



IEEE Informer

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Chairman's Corner

Paul Tindall

Happy 40th birthday IEEE! The IEEE was officially established January 1, 1963 with the merger of the Institute of Radio Engineers (IRE) and the American Institute of Electrical Engineers (AIEE). The AIEE was formed in 1884 as a national association that was primarily focused on power engineering. Founded in 1912, the IRE advanced the then fledgling fields of radio and electronics engineering.

Both organizations existed to serve their members and advance their respective fields. By the 1960's there were serious talks about merging the two organizations. Advantages included the IRE's successful professional group system and growing student involvement. These became the basis for the IEEE's professional societies and student branches. More information about the IEEE's 40-year history can be found in the September edition of *The Institute*.

The Milwaukee Section has a new birth announcement of its own. On July 28 the IEEE officially chartered the new IEEE Milwaukee Section – Women in Engineering (WIE) Affinity Group. There are currently about 300 Women in Engineering affinity group members in Wisconsin. Having an active organization in the Milwaukee area will help provide a Milwaukee forum for their activities.

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Calendar of Events

2003 IEEE Milwaukee Section Timeline (Some Dates are Tentative)

Feb. 1-2	Region 4 Meeting in Chicago
Feb. 05	Board Meeting
Feb. 07	Spring Newsletter Deadline
Feb. 16-22	National Engineer's Week
Feb. 19	EMC – Evening with Henry Ott (Cancelled)
Mar. 05	Board Meeting
Mar. 07	Spring Newsletter Delivered
Apr. 04	Great Lakes Biomedical Conference
Apr. 08	IEEE Milwaukee Spring Conference & EMC Fest: Speaker Lee Hill
May 06	Awards Banquet/Student Night
Jul. 11	Summer Picnic (Brewer's Dew Deck)
Aug. 08	Chapters Plan for Fall Meetings
Aug. 15	Speakers Confirmed for Fall Meetings
Sep. 08	Fall Newsletter Deadline
Sep. 20	Board Meeting
Oct. 06	Fall Newsletter Delivered
Oct. 30	Fall Exec/Chapter/Section Meetings
Dec. 13	IEEE Milwaukee Holiday Party

Related Events

Sep. 30 to Oct. 2	Wisconsin Manufacturing and Machine Tool Expo 2003
URL:	http://www.expoproductionsinc.com/mt.htm

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Time Sensitive Material



IEEE Milwaukee Section
13125 W. Wilbur Drive
New Berlin, WI 53151



Chairman's Corner -- 2003

Continuing from the cover...

WIE is dedicated to important issues for women engineers such as recognizing women's achievements, promoting networking and member grade advancement, and encouraging young women to enter engineering. Women are still underrepresented in engineering, particularly electrical engineering. Having this advocacy group in the Milwaukee Section is another way to serve our membership.

The Milwaukee WIE affinity group recently held their first meeting. The next meeting will include election of officers and will be held with the Milwaukee Section meetings at MSOE on October 30. If you're interested in the Women in Engineering activities please plan to attend!

Paul Tindall,

IEEE Milwaukee Chair for 2003

IEEE Milwaukee Section Events and Meetings

Fall Section Meeting

The Fall Meeting of the IEEE Milwaukee Section will be held on October 30, 2003 at MSOE.

Location

Milwaukee School of Engineering
Student Life and Campus Center
1025 North Broadway
Milwaukee, WI

Chapter Meetings Being Held at October Section Meeting

- Control Systems
- Computers
- Electromagnetics Compatibility
- Magnetics
- Power Engineering
- Women In Engineering

Details of the society chapter meetings can be found later in this newsletter.

Agenda

Executive Committee Meeting	4:30 - 5:00 p.m.
Registration	5:00 - 7:00 p.m.
Society Chapter Meetings	5:45 - 6:45 p.m.
Social	6:45 - 7:00 p.m.
Section Dinner	7:00 - 7:45 p.m.
Presentation – Dr. Rohde	7:45 - 8:15 p.m.

