

Pre-Conference Workshop: IT, OT & IoT Convergence for Process and Product		
	Monday, March 6, 2017	
12.30pm	Registration & Welcome Refreshments	
12.50pm	Welcome Chair's Opening	
1.05pm	Transforming your Manufacturing Operations: The IoT Technical Advantage and Why It Matters  • Understand the IoT technology that is penetrating your world  • Learn to navigate the changing technology landscape once you've invested  • Fortify your plant's technology backbone for revenue growth, enterprise efficiency and greater customer relations  For further information on this session please email lucya@iob-media.com	
1.30pm	<ul> <li>Practical Considerations for Plant &amp; Enterprise IoT Integration</li> <li>How smart does your manufacturing operation need to be?</li> <li>How do you connect to the internet and cloud?</li> <li>Will this platform be developed in-house or will you need to use a third-party?</li> <li>Unpicking the security considerations</li> </ul> Lee Stogner, Chair of Communications, IEEE IoT Initiative	





1.55pm	Networking & Refreshment Break
2.15pm	<ul> <li>The Convergence of Business, IT &amp; IoT</li> <li>Are you ready? Learn to assess where you are in preparing legacy systems for IoT integration</li> <li>How can your organization capitalize on IoT whilst investing in IT upgrades?</li> <li>Cloud, app migration, open source development: build your innovation strategy</li> <li>For further information on this session please email lucya@iob-media.com</li> </ul>
2.40pm	<ul> <li>Addressing Critical Quality &amp; Operational Challenges Using Real-Time Manufacturing Data Analysis</li> <li>How do you align critical quality attributes with technology needs?</li> <li>What devices are need to capture data for optimal performance of people, plant assets, business processes, and workflow?</li> <li>How do I capture and interpret data, and stay updated with the changing industry landscape?</li> </ul> Senior Representative, CNH Industrial
	Tour of Digital Manufacturing & Design Innovation Institute
3.00 - 5.00pm	Digital Manufacturing & Design Innovation Institute Tour  The UI LABS' Innovation Center on Chicago's Goose Island is home to the  Digital Manufacturing and Design Innovation Institute.





In an exclusive, private tour, explore the 24,000 square foot manufacturing floor, and experience demonstrations, and insight into R&D, and prototyping. Led by DMDII's in-house engineers, the tour provides you with an overview of the connected equipment. You'll get first-hand experience in: Advanced analysis of data collection to enable manufacturing design • Intelligent machining to integrate smart sensors and controls for self-aware manufacturing Aggregating and integrating data through the manufacturing supply chain lifecycle The floor features state-of-the-art manufacturing equipment and technology on consignment from DMDII's partners. Get live demonstrations of equipment including: Multi-axis complex machines Highly sensitive measurement tools Augmented Reality visual work instruction system A sensor-driven conveyor belt Tour Guide: Dan Hartman, Director of Manufacturing Research and

5.00 pm

Tour concludes, transportation back to Hyatt Magnificent Mile

Development, UI LABS, and Digital Manufacturing Lead, Rolls-Royce





Conference Day One: Tuesday, March 7, 2017		
6.45 - 7.30am	loB Mixr Meet in the hotel lobby for a sociable run to Millennium Park and back!	
8.00 am	Registration & Welcome Refreshments	
8.50am	Internet of Business' Opening Remarks & Icebreaker Game	
9.05am	Chairperson's Opening Remarks	
	ROI & Business Buy-in	
9.15am	<ul> <li>Stay Ahead of the Curve &amp; Competition: Secrets to Innovation &amp; ROI from IoT Investment</li> <li>See how a traditional, heavy equipment manufacturer was transformed with connectivity</li> <li>Hear strategies that addressed organizational, financial, and innovation challenges encountered in this transition</li> <li>Stay ahead of the ever-sharpening IoT curve with advice on how to identify new business approaches, capabilities and partnerships to enhance the development of your products and services</li> <li>Juha Pankakoski, Chief Digital Officer &amp; CIO, Konecranes Plc</li> </ul>	





