

Vol. 14, No. 9

Serving IEEE Members of South Central Wisconsin

November 2011

TQM Experiences in the High Precision Instrumentation Industry, plus a tour of the Fitchburg, WI plant!

Date: **Thursday, November 17, 2011**

Time: 12:00pm - 1:00pm

Speaker: Mr. Mark Stover, Manager of Continuous Improvement

Agenda: Lunch and informal networking will begin at 11:30am. Presentation starts 12:00pm. Tour starts 12:15pm.

Location: Promega BioPharmaceutical Technology Center
5445 E Cheryl Pkwy, Room Number: 122
Madison, WI 53711



Menu: Lunch meal provided: \$5 for IEEE members, \$10 for non-members, **free for students.**

RSVP: Deadline: Nov. 14. Go to http://meetings.vtools.ieee.org/meeting_view/list_meeting/9227 to register. Please send questions or difficulties to Mark Vincent at mvincent@ecw.org.

Non-member guests are always welcome!

Abstract

First, Mr. Mark Stover, manager of Continuous Improvement at Bruker AXS in Fitchburg Wisconsin, will present the manufacturing process of x-ray diffractometers produced at the Bruker AXS plant. In addition, he will talk about how lean manufacturing concepts are being applied to a low volume, high mix production facility. Second, Mr. Stover will take the audience on a tour of the actual plant (right next door to the presentation venue) to see first-hand how lean manufacturing concepts have actually been put into practice at Bruker AXS. A walkthrough of the production floor, including stops at displays of lean manufacturing initiatives, is planned. Come early and eat – the talk will take the first 15 minutes with the tour taking the next 45 minutes.

Biography

Mr. Mark Stover is Manager of Continuous Improvement at Bruker AXS in Fitchburg, WI. He is responsible for the organization's ISO 9001:2008 Quality Management System (QMS) and is helping Bruker management learn more about the lean thinking that supports the QMS. Prior to joining Bruker in 2007, Mark worked as a Senior Consultant for Wipfli, LLP a consulting and accounting company with offices in Wisconsin and Minnesota. Mark has worked with and for manufacturing companies since 1985 as a Credit Manager and in operations, safety, and quality. Mark is a member of the Downtown Madison Rotary Club and an ASQ CMQ/OE. He lives in Columbus, WI with his wife Kate. They have two grown daughters.

IEEE Entrepreneurs & Consultants Network, Madison Networking Meeting

Date: **Thursday, December 1, 2011**

Time: 12:00pm to 1:00pm

Purpose: Officer's Meeting.

Location: Madison Area Technical College (MATC **West Campus**)
302 S. Gammon Road (Across from West Towne Mall)
Madison, WI 53717 ... Telephone: 608-246-6100

Parking: Open parking, so come early to get a closer spot.

Process: Members are encouraged to make introductions, describe endeavors, and make request for: contacts in target companies, needs, resources. Bring your elevator speech and rolodex!

RSVP: Tim Chapman (PrettyGoodGUIs@TrueNym.NET)

Glacier Hills Wind Park Tour!

starting from University of Wisconsin-Madison

Date: **Monday, November 7, 2011**

Time: 12:45pm - 5:00pm (4.25 hours)

Speaker: Mitch Bradt, PE, Dept. of Eng. Professional Development
Rick O'Connor, PE, We Energies Engineering Manager
Mike Jackovich, PE, We Energies Electrical Engineer

Agenda: Bus leaves from Engineering Hall at 12:45pm sharp!
Bus returns to Engineering Hall at 5:00pm.

Location: UW Engineering Hall
1415 Engineering Drive
Madison, WI 53706



Menu: No lunch meal provided: \$5 for IEEE members, \$10 for non-members, free for students.

RSVP: Deadline: October 31. Go to http://meetings.vtools.ieee.org/meeting_view/list_meeting/8893 to register. Please send questions or difficulties to Mark Vincent at mvincent@ecw.org.



Non-member guests are always welcome!

Abstract

The Glacier Hills Wind Park, located in the towns of Randolph and Scott in Columbia County, is designed to generate 162 megawatts (MW) of electricity and will be capable of powering approximately 45,000 average residential homes. The site will consist of 90 Vestas V-90 1.8 MW Type 3 turbines. Construction began on May 17, 2010, and will be completed by the end of 2011. The project is being constructed by a Wisconsin-based alliance that includes The Boldt Company of Appleton, Michels Corporation of Brownsville and Edgerton Contractors, Inc. of Oak Creek. This tour will include a presentation during the bus ride to the site on some electrical aspects of the Type 3 turbine and the GHWP. While on the tour, a We Energies Project Engineer will discuss the development, layout and construction of the GHWP project, including a visit to one of the turbines and to the collector substation. Rick O'Connor will provide the tour of the wind farm and Mike Jackovich will provide the substation tour.