Dinner Speaker Biography

Ulrich L. Rohde

Ulrich L. Rohde studied electrical engineering and radio communications at the universities of Munich and Darmstadt, Germany. He holds a Ph.D. in electrical engineering (1978) and a ScD. (hon., 1979) in radio communications and several honorary doctorates.

He is President of Communications Consulting Corporation; Chairman of Synergy Microwave Corp., Paterson, New Jersey; and a partner of Rohde & Schwartz, Munich, Germany. Previously, he was the President of Compact Software, Inc., Paterson, New Jersey; and Business Area Director for Radio Systems of RCA, Government Systems Division, Camden, New Jersey. He is a Professor of microwave circuit design and has held Visiting Professorships at several universities in the United States and Europe.

Dr. Rohde holds several patents and has published more than 60 scientific papers in professional journals, contributed a chapter entitled "Oscillators and Frequency Synthesizers" to the *Handbook of Microwave and Optical Components, 2nd Edition*; contributed a chapter entitled "Frequency Synthesizers" to the *The Wiley Encyclopedia of Telecommunications*, as well as six books: *Communications Receivers, Third Edition*; *RF/Microwave Circuit Design for Wireless Applications*; *Microwave and Wireless Synthesizers: Theory and Design*; *Microwave Circuit Design Using Linear and Nonlinear Techniques*, with co-authors George Vendelin and Anthony M. Pavio; *Communications Receivers: Principles and Design*; and *Digital PLL Frequency Synthesizers: Theory and Design*.

Dr. Rohde is a member of the following: Fellow Member of the IEEE, Invited Panel Member for the FCC's Spectrum Policy Task Force on Issues Related to the Commission's Spectrum Policies, ETA KAPPA NU Honor Society, Executive Association of the Graduate School of Business-Columbia University, New York, the Armed Forces Communications & Electronics Association, fellow of the Radio Club of America, and former Chairman of the Electrical and Computer Engineering Advisory Board at New Jersey Institute of Technology.

Dinner Cost and Reservations

Members and spouses with reservations:	\$20
Members without reservations	\$25
Non-Members	\$25
Student Members	\$5

For reservations, call Marilyn at 277-7323 or send email to gassert@msoe.edu. If you intend to park at MSOE, please give Marilyn the make of your car and license number. New regulations require that we inform the MSOE Public Safety Department of those attending meetings at MSOE. We don't want anyone to get a ticket.

IEEE Milwaukee Section Holiday Dinner Party

The IEEE Milwaukee Section Holiday Dinner Party will take place at the Milwaukee County Zoo again this year. Bring the whole family.

IEEE Lights Up Your Holidays

Join us at 6:00 p.m. on Saturday, December 13, 2003 for a stroll through the magical, twinkling world of the Zoo's Holiday Night Lights, sponsored by WE Energies. There will be special family events planned throughout the park. The elves are still keeping everything top secret so watch the IEEE website ewh@ieee.org for the Holiday Night Lights News.

We will have a Grand Buffet Style Dinner Catered by Buzel's. Entrée selection includes Hot Sliced Roast Beef, Sliced Breast of Turkey, and Baked Ham, rounded out with a salad, vegetables, potatoes, and a chocolate desert. Milk, soda, coffee, tea, and hot chocolate are included. A cash bar will be available. There will be something for everyone to enjoy.

After dinner we will have the Awards Presentation, Election of Officers, and Animal Talk. During the Animal Talk one of the zoologists will bring a Mystery Guest. During this half-hour presentation, we will be up close and personal with our Mystery Guest.



Last year's Mystery Guest (A snake) is introduced.

Tickets are \$15.00 per adult, \$5.00 for children, 14 years and under. If your little one isn't old enough to eat off the buffet then they are free. Parking is included with your ticket.

To make your reservation, please fill out the form printed in this newsletter and mail to Sylvia Anne Wrate at the address shown. Advance reservations are requested as they will help us plan the event. However, a limited number of tickets will be available at the door for \$20.00 per adult and \$5.00 per child.

