MANUFACTURING IN AMERICA 2017

MARCH 22-23
DETROIT MARRIOTT
AT THE RENAISSANCE CENTER

AttendMiA.com

#MiA17
Siemens and Electro-Matic invite you to join over 2500 manufacturing executives, engineers and enthusiasts at Manufacturing in America 2017 in Detroit, MI in the Detroit Marriott at the Renaissance Center. Learn about the newest technologies, share best practices and ideas, and be a part of advancing the future of manufacturing.

MiA 2017 will feature The Summit, over 100 technical learning seminars, and 50 exhibits focused on emerging automation, controls, drive technologies and PLM within this evolving industry.

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Free to Attend, but Registration is Required

There is no charge to attend, but registration is required at Manufacturing in America 2017. Seminar spaces fill quickly on a first-come, first-serve basis.

Register Online at AttendMiA.com

Validated Parking
Validated Parking is available on a first come, first serve basis and only available in the following parking garages: Beaubien Place and Atwater. Please bring your Parking Pass to the Information booth just outside of the Renaissance Ballroom and your parking will be validated if there is still availability.
Wednesday, March 22nd

8:00am - 12:00pm
The Summit
Join Siemens and innovation thought leaders to learn more about how digitalization is shaping the future of manufacturing. See more information on Page 3.

8:00am – 5:00pm
Over 100 Focused Technical Seminars
If your field is Engineering Management, Electrical Engineering, Controls Engineering, Facilities Management, Energy and Sustainability, Plant Maintenance, Plant Safety, or Operations you will surely find multiple seminars available for your attendance to enhance your knowledge of the latest technology and how it can benefit you and your company to gain a competitive advantage. See Pages 23 to 42 for a complete listing of scheduled seminars and detailed descriptions. The registration process will allow you to sign up for the seminars that you wish to attend.

8:00am – 7:00pm
Over 50 Exhibitor Booths
This unique trade fair will allow you to have a one on one discussion with an industry expert and the opportunity to discuss your needs and problems you face in the implementation of technology in your workplace. A complete listing of sponsoring vendors and company descriptions can be found on Pages 7 to 20.

4:00pm – 7:00pm
Networking Reception
Sponsored by Rittal, Raffle sponsored by Leuze Electronic
Live entertainment from Acoustic Madness (sponsored by Intec Automated).

Thursday, March 23rd

8:00am – 5:00pm
Over 100 Focused Technical Seminars
If your field is Engineering Management, Electrical Engineering, Controls Engineering, Facilities Management, Energy and Sustainability, Plant Maintenance, Plant Safety, or Operations you will surely find multiple seminars available for your attendance to enhance your knowledge of the latest technology and how it can benefit you and your company to gain a competitive advantage. See Pages 23 to 42 for a complete listing of scheduled seminars and detailed descriptions. The registration process will allow you to sign up for the seminars that you wish to attend.

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4:00pm – 7:00pm
Networking Reception
Raffle sponsored by Turck and Leuze Electronic
Live entertainment from Acoustic Madness.

Throughout the event, Managers from all of the participating companies are available along with conference room space for one-on-one meetings. If you have specific project requirements that need to be reviewed please contact an Account Representative to schedule a meeting.
Wednesday, March 22nd

8:00a – 9:00a  Networking Breakfast
9:00a  Program Begins

Join Siemens and innovation thought leaders at our annual Manufacturing in America Summit where we will explore how digitalization is shaping the future of manufacturing. During the morning session, you will take part in thought provoking presentations, discussions, and sharing best practices with leading experts from the U.S manufacturing industry.


The Manufacturing in America Summit brings the manufacturing community together to facilitate collaboration and spur innovation. The Summit will be held in America’s automotive hub, Detroit, MI. The city boasts the second largest concentration of engineers in the country, only behind Silicon Valley. Its community of educators,

“This is an event that is helping to shape manufacturing in America and across the globe,” says Jamie Fryer, sales manager at Windsor, Ontario-based Brave Control Solutions. “You have all the key players in one place, and the discussions are focused on the issues that are driving the industry.

If you want to be on the leading edge of manufacturing development, why wouldn’t you be there?”
Keynote Speaker

Josh Linkner

4-time tech entrepreneur, hyper-growth CEO, NY Times bestselling author, venture capitalist, and keynote speaker on a mission to drive creativity, innovation, and reinvention.

Josh Linkner – who started his career as a jazz guitarist – has been the founder and CEO of four tech companies, which sold for a combined value of over $200 million. He is also a deeply experienced business leader, venture capitalist, top-rated keynote speaker, and author of two New York Times bestsellers: Disciplined Dreaming and The Road to Reinvention. And yes, he still plays a mean jazz guitar.

For more, visit JoshLinkner.com.

Featured Speaker

Alastair Orchard

Digital Enterprise, Siemens PLM

Throughout 20 years of experience first as a manufacturer and then with Siemens, Alastair has focused on the gains in operational efficiency delivered by advanced automation, then MES/MOM and now on digitalization, Industry 4.0 and the consumerization of manufacturing.

Siemens has been at the forefront of each wave of social advancement since the second industrial revolution. In 2007, conscious of the impact that software would have on manufacturing, Siemens acquired UGS and added Product Lifecycle Management to our Industrial Software portfolio. In combination with Manufacturing Operations Management, Intelligent Automation and Advanced Analytics capabilities, Siemens uses the Teamcenter Collaboration Platform to bring the virtual world of product design and the real world of manufacturing operations execution into a seamless integrated Digital Enterprise Software Suite.

Alastair currently leads a global team of Digital Enterprise Thought Leaders, working with multinationals to digitally transform and become more flexible, cost effective, transparent, collaborative organizations.

Alastair holds a degree in Chemical Engineering from the Loughborough University of Technology in the UK and lives in Italy with his wife and four children.
Event Activities

Networking Receptions

Wednesday, March 22nd • 4pm - 7pm

Sponsored by RITTAL  
Raffle sponsored by Leuze electronic

Live Entertainment from Acoustic Madness

Entertainment sponsored by INTEG Automated Controls, Inc.

Thursday, March 23rd • 4pm - 7pm

Raffle sponsored by Turck  
Raffle sponsored by Leuze electronic

Live Entertainment from Acoustic Madness

Join us each night inside the main event ballroom for our Networking Receptions that feature live entertainment along with beverages and hors d'oeuvres. Take the opportunity to see the hands-on product exhibits, learn about the technologies, and meet and share ideas.

Student Zone

Thursday, March 23rd • 8am - 12pm

Manufacturing in America will host its 2nd annual Student Zone where 9th through 12th grade students from Oakland, Macomb, and Wayne counties will participate in educational and hands-on workshops with manufacturing equipment.

The student will experience what an exciting career in manufacturing is all about and have the opportunity to apply for a 1-day internship with local manufacturing companies.

TIA Portal Tech Café
Hands-On: Experience Totally Integrated Automation in the Portal

Renoir // 8:00am - 5:00pm // Wednesday and Thursday
Take advantage of this exclusive hands-on opportunity to experience first-hand how Totally Integrated Automation Portal (TIA Portal) complements Modernization for Smart Manufacturing. This TIA Portal Tech Café is a new concept, is open all day, where participants can walk-in based on their availability and work with TIA Portal on demo equipment, in one hour time slots.

In this self-paced workshop, you will work with the TIA Portal engineering software to configure an automation station consisting of an S7-1500 and S7-1200 PLC, HMI Comfort Panel, ET 200SP remote I/O and a SINAMICS G120 drive and motor. Through a series of hands-on modules, you’ll be able to put the TIA Portal through its paces. You'll see how the innovative software, powerful hardware, industrial communications, and motion and drives all work together to provide unparalleled results. With the goal of increasing productivity and moving you quicker towards Smart Manufacturing.

Driving the Digital Showcase with Totally Integrated Automation Mobile Showcase Tours

A mobile exhibit showcasing how Siemens is “Driving the Digital Enterprise” is open for guided tours. This new exhibit targets a design or commissioning engineer trying to build or start up a system for the first time. Or if you’re a maintenance engineer trying to maximize productivity out of the machine, take a tour with us. Visitors can see how individual plant operational and diagnostic data can be collected and analyzed to improve overall production efficiency.

The showcase features live displays representing some of the industry’s most common applications. You’ll see end-to-end solutions highlighting the power of Siemens technology in addressing the needs of panel builders, OEMs, system integrators, EPCs, and end users.

If you haven't signed up for the scheduled seminars in the showcase on Wednesday and Thursday at 9am, 11am, 1pm or 3pm, or can’t make those times, feel free to tour it in between. Please note, only 10 people can tour at a time and you’ll need to meet at Booth 108 to be escorted outside.
Digitalization changes all areas of life: The way we stay informed, the way we travel, the way we buy things – and the way we manufacture products. And it is also changing business models. The pace of innovation and the ability to disrupt are becoming key success factors in global competition. This increases the pressure on enterprises, no matter the industry – and opens up new business opportunities at the same time. If manufacturers don’t respond, alternatives can often be found easily and potential business can be lost quickly.

Manufacturers need to respond with significant reduction in their time to market, with massively improved flexibility to enable individualized mass production, with increased quality ensuring closed loop quality process, with increased security to decrease the risk of cyber-attacks, and all that at reduced energy and resource consumption.

The Digital Enterprise Suite enables manufacturing companies to streamline and digitalize their entire business process, seamlessly integrating suppliers into the mix. They can begin at any point of their value chain, from product design to service, and can extend digitalization gradually, depending on their current needs.

HOLISTIC approach to optimize the entire value chain
Product Design
Complete product design and validation in a digital environment
The Siemens PLM Software portfolio provides a broad suite of solutions for the entire product lifecycle creating an immersive decision-making environment.

Production Planning
Plan, simulate, and optimize production and factory automation digitally
Tecnomatix software from Siemens delivers process innovation by linking all manufacturing disciplines with product engineering, including process engineering and simulation, virtual commissioning, and production management.

Production Engineering
Integrated plant management throughout the entire lifecycle
Siemens helps you manage the entire lifecycle of a plant starting with plant engineering through to automation. TIA Portal is the key to unlocking the full potential of Totally Integrated Automation including Automation Systems Industrial Controls, Industrial Communication, Motion Control, Integrated Drive Systems, and Energy Management Solutions.

Production Execution
Manage real-time scalable data process information
The Siemens MOM system includes the SIMATIC IT, SIMATIC WinCC, IBS QMS and CAMSTAR software suites, provides a real-time Software layer and links PLM to Automation.

Services
Industry Service and Customer Support through all steps of the value chain
With its Industry Services, Siemens offers a range of classic services as well as data-based services such as Plant Data Services.

MindSphere
The cloud-based, open IoT operating system from Siemens

The open cloud platform from Siemens, MindSphere, is a centerpiece of a powerful IoT operating system with data analytics and connectivity capabilities, tools for developers, applications and services. It helps to evaluate and utilize your data and to gain breakthrough insights. Drive the performance and optimization of your assets for maximized uptime.
Since 1969, Electro-Matic has helped transform American industry by supplying automation components and solutions to leading U.S. manufacturers. Today, Electro-Matic continues to leverage the value of emerging technologies by developing practical applications for industrial, commercial and retail markets. As a technology company, we help our customers turn innovation into value. As a one-hundred percent employee-owned business, our customers enjoy the benefit of a supplier partner intently focused on delivering strong value-for-value relationships.

Electro-Matic Products is a High Tech Automation Distributor, providing value to many leading manufacturers in the Midwest region. Many of our customers are preeminent suppliers to the automotive, aerospace, food and beverage, steel, glass, tire, chemical and pharmaceutical markets.

Electro-Matic’s commitment to providing “World-Class Products” dictates that we only work with the best suppliers. Our select product mix results in a partnership with suppliers who share the same value-added distribution ideas to deliver technology-based products, differentiated services, and solutions to the industrial automation marketplace. These leading suppliers include Siemens, Rittal, Fortress, Stober and several other leading companies.

Electro-Matic Products provides services and support that ranges from simple product selection to complex motion sizing.

With our full time trainer, we offer a full range of educational opportunities from short hands-on training sessions to on-site customer specific week long training classes.