9.40am	Business Model Transformation & Encouraging Innovative Thinking		
	Changing board room mindsets to become a digitally native company		
	Understanding the first steps needed to shift from a hardware to software and services company		
	Establishing new business models and directing change management to ensure they adopted at every organizational level		
	For further information on this session please email <u>lucya@iob-media.com</u>		
10.05am	Achieving ROI in a New Industrial Era of Connectivity & Transparency		
	Overcome the challenges of recognizing revenue in industrial IoT		
	Use cases to resolve issues with supply chain, plant tooling, asset management and market delivery faster and more efficiently before they become expensive downtime problems		
	Realize process, product and customer-relation enhancement benefits as a true ROI		
	Nahel Gandhi, Global IT Director IOT, CNH Industrial		
10.30am	Getting the Data & Connectivity Bang for your IoT Investment Buck		
	Harness the power of the data you generate every day to effectively run a better and more profitable business		
	Learn how process and product-centric connectivity, IoT platforms and applications reduce the complexity of deployment		
	Gain knowledge from IoT deployment case studies that show the value of investment		
	For further information on this session please email <u>lucya@iob-media.com</u>		





10.55 - 11.35am	Networking & Refreshment Break	
11.00 - 11.35am	One-to-One Business Meetings  Network with tech innovators that address your current priorities in these pre-arranged and mutually agreed meetings.  A valuable platform for educating yourself on the latest technology and making informed decisions for your IoT strategy.	
11.35am	<ul> <li>Implementing 21st Century Smart Manufacturing</li> <li>Hear how this specialty material maker became a smart manufacturer by combining multiple capabilities: integrating measurements, controls, computing platforms, modeling and analytics</li> <li>Improved process and product development and manufacturing performance</li> <li>Reduce manufacturing cost within plants and across the supply chain</li> <li>Representative from Smart Manufacturing Leadership Coalition</li> </ul>	
12.00 - 1.00pm	Manufacturer Led Roundtable Discussions	
within your leader to w	ne of our four working groups led by manufacturers to discuss advances business and brainstorm challenges. Spend 40 minutes with your group work through the questions left in a golden envelope on your table, before ing with the full audience the conclusions your group has come to.	
Group A	IIoT: What Manufacturers Should Know What does IoT actually mean to your business? There are so many new technologies to watch, it is difficult to discern which will bring value. From machine-to-machine, to data analytics, to the cloud, to virtual and augmented reality, the technology is as vast as it is confusing. Find out what you need to know or share what you do know.	





Group B	Choosing a Platform, Transitioning from SCADA to IoT SCADA, a system tried and true among many manufacturers and the ultimate precursor to IoT. This roundtable will cover how to retro-fit SCADA with IoT. Do you need to rip out perfectly functioning sensors that are already hard-wired? How can you make that transition effectively and economically?	
Group C	Cybersecurity Considerations for Manufacturers Your manufacturing process and intellectual property are targets. The Homeland Security's Industrial Control Systems Cybersecurity Emergency Response Team, or ICS-CERT, responded to a total of 295 cyber incidents, up 20 percent from the previous fiscal year. This roundtable discusses the imminent threats and strategies you can take to minimize risks and prevent attacks.	
Group D	The Cloud, The Fog & The Edge Cloud, fog, and edge computing are being employed by manufacturers to manage, analyze and translate data into business insights. Break down the similarities and differences between the approaches being used in operation and decide which is best for your production.	
1.00 - 2.15pm	Lunch & Refreshment Break  Visit the exhibition floor and experience our Hands-on Demos!	
1.15 - 2.15pm	One-to-One Business Meetings  Network with tech innovators that address your current priorities in these pre-arranged and mutually agreed meetings.  A valuable platform for educating yourself on the latest technology and making informed decisions for your IoT strategy.	
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	Bringing Business Benefits	IT & Change Management
2.15pm	Key Steps to a Successfully bringing IoT to Business at Scale  Discover how to navigate the IoT landscape successfully by:  • Identifying your core business value  • Connecting your product and structuring data related to it to build business value  • Managing your connected devices to create actionable insight  • Engaging your products and customers in new ways across systems  • Achieving automation for business gains  Learn how Caterpillar has successfully replicated processes for expanding product lines, and implemented state-of-the-art IoT initiatives for new ones.  Terri Lewis, Digital & Technology Manager, Energy & Transportation, Caterpillar, Inc.	IoT Lifts Elevator Maintenance to the Cloud  • Hear how thyssenkrupp Elevator created a connected asset monitoring system and leveraged a new IoT platform to connect thousands of sensors and systems from elevators to the Cloud  • Gain first-hand knowledge of how to manage a new plethora of data across devices to give real-time insight into key performance indicators  • Gain strategies and findings revealing increased reliability through predictive maintenance, rapid and remote diagnostic capabilities  Scott Day, Executive Vice President of Product and Business Strategy, thyssenkrupp Elevator





