparative Study of Cepstral Editing and Unitary Sample Shifted Probability Distribution Function Method for Bearing Fault Diagnosis
HM4	Shivdayal Patel and Venkata Ravi Vusa, Safety and Crashworthiness Analysis of Vehicle Amours under Impact Loading
HM9	P. K. Ramteke, A. K. Ahirwar, N.B. Shrestha, Santhosh and V. Gopika, Test Facilities for Ageing Studies of Equipment & Cables for Nuclear Power Plants – At a Glance

Oral Session 12: Design for Reliability
27 February 2018 Venue-CR-102 Dr. Shivdayal Patel 1145 – 1300

DR1	Jay Govind Verma, P.K. Kankar, Sachin Kumar, Crack Propagation Behavior in Spur Gear by XFEM and Its Influence on Dynamic Characteristics
DR2	M.G Rajesh, Sourabh Neema, Saju Joy, P.V.Bhatnagar, Anita Behere, FMEA and Reliability Analysis of Central Camera Controller for MACE

DR3	Prakash Kumar Sen, M.K. Bhiwapurkar, S.P. Harsha, Analysis of Causes of Rail Derailment in India and Corrective Measures
DR4	S. Patel, Probabilistic Dynamic Analysis of Composite Plates for Damage Initiation due to Low Velocity Impact

Oral Session 13: Health Monitoring and Management using Multi Sensors

27 February 2018 Venue-CR-103 Dr. Y.S. Rana 1145 – 1300

HM5	V.M. Nistane and S.P. Harsha, Bearing Degradation Performance Assessment based on concept of Advanced Fuzzy Entropy
HM6	Neeraj Kumar Bhoi, Harpreet Singh and Saurabh Pratap, Strategies for Controlling the Accuracy and Reliability of Abrasive Water Jet Machining
HM7	Shantanab Banerjee, Arihant Jain, Y.S. Rana, Tej Singh, N.S. Joshi and P.V. Varde, Development of Aging Model for Electrolytic Capacitor
HM8	V.K. Dave and V. Vakharia, Fault Diagnosis of Ball Bearing Using Walsh Hadamard Transform and Random Tree Classifier

Day-3

Oral Session 14: Design for Reliability

28 February 2018 Venue-CR-102 Dr. Ajit R Pappu 1015 – 1145

DR5	Gaurav Mishra, Mohit Tyagi, M.S. Ranganath and R.S. Walia, Development and Assessment of a Model for Reliable Humanitarian Supply Chain (HSC) using DEMATEL Approach
DR6	Manander Singh, Suhail Ahmad and S. Patel, Safety and Reliability of Composite Production Riser in Design Phase
DR7	Rashmi Lalwani, Arihant Jain, V.K. Tapas, N.S. Joshi and P.V. Varde, Study of Emission Pattern of ICs Using Photon Emission Microscopy
DR8	Ajit R Pappu, Improving Reliability of Pressure Measurements of Nuclear Plants by Impulse Line Diagnostics using Statistical Tools and Wavelets
DR9	Ajit R Pappu, Channel Temperature Measurements in a Pressurised Heavy Water Nuclear: Analysis for Degradation of the Temperature Sensors and Suggested Modifications for Improved Reliability

Oral Session 15: Diagnostics and Prognostics of Mechanical Systems

28 February 2018 Venue-CR-103 Dr. Aditya Sharma 1015 – 1145

DP9	A. Sharma, S. Bhardwaj, P.K. Kankar, Fault Diagnosis of Rolling Element Bearings using Fractional Linear Prediction and AI Techniques
DP10	Pavan Agrawal and Pratesh Jayaswal, A Review of Fault Detection, Diagnosis, and Prognosis of Rolling Element Bearing using Advanced Approaches and Vibration Signature Analysis
DP11	N.B. Prajapati, J.V. Desai, D.H. Pandya, Experimental Investigation of Chatter in Boring Operation using Shim
DP12	Arihant Jain, N.S. Joshi and P.V. Varde, Methodology to Incorporate the Effect of Plant Operating State During Surveillance Testing in Determining Optimal Surveillance Test Interval
DP8	Ankush C. Jahagirdar and Karunesh K. Gupta, Particle Swarm Optimization Based Kurtosis Maximization in Fractional Hilbert Transform for Bearing Fault Diagnosis

Oral Session 16: Big Data Analytics for Critical Systems

28 February 2018 Venue-CR-102 Dr. Deepak Kumar 1145 – 1300

BD1	Devesh Kumar Lal and Ugrasen Suman, A Survey of Real Time Big Data Processing Algorithms
BD2	P. Vaishnavi Madankumar and V. Deenadayalan, The Internet of Renewable Energy: Big Data Driven Smart Grid Management with The Reliability and Security Analysis

BD3	P. Vaishnavi Madankumar, G. Vidhyalakshmi, S. Vaishnavi, Distinctive Architecture Against Conspiring Attacks on Network Layer Over MANET Smart Grid Management
BD4	G. Palanivel, P. Vaishnavi Madankumar, Outliers Detection in Critical Datasets using Data Analytics Technique
BD5	M. Boopathi, R. Sujatha, C. Senthil Kumar, D. Aravinthan and S. Sadhasivam, Estimation of Software Code Coverage Using Artificial Fish School Algorithm Based on Data-Flow Testing
BD6	Deepak Kumar and Sarika Sharma, Improving the Extent of Sprint in Agile Software Development

Oral Session 17: Data Analytics for Reliability & Maintenance

28 February 2018 Venue-CR-103 Dr. Prashant K. Jain 1145 – 1300

DA1	Dhuldev Shrikant Kokare, Sagar S. Bhingare and Vikas M. Phalle, Maintenance and Reliability Improving of Window Air Conditioner by Waste Heat Recovery using Desuperheater
DA2	S.D. Ghagare, T.S. Gulavane, P.V. Shinde and A.S. Suryawanshi, Reliability Analysis of an Agitator Motor: A Case Study
DA3	Rajkumar Bhimgonda Patil and Basavraj S. Kothavale, Failure Modes and Effect Analysis for CNC Turning Center
DA4	Rajkumar Bhimgonda Patil and Basavraj S. Kothavale, Criticality Analysis of CNC Turning Center Using Analytic Hierarchy Process
DA5	Vivek Mishra, Application of Mahalanobis Distance for Fault Diagnosis of Diesel Generator Sets under Load Testing