

## Patti Perspective

July 31, 2014

### Greetings!

What is driving the manufacturing resurgence in the US? The power of 'Big Data' is leading the way for US manufacturers to gain a competitive edge.

Our partner, Siemens Automation is providing the products and software tools to manage, and take advantage of, Big Data. Want to know more? See our feature article below on last month's 2014 Siemens Automation Summit.

The Patti Personnel Spotlight is on Vice President of Operations, Ken Kutchek. Ken's meticulous attention to detail keeps the operations side of Patti Engineering running smoothly!

Don't miss the last section of our newsletter, congratulations are in order for three of our engineers!

Siemens Automation Summit - Right on Target

The feedback and reports are in, and the Siemens Automation Summit proves to be a great learning ground for Siemens integrators and users alike. As a Siemens Automation Solution Partner, Patti Engineering sent six members of our executive and sales teams to participate in the Automation Summit, held June 24-26 in Orlando, FL.

Solution  
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According to our Vice President of Operations, Ken Kutchek, PE, "the annual Siemens Summit is a great place to come and see all the latest Siemens technologies. It is also a great opportunity to meet and network with all the key sales and technical people for the various Siemens products and technologies. The breakout session presentations are an excellent way to learn how these technologies are being used in various industries."

Patti Engineering teamed up with Comau, a worldwide leader in manufacturing flexible automation systems, for one of the breakout sessions. Ken joined Amir Shahnazary, PMP, Director of Engineering at Comau to give insights into a challenging time to market project where the companies worked together for an engine assembly line build project, which needed to take place during production on the customer's plant floor. Combining Comau's SmartCell technology with Patti Engineer's SIMATIC S7 PLCs programming expertise, the engine assembly line build was complete in 20 weeks verses the traditional 48 weeks for the same cost and quality!

From a '30,000 foot' overview level, a key takeaway from the Automation Summit was the fact that 'Industry 4.0' - the fourth industrial revolution - is well underway, and Siemens is right there at the forefront. So what does that mean for our end-users of Siemen's technology? We will give you a glimpse here.

We have all heard it; 'Big Data' is the buzzword flying around the corporate world. Knowledge is power, right? Well, the same applies to analyzing and acting on data. As we all shop online, we see how Google, Amazon, Zappos, and many more seem to be inside our heads. Google seems to know exactly what we are searching for, managing millions of little bits of data in an instant to meet our inquiry. As for the retail giants like Amazon and Zappos, they certainly know how to increase their sales by suggesting exactly what we are

interested in buying based on our past searches and history of purchases.

Before the internet and the explosion of Google, the ability to collect huge amounts of data, much less the ability to make sense of it in a usable fashion was very limited. Just as Big Data is making the corporate world more efficient and profitable, Siemens is fueling Industry 4.0 by providing manufacturers with the software tools on a digital platform to deliver a competitive edge through the collection and processing of data to drive results in efficiency, productivity, safety and quality.



As Anton Huber, Siemens AG CEO of the Industry Automation Division explained it, the whole idea of the "Internet of Things" (IoT) is to literally have everything imaginable connected to a network so that information from all these connected "things" can be stored,

transferred, analyzed and acted upon in new, and usually automated ways via network connections with everything else. Siemens is bringing together its products, systems and intelligent software tools onto a digital platform to help manufacturers harness the power of IoT.

Huber used Siemens Totally Integrated Portal (TIA) Portal as an example of its commitment to IoT in manufacturing. TIA Portal holds 55 million lines of code compared to its predecessor, the 2010 version of Step 7 software that held just 7 million lines of code. TIA Portal software can analyze complex shop floor data to optimize all planning, machine and process procedures.

By networking machinery, sensors and control systems together, the ability to collect and analyze an abundance of real-time shop-floor data creates transparency for smart decision making on the shop floor. For example, asset management can be optimized through statistical evaluation. The software can be used



to anticipate maintenance needs, find bottlenecks and be programmed to establish measurements to maximize reliability - fan speed, temperature, humidity and other important variables can be monitored. If one of those variables moves out of the predetermined range, the software can automatically adjust the machinery, essentially solving a problem before it results in machine downtime or compromised quality.

In case you missed the conference, Siemens has placed all presentations online for your reference.