Electro-Matic is staffed with engineers to help customers create product specific specifications to complete migration of existing platforms. No matter what your technical needs are, Electro-Matic is poised and skilled to support all of your industrial automation requirements.
Electro-Matic Integrated is a solutions company focused on connecting, sensing, configuring and modifying industrial automation technologies.

Through the development of strong business relationships with global leaders in the manufacturing of automation components we supply a complementary group of reliable high technology automation components, kits and assemblies found on industrial automation equipment. In addition, our Integrated team is market driven, offering, value-added services which include product selection assistance, application engineering, packaging design, field service and installation.

Connectivity Solutions
- Intercontec Produkt GmbH
- Bulk Servo Motor Power and Feedback Cable (SMPF)
- SMPF Cable Assemblies
- Cat-Track Assemblies
- Fieldbus Cables and Assemblies

Configured Solutions
- Disconnects
- Remote Programming Ports
- Andon Systems
- HMI Assemblies
- Safety Fencing
- Rittal Mod Center

The mission of Electro-Matic Visual is to “Improve the profitability of our customers through the utilization of LED technology.” Our industry experts can show you how LED technology can improve your profits by improving production efficiencies, increasing top line sales, improving your profit margin mix, and reducing your energy costs.

Factory Vision Industrial LED based Andon systems can keep your production lines running at their top efficiency level by interfacing to your control system PLC’s and process control system to provide real time information on line bottlenecks or production stops. Keep your production team apprised of real time production, quality, and goals with these in plant displays.

Electronic Message Centers or EMC’s can provide dynamic advertising messages to your most targeted audience – those potential customers that drive by your business every day. These EMC’s are proven to increase sales and improve traffic to businesses.

EMC’s and Scrolling Indoor Messages can also improve your product mix to sell more higher profit margin items to the customers who come in your doors. This can result in enhanced profit margins.

LED lighting for your parking lot, buildings, offices, and warehouses can result in significant cost savings while improving your lighting at your business. Save up to 50 –70% of your lighting energy costs by retrofitting your obsolete lighting to LED.
Exhibitors
Rittal

Rittal Corporation and extended business unit Rittal Automation Systems are the ultimate solution for automated control panel manufacturing. Explore endless system configurations and discover fully automated machining for cut-outs and wire processing brought to you by the world's largest manufacturer of industrial enclosures, climate control, and power management systems.

Turck

Turck has become a pioneer in industrial automation technology. Our mission, as a leading value-added supplier of products to the factory and process automation markets, is to provide customers with a comprehensive line of quality and advanced technology products in a fast, flexible and accurate manner.

For 40 years we have dedicated ourselves to develop, design and manufacture exceptionally versatile products, while providing unsurpassed service and support to our customers. Our extensive line of products includes thousands of sensor, fieldbus, cordset and connector combinations that meet clients' needs. Turck is focused on the factory and process automation industries, and producing products that uphold uncompromising standards for reliability and functionality.
ATI Industrial Automation

ATI Industrial Automation is the world-leading engineering-based developer of robotic accessories and robot arm tooling, including Automatic Tool Changers, Multi-Axis Force/Torque Sensing Systems, Utility Couplers, Robotic Deburring Tools, Robotic Collision Sensors, Manual Tool Changers, and Compliance Devices. Our end-effector products are found in thousands of successful applications around the world.

Catherine Morris // 919-523-6060 // catherine@ati-ia.com

Conductix-Wampfler

Conductix-Wampfler is the leading global supplier of data and energy transmission systems (conductor rail and IPT systems) for battery-less AGVs, EMS, conveyors, skillets, AS/RS, overhead factory cranes, and other material handling devices used in vehicle plants. We offer decades of engineering experience applying mobile electrification technologies to modern automotive plants and intralogistics operations.

Andy Haugh // 402-339-9300 // andy.haugh@conductix.com

Automation Alley

Automation Alley helps technology-focused businesses across Southeast Michigan grow and prosper through programs and services tailored to meet their needs. From startups to large corporations, our members see the value Automation Alley delivers.

Sharon Blumeno // 248-457-3209 // blumenos@automationalley.com

Brave Control Solutions

Brave Control Solutions Inc. is a software company that uses technology to automate processes. Our specialty is retrofitting existing mechanical machines with state of the art control systems that improve productivity.

Jamie Fryer // 519-990-3696 // jfryer@bravecs.com

Control Systems Innovators Corp.

Control System Innovators Corp. is a controls and automation integrator focused on delivering total satisfaction to OEM’s, vendors, and end-users through consultation, design, project management, implementation, and maintenance of industrial control systems. We are a designated Siemens Solution Partner, proven in providing innovative control and motion solutions to complex projects.

Chris Iossifidis // 289-208-3311 // chris@csinnovation.com
Control Systems International
Control Systems International is a Licensed Electrical Controls Engineering Firm and Control Systems Integrator with over 20 years of proven experience in business. CSI is one of the original Electrical Controls Design/Build Companies from the Great Lakes Area. CSI is best described as an Electrical Controls Systems Design / Build Firm from Windsor, Ontario.

Al Gordon // 519-737-7447 // agordon@consystint.com

Datalogic
Datalogic is a global leader in Automatic Data Capture and Industrial Automation markets. As a world-class producer of bar code readers, mobile computers, sensors, vision systems and laser marking systems, Datalogic offers innovative solutions for a full range of applications in the retail, transportation & logistics, manufacturing and healthcare industries.

Tim Eisler // 248-854-9082 // tim.eisler@datalogic.com

Dunkermotoren
Dunkermotoren is a leading manufacturer of DC Brushed motors, DC Brushless motors and ServoTube tubular linear servo motors. Our Modular Solution can outfit your motor with: Gearheads (Planetary, Worm, or Spirotoc), Integrated Electronics (Velocity, Positioning, or Fieldbus), Encoders (Incremental or Absolute), Brakes (Power On or Power Off). ServoTube Linear motors are supplied as Actuator, Motor component or Modules. See our booth for literature and running demos to demonstrate Profinet capabilities.

Misa Ilkhechi // 773-678-0980 // misa.ilkhechi@ametek.com

Edgewater Automation
Founded in 2001, Edgewater Automation designs and builds custom automation equipment for a wide variety of industries. Edgewater Automation installs and supports equipment globally with 5 locations in North America and as a member of the Manders Group has 5 different partner companies across Europe and Asia.

Steve McLaren // 269-944-5882 // steve.mclaren@edgewaterautomation.com

eFlex Systems
eFlex Systems is a recognized industry leader in the design and implementation of advanced technology and world-class software solutions for the manufacturing and information technology markets. Our software solutions include flexible assembly configuration, track & trace, image vision management, paperless job instructions, analytics, and much more.

Dan McKiernan // 313-938-1428 // dmckiernan@eflexsystems.com

EPLAN Software and Services
A world leader in providing complete engineering design automation solutions. EPLAN leverages their powerful database architecture to reduce design time by as much as 60% with their CAE products. Electric P8 for electrical design; Pro Panel for 3D enclosure layout; Preplanning for plant & process design, Fluid for fluid power design & Harness proD for cable harnesses.

Leah D Kirkpatrick // 630-310-1980 // kirkpatrick.l@eplanusa.com
Festo Corporation

For over 40 years in the US and 80 years globally, Festo has been a positive force for manufacturers. Our passion is automation - creating intelligent automation solutions that transform the way people work and the way companies compete. Ultimately, it's about continuously stimulating progress. Our aim is to help our customers make their products faster, smarter and more precise. Rather than surviving, they can thrive as industry leaders. And when our customers win, we win. We observe. We analyze. We inspire.

Ian Cleaver // 248-403-4014 // Ian.Cleaver@festo.com

Festo Corporation

Protecting people, industry and productivity. For anyone who needs to protect people and machinery, Fortress is the interlock company that offers reliable and cost effective customized solutions.

Bill Glenn // 513-325-4008 // bill.glenn@fortressinterlocks.com

Forte Interlocks

Fives DyAG

Fives DyAG Corp. is a full service integration and engineering company providing solutions for manufacturing in Controls, CNC, Robotics, Machine Vision Systems along with turnkey automation solutions and software products. We are headquartered in Farmington Hills, MI, with offices in: Birmingham, AL, Charlotte, NC, Indianapolis, IN, Nashville, TN, Seattle, WA, Indianapolis, IN, Silao, MX and Queretaro, MX. Fives DyAG Corp. employs a dynamic team of over 150 educated, field tested, and highly qualified engineers.

John Lopetrone // 734-347-3217 // john.lopetrone@fivesgroup.com

Hammond Power Solutions

Hammond Power Solutions is the largest dry type transformer manufacturer in North America. We manufacture and stock, Industrial Control, Buck-Boost, Line reactor, Drive Isolation, Motor Starting, Lighting, Energy Efficient, Encapsulated Dry-Type Distribution, Autotransformer and General Purpose Medium Voltage transformers. Hammond also excels at manufacturing specials that conform to the end users special need or specification.

Brian Blank // 248-765-0108 // brianb@electricalsalesmidwest.com

Hammond Power Solutions

Fori Automation

Fori Automation is a leading global automation company specializing in the design, build and integration of custom assembly, material handling, testing and welding systems for the Automotive and Non-Automotive industries. With over 30 years of experience and seven locations across four continents, we are positioned to support our customers around the globe.

Mark VanHaverbeck // 810-728-1814 // mvanhaverbeck@foriauto.com

Harting

HARTING is the global choice connectivity solution provider for high demand markets and critical applications. Best known for their world-class connector and cabling solutions for getting power, signal, and data quickly and reliably from point A to B, HARTING's expertise also includes board level and backplane development and manufacturing, network components for Fast/Full Gigabit Ethernet, complete RFID systems for asset control and management, and the first product to connect already existing machines and devices to the IIOT.

David Mordell // 630-945-0929 // David.Mordell@HARTING.com

Harting
Helukabel USA

HELUKABEL® USA is a manufacturer and supplier of cables, wires and cable accessories. Our product line includes flexible and high-flex control cables, servo/VFD cables, BUS and Industrial Ethernet cables, and multi-norm cables. In addition, we carry an extensive stock of cable glands, connectors, cable tracks and other accessories.

Itris Automation

Itris Automation is a software engineering company that provides development tools for the verification, conversion and documentation of PLC codes to complement the programming tools of international PLC vendors. Due to its advanced technologies, Itris Automation supports its clients, whether project managers, developers, quality managers or industry experts, in improving their development processes and therefore in delivering higher quality programs in shorter time frames.

Hilscher NA, Inc.

Hilscher is a global provider of industrial network inter-connectivity solutions. Hilscher’s family of gateways convert industrial protocols whether they be a simple serial bus, a Fieldbus or any of many Real-Time-Ethernet protocols enabling easy, less expensive and lower risk network transitions. Hilscher is the solution for your network communication need.

JR Automation Technologies

Established in 1980, JR Automation is a leading provider of intelligent, customized automated manufacturing systems that solve customers’ key operational and productivity challenges. JR serves customers across the globe in a variety of industries, including automotive, medical device, aerospace, and more. Visit our booth to learn more!

Intercontec

Intercontec is a world leader in power, signal and data connectivity for industrial automation. Now part of TE Connectivity, a global technology leader with an unmatched connectivity and sensor solution portfolio, Intercontec offers new opportunities for our customers – with a combined commitment to innovation and solutions proven in the harshest environments.

Lapp Group

LAPP GROUP'S SINGLE-SOURCE electric connectivity solutions include a robust suite of standard and custom-made power, control and data connectors. You'll find Lapp products hard at work in an array of industries, including countless industrial and automated manufacturing applications, because we understand the unique challenges.
Laser Marking Technologies

Laser Marking Technologies designs and builds integrated laser turnkey solutions, to easily and safely integrate into existing or newly designed assembly lines. Manufacturers and automation integrators utilizing robot cells can appreciate the ability to engrave their product with 2D data-matrix codes. Come see these in action!

