

Center for Intelligent Maintenance Systems
12th Industrial Advisory Board Meeting
Tuesday Nov 14th

7:30AM	Registration and Breakfast
8:00AM	Host Welcome– Dr. Wayne Huebner (Vice-Provost for Research, UMR) – Mark Calkins (Manager of Service Operations, Boeing)
8:20AM	IAB Chairman’s Address and Introduction of Attendees
8:35AM	Remarks by the NSF Program Director and New Opportunities
8:50AM	Directors’ Remarks: Professors Jay Lee, Jun Ni & Jag Sarangapani, IMS Co-directors (IMS Overview and Short Introduction of the Demonstration Projects)
9:20AM	Technical Presentations from the Center Sites <ul style="list-style-type: none"> • Watchdog Agent™ Toolbox–Lei Yang (UC)(15 min) • Smart Machine: Health Assessment of Spindle Bearing–Linxia Liao “Leo” (UC)(15 min) • Toyota Compressor: Surge Modeling and Control–Yaoyu Li (UC)(15 min) • Komatsu Engine: Health Assessment and Prediction–Takahiro Ueda (UC)(15 min)
10:20AM	Break
10:30AM	Technical Presentations from the Center Sites <ul style="list-style-type: none"> • Industrial Network Health Monitoring & Diagnostics– Yong Lei (UM) (15 min) • Event Driven Performance Assessment Applied to Tool Changer Monitoring– Jianbo Liu (UM) (15 min) • Intelligent Maintenance Decision-Making– Seung Chul Lee (UM) (15 min) • Divide and Conquer Approach to Anomaly Detection and Fault Diagnosis for Controlled Dynamic Systems– Roberto Torres (UM) (15 min)
11:30PM	Lunch Break
12:30PM	Technical Presentations from the Center Sites <ul style="list-style-type: none"> • Industrial Monitoring and Control using Wireless Multi-hop Networking Protocols and Motes – James Fonda and Dr. Maciej Zawodniok (UMR) (15 min) • Spool Sticking Diagnostics and Root Cause Analysis for Pneumatic Systems – Jeffrey Birt and Dr. Laks Meyyappan (UMR) (15 min) • Energy Harvesting for Wireless Motes – Shahab Mehraeen (UMR) (15 min) • Trending Prognostic Agent with Applications to Compressor Valve and Seal Failure Prediction-Balaje T. Thumati and Neha Bassi (UMR) (15 min)
1:30PM	Demonstration of the Projects <ul style="list-style-type: none"> • Smart Machine: Health Assessment of Bearing and Automatic Tool Changer–Linxia Liao and Mark McCrate (UC) (15 min) • Rotor Health Monitoring using the Method of Support Vector Machine– Mark McCrate (UC)(15 min) • Advanced Anomaly Detection in an Electronic Throttle Control System of an Automotive Engine– Jianbo Liu (UM) (15 min) • Anomaly Detection with a Tool-Changer Datalog– Adam Brezezinski (UM) (15 min)

	<ul style="list-style-type: none"> • Product Quality Monitoring and Onboard Diagnostics using Mobile Mote-based Networking– Reghu Anguswamy and James Fonda (UMR) (15 min) • Energy Harvesting for Onboard Mote-based Prognostics – Shahab Mehraeen (UMR) (15 min)
3:00PM	Break
3:10PM	Poster Session and Demonstrations <ul style="list-style-type: none"> • Poster Demo 1: Prognostics Agent (or Watchdog Agent™) on the Mote– Linxia Liao (UC), Dragan Djurdjanovic (UM), Reghu Anguswamy, Balaje Thumati, Neha Bassi and Tarun Balachandran (UMR) (12 min) • Poster Demo 2: Spool Sticking Diagnostics and Root Cause Analysis–Jeffrey Birt and Dr. Laks Meyyappan (UMR) (12 min) • Poster Demo 3: RFID based Inventory Management and Scheduling–Anil Ramachandran, Maheswaran Thiagarajan and Ahmet Soylemezoglu (UMR) (15 min) • Open Poster Session
5:00PM	Open Discussions and Industry Q/A
5:30PM	Adjourn
6:00PM	Reception with cash bar at the hotel, Dinner to follow Speaker: Integrated Vehicle Health Mgmt in the Aerospace Industry –Keith Sellers Program Manager, Integrated Vehicle Health Management Boeing Phantom Works

Wednesday Nov 15th

7:30 AM	Breakfast	
8:00 AM	LIFE forms Feedback Session	
9:15 AM	IMS Road Map Overview	
10:00 AM	Break	
10:15 AM	Industry Presentations (How company members plan to implement IMS tools and technologies? What are the needs of IMS members?)	
11:15AM	Breakout and Working Lunch	
12:30 PM	Group Presentations and Discussion	
1:30PM	Closed Door Session – <i>members only</i> <ul style="list-style-type: none"> • Multi-campus IMS Operations (Inter-Institution Agreement, IP) • Approval of IAB 11 Minutes • Institutional agreement (UC, UM, UMR) • Financial/Operational Report • New Business • Choose IAB 13 date 	This session is open only to IMS Members and selected guests as approved by IAB Chairman and Co-Directors IN ADVANCE OF MEETING.
2:30 PM	Adjourn	

Our web site:

www.imscenter.net