

## Day I - 12th December 2012

08:30	10:00	<b>Registration</b>	
10:00	16:00	<b>Workshop I - eMaintenance Challenges for Railway - [Lilla salen]</b>	<b>Workshop II - eMaintenance in Process Industry - [ROOM]</b>
		<i>Chaired by: Christian Eriksson, The Swedish Transport Administration</i>	<i>Chaired by: Anders OE Johansson, ProcessIT Innovations</i>
10:00	11:55	Welcome and introduction to the workshop	Welcome and introduction to the workshop
		<b>Data Harvesting</b> Dan Larsson, Damill AB	<b>KPI for Mining Industry</b> Aditya Parida, Luleå University of Technology
		<b>Data Presentation</b> Ramin Karim, Luleå University of Technology	<b>ICT Issues for Process Industry</b> Anders Jonsson, ProcessIT Innovations
		<b>Data to Decision</b> Thomas Nordmark, MTAB	<b>eMaintenance Challenges for Process Industry</b> Robert Karlsson, SSAB EMEA
11:55	12:00	Summing up	Summing up
12:00	13:00	Lunch break	Lunch break
13:30	14:00	<b>Inauguration of eMaintenance LAB at LTU</b>	
14:00	16:00	Visit to the Railway way-side research station and eMaintenance LAB demonstration	

## Day II - 13th December 2012

07:30	08:30	<b>Registration</b>		
09:00	09:10	<b>Welcome</b> Uday Kumar, Luleå University of Technology		
09:10	09:30	<b>Opening ceremony</b> Karl Petersen, Municipal Governer Johan Sterte, Luleå University of Technology Vice Chancellor		
09:30	10:00	<b>Keynote - Prognostics and Systems Health Management for Sustainability</b> Michael Pecht, University of Maryland		
10:00	10:30	<b>Keynote - eMaintenance in Transport System</b> Christian Eriksson, The Swedish Transport Administration		
10:30	10:45	Coffee break		
10:45	11:15	<b>Keynote - Health Monitoring and Ongoing Initiatives to Prepare Future Aircraft Maintenance</b> Christophe Bordry, Airbus industries		
11:15	11:45	<b>Keynote - Evolution of Aircraft Maintenance Development</b> Tomas Lagerberg, ABB		
11:45	13:00	Lunch		
13:00	14:20	<b>Session I (eMaintenance Railway I) - [ROOM]</b> <i>Chaired by: Peter Söderholm, Trafikverket</i>	<b>Session II (eMaintenance Aviation) - [ROOM]</b> <i>Chaired by: Dr Christian Delmas, Airbus Industries</i>	<b>Session III (eMaintenance I) - [ROOM]</b> <i>Chaired by: Prof P.S. Heyns, University of Pretoria</i>
13:00	13:20	<b>The use of laser based trolley for railway switch and crossing inspection</b> Marius Rusu, Clive Roberts and Stephen Kent	<b>Handheld Maintenance Workstation, the mechanic's key to the aircraft</b> Torbjörn Fransson and Olov Candell	<b>Current and Prospective Information and Communication Technologies for the E-maintenance Applications</b> Jaime Campos
13:20	13:40	<b>Data to Decision through Contextual Presentation of Railway Infrastructure Performance</b> Christer Stenström, Karina Wandt and Aditya Parida	<b>Simulation as Support for PBL Contract Design</b> Olle Wijk and Patric Andersson	<b>Case-Based Reasoning Supports Fault Diagnosis Using Sensor Information</b> Ning Xiong, Tomas Olsson and Peter Funk
13:40	14:00	<b>Prognostic and health management of wheel condition: integration of wheel defect detection and wheel profile monitoring data</b> Matthias Asplund, Stephen M. Famurewa and Matti Rantatalo	<b>Applying an Integrated Systems Security Engineering Approach within Aviation eMaintenance</b> Tim Tinney and Olov Candell	<b>Framework for Design and Performance Evaluation of Effective Condition Monitoring and Maintenance Management Systems</b> Reza Farahani and Michael G. Lipsett
14:00	14:20	<b>Improvement of configuration management in railway signalling system</b> Amparo Morant, Phillip Tretten, Ramin Karim and Diego Galar	<b>Augmented Reality as a New Level for maintenance Efficiency</b> Rúben Oliveira, José Torres Farinha, Inácio Fonseca, Luís Andrade Ferreira and Fátima Armas	<b>Usability aspects of eMaintenance solutions</b> Karina Wandt, Phillip Tretten and Ramin Karim
14:20	14:40	Coffee break		

14:40 17:00 **Workshop III - eMaintenance in civil and military aviation - challenges and possibilities - [Lilla salen]**  
*Chaired by: Dr Olov Candell, Saab Technologies and Luleå University of Technology*

14:40 16:50 Welcome and introduction to the workshop  
**Matching eMaintenance capabilities on-board and on the ground**  
 Christophe Bordry, Airbus Industries  
**eMaintenance and cost effectiveness**  
 K.M. Ali, Boeing  
**eMaintenance based services - improving customer and supplier collaboration?**  
 Christian Delmas, Airbus Industries

16:50 17:00 Summing up

14:40 16:20 **Session IV (eMaintenance II) - [ROOM]**  
*Chaired by: Prof Torres Farinha, University of Coimbra*