Tamias Malone // 989-670-2292 // tamias.m@intgrp.com

Lee Industrial Contracting

Lee Contracting is an Employee-Owned company with over 25 years’ experience specializing in Industrial Turn-Key Solutions. With in-house talent available for all trades, Lee Contracting is capable of completing projects ranging from emergency plant service to new equipment installations and entire facility relocations as a single-source contractor.

Amanda Goodspeed // 248-303-4858 // amandagoodspeed@leecontracting.com

Littelfuse

Littelfuse products help protect personal and electrical equipment used in construction, general industrial, oil & gas, solar, water/wastewater, HVAC/R, mining, and OEM applications. We offer a broad and reliable selection of fuses, fuse blocks, protection relays and controls to improve safety and reduce downtime.

Brian Blank // 248-765-0108 // brianb@electricalsalesmidwest.com

Outbound Technologies

Outbound Technologies is a systems integrator specializing in electrical controls, software and networking. Outbound services a diverse customer base that includes automotive, food & beverage, consumer products, medical device and many others. Outbound delivers fixed price (design, build and commission) projects, turn-key special equipment, equipment validation and hourly engineering services.

Jason McLees // 248-735-5000 // jmclees@outboundtech.com

Leuze Electronic, Inc.

From a textile mill in southern Germany in 1861 to one of the leading optoelectronic sensor manufacturers today, Leuze continuously strives to provide innovative products that improve our customer's efficiency and productivity. Leuze electronic offers unparalleled product selection, integration support, trouble-shooting assistance and production enhancement.

Julia Riemenschneider // 49 176-610-51726 // jriemenschneider@leuzeusa.com

PaR Systems, Inc.

PaR Systems provides advanced motion control solutions for industrial cranes. Advanced control enhances the performance, safety, and usability of cranes. PaR provides operators with technology for generating swing-free motion, the capability to automatically and precisely position loads, and protection from collisions.

Andy Connolly // 651-484-7261 // andy@jhgreensales.com
Patti Engineering, Inc.

Patti Engineering is a CSIA Certified Control Systems Integrator and a Siemens Solution Partner offering expert engineering and software development for shop floor level controls and front office business systems. From designing and building new control systems, to upgrading antiquated technology, Patti Engineering provides complete turnkey control systems integration services.

Georgia Whalen // 978-697-2644 // gwhalen@pattieng.com

Siemens Financial Services, Inc.

Siemens Financial Services provides strategic financial solutions that enhance our customers’ competitiveness. We are committed to offering our customers solutions and services on the leading edge of digitalization. To help you meet the challenges of the fourth industrial revolution, we combine our financial expertise with unparalleled industrial knowledge. Whether it’s finance for equipment to streamline your manufacturing processes; financing Siemens components within your products; or helping customers to buy your finished products, we can help finance your entire value chain.

PJ McElroy // 610-416-4729 // Paul.McElroy@siemens.com

R & E Automated Systems

R&E Automated Systems is an internationally recognized leader in the automation, engineering and prototype build industries servicing over 500 customers (OEMs, Tier I, and Tier IIIs) worldwide. Our expertise of over 400 employees accommodates specific challenges by engineering, designing and programming turnkey systems for automation technologies.

Sal Lucido // 586-649-8106 // slucido@reautomated.com

SME

SME connects and supports those passionate about making things that improve our world. A nonprofit organization, SME has served industry, educators, government and communities for more than 80 years. With its strategic areas of events, media, membership, training and development, and the SME Education Foundation, SME advances manufacturing by addressing both knowledge and skills needed for the industry.

Christine Longroy // 248-854-6926 // clongroy@sme.org

Schleifring and Apparatebau

MIA - Modular Industrial Application - a completely new level of versatility and flexibility for all types of rotary joints. It enables the transmission of electrical power, signals and all common data bases. Choose between two basic building blocks and combine them with optional components. The outcome: Your individual slip ring.

Izaro Urien // 49 160-366-8629 // iurien@schleifring.de

Softing

Softing Inc. is the leader in Data Exchange solutions and Industrial Network Diagnostics offering tools for troubleshooting/monitoring Profinet, Ethernet and Profibus networks. Our Data Exchange solutions include software and hardware appliances for OPC-UA and databases (Oracle & Microsoft SQL), and connectivity devices for Profibus, EtherNet/IP and Profinet.

Jim Ralston // 724-554-8498 // jim.ralston@softing.us
TE Connectivity

TE's unmatched breadth of connectivity and sensor solutions, proven in the harshest of environments, helps build a safer, greener, smarter, and more connected world. TE will be displaying industrial connectivity products intended for the Automation & Control marketplace.

Michigan Advanced Technician Training Program / MAT²

MAT² is an innovative, industry-driven apprenticeship program that addresses two critical issues facing the manufacturing industry: a widening skills gap and an aging workforce. MAT2 students, over three years, alternate between classroom instruction and on-the-job training, gaining hands-on skills to become a successful and productive member of their sponsoring company.

VEAPS

As a systems integration company, VEAPS provides industrial automation, validation and project management services to clients in industries such as food and beverage, general industrial, automotive, utilities and life sciences. VEAPS is an acronym defining our core competencies: Validation, Engineering, Automation, Project Management, Services.

Henry Ford College

Henry Ford College is a leader in development and delivery of effective Manufacturing Education Programs. Our current work with manufacturers results in a best in class, on-line, step-by-step troubleshooting process for Integrated Manufacturing Systems Troubleshooting and Robotics. Following this process, works gain high-value troubleshooting skills in record time.

WireCrafters

WireCrafters® offers both woven and welded wire machine guarding and perimeter guarding systems to protect and separate property, equipment, and personnel. Machine Guarding Systems from WireCrafters® are a simple, effective way to protect personnel from the dangers posed by automated equipment. These barriers are a strong and economical solution to plant safety needs.

Macomb Community College

Macomb Community College is the largest grantor of Associates degrees in Michigan with over 200 degree programs. MCC also offers a full suite of STEM related programs from robotics to controls to CNC.
Oakland University

Oakland University offers a personal, high-quality education through highly qualified faculty, flexible class schedules, new facilities including a $75 million Engineering Center, internships, co-ops, and research opportunities with corporate partners. Oakland’s Industrial and Systems Engineering Dept. offers undergraduate and graduate degree and certificate programs in Industrial and Systems Engineering, Engineering Management, and Systems Engineering.

Robert Van Til // 734-417-6598 // vantil@oakland.edu

Olivet Nazarene University

Olivet Nazarene University’s School of Graduate and Continuing Studies provides educational programs at the bachelor, master and doctorate levels. These graduate level programs extend the mission of the university to thousands of adult students ONLINE in 49 states and at numerous locations throughout the Midwest including Grand Rapids, Michigan.

Karen K. Benson // 616-780-7601 // kkbenson@olivet.edu

Wayne State University

Wayne State University has experienced nearly 150 years of innovation, advocacy and excellence. Located in the heart of Detroit, we will create and advance knowledge, prepare a diverse student body to thrive, and positively impact local and global communities.

Joyce P. Lien // 313-577-0800 // joycelien@wayne.edu

University of Toledo

Electrical Engineering Technology at the University of Toledo now has a concentration in Mechanical Engineering Technology which allows students to graduate with a strong mechanical background in addition to our traditionally strong EET degree. We have been ABET accredited since 1996. We feature Siemens PLCs in our coursework.

Wm Ted Evans // 419-343-3681 // william.evans@utoledo.edu

Washtenaw Community College

Located in Ann Arbor, MI, Washtenaw Community College is recognized as a national leader in training the workforce for the exciting new world of mobility. WCC, through its Advanced Transportation Center, uses an interdisciplinary approach, combining the latest advanced manufacturing technologies with business and computer technology. Our exhibit shows how.

Sharon Morgan // 734-474-2404 // slmorgan@wccnet.edu

UW-Madison Engineering Professional Development

Not Just Online. Interactive. Consistently ranked in the top 6 by U.S. News & World Report, our online professional engineering masters’ and certificate programs combine the structure of semesters with the work-friendly flexibility of 24/7 technology. UW-Madison gives you the learning experience you want - from anywhere in the world.

Christine Nicometo // 608-262-4806 // nicometo@wisc.edu
Hyla Soft

Our vision is to provide innovative technology solutions that advance the way the manufacturing world works. Hyla Soft provides technology solutions to improve productivity and efficiency within Manufacturing Engineering, Manufacturing Operations, and Sales & Operations Planning processes. Leveraging our people, practices, and product portfolio, we bring proven enterprise-class solutions to all manufacturers.

Chris Draska // 630-373-7552 // c.draska@hylasoftusa.com

Emergi-Lite

A global manufacturer of emergency lighting and exit signs for the specification markets, Emergi-Lite products feature innovative technologies that provide top performance, reliability and cost efficiency.

Tim Dunn // 901-493-1029 // timmy.dunn@tnb.com
### Seminar Schedule

**Wednesday March 22nd**

<table>
<thead>
<tr>
<th>Time</th>
<th>Floor 3</th>
<th>Floor 4</th>
<th>Floor 5</th>
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</thead>
<tbody>
<tr>
<td>8:00A</td>
<td>The Summit Networking Breakfast</td>
<td>TIA Portal Tech Café</td>
<td>Control Panel Engineering Tools and Resources</td>
</tr>
<tr>
<td>9:00A</td>
<td>Hands-On: Drive Based Safety</td>
<td>Hands-On: Realizing Engineering Efficiencies - PLC</td>
<td>Hands-On: Driving the Digital Enterprise Mobile Showcase</td>
</tr>
<tr>
<td>10:00A</td>
<td></td>
<td>What’s New in Controls</td>
<td>SINAMICS Drives with EtherCAT&lt;sup&gt;®&lt;/sup&gt;</td>
</tr>
<tr>
<td>11:00A</td>
<td>Driving the Digital Enterprise Mobile Showcase</td>
<td>What’s New in SIMATIC S7-1200F Basic Safety Controller</td>
<td>What’s New and Exciting with Siemens CNC Solutions for Automotive...</td>
</tr>
<tr>
<td>12:00P</td>
<td></td>
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</tr>
<tr>
<td>1:00P</td>
<td>Hands-On: Commissioning - Drive with WinAC and Macros - Simplicity at its Best!</td>
<td>Hands-On: Realizing Engineering Efficiencies - PLC</td>
<td>New Motion Control Capabilities with S7-1500 and S7-1500T</td>
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<tr>
<td>2:00P</td>
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<td></td>
<td>Deep Drive Hands-On IO Link into TIA</td>
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<tr>
<td>3:00P</td>
<td></td>
<td>The Road to Digitalization is Paved with Good Industrial...</td>
<td>Applications for Material Handling</td>
</tr>
<tr>
<td>4:00P</td>
<td></td>
<td>Complete Automation Solutions for Machine Builders</td>
<td>Applications and Solutions for Test Stands</td>
</tr>
</tbody>
</table>

### Learning Tracks
- Automation and Controls Engineering
- Drives and Motion
- Energy and Facilities Management
- Plant Engineering and Maintenance
## Seminar Schedule

<table>
<thead>
<tr>
<th>LaSalle A</th>
<th>LaSalle B</th>
<th>Cadillac A</th>
<th>Cadillac B</th>
<th>Richard A</th>
<th>Richard B</th>
<th>Brule A</th>
<th>Brule B</th>
<th>Nicolet A</th>
<th>Nicolet B</th>
<th>Duluth A</th>
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<td><strong>IEC Codes and Standards</strong></td>
<td><strong>MODULAR CONTROL DESIGN WITH INTEGRATED LOGIC DEVICES</strong></td>
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<td><strong>3VA: The Future of Siemens MCCB</strong></td>
<td><strong>MODULAR CONTROL DESIGN WITH INTEGRATED LOGIC DEVICES</strong></td>
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<td><strong>Connect Industry to Schools: Building the Pipeline of Tech Talent</strong></td>
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### Siemens Seminar Codes

- **FA**: Automation
- **MC**: Motion Control
- **CP**: Control Products
- **CS**: Services
- **CI**: Industrial Networking
- **EM**: Energy Management
- **IDS**: Integrated Drive Systems
- **OEM**: Machine Safety

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**Hands-On:** Rockwell to TIA Portal