2.40pm	More than Just Cost Savings: How IoT Can Drive Top Line Growth for Manufacturers  While Industrie 4.0 discussions have been dominated by talk of efficiency savings, this session will explore how IoT can support global growth and product innovation plans.  You will learn:  How IoT is enabling insight-driven improvements to the production process  The role of IoT in driving innovation in product development  How IoT can enable more customisable products  IoT supporting sustainability targets through enhanced process insight  For further information on this session please email lucya@iob-media.com	Outfitting Your Architecture for Data Analytics  • Understand the true challenges when evolving to data-driven architectures  • Select the right connectivity devices and platforms, while allowing your operation to evolve with those changing technologies and market demands  • Leverage data for better business and value chain partner satisfaction  For further information on this session please email lucya@iob-media.com
3.05pm	PANEL DISCUSSION: The Role of the Customer in Optimizing IoT Predictive Maintenance  • How do I maximize process and product efficiencies and reliability through IoT connections	PANEL DISCUSSION: IT & Change Management  • How can IT support new business approaches to lifecycle management and help to reduce costs and remain flexible?





	<ul> <li>with my product's endusers?</li> <li>How should I leverage data to achieve increased up-time and fewer field-service calls through?</li> <li>How do I improve machine performance using compliance and specification data?</li> <li>Moderator: Dr. Gloria J. Wiens, FloridaMakes Director for Advanced Manufacturing, ICAMR, Associate Professor, Department of Mechanical &amp; Aerospace Engineering, University of Florida</li> <li>Alexander Nazarov, Engineering Functional Excellence Manager, COE, Cummins Inc.</li> <li>Satyam Priyadarshy, MBA, Ph.D., Chief Data Scientist, Halliburton</li> </ul>	<ul> <li>How to develop methods for correlating layered data to troubleshoot faster and fix problems sooner</li> <li>How do I rally the team and collaboratively transition my Operations and IT departments to achieve business goals that benefit the enterprise?</li> <li>Moderator: Mike Yost, President, MESA International         <ul> <li>Juha Pankakoski, Chief Digital Officer and CIO, Konecranes Plc</li> <li>Tom McDermott, Chief Manufacturing Officer, UI LABS</li> </ul> </li> </ul>
3.45- 4.15pm	Networking & Refreshment Break	
3.55 - 4.15pm	One-to-One Business Meetings  Network with tech innovators that address your current priorities in these pre-arranged and mutually agreed meetings.	





	A valuable platform for educating yourself on the latest technology and making informed decisions for your IoT strategy.	
	Perfecting Process & Product Lifecycle Management	Cybersecurity in the IoT Realm
4.15pm	Driving Costs Down & Efficiency Up with "Closed-Loop" Product Lifecycle Management  • Use IoT to tackle visibility gaps to enable quality management from suppliers to the customer  • Take traceability to higher and more flexible levels for improved quality and efficiency  • See how increased visibility economizes for more tractable supply chain management  Alexander Nazarov, Engineering Functional Excellence Manager, COE, Cummins Inc.	Protecting the Digital Thread: Cybersecurity for Defense Advanced Manufacturing  • Gain critical insights into how National Defense Industrial Association (NDIA) and the Department of Defense (DoD) are working together to define the scope and nature of cybersecurity for manufacturing  • Learn how the NDIA and DoD can help manufacturers to preserve and protect the continuously evolving manufacturing capabilities that will be key to national security within the context of the Industrial Internet of Things (IIoT)  Larry John, Ph.D., Principal Analyst, ANSER
4.40pm	Leading Business Change & Shaking Up Traditional Approaches to Product Development	Understanding Threats & Managing Risks: Tackling the New Problem of Data Security
	<ul> <li>Inspire interdepartmental and supply chain</li> </ul>	<ul> <li>Hear analysis of today's cyber threat landscape, and the solutions, standards and technologies that are available</li> </ul>