14:40 15:00 **Reliability Predictions based on Failure Rates with Respect to Aging Conditions**  
 Jakob Krause and Klaus Kabitzsch

15:00 15:20 **Condition monitoring of oil and gas subsea electrical equipment - Case study Åsgard subsea compression project**  
 Hermanto Ang, Tore Markeset and Tor Ole Bang-Steinsvik

15:20 15:40 **A Study of Wireless Vibration Sensors for Monitoring Bearing Faults**  
 Mustafa Aliwan, F. Gu and A. Ball

15:40 16:00 **Re-Design of AC Excitation Busduct based on Infrared (IR) Thermography Analysis: Power Plant Condition-Based Monitoring (CBM)**  
 S.Gopinath and Abdul Razak b. Jamin

16:00 16:20 **Machine Health Monitoring: An Integrated Maintenance Approach**  
 Mahantesh Nadakatti, Sarbjeet Singh, Aditya Parida and Uday Kumar

16:20 16:40

14:40 16:20 **Session V (eMaintenance III) - [ROOM]**  
*Chaired by: Prof Peter Funk, Mälardalen University*

14:40 15:00 **Numerical Simulations of Effects of Faults in a Vertical Axis Wind Turbine's Performance**  
 Atif Shahzad, Suman Pradhan, Taimoor Asim, Rakesh Mishra and Kyoo-Seon Park

15:00 15:20 **Computational Fluid Dynamics based Performance Optimisation of Vertical Axis Marine Current Turbines**  
 Kyoo-Seon Park, Taimoor Asim, Rakesh Mishra, Atif Shahzad and Gilbert Mirangwanda

15:20 15:40 **Application of Particle Swarm Optimization Approach in the Inflationary Inventory Model under Stochastic Conditions**  
 Seyed Mostafa Orand, Abolfazl Mirzazadeh and Farzaneh Ahmadzadeh

15:40 16:00 **Multi-objective reliability allocation problem**  
 Jalal Safari and Farzaneh Ahmadzadeh

16:00 16:20 **On the Integration of Wear Model into Dynamic Analysis for Rolling Element Bearing**  
 Idriss El-Thalji and Erkki Jantunen

16:20 16:40

## Day III - 14th December 2012

09:00 09:30 **Keynote - TITLE**  
Laurence Earl, Saab Technologies

09:30 10:00 **Keynote - TITLE**  
K. M. Ali, Boeing

10:00 10:30 Coffee break

10:30 11:00 **Keynote - TITLE**  
Raj B. K. N. Rao , COMADEM International

11:00 11:30 **Keynote - TITLE**  
Christian Delmas, Airbus Industries

11:30 13:00 Lunch

13:00 14:40 **Session VI (eMaintenance Railway II) - [ROOM]**

*Chaired by: Vivianne Karlsson, Banverket*

13:00 13:20 **Control charts for assessment of linear asset condition using both temporal and spatial information**  
Bjarne Bergquist and Peter Söderholm

13:20 13:40 **Information logistics for continuous dependability improvement**  
Per Norrbin and Peter Söderholm

13:40 14:00 **Holistic Maintenance Information with Multi-layers of Contractors**  
Mikael Palo, Isabelle Lindsund and Per-Olof Larsson-Kråik

14:00 14:20 **Information Logistic Solutions for Dynamic Maintenance Programme**  
Peter Söderholm, Ramin Karim and Alireza Ahmadi

14:20 14:40 **Evaluation of Data for Traction Frequency Converters: Using the IEEE Std 762**  
Yasser Mahmood, Alireza Ahmadi and Ramin Karim

### Closing Session

Coffee break

**Session VII (eMaintenance IV) - [ROOM]**

*Chaired by: Prof Kondo Adjallah, Ecole Nationale d'Ingénieurs de Metz*

**New Idea to Estimate the Reliability and Failure Probability with quantitative Methods for Critical Applications**  
Ossmane Krini and Josef Börcsök

**Modified Physics of Failure approach for prediction of Electronic Components**  
Adithya Thaduri, A K Verma, Gopika Vinod, Rajesh Gopinath and Uday Kumar

**eMaintenance Related Ontologies**  
Mustafa Aljumaili, Karina Wandt and Ramin Karim

**Information Security in eMaintenance – a study of SCADA Security**  
Yamur K. Al-Douri, Mustafa Al-Jumaili and Ramin Karim

**Session 8 (eMaintenance V) - [ROOM]**

*Chaired by: Prof Tore Markeset, University of Stavanger*

**e-Monitoring for haul road maintenance in mining applications**  
PS Heyns, HM Ngwangwa, T Heyns and SF van der Westhuizen

**CMMS Benchmarking Development in Mining industries**  
Yonas Lemma, Stephen M. Famurewa, Diego Galar, Håkan Schunnesson and Jonas Fiellner  
**Urban Road Transports E-maintenance, supported in HMM**  
António Simões, José Torres Farinha, Inácio Fonseca and Fernando Maciel Barbosa

**A new approach for the diagnosis of maintenance state**  
Hugo Raposo, José Torres Farinha, Inácio Fonseca and Luís Andrade Ferreira

**Lean versus Kanban - An Actual Paradigm**  
Pedro Dias, José Torres Farinha, Inácio Fonseca and Luís Andrade Ferreira