2-Day Seminar
### Thursday March 23rd

<table>
<thead>
<tr>
<th>Time</th>
<th>FLOOR 3</th>
<th>FLOOR 4</th>
<th>FLOOR 5</th>
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</thead>
<tbody>
<tr>
<td>8:00A</td>
<td>Student Zone</td>
<td>TIA Portal Tech Café</td>
<td>Control Panel Engineering Tools and Resources</td>
</tr>
<tr>
<td>9:00A</td>
<td>Hands-On: Realizing Engineering Efficiencies - PLC</td>
<td>Hands-On: Realizing Engineering Efficiencies - PLC</td>
<td>CP-7</td>
</tr>
<tr>
<td>10:00A</td>
<td>Hands-On: Commissioning Drives with Wizards and Macros</td>
<td>What’s New in Controls</td>
<td>CP-2</td>
</tr>
<tr>
<td>11:00A</td>
<td>What’s New in SINAMICS, SINOMICS Motors and SIMOGEAR</td>
<td>Complete Automation Solutions for Machine Builders</td>
<td>MC-5</td>
</tr>
<tr>
<td>12:00P</td>
<td>Driving the Digital Enterprise Mobile Showcase</td>
<td>Applications and Solutions for Test Stands</td>
<td>FA-12</td>
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<tr>
<td>1:00P</td>
<td>Hands-On: Drive Based Safety</td>
<td>Driving the Digital Enterprise Mobile Showcase</td>
<td>EMV-6</td>
</tr>
<tr>
<td>2:00P</td>
<td>Hands-On: Realizing Engineering Efficiencies - PLC</td>
<td>The Road to Digitization is Paved with Industrial...</td>
<td>CP-6</td>
</tr>
<tr>
<td>3:00P</td>
<td>Driving the Digital Enterprise Mobile Showcase</td>
<td>New Motion Control Capabilities 6ST-1500 and 6ST-1500T</td>
<td>CI-1</td>
</tr>
<tr>
<td>4:00P</td>
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<td>FA-11</td>
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### Learning Tracks
- Automation and Controls Engineering
- Drives and Motion
- Energy and Facilities Management
- Plant Engineering and Maintenance
### Siemens Seminar Codes

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<td>IDS</td>
<td>Integrated Drive Systems</td>
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<tr>
<td>OEM</td>
<td>Machine Safety</td>
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</tbody>
</table>

### Seminar Schedule

#### Floor 5

<table>
<thead>
<tr>
<th>Room</th>
<th>Seminar Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LaSalle</td>
<td>Drives Based Safety Integrated Functions with SIMATIC Drives</td>
</tr>
<tr>
<td>LaSalle</td>
<td>What’s New: SIMATIC S7-1200 Basic Controller and TiA Portal V14</td>
</tr>
<tr>
<td>Cadillac A</td>
<td>Module Control Design with Integrated Logic Devices</td>
</tr>
<tr>
<td>Cadillac B</td>
<td>Ario – Connectivity, Yes You Read that Correctly</td>
</tr>
<tr>
<td>Richard A</td>
<td>Increase Business Profitability w/ Implementation of LED Technology</td>
</tr>
<tr>
<td>Richard B</td>
<td>Modular Control Design with Integrated Logic Devices</td>
</tr>
<tr>
<td>Brule A</td>
<td>Ario – Connectivity, Yes You Read that Correctly</td>
</tr>
<tr>
<td>Brule B</td>
<td>Increase Business Profitability w/ Implementation of LED Technology</td>
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<tr>
<td>Nicolet A</td>
<td>Siemens MCCB Future of 3VA: The Future of Siemens MCCB</td>
</tr>
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<tr>
<td>Duluth A</td>
<td>Siemens MCCB Future of 3VA: The Future of Siemens MCCB</td>
</tr>
<tr>
<td>Duluth B</td>
<td>Siemens MCCB Future of 3VA: The Future of Siemens MCCB</td>
</tr>
</tbody>
</table>

#### Seminar Details

- **Hands-On:** Rockwell to TiA Portal
- **2-Day Seminar:**
- **Room:** LaSalle A
- **Seminar:** Drives Based Safety Integrated Functions with SIMATIC Drives
- **Room:** LaSalle B
- **Seminar:** What’s New: SIMATIC S7-1200 Basic Controller and TiA Portal V14
- **Room:** Cadillac A
- **Seminar:** Module Control Design with Integrated Logic Devices
- **Room:** Cadillac B
- **Seminar:** Ario – Connectivity, Yes You Read that Correctly
- **Room:** Richard A
- **Seminar:** Increase Business Profitability w/ Implementation of LED Technology
- **Room:** Richard B
- **Seminar:** Modular Control Design with Integrated Logic Devices
- **Room:** Brule A
- **Seminar:** Ario – Connectivity, Yes You Read that Correctly
- **Room:** Brule B
- **Seminar:** Increase Business Profitability w/ Implementation of LED Technology
- **Room:** Nicolet A
- **Seminar:** Siemens MCCB Future of 3VA: The Future of Siemens MCCB
- **Room:** Nicolet B
- **Seminar:** Siemens MCCB Future of 3VA: The Future of Siemens MCCB
- **Room:** Duluth A
- **Seminar:** Siemens MCCB Future of 3VA: The Future of Siemens MCCB
- **Room:** Duluth B
- **Seminar:** Siemens MCCB Future of 3VA: The Future of Siemens MCCB
Seminars

Seminar Descriptions


Seminars

**Plant Engineering and Maintenance**

What: Facility Management, Machinery Maintenance, Troubleshooting Machinery, Production Efficiency, or Quality Improvement

Who: Maintenance Technicians, Maintenance Engineers, QC Engineers, Facility Engineers and Plant Managers

**Energy and Facilities Management**

What: Building Maintenance, Energy Savings, Smart Facilities, LED Lighting, and LED Display Seminars

Who: Energy Engineers, Facility Managers, Plant Managers, ESCO’s and Facility Executives

**Automation and Controls Engineering**

What: Automation and Controls Products, Codes and Applications Seminars

Who: Controls Engineers, Electrical Engineers, System Integrators and Engineering Managers

Limited Seating for Hands-On Seminars

**Drives and Motion**

What: Drives and Motion Technology Products, and Application Seminars

Who: Motion and Mechatronics Engineers, System Integrators and Engineering Managers

Limited Seating for Hands-On Seminars

Siemens Seminar Codes

- **FA**: Automation
- **MC**: Motion Control
- **CP**: Control Products
- **CS**: Services
- **CI**: Industrial Networking
- **EM**: Energy Management
- **IDS**: Integrated Drive Systems
- **OEM**: Machine Safety

Limited Seating for Hands-On Seminars

* Use the Seminar Code to quickly search and register on AttendMiA.com
### Siemens Seminars

**CP-1**
**John Burns, Siemens**

**Hands On: Deep Dive IO-Link into TIA**

This seminar will provide attendees a “Hands On” experience to configure and control several Siemens IO-Link devices using the TIA Portal Engineering tool and a Siemens ET200SP CPU system. Attendees (2 per station) will be provided an IO-Link demo panel and Field PG (Loaded with TIA Portal software) and conduct several instructor led lab exercises.

**CP-2**
**John Burns, Siemens**

**SIMOCODE EIP**

This seminar will introduce you to the SIMOCODE pro EIP Motor Management System. The newest member of the portfolio will soon support connectivity the the EtherNet/IP communication protocol. Attendees will learn how easy it is to configure SIMOCODE pro EIP into a CompactLogix PLC system using RS5000 and TIA Portal V14. You will also learn what kind of Operational and Diagnostic data is available to reduce costly downtime.

**CP-3**
**John Burns, Siemens**

**IO-Link EIP**

This seminar will introduce you to how easy it is to connect Siemens IO-Link devices into a CompactLogix PLC using AB’s Point I/O IO-Link master. Attendees will learn how easy it is to configure Siemens IO-Link devices using RS5000 programming tool. You will also learn what kind of Operational and Diagnostic data is available to reduce costly downtime.

**CP-4**
**Jeff Woolfolk, Siemens**

**IEC Codes & Standards**

This seminar covers and highlights the latest IEC standards related to designing and building industrial control panels for the IEC (European Economic Area) market. We will cover interaction between the standards, what is new, and what is expected in the coming years.

**CP-5**
**Jeff Woolfolk, Siemens**

**UL508A Codes & Standards**

This seminar covers and highlights the latest UL and NFPA standards related to designing and building industrial control panels for the United States market. We will cover interaction between the standards, what is new, and what is expected in the coming years.

**CP-6**
**John Burns, Siemens**

**Driving the Digital Enterprise Mobile Showcase**

A new mobile exhibit showcasing how Siemens is “Driving the Digital Enterprise” will be open for scheduled guided tours. The new exhibit focuses on benefits to the Design or Commissioning Engineer trying to build or start up a system for the first time as well as for the Maintenance Engineer trying to maximize productivity out of the machine. It will also demonstrate how individual plant operational and diagnostic data can be collected and analyzed to improve overall production efficiency.

Live displays representing some of industry's most common applications have been integrated into the exhibit. Best end-to-end solutions are highlighted illustrating the power of Siemens technology in addressing the needs of customers including; panel builders, OEMs, system integrators, EPCs, and end users.

Each solution utilizes powered Siemens products with the latest technology in automation, switching & circuit protection, and motion control. Each industry example features the strength and breadth of our communications including PROFIBUS, PROFINET, Ethernet-IP, AS-Interface, IO Link, wired, wireless, and cellular.

*If you haven't signed up for the scheduled seminars on Wednesday and Thursday at 9am, 11am, 1pm or 3pm, or can't make those times, feel free to tour in between. Please note, only 10 people can tour at a time and you'll need to meet at CP Booth 108 to be escorted outside.*
EXHIBITORS 100000

SEMINARS

FLOOR PLAN

29

networks enable the Digitalization of modern manufacturing. Increasing computing power, speed, bandwidth and cloud connections of reliably connecting manufacturing assets to enterprise resources. Learn how leveraged properly. The key to unlocking these opportunities is securely and is coming to manufacturing. It brings huge possibilities and opportunities if disruption is caused by the penetration of the Internet from our private lives into our work lives. When we look at Manufacturing we see a significant disruption. Most of this disruption is caused by the penetration of the Internet from our private lives into the plant floor. In our private lives Digitalization is already here: we use Google Maps with online traffic information to avoid traffic jams, we track our parcels or increase performance and optimize integration. Understand how the RF300 G2 family can simplify upgrading your existing MOBY I or MOBY E installation. To protect and monitor your 3-phase electrical loads the new 3VA family of molded case circuit breakers up to 600A is available with smaller footprints, integrated power metering, illuminated rotary handles, common accessories and much more. When we look at Manufacturing we see a significant disruption. Much of this disruption is caused by the penetration of the Internet from our private lives into the plant floor. In our private lives Digitalization is already here: we use Google Maps with online traffic information to avoid traffic jams, we track our parcels or we instantly communicate with our friends using messenger apps. Digitalization is coming to manufacturing. It brings huge possibilities and opportunities if leveraged properly. The key to unlocking these opportunities is securely and reliably connecting manufacturing assets to enterprise resources. Learn how increasing computing power, speed, bandwidth and cloud connections of networks enable the Digitalization of modern manufacturing.


Today you face a manufacturing environment that is more challenging than ever. It is characterized by increasing competition, shorter development cycles, higher demands for quality and service from customers. All these demands must be met with less resources and tighter budgets. Remote connectivity solutions from Siemens will help manufacturers reduce cost and time to service customers. More importantly, secure, reliable remote connectivity can differentiate your solution and strengthen your relationship with customers by providing new services and additional value. New services could possibly even generate new revenue streams.

Join us to learn how Siemens Remote connectivity can help you succeed.

Introducing Siemens RF300 G2: HF RFID Readers for the Past, Present and Future

Explore the new capabilities of Siemens RF300 G2 readers and learn how to increase performance and optimize integration. Understand how the RF300 G2 family can simplify upgrading your existing MOBY I or MOBY E installation. Witness the new diagnostic features and appreciate how Siemens is protecting your Industrial ID investment into the future.

