



ICMIAM-2020

International Conference on Maintenance and Intelligent Asset Management

January 17-18, 2020

Jointly organized by



Program Schedule

Day-1: 16th January 2020

Pre-Conference workshop on Asset Management Fundamentals

Resource Person: Dr. John Hardwick

Executive Director, Road and Maritime Services, New South Wales, Australia

Day-2: 17th January 2020

Inauguration and Keynote sessions

Venue: Auditorium

8:00AM–8:45AM	Registration	
8:45AM–9:00AM	Welcome	
9:00AM–9:30AM	<p>Keynote Address-1 Dr. Anne Gibbs CEO, Asset Management Council, Australia Chair: Dr. John Hardwick</p>	<p>Topic: Asset Management Challenges and Opportunities around the World and the use of ISO 55000 Standard</p>
9:30AM–10:00AM	<p>Keynote Address -2 Dr. Gopinath Chattopadhyay Post Graduate Program Coordinator Federation University, Australia Chair: Dr. Alok K. Verma</p>	<p>Topic: Maintenance, Reliability and Asset Management for informed decision-making</p>
10:00AM–10:30AM	<p>Invited Talk-1 Dr. Syed Islam Dean, School of Science, Engineering and IT Federation University, Australia Chair: Dr. Nalinaksh S. Vyas</p>	<p>Topic: Frequency Response Analysis for Power Transformer Fault Detection – Modelling, Experimental and Field Experiences</p>
10:30AM–10:45AM	<p>Invited Talk-2 Ms. Shilpi Chattopadhyay UX Designer, VAE Group, Australia Chair: Dr. Harpreet Kandra</p>	<p>Topic: Smarter Energy Enterprise Management Solutions for reducing costs and risks in City Councils</p>
10:45AM–11:00AM	Tea Break	Venue: Auditorium
11:00AM–11:45AM	Inauguration	Venue: Auditorium
11:45AM–12:00PM	<p>Invited Talk-3 Dr. Venkat Reddy EAMS Team Leader - ALM & SD, Queensland Rail, Australia Chair: Mr. Amar Singh</p>	<p>Topic: Asset Management Journey at Queensland Rail</p>
12:00PM–12.30PM	<p>Keynote Address-3 Dr. Alok Verma Ray Ferrari Professor, Old Dominion University, U.S.A. Chair: Dr. D. Srikanth Rao</p>	<p>Topic: Lean Maintenance Implementation Models & Training with Physical Simulations</p>
12:30PM–1:00PM	<p>Industry Presentation -1 Mr. Datta Kuvalekar, Director, Engineering, Forbes Marshall, Pune Chair: Dr. Anne Gibbs</p>	<p>Topic: Digitization of assets in Industrial plants</p>
1:00PM–2:00PM	Lunch break	Venue: Auditorium



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Parallel Technical Sessions		
2.00PM–3.00PM	Parallel Technical Sessions: Computer Science Engineering Theme (CSE) Day-2, Session-1 Chair: Dr. Gopinath Chattopadhyay Co-Chair: Dr. Gour Karmakar	Venue: Class Room-1
Paper Code	Title	
CSE001	The impact of industry 4.0 on Millennials in South Africa. <i>N. Kishore, JHC Pretorius, G. Chattopadhyay</i>	
CSE005	An application of Euclidean distance matrix for generalized machine cell formation problems. <i>Manash Hazarika</i>	
CSE006	R-Programming Based Optimal Restaurant Prediction. <i>Neha Kashyap, R. Harikrishnan</i>	
CSE007	Application of Market – Basket analysis on healthcare. <i>Abhishek, Jammula Surya Kiran, Poornalatha G</i>	
2.00 PM–3.00PM	Parallel Technical Sessions: Tribology Theme (TRB) Day-2, Session-1 Chair: Dr. Ram Turaga Co-Chair: Dr. Alok Verma	Venue: Class Room-2
Paper Code	Title	
TRB002	Structure-property relationship of glass fabric / MWCNT / epoxy multilayered laminates. <i>B Shivamurthy , S Anandhan ,K Udaya Bhat</i>	
TRB003	Review on structure material in the space environment. <i>H.C. Shomesh, Raghavendra Kamath C</i>	
TRB004	Significant analysis of bearing element adjustments on static characteristic of multi-pad externally adjustable bearings through Taguchi method. <i>Ganesh A, Raghuvir Pai, Srikanth Rao D, S.M. Abdul Khader</i>	
TRB010	Finite element analysis for wear prediction at the head-stem taper junction with varying taper trunion radiuses of hip implants <i>Chethan.K.N, Ogulcan Guldeniz, Shyamasunder Bhat N, Mohammad Zuber, Satish Shenoy B</i>	
2.00 PM–3.00PM	Parallel Technical Sessions: Asset Management Theme (AMT) Day-2, Session-1 Chair: Dr. Balachandra Patil Co-Chair: Dr. Anne Gibbs	Venue: Class Room-3
Paper Code	Title	
AMT001	Yearly plant maintenance budget evaluation: A simulation approach). <i>Atul Kumar Srivastava, Girish Kumar, Piyush Gupta</i>	
AMT015	Predictive Maintenance Methodology in Sheet Metal Progressive Tooling: A Case Study. <i>Ashutosh Kolhatkar, Anand Pandey</i>	
AMT017	Impact of training and education pillar TPM on workmen performance: An implementation case in a ball bearing manufacturing unit. <i>Ashok Kumar Sharma, Shudhanshu Sharma</i>	
AMT005	Railway track system asset management – a case study on Indian Railway. <i>Sourath Ghosh, Debashis Sarkar, Susmita Sau, Subhash Chandra Panja</i>	