	collaboration to enable your operation's IoT evolution	to manage and secure IoT platforms and data
	Determine your needs and formulate a budget for successful IoT deployment	<ul> <li>Expand your knowledge in the technical, operational and regulatory hurdles associated with connected IoT ecosystems</li> </ul>
	<ul> <li>How to fully realize your loT platforms' potential and sustainability</li> <li>Encourage design and manufacturing to work together to speed up time to market</li> <li>For further information on this session please email lucya@iob-media.com</li> </ul>	<ul> <li>Benchmark your operation to see what practices and tools are available to mitigate security risks and breaches. Steps to protecting your intellectual property and equipment from hacks</li> <li>Understand how to maintain customer confidentiality and maintain data integrity with customers</li> <li>For further information on this session please email lucya@iob-media.com</li> </ul>
5.05pm	Seamless Work Flows from Concept to Final Product	Security as the First & Last Part of IoT Strategy
	<ul> <li>Hear the latest updates on how digitally connected manufacturing floors will soon operate using cutting-edge technology</li> <li>Get the latest updates on the UI LABS' Digital Manufacturing and Design Innovation Institute's work to champion the next industrial revolution</li> </ul>	<ul> <li>Determine your own cybersecurity risk management framework for the assessment and assurance of cybersecurity for smart manufacturing systems while maintaining performance, reliability, and safety requirements</li> <li>Understand the of types of risk and threats, and the tools for smart manufacturing systems that offer security and resiliency if and when a disruption occurs</li> </ul>





	Learn how DMDII     demonstrates to     manufacturers     throughout the United     States how to go digital  Tom McDermott, Chief Program     Officer, and Interim Executive     Director for the Digital     Manufacturing and Design     Innovation Institute (DMDII), UI     LABS	Hear the latest strategies and recommended practices for manufacturers to detect and prevent attacks  Dwayne Smith, Director Global Cybersecurity Engineering, Cummins Inc.
5.30pm	Close of Day 1 followed by the IoB Mixr Night Join us for a sociable evening, fun and continued networking!	



Cor	ference Day Two: <b>Wednesday, March 8, 2017</b>
8.00am	Welcome Refreshments
8.50am	Chairperson's Opening Remarks  Peter DeNagy, Co-Chair, Internet of Things Forum, North Texas Technology Association, "Tech Titans"
Trans	lating Smart Technologies into Smart Manufacturing
9.00am	<ul> <li>Increasing Internal Reliability with Smart Asset IoT Technology</li> <li>See how the aerospace industry influenced National Oilwell Varco's adoption of IoT technology</li> <li>Learn how to maximize internal reliability, while giving customers predictive tools to minimize downtime</li> <li>Unlock valuable information that allows you to learn from machines</li> <li>Ashe Menon, VP Global Manufacturing, National Oilwell Varco</li> </ul>
9.25am	<ul> <li>Driving Value with Open Architecture: The Smart Device, Manufacturing &amp; Data Combination</li> <li>Gain applicable knowledge to benchmark your own roll-out of loT-based manufacturing execution systems</li> <li>See how getting the right data and the right time can maximize initial product quality and process efficiencies, tracking part usage and real-time monitoring of product assembly specifications and visualization of tooling performance</li> </ul>