Keep your Water Infrastructure Projects Flowing with Rugged Wireless Solutions

Do you have water infrastructure customers asking for solutions to meet the challenging environmental, security, and cost issues associated with obsolescence, growth and Digitalization? Siemens is one of the few manufacturers to offer a comprehensive cost-effective portfolio of network infrastructure solutions that are an ideal fit for water and infrastructure customers. Whether it’s multi-mile wireless communications across challenging terrain, creating WiFi hotspots for your mobile work force, or adding applications such as surveillance, Siemens has the unique communication solutions to prepare you for the industry’s future challenges.

Join us to learn how Siemens RUGGEDCOM solutions can solve your customers’ most challenging communications concerns.

Control Panel Engineering Tools & Resources

The best opportunity to realize cost savings in Control Panels is to reduce engineering time. Step through practical examples to learn how you can save significant costs by utilizing available Siemens’ tools and resources to reduce engineering time in development and implementation of industrial control panels.

What’s New in Controls

Increase savings by decreasing panel build time, wiring, and space. Learn about the latest in modularity and connectivity in Sirius Controls. Examine the space savings and integrated safety options with the 3RM1 Hybrid Motor Starter. The powerful new 3SK2 programmable safety relay is here with up to 20 safety inputs in one 45mm frame is streamlining OEM safety solutions.

The all new Sirius ACT Pilot Devices with IP69K/NEMA 4X toughness now communicates with Profinet, I/O Link, and AS-Interface reducing wiring costs, improving diagnostics, and field commissioning times.

The new SITOP PSU8600 40A and 20A power supplies also communicate on Profinet to give the ultimate in flexibility and protection for your control systems.

The new MOBY E complete system family can simplify upgrading your existing MOBY I or MOBY E installation. Increase savings by decreasing panel build time, wiring, and space. Learn about the latest in modularity and connectivity in Sirius Controls. Examine the space savings and integrated safety options with the 3RM1 Hybrid Motor Starter. The powerful new 3SK2 programmable safety relay is here with up to 20 safety inputs in one 45mm frame is streamlining OEM safety solutions.

To protect and monitor your 3-phase electrical loads the new 3VA family of molded case circuit breakers up to 600A is available with smaller footprints, integrated power metering, illuminated rotary handles, common accessories and much more.

Keep your Water Infrastructure Projects Flowing with Rugged Wireless Solutions

Do you have water infrastructure customers asking for solutions to meet the challenging environmental, security, and cost issues associated with obsolescence, growth and Digitalization?

Siemens is one of the few manufacturers to offer a comprehensive cost-effective portfolio of network infrastructure solutions that are an ideal fit for water and infrastructure customers. Whether it’s multi-mile wireless communications across challenging terrain, creating WiFi hotspots for your mobile work force, or adding applications such as surveillance, Siemens has the unique communication solutions to prepare you for the industry’s future challenges.

Join us to learn how Siemens RUGGEDCOM solutions can solve your customers’ most challenging communications concerns.


Today you face a manufacturing environment that is more challenging than ever. It is characterized by increasing competition, shorter development cycles, higher demands for quality and service from customers. All these demands must be met with less resources and tighter budgets.

Remote connectivity solutions from Siemens will help manufacturers reduce cost and time to service customers. More importantly, secure, reliable remote connectivity can differentiate your solution and strengthen your relationship with customers by providing new services and additional value. New services could possibly even generate new revenue streams.

Join us to learn how Siemens Remote connectivity can help you succeed.

Introducing Siemens RF300 G2: HF RFID Readers for the Past, Present and Future

Explore the new capabilities of Siemens RF300 G2 readers and learn how to increase performance and optimize integration. Understand how the RF300 G2 family can simplify upgrading your existing MOBY I or MOBY E installation. Witness the new diagnostic features and appreciate how Siemens is protecting your Industrial ID investment into the future.

Keep your Water Infrastructure Projects Flowing with Rugged Wireless Solutions

Do you have water infrastructure customers asking for solutions to meet the challenging environmental, security, and cost issues associated with obsolescence, growth and Digitalization?

Siemens is one of the few manufacturers to offer a comprehensive cost-effective portfolio of network infrastructure solutions that are an ideal fit for water and infrastructure customers. Whether it’s multi-mile wireless communications across challenging terrain, creating WiFi hotspots for your mobile work force, or adding applications such as surveillance, Siemens has the unique communication solutions to prepare you for the industry’s future challenges.

Join us to learn how Siemens RUGGEDCOM solutions can solve your customers’ most challenging communications concerns.
Seminar Descriptions

**FA-2**
John DeTellem, Siemens

**WEDNESDAY**
10:00a - 10:50a // Cadillac B

**THURSDAY**
10:00a - 10:50a // Richard A

Discover the Latest Innovations Enhancing Your Engineering Efficiencies and Enhancing the Productivity of Your Automation Solutions with the TIA Portal V14

This session will focus on the extension of the TIA Portal engineering software to further enhance the user experience in the engineering, development, startup, commissioning, service and maintenance. Many improvements on existing features and several new functionalities will be highlighted. Topics include the new version of process diagnostics, energy suite management configuration, and team engineering.

**FA-3**
John DeTellem, Siemens

**WEDNESDAY**
1:00p - 1:50p // Cadillac B

**THURSDAY**
1:00p - 1:50p // Richard A

Automation Engineering Simplified with TIA Portal V14, as your Gateway to Smart Manufacturing

Several new options are available to expand the automation engineering software to truly have the real world connection to the digitalization. This overview session will focus on critical new topics such as visualization, simulations, openness, and transparency.

**FA-5**
Thorsten Julich, Siemens

**WEDNESDAY**
11:00a - 11:50a // Cadillac B

**THURSDAY**
11:00a - 11:50a // Richard A

Industrial PCs as the Hardware Platform of the Digital Enterprise

In this session you’ll get a brief overview of the Siemens Industrial PC and PC-based Automation portfolio and how industrial, rugged and reliable hardware will pave the way to the digital enterprise. PC technology and data management has developed into a core component of today’s manufacturing processes and with our scalable portfolio - from portable tablet’s, embedded Box and PanelPCs, up to high-end 19” Rackmount PCs we provide the customer benefits to increase your availability and shorten your time-to-market.

**FA-6**
Jana Kocianova, Siemens

**WEDNESDAY**
3:00p - 3:50p // Brule A

**THURSDAY**
8:00a - 8:50a // Richard A

What’s New: SIMATIC S7-1200 Basic Controller and TIA Portal V14

In this session you’ll get an overview of Siemens basic controller portfolio. Topics include when to use a basic controller in terms of system performance/application complexity, target industries/customers, top features that address basic controller customer needs, new enhancements with TIA Portal V14, and case study examples.

**FA-7**
Jana Kocianova, Siemens

**WEDNESDAY**
10:00a - 11:50a // Joliet A

**THURSDAY**
1:00p - 2:50p // Joliet A

What’s New: SIMATIC S7-1200F Basic Safety Controller and TIA Portal V14

This session begins with a brief discussion about the benefits of safety integrated basic controllers. We then move on to Siemens failsafe basic controller portfolio. Topics include when to use a basic controller in terms of system performance/application complexity, target industries, target customers, top features that address basic controller customer needs, new enhancements with TIA Portal V14, and case study examples.

**WEDNESDAY**
9:00a - 9:50a // Cadillac B

**THURSDAY**
9:00a - 9:50a // Richard A

The SCADA System Solution as Core Component of Digitalization

SCADA systems have undergone rapid development in the Industry in the last fifteen years. Increased networking as part of digitalization has made transparency in production and therefore intelligent data preparation increasingly important. When selecting suitable systems, plant operators look for innovative and reliable solutions to visualize the ever more complex procedures in industrial production and access to information about relevant production data and processes. This presentation examines the role of a SCADA system acting as the glue for factory floor data providing central aggregation, data normalization and redistribution of information to up to the Digital Enterprise.
### Seminar Descriptions

#### SIPLUS Heater Control: Reduce Installation Costs and Improve Diagnostics

See how you can benefit from the new technology in SIPLUS Heater Control by greatly reducing installation costs while improving diagnostics.

**FA-9**  
Tim Parmer, Siemens  

**Wednesday**  
10:00a - 10:50a // Marquette B  
**Thursday**  
10:00a - 10:50a // Cadillac A

#### What's New from Siemens Factory Automation: Automation Innovations 2017

Back by popular demand each year, we'll discuss Siemens Digital Factory, Factory Automation latest product innovations, complete with their best-in-class features that meet customer's needs. We will finish up with our 2017 Road map on what you can expect from us this year.

**FA-10**  
Jim Wilmet, Siemens  

**Wednesday**  
11:00a - 11:50a // Mackinac Ballroom East  
**Thursday**  
11:00a - 11:50a // Mackinac Ballroom East

#### New Motion Control Capabilities with SIMATIC S7-1500 & 1500T Controllers

This session discusses Siemens new motion control functionality available with TIA Portal V14 and SIMATIC S7-1500 & 1500T controllers. Topics include product positioning based upon system performance/application complexity, target industries/customers, top features that address motion controller customer needs, and application examples.

**FA-11**  
Kevin Wu, Siemens  

**Wednesday**  
1:00p - 1:50p // Mackinac Ballroom West  
**Thursday**  
1:00p - 1:50p // Mackinac Ballroom West

#### Complete Automation Solutions for Machine Builders

Learn how the Siemens OEM Business Development program supports Machine Builders by capitalizing on complete solutions and application expertise. You don't want to miss this session if you are a Machine Builder or an End User in key verticals that include Packaging, Printing, Converting, Plastics or Machine Handling. You'll learn valuable information regarding application resources, such as pre-tested application toolboxes, that will not only sharpen your development skills but will also greatly reduce your engineering hours and ultimately your time to market.

**FA-12**  
Binu Thomas, Siemens  

**Wednesday**  
3:00p - 3:50p // Mackinac Ballroom East  
**Thursday**  
10:00a - 10:50a // Mackinac Ballroom West

#### HMI Panel Innovations

This session introduces the attendee to the latest and greatest HMI Panel Innovations from Siemens basic, comfort, key, and mobile panel portfolio. Attendees will learn about the powerful features included in the integrated visualization hardware and software solution offered by SIMATIC HMI.

**FA-13**  
Ramey Miller, Siemens  

**Wednesday**  
9:00a - 9:50a // Brule A  
**Thursday**  
9:00a - 9:50a // Cadillac A

#### Digitalization with TIA Portal: Practical Scenarios for Today and in the Future

Digitalization will change the way to engineer and automate machines. Only a holistic automation approach will yield sustainable competitiveness for you. Automation users are looking for consistent data management, global standards, virtual validations, and uniform interfaces for hardware and software. Manufactures need a way to answer their customers’ needs efficiently and flexibly. We will explore practical user scenarios on how TIA Portal enables digitalization and creates even more benefits for automation users both now and in the future.

**FA-14**  
Douglas LeVasseur & Annemarie Loetzsch, Siemens  

**Wednesday**  
1:00p - 1:50p // Brule A  
**Thursday**  
1:00p - 1:50p // Brule A

#### Hands-On: Rockwell to SIEMENS TIA Portal (2-Day Seminar)

Keeping up with the technology changes offered by industrial suppliers can be difficult, but critical to ensure automation systems meet your specific needs. Join us at this hands-on workshop, presented by a Certified Rockwell/Siemens Solution Partner, for you to migrate your Rockwell PLC software knowledge to the Siemens TIA Portal programming environment.

**FA-15**  
REE, Siemens  

**Wednesday (Day 1)**  
8:00a - 4:50p // Duluth A  
**Thursday (Day 2)**  
8:00a - 4:50p // Duluth A

#### Participant Benefits

- Experience how your existing Rockwell PLC programming knowledge can easily be applied to Siemens TIA Portal for programming, commissioning and maintenance.
- Learn similarities between the Rockwell Software RSLogix5000 programming environment and the Siemens TIA Portal programming environment.
- Develop a fully functional Siemens TIA Portal software project based on a previous Rockwell PLC program.