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2.00 PM–3.00PM	Parallel Technical Sessions: Asset Life Cycle Management Theme (ALC) + Water + Waste Management Theme (WAT) Day-2, Session-1 Chair: Dr. Venkat Reddy Co-Chair: Dr. Harpreet Kandra	Venue: Class Room-4
Paper Code	Title	
WAT001	Water Security and Scarcity: Challenges and Solutions. <i>Tony Miguel, Cruz Elisa Torrecillas Nuñez, Amar Singh, Andrés C. Ravelo, Héctor Manual Cárdenas Cota</i>	
WAT002	Correlating qualitative and quantitative impact indicators to prioritise integrated urban and peri-urban water management. <i>Cruz Elisa Torrecillas Nuñez, Tony Miguel, Amar Singh, Andrés C. Ravelo, Ana María Planchuelo</i>	
ALC001	On Reliability acceptance sampling plan for censored Weibull distributed products. <i>Shovan Chowdhury</i>	
ALC011	A Low-Cost Data Acquisition using CAN Communication Protocol for Static and Dynamic Conditions for Automotive Application <i>Nithesh Naik, Mounik G S, Udit Rathee, Dasharathraj K Shetty, Balakrishna Maddodi, Rajesh Gopakumar, Vasco Gama Caldas Sampaio</i>	
3.00 PM–3.15 PM	Tea Break	Venue: Auditorium
3.15 PM–4.30 PM	Parallel Technical Sessions: Computer Science Engineering Theme (CSE) Day-2, Session-2 Chair: Dr. Syed Islam Co-Chair: Mr. Amar Singh	Venue: Class Room-1
Paper Code	Title	
CSE008	AI Based Ship Control System for Indian Warships and Merchant Ships. <i>Alok Bhagwat, Pradnya Chitrao</i>	
CSE009	A Distributed Framework for Discovering Associated Patterns from Sensor Data in Industry Applications. <i>Md Mamunur Rashid, Joarder Kamruzzaman, Sakib Shahriar Shafin and Saleh Wasimi</i>	
CSE010	An improved genetic algorithm for the machine-part cell formation problem. <i>Manash Hazarika</i>	
CSE014	Internet of Things for Asset Management: Data Analytics and Security <i>G. Karmakar, J. Kamruzzaman, S. Islam, G. Chattopadhyay and R. Pai</i>	
CSE015	E-PRO: Euler Angle and Probabilistic model for face detection and recognition <i>Sandesh R, Manoj Kumar M V</i>	



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3.15 PM–4.30 PM	Parallel Technical Sessions: Tribology Theme (TRB) Day-2, Session-2 Chair: Dr. Nalinaksh S. Vyas Co-Chair: Dr. Raghuvir Pai	Venue: Class Room-2
Paper Code	Title	
TRB005	Experimental investigation of Material Removal Rate in Wire-Electrical Discharge Machining of Silicon Particle Reinforced Al6061 composite: The Optimisation and Regression Modelling. <i>Deepak D, Akash G Talekar, Marcin Piekarski</i>	
TRB006	Statistical approach for surface roughness enhancement during abrasive water jet machining of Discontinuously Reinforced Caryota Urens Polyester Composites. <i>Raviraj Shetty, Augustine B.V. Barboza, Rajesh Nayak</i>	
TRB007	Effect on wear property of Aluminium metal matrix composite reinforced with different Solid lubricants – A Review. <i>Siddesh Kumar N M, Nama Venkata Rohith, Bindu Gutta, Satish V Kailas</i>	
TRB008	Design of Experiment based methodology to Assess the Effect of Terminalia chebula Ritz extract for Corrosion Inhibition of Aluminum in phosphoric acid. <i>P. R. Prabhu, Deepa Prabhu, Padmalatha Rao</i>	
TRB009	Comparison of Distance Based Dimensionality Reduction Techniques for Effective Classification of Bearing Vibration Signals <i>Sushobhan Das, Vijay G. S.</i>	
3.15 PM–4.30 PM	Parallel Technical Sessions: Asset Management Theme (AMT) & Tribology Theme (TRB) Day-2, Session-2 Chair: Dr. D. Srikanth Rao Co-chair: Dr. Ashok Kumar Sharma	Venue: Class Room-3
Paper Code	Title	
AMT006	Automating the SAMP through an IMS Online: A Tool for inspiring change and collaboration. <i>Nazrul Islam , Julian Watts</i>	
AMT007	Evaluation of a behaviour-based safety (BBS) method for improving safety performance. <i>Manikandan H</i>	
AMT008	Innovative Technology Based Social Enterprises for Inclusive Sustainable Healthcare in India. <i>Pradnya Vishwas Chitrao, Pravin Kumar Bhojar, Rajiv Divekar</i>	
AMT009	Value Stream Mapping in Total Productive Maintenance of a Meat Processing Plant in Australia. <i>Chundhoo, V., Chattopadhyay, G., Karmakar, K, Kahandawa, G</i>	
TRB011	Numerical analysis of a lemon bearing operating with non-Newtonian fluid and considering slip between the sliding surfaces <i>Amar Murthy Ambekar, Raghunandana. K.</i>	