The presentations are available on the USA Online Community website. If you are already a registered user of the Siemens Online Support Portal, [click here](#) to log in and view the presentations. If you are not a registered user of the Support Portal, click the instructions link below to learn how to register for the Portal and the USA Online Community.

[→ Instructions](#)

If you would like Patti Engineering to provide a free consultation to show you how we can help you implement new technology to take advantage of the Industry 4.0 movement, please fill out our [contact form](#) or call us directly at (800) 852-0994.

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## Patti Personnel - Ken Kutchek

The Patti Perspective Spotlight is on our Vice President of Operations, Ken Kutchek. Ken has been with Patti Engineering since 1997 and oversees project execution, scheduling, recruiting, training, quality control, policies/procedures, safety, and UL certification.



Ken has a unique ability to spot great engineers, and this serves the company very well with our recruiting efforts. As with any engineering company, our exceptional engineers have different areas of expertise related to product knowledge, strengths and experience. Ken is a master at attention to detail and planning, his keen ability to review a project's requirements and then align the right team engineers with the best skill sets to execute any given project, keeps both our engineers and our customers happy.

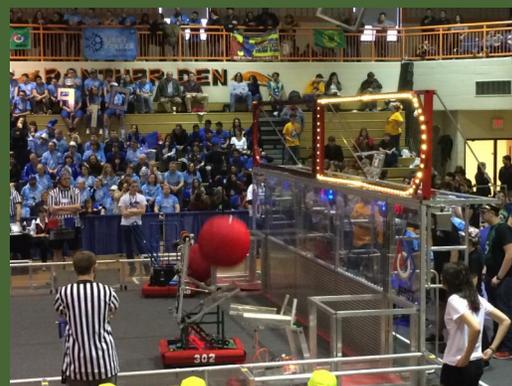
Patti Engineering's President, Patti Hoff noted, "Ken is a key member of our team. He is hardworking, dedicated and passionate about both his job and his fellow team members - and to top it off, he is fun to be around!"

Ken earned a BS in Electrical Engineering from Illinois Institute of Technology (IIT) in Chicago and is a licensed Professional Engineer in Michigan and Texas. He has more than 20 years of experience in electrical engineering and automation controls. Prior to Patti Engineering, Ken owned and operated an energy conservation business helping commercial/industrial clients improve facility efficiency and reduce energy use and energy costs. Ken also worked for Dupont for 6 years doing manufacturing automation and process control.



Ken lives in Lake Orion Michigan with his wife Melissa and 18 year old son Kyle. Ken and Melissa just celebrated their 5 year wedding anniversary - congratulations! Ken's son Kyle recently earned his Eagle Scout rank and will be studying engineering at Michigan Tech in the fall - nice job Kyle!

When not working at Patti Engineering, or working with the Boy Scouts, or helping the high school First Robotics team, Ken is working his "2nd job" of completely remodeling a 90 year old "Lake Cottage" on Lake Orion. For fun, Ken enjoys relaxing by playing on the lake.....boating, water skiing, tubing, jet skiing, hanging out on the pontoon boat or at the Lake Orion Boat Club.



*Dedicated to developing young engineers, Ken has given his time to the Lake Orion High School First Robotics team for many years!*

We work as partners to our clients. When you need an expert to help solve automation challenges, we are here to add value to your solution - enhance efficiency, increase productivity, and work with your team as a trusted resource. Visit our **website** for more information on our areas of expertise, or call us (248)364-3200 for a free initial consultation.

Thank you for your interest in Patti Engineering.

Best regards,

Georgia H. Whalen  
Director of Marketing  
Patti Engineering



Terrance Brinkley



Alex Kennedy



Aju Mathew

Congratulations to our engineers, Terrance Brinkley, Alex Kennedy and Aju Mathew, for having successfully met all of the requirements to achieve Siemens Global Technical Certification in the SIMATIC Technology areas of S7 PLCs, SIMATIC HMIs, and SIMATIC Networking. Patti Engineering now has 7 Siemens Certified engineers. Individuals achieving this Siemens Certification are among an elite group of professionals across the country.

To even qualify for the rigorous two weeks of course work and testing requires an in-depth knowledge of Siemens' product functionality,

best engineering practices and efficiency in technical approach. In industrial settings, the more challenging the goals of a Siemens automation project, the more important it is to have a Siemens Solution Partner with Siemens Certified engineers on staff to deliver the project with a solution of the highest quality.

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