Biography

Mitch Bradt is a Program Director for continuing engineering education in the disciplines of Wind Energy, Power Electronics, Electrical Distribution and Electrical Safety. Prior to being in academia, he has been a consulting engineer designing substations and wind farms, has worked at a manufacturer of grid connected power electronic equipment (D-SMES, D-VAR, STATCOM), and got to blow up aircraft while serving the the US Air Force. He received his BSEE from Marquette University in 1993 and MSEE with a focus on Utility Application of Power Electronics from the University of Wisconsin-Madison in 1996.

IEEE Entrepreneurs & Consultants Network, Madison Networking Meeting

Date: **Thursday, December 1, 2011**

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Purpose: Officer's Meeting.

Location: Madison Area Technical College (MATC **West Campus**)
302 S. Gammon Road (Across from West Towne Mall)
Madison, WI 53717 ... Telephone: 608-246-6100

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RSVP: Tim Chapman (PrettyGoodGUIs@TrueNym.NET)

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Monthly Section Meetings

The third Thursday of Jan.-May and Sep.-Dec. is reserved for a meeting to provide recent research, developments, trends and/or innovations in one of our membership's technical areas.

Section Meeting Schedule for 2011

(schedule subject to change)



(past) **January 19**, Wind Turbine Generators
(past) **January 20**, Capitol Heat & Power Plant
(past) **February 17**, Tesla Coil Design/Build
(past) **March 17**, Privacy of Elec. Health Info.
(past) **April 12**, 21st Century Electric Machines
(past) **May 19**, SADT/IDEF0 Modeling
(past) **August 18**, Debugging Electronics
(past) **September 1**, Consumer Digital Storage
(past) **October 28**, Time-Frequency Waves

November 7, Wind Farm Tour at Glacial Hills, Wisconsin. Mitch Bradt, PE.

November 17, TQM Experiences in the High Precision Instrumentation Industry. Tour the Bruker, AXS facility!!

December 15, Voting results for 2012 Officers Election.

Section Meeting Schedule for 2012

(schedule subject to change)

January 19, EU e-Freight Software Initiative
February 16, Patent Law
March 15, TBD
April 19, TBD
May 17, TBD
June 21, TBD
September 20, TBD
October 18, TBD
November 15, TBD
December 20, TBD

Monthly Networking Meetings

The first Thursday of every month is reserved for a meeting to provide networking opportunities for members who are consultants or entrepreneurs. Bring your elevator speech and rolodex!

Networking Meeting Schedule for 2011

(schedule subject to change)

(past) **January 3**, Kickoff meeting for 2011.
(past) **March 3**, SBIR Process and Panel.
(past) **April 7**, Sector67 – Overview of Madison innovation environment.

August 4, Working on the Network.

October 6, Telepresence.

December 1, IEEE Tools for Self Promotion.

2012 IEEE Technical Field Awards

We are pleased to announce below the recipients of this IEEE-wide award with their affiliated Section, which represents leadership and extraordinary contribution.