Election of Officers

Call for Officers! Nominations are open for 2004 Milwaukee Section Officers. Please contact Larry Hause at 262-547-3859 or llhause@yahoo.com if you are interested in helping your section.

Society Chapters Events and Meetings

Control Systems

Chapter Chair: Hue Tran

Event Type: Meeting

Date: October 30, 2003 (At Milwaukee Section Meeting)

Time: 5:45 p.m.

Location:

Milwaukee School of Engineering
Room S-312

Allen-Bradley Hall of Science (S Building)
432 E. Kilbourn Avenue
Milwaukee, Wisconsin 53202

Description: (See below.)

Title of Presentation: "Innovations in Undergraduate Control System Instructional Laboratory"

Presenters: Dr. Hadi Saadat, Senior Member IEEE
Dr. Stephen Williams, Member IEEE

Affiliation: Electrical Engineering and Computer Science Department, Milwaukee School of Engineering, Milwaukee, Wisconsin.

Abstract: With the growth of microcomputer capabilities, control engineering has witnessed a significant shift towards digital implementation of digital controllers. Many modern industrial and commercial control systems employ digital computers. With the use of digital computers in the loop, one can readily generate C code from graphical simulation tools such as Simulink block diagrams for real-time controller implementation. This has provided the impetus for establishment of a real-time instructional control laboratory at Milwaukee School of Engineering. At this presentation the development of this innovative integrated real-time control system laboratory will be described. Next modeling, simulation, controller design and implementation of a few typical laboratory experiments and projects of different complexity are presented.

Biographies:

Dr. Hadi Saadat is a Professor of Electrical Engineering at Milwaukee School of Engineering, active in teaching and research in control and power systems. He received his Ph.D. degree in Electrical Engineering from the University of Missouri-Columbia in 1972. He has extensive background in control systems, power system analysis, and engineering educa-

tion. He has worked in industry and previously taught at Michigan Technological University and other institutions in the United States and abroad.

Dr. Stephen Williams is an Associate Professor of Electrical Engineering at the Milwaukee School of Engineering where he specializes in instrumentation, controls, and power engineering. Prior to joining MSOE, he taught engineering and co-directed the industrially-sponsored Senior Design sequence at Baylor for nine years. He was a faculty member at the Naval Postgraduate School for three years, founding and directing the Power Systems Option, performing research on ship-board power systems, and directing graduate projects. He graduated with a Doctorate of Philosophy in Electrical Engineering from the University of Missouri in 1990. He has three years of aerospace test engineering experience with Allied Signal. He is a licensed Professional Engineer in the State of Texas and has a license pending in Wisconsin.

Engineering in Medicine and Biology

Chapter Chair: Robert Molthen

Event Type: Conference

Date: Spring, 2004

Description: (See below.)

For the past 27 years, the EMBS Chapter, Milwaukee Section of the IEEE has organized and run the Great Lakes Biomedical Conference. The rich history of the conference has been marked by a long list of speakers that are leaders in their field. The successful meeting has grown into an event that allows regional students to promote their research through a poster session and network with the various academic and industrial representatives present. In the spring of 2004 the Great Lakes Biomedical Conference will represent a new era. The conference planning committee has teamed up with Chuck Oehler of The Oehler Group, known for their success in business planning, to expand and improve the Great Lakes Biomedical Conference. Stay tuned for future announcements on the 2004 conference.

Electromagnetics Compatibility

Chapter Chair: Jim Blaha

Event Type: Business Meeting

Date: October 30, 2003 (At Milwaukee Section Meeting)

Time: 5:45 p.m.

Location:

Milwaukee School of Engineering
Student Life and Campus Center
1025 North Broadway
Milwaukee, WI

Description: The EMC Chapter will be holding a Fall Business Meeting on October 30th in conjunction with the IEEE

Milwaukee Section Meeting. This business meeting will focus on the following topics:

- Election of Chapter Officers
- Review of EMC Fest 2002 and EMC Fest 2003
- Planning of EMC Fest 2004
- Discussion of Future Meeting Locations
- Discussion of the IEEE Holiday Party – December 13th
- Discussion of an EMC Chapter – Spring Party

Power Engineering

Chapter Chair: Chris Nelson

Event Type: Meeting

Date: October 30, 2003 (At Milwaukee Section Meeting)

Time: 5:45 p.m.