	Learn to pass the data value proposition to customers, providing preventative maintenance to avoid equipment failures  For further information on this session please email <a href="mailto:lucya@iob-media.com">lucya@iob-media.com</a>
9.50am	SPOTLIGHT SESSION: Power Tool Maker Increases Visibility & Decreases Complexity with Machine Learning, Data Science & IoT technologies  Learn how Stanley Black & Decker is using world-class machine learning and data science techniques to optimize manufacturing operations.  Augment your quality control by giving production managers visibility at every step of the manufacturing process and the ability to not only proactively address potential problems, but also to detect slow-running jobs and schedule problems- in real time.  Decrease bottlenecks, achieve greater labor efficiency, better use of critical resources for improved utilization rates, product quality improvements, and proactively respond to potential problems (before they become major issues).  Get insight into how:  • Analysis of machine data led to understanding the root causes of downtime  • Advanced analytic techniques enable state-of-the-art predictive maintenance  • Immediate notification of issues made for faster decision making  • Global data fusion provides an unprecedented global view of operations  *Robert Coop, Ph.D., Sr. Data Scientist, Big Data & Analytics, Digital Accelerator, Stanley Black & Decker
10.15am	IoB Start-Up Showcase: Venture Capitalist Visions for IIoT  Hosted by Internet of Business' Editor, Doug Drinkwater, this session showcases the latest start-up innovation being brought to the manufacturing industry.  Get Venture Capitalists' perspectives on new market trends and products, and take a vote as start-ups pitch on stage.





	Take the opportunity to discover the approach to smart manufacturing!  Host: Doug Drinkwater, Editor, Inter  VC Judges:  Scott MacDonald, Co-Founder Capital Saurabh Sharma, Principal, Judges: Ashu Katyal and Eric Yates, co	er and Managing Director, Mc Rock
11.00- 11.40am	Networking & Refreshment Break	
11.00- 11.40am	One-to-One Business Meetings Network with tech innovators that address your current priorities in these pre-arranged and mutually agreed meetings.  A valuable platform for educating yourself on the latest technology and making informed decisions for your IoT strategy.	
	Data Driven Profitability	Connectivity & Interoperability
11.40am	Sowing the Seeds of IoT: How Connectivity Lowers Labor Costs &Increases Yield  • Hear how IoT visualization technology has revolutionized agricultural seed engineering, automating a once laborintensive task, and saving millions	Building a Device for Connected Health: Utilizing Connectivity in Durable Products  • Survey product connectivity and interoperability opportunities, ranging from product design to consumer engagement  • Evaluate design considerations for durable





•	Learn and apply data
	generating and deciphering
	strategies that allow
	Monsanto to produce better
	crop products

 Gain insights on how that data is disseminated to customers - farmers - who reap the benefits of greater yields from sensors that monitor field conditions

Atif Khan, Senior Manager Information Systems & Equipment Automation, The Climate Corp. a Monsanto Company products with connected components

 Understand the implications of connectivity and smart platforms on manufacturers' value chains

Sam Bradley, Director of Product, Briggs Healthcare

## 12.05pm

## Getting Ready: Competing with Data Analytics

- Gain greater insights on how to empower your organization by integrating, transforming and orchestrating machine and sensor data to drive operational excellence
- Meet complex product and manufacturing challenges by combining and categorizing sensor and machine data to elucidate meaningful patterns that maximize efficiencies and reduce downtime
- Learn who is using this technology to drive revenue

For further information on this session please email <a href="mailto:lucya@iob-media.com">lucya@iob-media.com</a>

## Facilitating Product Design & Speed to Market with Interoperable Manufacturing Simulation Platforms

- Achieve collaboration across all design and production disciplines with connected simulations; visualization through customized software via telecom network platforms
- Maximize development, while lowering R&D costs through real-time product design, update and production outcomes
- Show your customers a glimpse into the future of process and product, plus the ROI IoT brings

For further information on this session please email <a href="mailto:lucya@iob-media.com">lucya@iob-media.com</a>





12.30pm	<ul> <li>Retooling Legacy Systems for Data-Rich IIoT</li> <li>Learn how Bosch Rexroth fortified its legacy systems to enhance communication and enable remote access, monitoring and control</li> <li>Discover the intricacies of a system that communicates with engineers and plant managers through touchscreen interfaces as well as other machines that are connected within the network for real time, production management</li> <li>See the savings in reduced operating costs and the benefits of transparency and predictability for customers</li> <li>Allen Tubbs, Product Manager,</li> </ul>	Interoperability Key to Mastering the Digitalized World  • Get the latest updates on developing guidance and recommended practices for encoding-independent standardization and harmonization of information and data models for use with IoT deployments  • Hear strategies to ensure sensors, software, and other IoT components are compatible before technology convergence  Thomas Burke, President & Executive Director, OPC Foundation
12.55-	Bosch Rexroth  Lunch & Networking	
2.00pm	Lanen a rectworking	
1.15 - 2.00pm	One-to-One Bu  Network with tech innovators that a these pre-arranged and mutually ag  A valuable platform for educating your making informed decisions for your	reed meetings.  ourself on the latest technology and





