NIST MEP Helps Small Manufacturers Engage with Innovation Institutes
by Bob Bengel, NWIRC President/CEO

The National Institute of Standards and Technology (NIST) has announced it will provide up to $7.0 million in funding for pilot projects to assist the Hollings Manufacturing Extension Partnership (MEP) efforts related to the transfer of technology from the National Network for Manufacturing Innovation (NNMI) institutes.

The pilots are designed to help small manufacturers take advantage of the latest technological innovations by adding technical capabilities to the MEP program and enhancing the NNMI institutes’ ability to address the needs of small manufacturers. The funding will allow MEP center personnel to embed in the NNMI institutes and work with institute staff on their respective projects.

Presently, there are eight NNMI institutes including:

1. America Makes: The National Additive Manufacturing Innovation Institute focuses on helping the United States grow capabilities and strength in 3D printing, also known as additive manufacturing.
2. Digital Manufacturing and Design Innovation Institute (DMDII) is the nation’s flagship research institute for applying cutting-edge digital technologies to reduce the time and cost of manufacturing, strengthen the capabilities of the U.S. supply chain, and reduce acquisition costs for the U.S. Department of Defense (DoD).
3. Lightweight Innovations For Tomorrow (LIFT) is part of a national network of research institutions and industrial companies geared toward advancing America’s leadership in manufacturing technology.
4. PowerAmerica’s mission is to develop advanced manufacturing processes to enable large-scale production of wide bandgap (WBG) semiconductors, which allow electronic components to be smaller, faster, and more efficient than semiconductors made from silicon.
5. The Institute for Advanced Composites Manufacturing Innovation (IACMI) works to develop lower-cost, higher-speed, and more efficient manufacturing and recycling processes for advanced composites.
6. The American Institute for Manufacturing Integrated Photonics (AIM Photonics) is an industry driven public-private partnership that focuses the nation’s premiere capabilities and expertise to capture critical global manufacturing leadership in a technology that is both essential to national security and positioned to provide a compelling return-on-investment to the U.S. economy.
7. The Flexible Hybrid Electronics Manufacturing Innovation Institute (NextFlex) is focused on developing a new era in flexible hybrid electronics through investments in FHE materials scale-up, thinned device processing, device/sensor integrated printing and packaging, system design tools, and reliability testing and modeling.
8. Advanced Functional Fabrics of America (AFFOA) is a national non-profit backed by industry, academia, government, and venture capital for the purpose of accelerating widespread commercialization of highly functional fabrics.

NIST anticipates funding around seven pilot project awards of approximately $300,000 to $600,000 per year for each award for up to two years. The anticipated award date is October 1, 2016.

An Alternative to ERP
by Joseph Kloecker
Lakeview Consulting Services

Many companies are rightfully concerned about the effort and financial commitment required to make the transition from QuickBooks and Excel spreadsheets to a full ERP system. An alternative to ERP is available which leverages the same technologies, but in a manner that is more flexible and cost-effective. This alternative focuses on streamlining business processes, automating tasks, and providing real-time data analysis.

(Continued on Page 2)
An Alternative to ERP (Continued from page 1)

function ERP System. Stories of expensive and time consuming package implementations often combined with less than desired results present a worrisome picture. Reynolds Services, Inc. (RSI), a metal service center located in Greenville PA, chose an alternate approach that has proven to be very effective for them. RSI started in 1990 with one factory and $4 million in sales. The company has cut to length and slitting operations which distribute steel, aluminum, and various raw material specifications across the United States and internationally. Their customers use these products to produce finished goods - everything from decorative tins and food cans to electronics and automotive parts. Since their beginning, RSI has grown to three locations with revenues in excess of $100 million.

Even though metals may seem like the ultimate commodity, RSI has found a way to stand out from the crowd through automation provided by their use of a custom fit information technology solution built on the FileMaker Platform. FileMaker consists of software tools used to create programs that run on iOS, Windows, Mac and FileMaker WebDirect.

“While many might consider RSI an old-style manufacturing business, we constantly re-engineer our processes. Our goal is to grow our customer base and expand into new product lines, and we rely on the FileMaker Platform to achieve this” says John Frangakis, chairman and CEO.

The FileMaker platform solution covers every segment of RSI’s operations including guest registration in the main lobby, inventory tracking, production scheduling, product ticketing and real time order status, ISO 9001 compliance audits, CRM, and Human Resource performance evaluations. Shipping and receiving are also part of the overall system through the use of an iPhone or iPad.

Customers also benefit from the integration of a FileMaker solution through quick response to their requests. For example, if a customer wants a specific metal coil or sheet checked to specifications, the request is sent to an RSI employee’s iPad. Instead of waiting hours or even days for a quality inspection, the results of completed QA tests are reported back to the sales team for discussion and communication with the client within minutes through the paperless processes.

Years ago, Frangakis started developing the FileMaker-based system on his own when RSI’s inventory tracking outgrew traditional spreadsheets. Spurred by rapid company growth, he formed an internal development team called Cross IT, headed by Todd Weller, Senior Data Systems Architect. Cross IT evolved the solution that now automates nearly every aspect of RSI’s business.

The RSI solution has become so successful that Cross IT is developing custom solutions for clients based on their specific needs, thus forming an independent spin-off software development business independent from RSI.

For more information, please contact your NWIRC Business Advisor on ways NWIRC can help with your IT projects.