Location:

Milwaukee School of Engineering
Student Life and Campus Center
1025 North Broadway
Milwaukee, WI

Title of Presentation: “Need for the Arrowhead-Weston Transmission Line”

Presenter: Chris Hagman

Affiliation: American Transmission Company

Description: The Power Chapter’s speaker at the October 30 meeting will be Chris Hagman. Chris is a Transmission Planning Engineer with the American Transmission –Company. His topic is “Need for the Arrowhead-Weston Transmission line.” The limited transmission capacity between Wisconsin and Minnesota makes this link one of the most congested in the United States. Chris will discuss how changing demands affect the economics of an open access transmission system and the need for this new facility.

Magnetics

Chapter Chair: Mark Juds

Event Type: Meeting

Date: October 30, 2003 (At Milwaukee Section Meeting)

Time: 5:45 p.m.

Location:

Milwaukee School of Engineering
Student Life and Campus Center
1025 North Broadway
Milwaukee, WI

Title of Presentation: “Hall Sensors and Applications”

Presenter: Jerry Hastings

Affiliation: Eaton Corporation

Description: Mr. Hastings earned BS degree from University of Wisconsin – Milwaukee in Electrical Engineering. He is a

Registered Professional Engineer in Wisconsin. Professional Society memberships include IEEE, SAE, SME, NARM. He holds 44 patents and the position of "Fellow" in the Eaton Society of Inventors. Prior to Eaton Corporation, Mr. Hastings was an electrical consultant designing high voltage substations, power distribution networks, instrumentation / control systems and mission critical DC power systems. At Eaton, Mr. Hastings has held technical leadership and management positions in Industrial Control, Aero Space Control, Commercial Control, and Corporate Research. His patents are granted in Arc Fault Detection, Circuit Breakers, Sensors, Actuators, and Magnetics. He currently leads Principal Technologies in Electric Power management, specializing in DC arc fault detection and solid-state power management. He has co-authored papers on magnetics, plastics, arc fault detection and current sensing. He has delivered seminars on power management, arc fault protection, current sensing, and 42 Volt DC auto systems to all of the principal automakers, truck manufacturers, and telecom companies both US and Europe.

Women in Engineering

Chapter Chair: Edina Bajrektarevic

Event Type: Business Meeting

Date: October 30, 2003 (At Milwaukee Section Meeting)

Time: 5:45 p.m.

Location:

Milwaukee School of Engineering
Student Life and Campus Center
1025 North Broadway
Milwaukee, WI

Description: The Milwaukee Section's Women in Engineering Affinity Group will meet during the October 30 section meeting. This is a new group within the Milwaukee section. Election of officers will take place at this meeting. Women in Engineering is open to all IEEE members, Women and Men, who are interested in encouraging women to become engineers, networking, and professional development. For more information, contact Edina Bajrektarevic at 262-506-6953 or ebajrektarevic@atcllc.com.

Computer Society

Chapter Chair: John Safer

Event Type: Business Meeting

Date: October 30, 2003 (At Milwaukee Section Meeting)

Time: 5:45 p.m.

Location:

Milwaukee School of Engineering
Student Life and Campus Center
1025 North Broadway

Milwaukee, WI

Description: The Computer Society will hold a general meeting on October 30th to discuss:

- G. E. Tour on December 11th
- Review of September 30, October 1 & 2 EXPO
- Election of Chapter Officers
- Discussion of Future Meetings
- \$15,000.00 Plus, Design Competition



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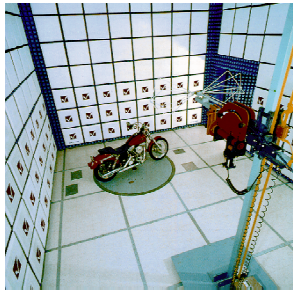
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