	Optimizing your Digital Workforce	Standards & Software
2.00pm	PANEL DISCUSSION: Future Manufacturing Workforces & Robot-Human Collaboration  • Gain insight into how digitalization does not necessarily mean people are completely removed from the process  • Learn how workers have adapted and honed their skill-set to adjust and be effective in an IoT-enabled manufacturing environment  • Consider how wearables and collaborative robots will fully realize the potential of factories of the future  Moderator: Sridhar Kota, Ph.D., MForesight-Alliance for Manufacturing Foresight, University of Michigan  Panelists:  - Ashe Menon, VP Global Manufacturing, National Oilwell Varco  For further information on this session please email lucya@iob-media.com	PANEL DISCUSSION: Towards a Global Standard  Discussing the implications of the convergence between Industrie 4.0 and IIC standards  Panelists will unpick:  • Advances in the combination of the two reference architectures - RAMI4.0 and IIRA  • Successful examples where the two standards have been brought together in manufacturing for the first time  • The implications for cross-border business opportunities  • How to accelerate the adoption of IoT in industrial contexts  For further information on this session please email lucya@iob-media.com





2.75nm	The Cuture of the Westsferres in	Connected Draducts 0
2.35pm	The Future of the Workforce in an Age of Self-Organizing Factories  In the factory of the future, machines will organize themselves, delivery chains will automatically assemble, and orders will flow directly into the production process. Yet people will remain essential in an Industrie 4.0 world – as the creative leaders and thinkers.  This age is arriving sooner than you think so how are you preparing to develop the next generation manufacturing workforce?  • Exploring the new skills and competencies required for employees in a digital age – from development through to production and sales?  • What new opportunities and jobs will be created as a result of IoT?  • How can manufacturers fulfil the need for more creative working processes and skills?  For further information on this session please email lucya@iobmedia.com	Connected Products & Connected Operations  • Learn how data from these two streams can transform our business and products  • Define the value proposition of the use case to the business or customer  • Identify use-cases and inherent risks  • What kind of budget will you need?  For further information on this session please email lucya@iob-media.com
7,0000	Deceming an IoT Ambassador	Collaborating to Mavimize
3.00pm	<ul> <li>How to be the one to champion your company's overall IoT vision, message, and architecture</li> </ul>	Collaborating to Maximize Interoperability in an Open Source Software Project  • Delve into the role of open source platforms for connecting key players, and





3.30- 4.00pm	<ul> <li>Apply one-on-one interaction across the enterprise to produce successful implementations</li> <li>Fortify your thought-leaders to solve complex problems</li> <li>Foster communication and consensus, costeffectiveness and understanding to continually enable your organization's versatility</li> <li>For further information on this session please email lucya@iobmedia.com</li> <li>Networking &amp; Refreshment Break</li> </ul>	analyzing and distributing data to transform manufacturing  • Understand supplier OEM/supplier interoperability and the role of open source platforms to increase efficiency across product development  James Barkley, director of Digital Manufacturing Commons (DMC), Digital Manufacturing and Design Innovation Institute
4.00pm	for not only capturing, but als data	analytical methods and technologies o for categorizing and retrieving  data seamlessly with existing IT  data management by to upgrade platform to meet
4.30pm	The Ins & Outs of Smart Manufacture Hatter  • Discover why the convergence digital technologies is just the	e of manufacturing capabilities and





	<ul> <li>Hear new concepts and strategies that will bring manufacturing highly customizable products faster, cheaper, better, and greener</li> </ul>	
	Mike Yost, President, MESA International	
5.00pm	Chairperson's Closing Remarks & Close of Conference	