Hands-on: Experience first-hand the tools and technology. You'll work Live and Online with the innovative software, powerful hardware, industrial communications, and motion control all connected together to provide unparalleled performance and results.
Hands-On: Realizing Engineering Efficiencies - PLC

In today’s competitive industrial environment, successful companies are demanding greater efficiencies and productivity. Totally Integrated Automation solutions, backed by local experts and global service and support, can help you meet these challenges. Join us for a series of hands-on modules to experience first-hand the benefits of Siemens automation solutions.

Participant Benefits

• Experience how you can reduce engineering time by up to 30% in the design, commissioning and maintenance phases.

• Learn how a flexible and scalable machine configuration results in faster time to market.

• Observe how integrated diagnostics speed up commissioning – onsite or from remote locations.

Hands-On: Realizing Engineering Efficiencies - HMI

In today’s competitive industrial environment, successful companies are demanding greater efficiencies and productivity. Totally Integrated Automation solutions, backed by local experts and global service and support, can help you meet these challenges. Join us for a series of hands-on modules to experience first-hand the benefits of Siemens automation solutions.

Participant Benefits

• Experience how you can reduce engineering time by up to 30% in the design, commissioning and maintenance phases.

• Learn how a flexible and scalable machine configuration results in faster time to market.

• Observe how integrated diagnostics speed up commissioning – onsite or from remote locations.

HMI Functions: Configure an HMI panel using tools to easily create HMI screens and using Faceplates to reduce screen configuration time.

Drives-Based Safety Integrated Functions with SINAMICS Drives

Join Siemens for a discussion on how to utilize drives-based Safety Integrated functions to improve the safety and increase the productivity of your machines. You will get a better understanding on how to implement advanced Drive Safety Integrated functions and learn best-in-class techniques on how today’s market leaders are using this technology. You will also gain a good understanding of why traditional safety signals are migrating to safety telegrams over Industrial Ethernet for future oriented designs.

Safety Risk Assessment Training

In this session you will gain a better understanding of what a risk assessment is, but more importantly why you need a risk assessment for your plant or machine. There are several key points that need to be considered with respect to a Risk Assessment:

1. Seriousness of foreseeable injuries
2. Likelihood of occurrence
3. Regularity of exposure to hazards

You will learn how to understand and implement a risk assessment strategy for your plant. In addition, risk assessment tools and checklists will be discussed.

Machine Guarding

Learn how to apply electrical machine guarding techniques to nip points, rotating equipment, belts, gears and other moving machinery using Safety Relays. This session will discuss the key topics associated with the application of advanced safety technologies directly on your machine. Electrical guarding techniques will be discussed and solution sets for these applications will be presented during this session. These applications are across all industries including automation applications such as Stamping, Leveling, Metal Forming, Food & Beverage applications such as filling, packaging and case packing.

Come learn how safety technology can help provide better protection for your machine.
Functional Safety of Machinery

This session will discuss key topics on applying safety devices such as E-stops, guard switches, contactors, and safety PLC's and how your design can meet the SIL/PL required for your safety functions and how this ties into ANSI B11.19. Learn how to design your safety functions under ISO13849 and IEC62061 that are required from the output of your risk assessment from ANSI B11.0/ISO1200. You will gain knowledge of using tools to help you better understand the calculations and circuit designs needed to meet your safety requirements and be introduced to the upcoming ANSI B11.26 safety standard on “Application of ISO 13849 - General Principles for Design”. Come learn how to better design and validate your safety functions and how becoming a TUV FS Engineer can benefit you and your machine.

User Communities: Coming to a City Near You with a New UAB Safety Focus

Learn how Siemens Automation and Drives users are coming together to learn from each other and network together. The community meetings occur with Siemens experts and are typically centered around a specific topic that is user chosen. This activity is happening all around the country and can come to your city today!

In addition, the Siemens Users Board is forming a Safety Working Group led by a Safety Expert and supported by Siemens and our Automation and Drives Safety product team. We will be discussing the goal of the Safety Working Group and how this important group can help you and your company.

Applications and Solutions for Material Handling

In this seminar, Siemens will share experience providing best in class material handling solutions to the global market. OEMs will learn how to beat their competition with superior time to market by reducing design and commissioning time. End users will learn how using Siemens technology can improve productivity; reduce downtime, and reduce cost of ownership and thereby improving return on investment. Applications included are high performance soration systems and automatic storage retrieval systems. Technologies include HMI, PLC, Drives, Fieldbus (Ethernet IP, PROFINET).

Hands-On: Drive-Based Safety

This workshop will explore how Drive Based Safety Integrated is rapidly becoming an enabler for increased productivity, efficiency, and most importantly safer environments for personnel. In addition to covering the latest Safety Standards based on risk assessment this workshop will demonstrate how Drive-Based Safety integrated functions work seamlessly into these tasks. Hands-on demonstration of basic and extended safety functions in Sinamics drives will provide for a clear vision of how Safety Integrated technology can innovate your plants and machines for the demands of today and the future.

Applications and Solutions for Test Stands

Join Siemens for a glimpse into the capability of SINAMICS drives to improve the approach to test stands applications. Emphasis will be on identifying specific applications, system architectures and the SINAMICS approach to getting the most out of test stands. Integration in various applications including battery simulation, engine, transmission, and NVH are highlighted. Functionality such as torque pulse engine simulation, automatic disturbance compensation and connectivity with LabVIEW or MATLAB's Simulink® will increase dynamics and simplify your testing systems. Our goal is to make sure you leave with the knowledge to increase efficiency and optimize productivity.

Hands-On: Commissioning Drives with Wizards and Macros - Simplicity at its Best!

This workshop will give the attendee an opportunity to work with the Sinamics G120 drive and learn how to utilize the wizards and control macros for quick commissioning. Attendees will also learn how to use the “Status-screen wizard” in the Intelligent Operator Panel (IOP) to modify the screen’s appearance and select the desired values to be displayed. Some examples include:

1. Set up and commission a drive for the motor characteristics – wizard being used to guide a person to correctly adjust the drive for the motor it will control and protect. The wizard will also guide the person to correctly configure the drive for drive control being either from control switches and speed pot or from a PLC.
2. Set up a drive for an application like a fan, conveyor or pump – macro being used to automatically set up parameters for application specific settings. Typical example would be setting a parameter in the drive for starting boost in a pump application where sediment needs to clear upon initial pump operation.
What’s New in SINAMICS Drives, SIMOTICS Motors and SIMOGEAR Geared Motors

Join us as we take you through the Siemens motion control and drives portfolio. In this session, you will get an up-close look at our overall product offering, current roadmap and future products in the pipeline. See for yourself the drives and motors innovative technology in this seminar!

SINAMICS Drives Connectivity with EtherNet/IP

Join Siemens as we demonstrate how seamless it is to use Siemens Industrial products on both EtherNet/IP and PROFINET communication networks. In this seminar, you will experience how to control SINAMICS drives using both SIMATIC S7-1500 and Rockwell ControlLogix controllers. All products will be connected through a SCALANCE XR-300 switch and remotely operated via a ComfortPanel Touch HMI. Learn how easy it is to integrate these products into an application using third-party PLCs. Course content will include:

1) Why does EtherNet/IP connectivity matter?
2) How customers easily interface Siemens Drives, HMI, Switches and remote I/Os into existing networks.
3) ControlLogix programming for speed control of a SINAMICS G120.
4) Supporting Resources available to customers such as videos, tutorials, Add On Instructions, tag converters, etc.

Drive-Based Hydraulic Solutions

Hydraulic systems are starting to realize the many benefits of incorporating a VFD or Servo drive. These advantages include decreased operating costs, smaller machine size, enhanced performance, reduced noise and system simplification. Join Siemens for a look into how their standard drive products and hydraulic specific configuration tools can help you easily and quickly achieve these advantages in your fluid-power system.

What’s New and Exciting with Siemens CNC Solutions for Automotive Powertrain Production

This informational session will provide attendees with a comprehensive overview of the Siemens CNC platform. As the first-choice in automotive powertrain part manufacturing, the SINUMERIK 828D and 840D sl numerical controls provide machine tool users a unique combination of onboard communication and motion control functionality. Whether you operate a series of stand-alone machining centers, a work cell arrangement or fully integrated production line with transfer machines and robotics, Siemens CNC has the control to keep your manufacturing operation at peak performance. The uniformity of SINUMERIK Operate HMI means your operators can seamlessly run multiple machines with minimal cross-training, improving your labor force utilization. The presentation will also include a review of the popular communication platforms in automotive and how Siemens CNC talks to all. This presentation is ideal for programmers, machine operators and maintenance personnel alike.

Take Control of Your Service and Maintenance Activities with a Simple, All-in-One Formula

Changes come quickly. New technology constantly impacts your industry and plant floor. To keep your people and equipment on pace with production goals, you may need advice. From planning, installation and operation to modernization services, Siemens has field and technical experts who can help you optimize reliability and ensure the maintainability of your machines and plants. In this session, we will present new service options that will keep you flexible to adapt to changing market conditions. A demonstration of the upgraded Siemens Industry Online Support (SIOS) website and how to gain value from the new enhancements will also be presented.

Strategic Maintenance as Your Greatest Asset to Positively Impact People, Products, & Processes

Today, companies are experiencing unprecedented pressure to incorporate advanced technology and automation into their production. While more companies look to digitize their manufacturing facilities, the challenge of attaining optimal performance from existing equipment in the most cost-effective manner possible is critical for maintaining peak competitiveness. In this business environment, ensuring plant availability and the continuity of production processes requires that equipment be kept in top condition, downtime is reduced and operating expenses properly managed. In this session, we will discuss the challenges of embracing new technology while also effectively managing the people, processes and products in your plant. With new
automation services and programs, Siemens becomes a trusted partner, helping to improve the reliability of your production, give you transparency into operations and maintenance budgeting and ensure that workforce skill gaps don’t become an obstacle.

Cloud-Based Manufacturing with Siemens MindSphere

Connectivity on the production floor and the acquisition and analysis of data pose significant opportunities for businesses. But, how can a manufacturer store, manage, and gain value from the data that can be acquired from their machines and production lines? Without the proper infrastructure and right personnel for large-scale data management, implementing the benefits of data-driven intelligence will have very limited possibilities. Cloud computing offers an important solution in this area.

MindSphere, Siemens cloud-based, open IoT ecosystem, provides powerful computing capabilities and virtually unlimited storage on-demand, without the need for investing and maintaining resources locally. With MindSphere, end users and OEMs can monitor globally distributed assets (machines, plants, and processes), access existing data analysis applications, or use developer tools to build their own applications and dashboards. Join this session to learn more about the benefits of cloud-based manufacturing as the essential ingredient on the road to the digital factory.

Industrial Security Co-Sourcing: Shifting from CapEx to OpEX

In today’s digitalized world, industrial security is considered one of the cornerstones of smart manufacturing. Security programs, however, are often unbudgeted and therefore, compete for funding against other initiatives, which are perceived as more urgent. This can translate into little or no investment in necessary security measures.

In this presentation you will learn how co-sourcing strategies can make industrial security more affordable and achievable. We will discuss how companies at different maturity levels address security sourcing and why asset managers may choose to work jointly with a skilled security vendor to achieve protection and limit the risks of cyber attack.

Immersive Learning in the Digital World

Industry’s reliance on increasingly advanced technologies in today’s marketplace, combined with the skills gap created by the ongoing generational change-out is driving organizations to find new and creative learning methods for their employees. Join us for an informative session on how leading-edge, digital technologies can help ensure that your organization will succeed regardless of the learning situation.

Higher Machine Tool Production Efficiency through Intelligent IT Integration

Over the lifetime of a machine tool, the planning and investment costs only represent 20% of the overall costs. This means 80% of the costs are attributable to operating and maintaining an asset. As a consequence, the potential for reducing unit costs lies in discovering new ways to optimize processes and reduce unscheduled downtime. By capturing production data and evaluating it, networked plants and machines can be analyzed holistically. With transparency into the performance of your machines you will be able to identify weak points in the production process, eliminate sources of faults, and find energy conservation opportunities (strategies?) from your machine tool data.