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3.15 PM–4.30 PM	Parallel Technical Sessions: Asset Life Cycle Management Theme (ALC) & Water + Waste Management Theme (WAT) Day-2, Session-2 Chair: Dr. John Hardwick Co-chair: Dr. Bikas K Sinha		Venue: Class Room-4
Paper Code	Title		
WAT003	Water Audit of Chitkara University, Himachal Pradesh – A Zero Discharge Campus. <i>Varinder S Kanwar and Akhil Shetty</i>		
ALC004	Maintenance and Reliability improvement by Reliability analysis and its outcome implementation by optimising Preventive Maintenance intervals. <i>Md Omar Sharif, Gopinath Chattopadhyay</i>		
ALC006	An expert system for life cycle assessment of casting process. <i>Karmjit Singh, Prince Pal Singh, Ibrahim Sultan, Gopinath Chattopadhyay</i>		
TRB001	Recent Advances in Carbon Based Polymer Composites for Effective Electromagnetic Interference (EMI) Shielding and Radiation Absorption: A Review. <i>Nithesh Naik, Aravind Karthik, Shivamurthy B, B H S Thimappa, Ritesh Bhat, Samuel Schumann, Vathsala Patil, Dasharathraj K Shetty</i>		
4:30PM–4:45PM	Invited Talk-4 Dr. Sanjay Mishra Head, INSPIRE MANAK Programme Department of Science and Technology, New Delhi Chair: Dr. Gopinath Chattopadhyay	Topic: The art and science of writing research projects: Perspective from funding agencies	
4:45PM–5:15PM	Panel Discussion on the Conference Theme Chair: Dr. Gopinath Chattopadhyay Facilitator: Dr. John Hardwick		
5:15PM–5:45PM	First General Body Meeting of Asset Management Society, India Chair: Dr. Raghuvir Pai		
5:45PM–6:00PM	Announcements (Conference Day - 2, Dinner, Tour etc)		
7:30PM onwards	Conference Gala Dinner Dublin Hall, Howard Johnson by Wyndham, 132 Thanisandra, Main Road, Nagawara Junction, Bengaluru		



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Program Schedule

Day - 3: 18th January 2020

Welcome and Keynote sessions

Venue: Auditorium

8:00AM–8:45AM	Registration	
8:45AM–9:00AM	Blessings by: Swami Muktidanandaji Maharaj President, Sri Ramakrishna Mission, Mysore Chair: Dr. Raghuvir Pai	
9:00AM–9:45AM	Keynote Address-4 Dr. John Hardwick Executive Director Sydney, Roads and Maritime Services, NSW, Australia Chair: Dr. Khanindra Pathak	Topic: The Value of Implementing Asset Management in Organisations
9:45AM–10:15AM	Keynote Address -5 Mr. M.N. Thippeswamy Chief Engineer (Retired) Bangalore Water Supply and Sewerage Board Chair: Dr. Harpreet Kandra	Topic: Sustaining and improving quality of life by proactive asset management of water and waste water infrastructure and –A case study of Bengaluru city & a few other cities around the world.
10:15AM–10:45AM	Invited Talk-5 Dr. Nalinaksh S. Vyas Indian Institute of Technology, Kanpur & Chairman of the Technology Mission for Indian Railways Chair: Dr. Syed Islam	Topic: Deep Learning Paradigm for Asset Management
10:45AM–11:00AM	Tea Break	
11:00AM–11:30AM	Keynote Address-6 Prof. Khanindra Pathak Indian Institute of Technology, Kharagpur Chair: Dr. Gopinath Chattopadhyay	Topic: Advanced Asset Management for Capacity Utilization in Mining Industry
11:30AM–12:00 PM	Industry Presentation-2 Mr. D. Uma Maheshwar GE Aviation, Bangalore Chair: Dr. H.K. Mishra	Topic : Digital Transformation in Engineering
12:00PM–12:30 PM	Industry Presentation-3 Dr. Debdutt Patro Product Specialist, Ducom Instruments Pvt Ltd, Bangalore Chair: Mr. Amar Singh	Topic: Tribotesting under Extreme Conditions - Enabling Solutions for Transportation and Power Generation
12:30PM–1:00PM	Industry Presentation-4 Mr. Alex Mathew IoT - Digital Enterprise Assets, SAP Chair: Dr. Xie Min	Topic: Defining a “Continuously Optimized” Dynamic Maintenance Strategy for your Industrial Assets and executing them successfully to meet corporate maintenance KPIs.
1:00PM–2:00PM	Lunch	
	Venue: Auditorium	



