**MONDAY  /  OCTOBER 3, 2011**

**REGISTRATION & BREAKFAST  / /  SPONSORED BY THE UNIVERSITY OF CINCINNATI & PROVOST SANTA ONO**

Santa Ono // Senior Vice President for Academic Affairs and University Provost, University of Cincinnati

Biju George // City of Cincinnati, Director, Greater Cincinnati Water Works

Dr. James "Dr. T" Truchard // CEO, National Instruments

**MARY BURD sad // IBM**

**MORNINGSKIM // SPONSORED BY THE IMS CENTER**

**ROOMS**

**PANELS**

**PLENARY PANEL**

Transforming Needs for Future Smart Asset Management

CONVENER / CHAIR

Jay Lee

Eminent Scholar & Director

IMS Center

**OVERVIEW**

Leaders in asset management will discuss cutting-edge, transformational technologies, methods, solutions and future trends, for smart asset management systems.

**SPONSERED BY THE IMS CENTER**

**AFTERNOON BREAK**

**ROOMS**

**NATIONAL INSTRUMENTS**

**PHM TOOLS HANDS-ON DEMO SESSION**

**ROOM 206  1:30 PM**

**3:00 PM  AFTERNOON BREAK**

**ROOMS**

**PANEL SESSION**

Needs in Advanced Diagnostics & Prognostics for Military Vehicles

CONVENER

C. Ly

K. Tan

**WORKSHOP SPEAKERS**

Eric Buehler

Jeff Banks

Applied Research Laboratory, Penn State

Stuart Kirby

AMS

Andy Hess

The Hess Phil Group

**OVERVIEW**

This session will highlight the state-of-the-art in lean manufacturing philosophy and technology in German manufacturing industries today through discussions with asset management experts from Daimler, Detroit Diesel and Audi, among others.

**ROOM 207**

**WORKSHOP**

Lean Manufacturing for Factory 2.0

CONVENER

Franz Gruber

FORTRAN GmbH

**WORKSHOP SPEAKERS**

Eric Buehler

Daimler AG

Johannes Kuhn

Detroit Diesel

Mohamed Alwail

M��Emter

TDI

**OVERVIEW**

This session is for state-of-the-art e-maintenance for lean manufacturing.

**ROOM 208**

**WORKSHOP**

MPPT: Technical Tools & Capabilities for state-of-the-art EAM (Part 2)

CONVENER

Chris Panzner

MPPT

**WORKSHOP SPEAKERS**

Fred Discenzo

Rockwell Automation, MPPT

Bill Marzec

Mechanical Solutions, MPPT

Simon Jensey

Impact Technologies, MPPT

**OVERVIEW**

This session will focus on the latest developments and trends in MPPT technology and its applications in asset management.

**ROOM 211**

**PAPER SESSION I**

E-maintenance

Chair // A. Parida

**OVERVIEW**

This session will focus on the latest developments and trends in e-maintenance technology and its applications in asset management.

**ROOM 212**

**PAPER SESSION II**

Lean Manufacturing for Factory 2.0

Chair // David Siegel

**OVERVIEW**

This session will focus on the latest developments and trends in lean manufacturing technology and its applications in asset management.

**ROOM 203**

**PAPER SESSION III**

Decision Support Innovations for Strategic Asset Management

Chair // Konda Ajith

**OVERVIEW**

This session will focus on the latest developments and trends in decision support technologies and their applications in strategic asset management.

**ROOM 206**

**HANDS-ON DEMO SESSION**

**1:30 PM**

NATIONAL INSTRUMENTS

PHM TOOLS HANDS-ON DEMO SESSION

**ROOM 206**

**1:30 PM**

**5:30 PM**

**ROOMS**

**NATIONAL INSTRUMENTS**

**HANDS-ON DEMO SESSION**

**ROOM 206**

**1:30 PM**

**5:30 PM**

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**1:30 PM**

NATIONAL INSTRUMENTS

PHM TOOLS HANDS-ON DEMO SESSION

**ROOM 206**

**1:30 PM**

**5:30 PM**
VIEW ALL
ROOM 207
ROOM 208
ROOM 211
ROOM 212
ROOM 213

PAPER SESSION 4
Maintenance Innovation Chair: U. Kumar
ROOM 208

WORKSHOP 4
MPTP Technical Tools & Capabilities for state-of-the art EAM [Part 2]
ROOM 211
CONVENER Chris Parnfet
WORKSHOP SPEAKERS
4043 // An Illustrated Tour of the Prognostics & Health Management (PHM) World, R. Hajj

WORKSHOP 4
Advanced Oil Analysis Chair: J. Aracan
ROOM 212
CONVENER Jorge Aracan
WORKSHOP SPEAKERS
4047 // Estimating the Loading Condition of a Diesel Engine Using Instantaneous Angular Speed Analysis, T. Lin