In this session, you will learn how you can use data-driven intelligence to optimize business processes, products, factories, service and maintenance. With Siemens Manufacturing IT services your company will have access to a central platform that provides data management and analysis - for individual machines as well as networked systems - to maximize the performance of your machine tools.

Connecting Industry to Schools: Building the Pipeline of Technical Talent

Interested in learning how area schools deliver top performing technicians and engineers into the industrial workforce? Or how you can transform classroom learning into more relevant concepts for today’s advanced manufacturing environment?

Siemens and our key industry and academic partners have been building programs focused on leading industrial technologies for over a decade in the US using our proven curriculum and hands-on training model. Local schools deliver high-performing technicians and engineers using innovative platforms leveraging our comprehensive academic support tools. Discover how Siemens Cooperates with Education and our Mechatronics Systems Certification program
are enhancing learning with real-world applicable projects and the impact of trends like digitalization and IoT.

Academic attendees (Instructors) can register to win an S7-1500 Kit.

IDS-1  Jim Bender, Siemens

WEDNESDAY 1:00p - 1:50p // Joliet B

THURSDAY 1:00p - 1:50p // Joliet B

To Efficiency, and Beyond! The Reality of Motor Regulation

How will new motor efficiency legislation affect you? New laws are having an impact on machine builders and end users both here and abroad. If you buy or use AC motors, you will feel that effect—probably sooner than later. Motor (and sometimes system) efficiency laws vary from country to country. If you are trying to implement global platforms for motor-driven machinery, you need to understand these differences in order to avoid costly re-builds. We will discuss how changes to the laws impact machine design, operation, compliance and efficiency.

Speaking of efficiency, did you know that implementing VFDs can reduce energy costs while increasing process transparency and potentially making your machines safer? Get more from your automation investment with drives. Join us to learn more.

IDS-2  Kurt Covine & Brian Butler, Siemens

WEDNESDAY 3:00p - 3:50p // Joliet B

THURSDAY 11:00a - 11:50a // Cadillac A

A Drive that's Sized for What's Essential

Whether square footage is at a premium, downtime is not an option, or reliability is something you can’t stand to spare. Siemens has developed a drive to fit virtually anywhere — perfectly. The new SINAMICS PERFECT HARMONY GH180 air-cooled drive delivers optimal power, efficiency, and protection in a simpler, more compact package than ever. Every element of the new SINAMICS Perfect Harmony GH180 drive is engineered to maximize productivity and protect your process in a way that other drives can’t. Designed in compact air-cooled configurations, the next generation SINAMICS Perfect Harmony drives deliver superior versatility, efficiency and process availability for the most demanding applications.

Unparalleled Benefits

- Impressive potential 3 year pay back on fan and pump applications
- Up to 4% improved efficiency on low power applications when compared to high-low-high solutions
- Incredible flexibility to suit virtually any application
- Fast lead time to meet even the most demanding schedules

3VA: The Future of Siemens Molded Case Circuit Breakers

3VA is here, although not new, over 200,000 breakers sold in the IEC market! Take the time to sit back, relax and enjoy the future of the Siemens molded case circuit breaker line with the 3VA breaker. This class will explain why the 3VA breaker is best equipped to meet and exceed your needs and expectations through an extensive review of the product as well as the tools and resources available to you.

EM-2  Celia Dayagi, Siemens

WEDNESDAY 2:00p - 2:50p // Joliet B

THURSDAY 2:00p - 2:50p // Joliet B

Powering the Future of Electric Vehicles

Siemens supplies the complete portfolio of electric vehicle charging products built on a global platform ranging from Level 1 basic cable chargers to industry leading smart level 2 EVSE’s. With innovative products in the Siemens VersiCharge portfolio and the Siemens brand of Inline charging cables, we work with car manufacturers, building and energy management solution providers, as well as utility companies globally to design solutions for EV charging. Our future focus also includes implementing the relevant aspects of ISO 15118 into our technology to fit the needs of our auto manufacturer partners to seamlessly integrate electric vehicles into the daily lives of our joint customers.

EM-3  Steve Six, Siemens

WEDNESDAY 2:00p - 2:50p // Cadillac A

THURSDAY 2:00p - 2:50p // Cadillac A

Siemens Embedded Micro Metering Module (SEM3) Integrated Solutions

The SEM3 presentation will provide a general overview of the new SEM3 hardware and integration capabilities with stand-alone, energy management, cloud and TIA solutions. Discussions around our unique “embedded” solutions will allow our sales force to understand the benefits of an integrated SEM3 solution compared to traditional monitoring.

EM-4  Josh Angel, Siemens

WEDNESDAY 1:00p - 1:50p // LaSalle B

THURSDAY 1:00p - 1:50p // LaSalle B

Totally Integrated Power (TIP)

The TIP presentation will provide an overview of the extensive power distribution products and solutions Siemens provides to fully optimize a customer's infrastructure. The discussion will present various components, software platforms and services designed to provide a solid foundation for linking energy management, industrial or building automation systems together, thus optimizing the customers current and future needs.
Emerging Technologies in Automation: How Video Games are Changing Automation

The need for manufacturing has never been more important for a thriving North America. The current technology that we are using has never been older while the technology available for new solutions has never been more advanced. Learn how Brave Control Solutions is leveraging these new technologies in non-traditional ways to solve manufacturing challenges.

Rapid Gantry Retrofits

The biggest measure of success in a retrofit is the “disconnect downtime”. This is the time that your machine is not producing parts. Brave Control Solutions specializes in retrofitting older Indramat MTC CNC gantry systems with brand new Siemens machine mounted safety PLC, I/O, HMIs, and utilizing S120 drives and CU320 motion interface. The result is the customer keeps their original gantry system, but gains the efficiency, reliability and added flexibility of newer more modern gantry systems at a fraction of the cost. We will show our process, techniques and tools used to modularize the engineering to save time.
together seamlessly giving you access to data you once thought was not available even in the cloud. Bring your challenges and we’ll bring our solutions.

UHF RFID on the Factory Floor

UHF RFID has been utilized in warehousing and logistics for many years. Deploying UHF RFID in an industrial setting has a unique set of challenges. Siemens has readers in the RF600 family that have been specifically designed for industrial applications. Learn about how the readers and deployment tools can solve your factory UHF applications. Example industrial applications will also be provided.

Cabling Challenges with High Acceleration Servo Motors

Choosing the best cable for an industrial application (or installation) is one of the most critical decisions of any complex automated system. That said, cable is often an afterthought and the long term performance impact from various design choices are not well understood – and can impact keeping a production line running. As the fundamental building block for any electrical system, wire and cable are vital to transmitting power and sending data and control signals across wide expanses in a timely and reliable manner. During this seminar, Lapp Group will take a look at some of the most important factors to consider when specifying industrial cables especially in high-acceleration applications.

Paradigm Shift Towards Smart Manufacturing

Today, manufacturers are challenged by increasing demands of variability — smaller lot sizes, customization, and unplanned supply chain and customer order changes. Manufacturers will have to incorporate technologies that will enable them to quickly adapt to rapid change and elevate product quality while optimizing the use of resources and energy. Smart manufacturing technologies need to be integrated at all three levels — product, production line, and the business enterprise — in order to maximize the flow and re-use of data throughout the enterprise.

This presentation will cover technologies that are available today to build smart production lines with the advantages of both economies of scale and scope which embrace the concepts of Industry 4.0.
**Seminar Descriptions**

**C-1 Bill Wadsworth, Consumers Energy**

**WEDNESDAY 2:00p - 2:50p // Duluth B**

**Beyond Energy Efficiency - Even More Ways to Save Energy and Money**

Consumers Energy wants to help your facility save energy and money. We can show you how to decrease energy use, verify you’re on the right rate and see if your business would benefit by shifting energy during peak power events, thereby lowering your cost of operations. Attend our seminar to learn more. We have more than 400 energy efficiency rebates available in 2017 and will review how your business can apply for these money-saving rebates. Our experts can also help you find the ideal rate to meet your business needs (whether it's electric or natural gas). We'll explain our Demand Response Program, which shifts your energy load to off-peak times, allowing your company to receive compensation AND support statewide efforts to reduce energy use during peak power events. Invest in your business by attending and learning more.

**T-2 Nick Clute, Turck**

**WEDNESDAY 11:00a - 11:50a // Nicolet A**

**THURSDAY 11:00a - 11:50a // Nicolet A**

**IO Link - The Technology that Grows with Your Application**

There are a lot ways to use IO Link, from simple wiring reductions to the complex diagnostic and device replacement functions. Turck has been implementing IO Link in our products for nearly a decade and are continuing to grow our product offering while maintaining the position that our solutions will be as easy as possible to implement no matter what PLC you choose to use. Join us in this seminar for a short discussion surrounding all the buzzwords surrounding IO Link: Device replacement, acyclic communications, IODD files, Device Profiles, and more. Is it all really necessary? Will it actually save costs? Come find out.

**T-3 Nick Clute, Turck**

**WEDNESDAY 1:00p - 1:50p // Nicolet A**

**THURSDAY 1:00p - 1:50p // Nicolet A**

**Non-Contact Process Data Logging and Sensing with RFID**

A technology that has been kicking around our R&D departments for many years is finally being released: the ability to implement sensors within an RFID tag that will give you non-contact access to the live data or perhaps better yet can also log sensor data as the tag goes through an application that can be read on the other side. Join us for a live demonstration and lively discussion about your potential applications, along with an overview of our existing RFID portfolio. Ever wondered what sorts of temperature swings your product goes through? Are we sure there was never any water in that control panel? How humid did it really get while sitting outside waiting to be brought in? We might have a solution that will work for you.

**T-4 Kyle Hall, Turck**

**WEDNESDAY 3:00p - 3:50p // Nicolet A**

**THURSDAY 3:00p - 3:50p // Nicolet A**

**Does Mixing Safety and Standard I/O Make Sense**

Absolutely, especially when the application in question is directly on the machine in an IP67 environment. Think about it: wherever you put an e-stop, gate switch, or light curtain you almost certainly have other standard I/O applications there as well. Stacklights, Request to Enter pushbuttons, muting proxes, maybe even motor starters and part present sensors to name a few. Come take a look at how Turck's new IP67 safety blocks will manage these design criteria.

**SA-1 Izaro Urien, Schleifring and Apparatebau**

**THURSDAY 2:00p - 2:50p // Brule B**

**Modular Industrial Application**

Please allow us to introduce our innovative modular system, MIA. It allows a completely new level of versatility and flexibility for all types of rotary joints, offering innumerable possible combinations to create one system from a single source. Our MIA system enables the transmission of electrical power and signals as well as all common data buses. Simply choose between two basic building blocks (MIA 1 and MIA 2) and combine them with many optional components, e.g. powerful drive motors or a Gigabit Ethernet unit. The outcome is your individual slip ring system. Our configuration guide helps you to find the right components. Curious? Try it out.

**S-1 Jim Ralston, Softing**

**THURSDAY 2:00p - 2:50p // Nicolet B**

**Ethernet & Profinet Troubleshooting & Diagnostic Tools**

Is uptime important to you? Learn about the latest in Ethernet and Profinet testing solutions. This session will cover the importance of Ethernet media testing as well as monitoring and diagnostics of PROFINET and PROFIBUS networks with both portable and online tools. Both portable and online tools will be demonstrated.

**USBC-1 Cheri Holman, USBC**

**THURSDAY 2:00p - 2:50p // Duluth B**

**Michigan Battle of the Buildings**

Made possible by strong community partners like Consumers Energy and DTE Energy, The Michigan Battle of the Buildings Program is an awards and recognition program for energy use reduction open to all Michigan area commercial & industrial buildings. The program is a way to encourage energy-efficient practices in buildings across the state and to instill a spirit of friendly competition among the area’s building owners and operators. Come learn from past contestants how the program works and what they are doing in their buildings to reduce energy. You will also get a sneak peek at what is happening with 2030 districts in our communities and how you can get involved.
## Seminar Descriptions

### UL-1
**Monica Scott, UL**

**THURSDAY 10:00a - 10:50a // Duluth B**

**UL - The Industrial Internet of Things**

The Industrial Internet of Things (IIoT), Industry 4.0, is enabling more sophisticated capabilities through network-connected products and systems. As a result, lighting, lighting controls, and industrial control systems are becoming more connectable. According to many recent reports and the U.S. government, not only is there a rise in the number of cyber attacks occurring – the sophistication of them has also advanced.