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2:00PM–2:30PM	<p>Invited Talk-6 Dr S. Gopalakrishnan KSIIDC Chair Professor, IISc, Bangalore Chair: Dr. Raghuvir Pai</p>	<p>Topic: Recent Advances in Structural Health Monitoring and Health Management of Aircrafts.</p>
2:30PM–3:00PM	<p>Industry Presentation-5 Dr. J. Vinay GE Global Research Chair: Dr. Gour Karmakar</p>	<p>Topic : Digital Twin For Machine Performance Management</p>
3:00PM–4:15PM	<p>Parallel Technical Sessions: Asset Management Theme (AMT) & Asset Life Cycle Management Theme (ALC) Day-3, Session-1 Chair: Dr. Bikas K Sinha Co-Chair: Dr. H.K Misra</p>	<p>Venue: Class Room-1</p>
Paper Code	Title	
AMT003	<p>Risk Based Decision-making in Management of Concrete Water Reservoir Assets. <i>H.S. Richards, G. Chattopadhyay, H. Kandra, N. Islam</i></p>	
AMT016	<p>Estimation of Parameters for Distribution of Timber Pole Failures Due to In-Ground Decay. <i>Anisur Rahman, Gopinath Chattopadhyay</i></p>	
AMT004	<p>Studies on the impact of alternative modes of transport on the natural assets covering the environment and the public health in Australia: a literature study. <i>Peters. L. J. B, Chattopadhyay. G, Tuck. M. A</i></p>	
AMT018	<p>Improvement in Reliability, Availability and Maintainability (RAM) using Reliability Centred Maintenance (RCM) in Liquefied Natural Gas (LNG) loading arms. <i>Erik Van den berg, Gopinath Chattopadhyay</i></p>	
ALC005	<p>Modelling uncertainty using neutrosophic sets for precise risk assessment of marine systems. <i>Sunay Pai, Rajesh Prabhu Gaonkar</i></p>	
3:00PM–4:15PM	<p>Parallel Technical Sessions: Asset Management Theme (AMT) & Tribology Theme (TRB) Day-3, Session-1 Chair: Dr. Ashis Kumar Chakraborty Co-Chair: Dr. Min XIE</p>	<p>Venue: Class Room-2</p>
Paper Code	Title	
AMT020	<p>Development of RSM based Expert System tool for prediction of cutting force during machining Ti-6Al-4V under MQL. <i>C R Sanjeevkumar , M R Ravindra, Raviraj Shetty</i></p>	
AMT021	<p>Geotechnical Asset Management in Road Infrastructure under a Changing Climate. <i>Susanga Costa, Harpreet S. Kandra</i></p>	
AMT011	<p>Investigation on impact of supplier, customer and organization collaboration factors on the performance of New Product Development. <i>M Balasubramanian, S Murali and Malepati Vineeth Choudary</i></p>	
AMT013	<p>New approach on Design and Development of Mechanical Anti-lock Braking System (ABS) using Torque reduction principle. <i>Loganathan T G, Vinoth Kumar K, Jagadeesh G</i></p>	
TRB012	<p>Thrust force and Torque generation during drilling of coconut coir fiber reinforced polymer composite laminates based on statistical approach <i>N.Ananth Bhavish, Raviraj Shetty, B. Adesh Shetty</i></p>	



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4:15PM–4:30PM	Tea Break	Venue: Auditorium
4:30PM–5:00PM	Valedictory Function	Venue: Auditorium
Sunday 19/01/2020	Tour of Mysore (Please register at Registration Desk, Tour Cost Rs 2000.00) Departs at 05:30 AM, Manipal Banking Academy Campus	

Please Note: Registration will be open from 8 to 11 AM in the morning and 2 to 4 PM in the afternoon on both days.

Registration will also be open during the above timings on the 16th January 2020 during the Workshop on 'Asset Management Fundamentals'