PAPER SESSION 5
Decision Support Innovations for Strategic Asset Management [Cont]
ROOM 213
CONVENER Chris Parnfet
WORKSHOP SPEAKERS
4049 // A Proposed Decision Making Model for Prioritize Building Elements Maintenance for Achieving Sustainability in Community Buildings in Australia, P. Kaluta

WORKSHOP SPEAKERS
4050 // Reliability Analysis Based on Improved Dynamic Fault Tree, L. Wei

ROOM 203

PANEL SESSION
Maintenance for Sustainable Manufacturing Chair: U. Kumar

ROOM 207
PANEL SESSION
4 PANEL MEMBERS
Dimitri Kostakis Program Chair
Program International MTP Workshop

ROOM 208
PANEL SESSION 4 PANEL MEMBERS
Marco Geetti Raphaêlo de Melo, Italy Matheus Brasil
NIST, USA
Dilvanda Shenmanitissa
Athens RC, Greece
Carlos Eduardo Pereira CITA-SINTEF, Brazil

ROOM 211
PAPER SESSION 4 PANEL MEMBERS
Fred Deaneiro
Rockwell Automation, MFPT

WORKSHOP SPEAKERS
4042 // M-Ary Trees for Combinatorial Asset Management Decision Problems, S. Chakraborty

WORKSHOP SPEAKERS
4045 // Condition Monitoring of Remote Assets: Understanding a Complex Autonomous Industrial Network, M. Alsuhi

WORKSHOP SPEAKERS
4046 // Victory Cloud Service Platform, H.A. Kao

WORKSHOP SPEAKERS
4048 // Algorithm Cloud Service Platform, H.A. Kao

ROOM 212
PAPER SESSION 5 PANEL MEMBERS
Jorge Aracan Technical Chair

WORKSHOP SPEAKERS
4051 // Physics of Failure Based Reliability Assessment of Electronic Hardware, S. Menon

WORKSHOP SPEAKERS
4052 // Proactive Fleet Health Monitoring & Management, B. Iung

WORKSHOP SPEAKERS
4053 // Life & Reliability Prediction of the Multi-stress Accelerated Life Testing Based on Grey Support Vector Machines, F. Sun

ROOM 213
PAPER SESSION 5 PANEL MEMBERS

2:30 - 3:00 PM
10:30 - 11:00 AM
11:00 - 12:30 PM
3:00 - 3:30 PM
PAPER SESSION 4
SUNROOM 203
Chair: J. P. Lyngaae
0011 / Managing Risks in Service Value Networks, T. Vujaklievich
0012 / Towards an Asset Management Reference Model: Black for a Louis Approach, Y. Rifkis
0013 / Performance Prediction for Sustainability in Complex Production Networks of a Ramp, J. Bar
0014 / Modeling of Age Dependent Failure Tendency From Incomplete Data, P. Hagenk
0016 / Fusion of GIS/MS Data & OR Data, D. Gakar

PAPER SESSION 5
SUNROOM 204
Chair: Y. Rifkis
0017 / Weakest Analytical Fault Feature Extraction of Winding Bearing, Z. Yang
0018 / Failure Mode Analysis Based On MRF-Nanny Models of Gathering System, J. Luo
0019 / Application of a Unified Reference Model Across Asset Types: Comparative Case, Y. Virginia
0020 / A Review of Machinery Diagnostics & Prognostics Implemented on a Centrifugal Pump, K. Mokha
0021 / Condition-Based Monitoring of a Centrifugal Pump Using Multilayer-Topaz System, J. Sannapraga
0022 / IEI-Brand Based Asset Management of Time Temperature Sensitive Materials, M. Zdenikov
0023 / Experimental Validation of LS-BM Based Fault Identification in Analog Circuits Using Frequency Features, A. Waleda
0024 / Gearbox Fault Diagnostic Using Two-Dimensional Wavenet Transform, M. Hazen

3:30 - 3:50 PM
WORKSHOP / CONTINUED
SUNROOM 206
Chair: J. P. Lyngaae
0025 / Improving the Interoperability of Asset Management System, N. Sannapraga

3:50 PM
PRESENTATION: SIGSC 2012 + CLOSING REMARKS

// WORLD CONGRESS 2011 + IAB 22 DINNER EVENT // IB BER RIVERBOATS // 6:00 PM - 9:30 PM //
### IMS CENTER 22ND INDUSTRIAL ADVISORY BOARD MEETING