### ELG-1
**Eric Hansel, Expert Lighting Group**

**WEDNESDAY 1:00p - 1:50p // Duluth B**

**Creating and Successfully Implementing a Lighting Upgrade Project**

The goal of the presentation will be to provide a deeper understanding of the advantages of a lighting upgrade to a commercial or industrial facility and how to successfully plan and implement. The presentation will cover pre-project planning, making accurate assumptions, picking the right solutions, registering for incentives, staying focused on goals, hiring the right installers and post-project verification. Following the presentation, an open Q & A discussion period is planned and audience participation will be strongly encouraged.

### E3M-1
**Eric DeVries, E3M**

**THURSDAY 11:00a - 11:50a // Duluth B**

**Getting Energy Projects Approved - Learning to Speak the CFO’s Language**

There are many instances in the manufacturing world where we have great ideas or projects to save our company's energy and money, however many never get approved. Struggling with the hurdle of having to have paybacks of one year or less? How can you understand your CFO’s view on those projects? In this presentation we will work through how decisions are evaluated and by doing so, the success rate on project approval can go up. Using and communicating effective financial analysis such as savings-to-investment ratio, return on investment (ROI), present value (NPV) and internal rate of return (IRR) will significantly improve implementation success over standard simple paybacks.

### SYN-1
**John Eckart, Synapses**

**THURSDAY 1:00p - 1:50p // Duluth B**

**Synapse Wireless Lighting Controls – Preparing Your Factory for Industry 4.0**

Adding a wireless lighting network that can be used as a backbone for other things in the future.

### EMV-1
**Matthew Capaldi, Electro-Matic Visual**

**WEDNESDAY 9:00a - 9:50a // Duluth B**

**Latest Innovations in LED Display Products**

Come see and learn about the latest in Industrial full color LED, commercial LED and commercial High resolution indoor displays.

### EMV-2
**Alicia Martinez, Electro-Matic Visual; Michigan Saves, DTE Energy**

**WEDNESDAY 11:00a - 11:50a // Duluth B**

**Benefits, Funding and Rebate Incentives Electricians, Contractors, and Sign Dealers should focus on When Selling LED Retrofits and Electronic Message Centers**

Building an installed LED portfolio in your area can seem tricky, but it’s all about recognizing opportunities at local businesses and facilities. Once you notice buildings or areas that could use a lighting facelift or EMC, you’ll be able to get yourself in the door and impress decision makers with the many benefits LED technology has to offer any type of facility, be it a large warehouse, auto lot or retail store. Learn how to present a compelling proposal that will surely win your prospects confidence and turn them into your profitable customer.

You will learn it all - starting with the initial site survey to applying for utility rebates and securing the right funding for your project.

We will have a panel of experts from DTE Energy and Michigan Saves share their own experiences and introduce you to programs available to you right now.

### PACE-1
**Bob Mattler, PACE Equity**

**THURSDAY 3:00p - 3:50p // Duluth B**

**Pace as a Great ‘Gap Finance’ and Refinance Tool for Building Owners**

Why use precious corporate resources or borrowing capacity when purchasing your next facility or expanding your existing one? Property Assessed Clean Energy (PACE) financing allows owners to offset most of their equity into a purchase or project to further leverage their borrowing capacity for core business purposes such as new products, additional hiring or advertising. Let PACE Equity help you create an ROI today for long payback infrastructure items like boilers, chillers, roofs, windows, solar, elevators and other slow payback items that save energy or water.
Increase Business Profitability with Implementation of LED Technology

LED Technology represents a largely untapped potential for CEO’s, CFO’s, and business owners in highly competitive environments to realize significant improvements in profitability and return of capital. This seminar examines how two mainstream LED applications - lighting and electronic message centers - are utilized to improve business profitability in three ways: increase top line sales, improve profit margin, and reduce operating costs. In this seminar, we will discuss examples, and how each one of these areas of business improvement is matched with a particular LED application.

Best Practices for Resellers to Increase Business by Selling Electronic Message Centers

An electronic message center (EMC) is a powerful advertising tool that has taken the signage industry by storm and is a proven winner for many businesses alike. If you want to sell EMC’s effectively, you’d better master some sales techniques you probably haven’t had to use before. In this seminar, Electro-Matic will share techniques and practices based on the company’s long history of selling hundreds of displays and overcoming objections.

Best Practices for Architects and Engineers for Specifying LED Lighting and LED Displays

Specifications are critical to the success of lighting design work and ultimately make the project. One of the most essential aspects of producing a quality lighting design is to ensure that the lighting products specified are actually acquired and installed on a project.

We will define and detail the role of the specification. The purpose of a lighting specification is to chronicle the lighting products (and their locations) required to achieve the lighting design intent. The documentation needs to be clear and precise and typically includes the following three components: an outline specification, a lighting fixture schedule, and product data/manufacturer catalog sheets. Together, this information is considered a lighting specification. We will also identify those specific characteristics, credentials and requirements in the vetting out lighting product lines.

Signs: The Past, the Present and the Future?

In this presentation, we will discuss the previous, existing and future technologies that affect how you are being marketed to thru signage.

Ariso – Connectionless Connectivity. Yes You Read that Correctly

Harsh environments, rugged environments, friction, mating and un-mating all seem like fun, but not to a connector. To a connector these are serious issues that effect the life and reliability of the connection itself. During this discussion we will discuss TE Connectivity’s Ariso product family and how it addresses and overcomes traditional issues that destroy today’s connectors.

The Dangers of Arc Flash Hazards and How to Prevent It

Arc flash is a dangerous phenomenon where electric current travels outside its path, often causing violent results, such as explosion which can lead to serious injury and even death. Arc flash safety has become a very important topic within the industrial market space. Its profile is on the rise, leading to increased enforcement of NFPA 70E (Standard for Electrical Safety in the Workplace®) guidelines. Join Rittal in learning about some of the main causes of arc flash, its common misconceptions, and how to take effective preventative measures to avoid arc flash accidents.

Climate Solutions to Reduce Energy Consumption

Sophisticated, sensitive electronics and drives are the backbone of many industrial applications — and this equipment is often placed inside enclosures to protect it from harsh environments. Depending on the surrounding temperature and other ambient conditions, it is imperative that these enclosures be cooled to ensure the proper performance of installed components and avoid heat-related downtime.

Creating effective and energy efficient climate control solutions for industrial applications consists of 3 key phases—design, installation and operation. Rittal will discuss tips specific to each phase that can help you reduce energy
understanding costs and realized savings. Common misperceptions of modular enclosures, 2.) Common Functionality and integrators, and end-users alike. During this session, you will learn: 1.) The session will seek out to provide a more clear understanding for designers, flexibility, and the unlimited possibilities a modular enclosure presents. This non-modular enclosure. A Rittal expert will explain the unmatched efficiency, understanding the benefits of modular enclosures versus a welded box or non-modular enclosure. A Rittal expert will explain the unmatched efficiency, flexibility, and the unlimited possibilities a modular enclosure presents. This session will seek out to provide a more clear understanding for designers, integrators, and end-users alike. During this session, you will learn: 1.) The common misperceptions of modular enclosures, 2.) Common Functionality and the tangible difference between a modular vs unibody enclosure, and 3.) Understanding Costs and Realized Savings.

Reducing Control Panel Costs with Busbar Systems

Busbar is an electrical conductor in which energy is collected and distributed to multiple circuits. The use of busbar for switchgear goes back to the beginning of electrical generation and has been used in both residential and commercial applications. Busbar systems replace parts of a traditional control panel, resulting in reduced panel space, easier installation, and less labor. In this session with Rittal, you will learn the following: 1) Introduction to Busbar and its Common Misconceptions, 2) Typical Busbar Components, 3) Busbar system features and benefits over a traditional wiring system (which include: 1.) Panel Space Savings 2.) Design and Integration 3.) End Use Flexibility).

Accelerate Your Control Panel Process with EPLAN

Learn how EPLAN leads automation in Control Panel Manufacturing. Bring data consistency between disciplines with superior quality, time savings and lower overall costs. Accelerate the design and manufacturing of control panels using EPLAN Pro Panel 3D enclosure layout software. Through 3D virtual prototyping, see how you can bring in Rittal enclosure data into EPLAN, align and position wire ducts, mounting panels and components exactly, follow spacing requirements, automatically route wires and calculate their lengths, and send manufacturing data to Rittal Automation Systems' Perforex NC machine and wire processing machines. EPLAN Pro Panel's realistic 3D representation ensures high-quality data for manufacturing, mounting and operation.

How to Automate Automation

As PLC programs are getting bigger and more complex, their quality is now more important than ever. Their increasing size also means that manual tasks like code reviews, documentation and even maintenance are becoming more laborious. Iris Automation specialises in advanced technologies which review, document and convert your PLC programs automatically. These technologies remove the need to perform these tasks manually and thus save our customers time and money. Learn about how our tools PLC Checker, PLC DocGen and PLC Converter help improve your company’s development processes and help you deliver higher quality programs in shorter timeframes.

Transforming Traditional Assembly Systems with Integrated Robots and Flex Rail Guided Carts

Module assembly manufacturers face a host of challenges from today’s OEM’s: Assembly systems today need to enable greater flexibility of the production process, allowing suppliers to adapt to their customer’s needs quickly and cost effectively. The system must also be accurate and reliable for delivery of JIT parts and sub-systems and ensure safety along the assembly line and its access points. Paul Meloche of Fori Automation explains how the Michigan-based automation systems provider is helping to meet those challenges efficiently and effectively.

Pragmatic Applications of Advanced Motion Control for Robots and Cranes

Advances in the control of flexible material-handling Cartesian robots and cranes has been substantial. The past two decades have witnessed unprecedented developments in robust and responsive vibration-suppression technology, computationally efficient trajectory generation, collision avoidance, machine vision, and human/machine interaction. It has been demonstrated that application of this technology to material handling and manufacturing cranes and robots is disruptive, facilitating the advancement of projects that were previously either economically or technologically unfeasible. Improvements in safety, productivity, and ease of use are significant and quantifiable. Adopters of this technology include high-profile companies within the primary metals, automotive, heavy equipment, and printing industries.
## Exhibitor Directory

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<th>Company Name</th>
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<th>Phone Number</th>
<th>Website Link</th>
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<td>919-772-0115</td>
<td><a href="http://www.ati-ia.com">www.ati-ia.com</a></td>
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<td>Automation Alley</td>
<td>2675 Bellingham, Troy, MI 48083</td>
<td>248-457-3280</td>
<td><a href="http://www.automationalley.com">www.automationalley.com</a></td>
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<td>Brave Control Solutions</td>
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<td>519-974-9955</td>
<td><a href="http://www.bravecs.com">www.bravecs.com</a></td>
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<td>Conductix-Wampfler</td>
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<td>800-521-4888</td>
<td><a href="http://www.conductix.us">www.conductix.us</a></td>
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<td>Consumers Energy</td>
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<td>616-530-4441</td>
<td>consumersenergy.com/businessmatters</td>
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<td>Control Systems Innovators Corp.</td>
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<td>905-681-1580</td>
<td><a href="http://www.csinnovation.com">www.csinnovation.com</a></td>
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<td>Control Systems International</td>
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<td>519-737-7447</td>
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<td>248-478-1182</td>
<td>electro-matic.com</td>
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<td>Electro-Matic Visual, Inc.</td>
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<td>866-998-0990</td>
<td>visual.electro-matic.com</td>
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<td>Fori Automation</td>
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<td>586-247-2336</td>
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<td>49 8141 403-0</td>
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<td>industrial.softing.com/us</td>
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<td>University of Toledo</td>
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<td>epd.wisc.edu</td>
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<td>Wayne State University</td>
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<td><a href="http://www.wayne.edu">www.wayne.edu</a></td>
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<td>Washtenaw Community College</td>
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<td>800-626-1816</td>
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