1. IEEE CLEDO BRUNETTI AWARD - YAN BORODOVSKY & SAM SIVAKUMAR - Lithography.
2. IEEE COMPONENTS, PACKAGING AND MANUFACTURING TECHNOLOGY AWARD - MAURO J WALKER - Packaging.
3. IEEE CONTROL SYSTEMS AWARD - ALBERTO ISIDORI - Control Theory.
4. IEEE ELECTROMAGNETICS AWARD — NADER ENGHETA - nanoscale optics.
5. IEEE JAMES L. FLANAGAN SPEECH AND AUDIO PROCESSING AWARD — JAMES BAKER & JANET BAKER - speech recognition.
6. IEEE ANDREW S. GROVE AWARD - JEAN-PIERRE COLINGE - silicon-on-insulator technology.
7. IEEE HERMAN HALPERIN ELECTRIC TRANSMISSION AND DISTRIBUTION AWARD - MICHEL DUVAL - high-voltage transformers.
8. IEEE MASARU IBUKA CONSUMER ELECTRONICS AWARD - GISLE BJØNTEGAARD, GARY SULLIVAN & THOMAS WIEGAND - codex standard H.264/MPEG4-AVC.
9. IEEE INTERNET AWARD - MARK HANDLEY - Internet open standards and open-source systems.
10. IEEE REYNOLD B. JOHNSON INFORMATION STORAGE SYSTEMS AWARD - NAOYA TAKAHASHI - heterogeneous storage systems.
11. IEEE RICHARD HAROLD KAUFMANN AWARD - JOHN P. NELSON - electrical safety culture.
12. IEEE JOSEPH F. KEITHLEY AWARD IN INSTRUMENTATION AND MEASUREMENT — RIK PINTELON - measurement applications.
13. IEEE GUSTAV ROBERT KIRCHHOFF AWARD — RONALD ROHRER - electronic design automation.
14. IEEE KOJI KOBAYASHI COMPUTERS AND COMMUNICATIONS AWARD — JEAN WALRAND - network resource allocation
15. IEEE WILLIAM E. NEWELL POWER ELECTRONICS AWARD - LEO LORENZ - power semiconductor.
16. IEEE DANIEL E. NOBLE AWARD FOR EMERGING TECHNOLOGIES — SUBRAMANIAN S. IYER – embedded DRAM technologies.
17. IEEE DONALD O. PEDERSON AWARD IN SOLID-STATE CIRCUITS — BEHZAD RAZAVI – CMOS communication circuits.
18. IEEE FREDERIK PHILIPS AWARD — CHIH-YUAN LU – semiconductor research , development & industrial alliances.
19. IEEE PHOTONICS AWARD — ELI YABLONOVITCH - photonic bandgap engineering.”
20. IEEE EMANUEL R. PIORE AWARD — FRED SCHNEIDER – security, fault tolerance & distributed systems.
21. IEEE JUDITH A. RESNIK AWARD — PRAMOD KUMAR VARSHNEY – multisensor data fusion.
22. IEEE ROBOTICS AND AUTOMATION AWARD — BERNARD ROTH - robot kinematics, manipulation & design.
23. IEEE FRANK ROSENBLATT AWARD — VLADIMIR VAPNIK – biologically inspired learning.
24. IEEE DAVID SARNOFF AWARD — HIDEO OHNO - semiconductor electronics, magnetism & spintronics.
25. IEEE MARIE SKLODOWSKA-CURIE AWARD — GENNADY ANDREEVICH MESYATS – nanosecond pulsed power.
26. IEEE CHARLES PROTEUS STEINMETZ AWARD — DALEEP MOHLA - power systems safety standards.
27. IEEE ERIC E. SUMNER AWARD — JACK WINTERS & ANDREAS MOLISCH - multiple-antenna systems.
28. IEEE NIKOLA TESLA AWARD — MANOJ SHAH – electrical machines.
28. IEEE KIYO TOMIYASU AWARD — MUNG CHIANG – communication networks theory.
30. IEEE LEON K. KIRCHMAYER GRADUATE TEACHING AWARD — ANTHONY CONSTANTINIDES - digital signal processing.
31. IEEE UNDERGRADUATE TEACHING AWARD — SANTOSH KURINEC - microelectronic engineering.

Selection of Officers

At the December monthly meeting, the IEEE Madison Section conducted its annual officer elections prior to the presentation:



2011 Officers

David Marca, Chair
dmarca@openprocess.com
Steve Schultheis, Vice Chair
ss@ieee.org
Charles Gervasi, Treasurer
cj@cqervasi.com
Charles Gervasi, Secretary
cj@cqervasi.com
Tim Chapman, Web Master
prettygoodquis@truenym.net

2011 Members at Large

Dennis Bahr
bahr@inexpress.net
Mitch Bradt
bradt@wisc.edu
Craig Heilman
craig@bugsoft.com
Clark Johnson
clarkjohnson@cpinternet.com
Sandy Rotter
rotter@ieee.org

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IEEE Membership Level Upgrades

Those interested in upgrading their IEEE membership level should send their resumes or other information showing five years of significant performance in an IEEE-designated field to Charles J Gervasi (cj@cgervasi.com). Madison Section Board will attempt to find Senior IEEE members knowledgeable in the applicant's area of practice who may be able to provide references. You are invited to attend the informal networking portion of the monthly Section meetings (starting at 11:30am) to meet the Section Board members and discuss intentions.

2011 Section Board Members

David Marca	Chair
Steve Schultheis	Vice Chair
Charles Gervasi	Treasurer
Charles Gervasi	Secretary
Timothy Chapman	Webmaster
Mitch Bradt	Member at Large
Clark Johnson	Member at Large
Dennis Bahr	Member at Large
Craig Heilman	Member at Large
Sandy Rotter	Member at Large

IEEE Madison Section Newsletter

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Our members have professional interests in computers, power engineering, signal processing, communications, industry applications and a number of other technical fields

For more information, contact Mitch Bradt at 608-263-1085 or bradt@wisc.edu.

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