**WEDNESDAY / OCTOBER 5, 2011**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 - 8:30 AM</td>
<td>BREAKFAST <strong>ROOMS MAIN ROOM</strong></td>
</tr>
<tr>
<td>8:30 - 10:30 AM</td>
<td>OVERVIEW <strong>ROOMS MAIN ROOM</strong> &lt;br&gt;IMS members, collaborators and advisors will convene to discuss the many ways in which the IMS Center has impacted their organizations. This panel will feature representatives from global companies, universities, and research organizations.</td>
</tr>
<tr>
<td>10:30 - 11:00 AM</td>
<td>MORNING BREAK <strong>ROOMS MAIN ROOM</strong></td>
</tr>
<tr>
<td>11:00 - 12:30 PM</td>
<td>OVERVIEW <strong>ROOMS MAIN ROOM</strong> &lt;br&gt;EXHIBITION OF IMS TECHNOLOGIES + POSTERS</td>
</tr>
<tr>
<td>12:30 - 1:30 PM</td>
<td>LUNCH <strong>ROOMS MAIN ROOM</strong></td>
</tr>
<tr>
<td>1:30 - 3:15 PM</td>
<td>OVERVIEW <strong>ROOMS MAIN ROOM</strong> &lt;br&gt;LIFE FORMS &amp; FEEDBACK SESSION</td>
</tr>
<tr>
<td>3:15 - 3:30 PM</td>
<td>AFTERNOON BREAK <strong>ROOMS MAIN ROOM</strong></td>
</tr>
<tr>
<td>3:30 - 5:00 PM</td>
<td>OVERVIEW <strong>ROOMS MAIN ROOM</strong> &lt;br&gt;IMS Researchers will respond to feedback received from IMS Members concerning the projects presented in Tuesday’s IAB sessions. Attendees are also welcome to ask additional questions.</td>
</tr>
<tr>
<td>5:00 PM</td>
<td>ADJOURN <strong>ROOMS MAIN ROOM</strong></td>
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</tbody>
</table>

**10 YEARS OF BRINGING IMPACTS TO MEMBERS**

IMS members, collaborators and advisors will convene to discuss the many ways in which the IMS Center has impacted their organizations. This panel will feature representatives from global companies, universities, and research organizations.

**EXHIBITION OF IMS TECHNOLOGIES + POSTERS**

- **SMART BATTERY**
- **CLOUD-BASED MACHINE HEALTH MONITORING** // IMS CENTER, III, TECHSOUL
- **WIND TURBINE PHM**
- **FORD**
- **MST DEMO**
- **MST DEMO**

**LIFE FORMS & FEEDBACK SESSION**

IMS Researchers will respond to feedback received from IMS Members concerning the projects presented in Tuesday’s IAB sessions. Attendees are also welcome to ask additional questions.

**CLOSED DOOR SESSION**

IMS Center Members Only
Don’t Miss NI at WCEAM 2011

Keynote and Paper Sessions

**Monday, October 3 from 8:30 – 10:30 a.m.**
Keynote: Graphical System Design Approach Accelerating the Evolution of Asset Management

**Monday, October 3 from 3:30 – 5:00 pm in Room 207**
Session: Commercialization of Prognostics Systems Using Commercial Off-the-Shelf Technologies

**Tuesday, October 4 from 1:30 – 3:30 pm in Room 208**
Session: Clouds of Technical Data Promise to Aid Asset Management
Session: Surviving Data Storm Using Rich Data Structures at Data Recording & Data Warehouse

**Wednesday, October 5 from 8:30-10:30 am in the Main Room**
Panel: 10 Years of Bringing Impacts to Members

**NI LabVIEW™ Hands-On Tutorial Session**
Learn how LabVIEW can help with your prognostics and health management needs.

**Monday, October 3: 1:30 – 3:00 p.m.**
**Tuesday, October 4: 3:30 – 5:00 p.m.**
Both sessions are held in Room 206. All skill levels welcome. No pre-registration required.

**NI Display in the Exhibitor Area**
Visit the NI table to see live demos and get your questions answered by our technical experts.

For more information, visit ni.com/mcm
Condition Monitoring

Machine condition monitoring can help your organization stop unscheduled outages, optimize machine performance, and reduce repair time and maintenance costs. National Instruments provides both online embedded condition-based monitoring systems and more powerful factory test systems. NI hardware and software are used in condition monitoring systems deployed on a variety of turbines, compressors, generators, and other industrial machines.

Benefits of Using NI

- Reduce development time without sacrificing performance
- Perform online analysis with algorithms developed in any programming environment
- Easily implement future improvements with open modular hardware platforms
- Improve your application by installing it on future NI hardware that is more powerful

The right tools for the job – NI PXI, NI CompactRIO, NI CompactDAQ, and NI LabVIEW

For more information, visit ni.com/mcm