Joe Kloecker, Owner of Lakeview Consulting Services, has over thirty years’ experience advising a range of organizations, from small start-up businesses to large international manufacturing companies, in selecting appropriate software and planning for disaster recovery and business continuity.

Technology Demo Expo Hosted by Intek Systems

Intek Systems will host a one-day technology demonstration expo event in Kersey, PA to showcase quality automation products. More than 15 automation and technology manufacturer representatives will be there to demonstrate the latest innovations, including collaborative robots, machine safety, energy saving solutions and more.

(Continued on Page 2)
Intek Hosts Demo Expo  (Continued from page 2)

The day will include mini-sessions by several manufacturers on their latest technology solutions to improve processes and operations. The Northwest Industrial Resource Center (NWIRC) will also be on-site to discuss the benefits of NWIRC services to improve productivity and technological performance. Michael Griffith, Manufacturing Technology Engineer, will be featured with a presentation on Accelerating Technology Development. This free event includes a buffet lunch, door prizes and is scheduled for June 23, 2016, 10:00am-3:00pm at the Red Fern (421 Old Kersey Road, Kersey, PA).

Below is the schedule of presentations:

10:15  Teledyne Dalsa  
Machine Vision for Part Inspection and Bar Code Reading  
10:45  Universal Robots  
Collaborative Robots in Manufacturing  
11:15  Manufacturing Solutions Integration of Collaborative Robots  
11:45  Yamaha Robotics  
Integration of Robotics with Allen-Bradley PLC’s  
12:15  Balluff  
Implementing RFID in Manufacturing  
12:45  PHD  
Trends in Pneumatic Actuators for Harsh Environments  
1:15  Universal Robots  
Collaborative Robots in Manufacturing  
1:45  NWIRC, Michael Griffith  
Accelerating Technology Development  
2:15  Mac Valves  
Energy Savings in Dust Collection Systems  
2:45  PIAB  
Optimizing Vacuum Systems

To pre-register for the event and qualify for the grand prize drawing, go to: https://www.surveymonkey.com/r/Intek_Expo

According to John Bridgen, Sales Team Leader for Intek Systems, their previous Demo Expos have resulted in follow-up onsite visits with manufacturers to review specific needs for their operation. “Because we started the discussion at the Expo, we were then able to follow-up within the next week or so with a relevant demonstration for their facility and in some cases budgetary estimates as well,” he said. “We encourage manufacturers to bring along sample parts for vision or to be picked, so the manufacturer representatives can better understand the application and can get started on an evaluation. “In some cases, when a customer brings parts to the show, we can take them and create a video to demonstrate how the robot may work within just a few days,” he said.

2016/2017 Training Season

What are your training needs for the coming months and beyond? The NWIRC is in the process of planning the 2016/2017 training schedule and want to be sure we are meeting the needs of manufacturers in Northwest PA for training topics and locations. Please take a minute to offer your feedback. Visit our website at www.nwirc.org under the Contact Us tab and find our 2016 Training Survey. This very brief survey will help us plan our schedule of training topics and locations. We look forward to hearing from you!

Manufacturing Day 2016

Manufacturing Day 2016 is slated for Friday, October 7th. This is the day that manufacturers across the U.S. open their doors to the public, especially students, to offer a first-hand look at the industry and careers in manufacturing. All manufacturers who are planning public tours and private events are encouraged to register at www.mfgday.com. There are also lots of resources on this website to help you plan and host an event.

NWIRC will offer a Manufacturing Day Outreach Mini-Grant to technical/career schools in the thirteen counties of Northwest PA. Schools can apply for up to $1000 to assist with expenses in attending an event or manufacturer tour.

As part of the celebration leading up to Manufacturing Day itself, the Manufacturer and Business Association will host an event for students on Wednesday, October 5th where the Erie Bayfront Convention Center will be converted into a massive display of American manufacturing. Stay tuned for more information about this event at www.eriemfgday.com.

Mark your calendar for these activities and take part in the celebration!
YOUR STRATEGIC BUSINESS ADVISORS

If you have questions, or would like to speak with someone from NWIRC about services, please contact your Strategic Business Advisor:

Tom Weible  
814.590.5202  
Cameron, Clarion, Clearfield, Elk Jefferson, McKean & Potter Counties

Susan Hileman  
814.572.2077  
Crawford, Forest, Mercer & Venango Counties

Ed Barthelmes  
814.923.3084  
Erie & Warren Counties

UPCOMING EVENTS

Principles of Lean  
Sept 7  
Location: Titusville  
Introduction to the principles of lean manufacturing for a non-repetitive environment, including case study applications. Simulation exercises are also used to reinforce lean concepts, such as batch-size reduction, visual signals, and standardized work.

Value Stream Mapping  
Sept 14  
Location: Titusville  
Value stream mapping is a technique used to identify and strip wasteful steps out of a company's flow of information and materials. The end goal of the technique is to make the company "lean," meaning free of wasted effort.

5S/Key Performance Indicators  
Sept 21  
Location: Titusville  
This course is a continuation of the Lean Champion Certification series, delving into two additional Lean principles.

Setup Reduction/Kaizen/Kanban  
Sept 28  
Location: Titusville  
This course is a continuation of the Lean Champion Certification series, delving into three additional Lean principles.

The above courses encompass our Lean Champion Certification. Manufacturers who are completing the 4-session course may be eligible for a Make It In America Grant of up to $1063 per individual towards the training costs from Partners for Performance. See our website for more detail. The first 2 sessions can be scheduled as stand-alone courses.

For more information or to register for training, visit www.nwirc.org