



Spring 2008 Section Conference and the upcoming Fall 2008 Section Conference



David Laurent
Section Vice Chair

As the new IEEE SEM vice chair (and the conference committee chair) for 2008 I was not prepared for the effort needed to prepare for the IEEE SEM's bi-annual conference. It took a lot of teamwork, frenzied emails, and follow-up phone calls to get all the organizational details completed before the conference date. The effort paid off with a first rate Spring 2008 Section Conference. The event set an attendance record with around 170 registered attendees and approximately 120 who stayed for the spring conference speaker and a wonderfully catered dinner.

For those who could not get the announcement in time or who might have been otherwise committed, the conference was held at the University of Michigan - Dearborn Fairlane Center on Wednesday, April 2, 2008. We

were fortunate to have an excellent keynote speaker, Gary Beach, Publisher Emeritus of International Data Group's CIO Magazine who presented, "Where Will America Find the Next Generation of Innovators".

Of course this could not have been accomplished without the hardworking and dedicated SEM Section officers. In particular I want to acknowledge the great effort by the following

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individuals:

- Mo Berri
- Don Bramlett
- Mark Ciechanowski
- Liang Downey
- Scott Lytle
- Adel Marzougui
- Chris Mi
- Randy Stevenson
- Kevin Taylor
- Aisha Yousuf

Thanks needs to be extended to all the Chapter Chairs and officers that arranged for the Chapter speakers. However, this listing does not convey the extended effort and commitment provided by each member of the organizing committee in order to ensure the success of this event. Our chapter speakers also deserve special thanks for spending their personal time to prepare their presentations, and in some cases, traveling extensive distances to attend our event.

And we cannot forget the fantastic job done by Trisha Schlaff and her staff at U of M - Dearborn Fairlane Center for preparing for the event.

What is in store the Fall IEEE Southeast Michigan Section conference? The organizing committee has already begun their work defining the agenda and format for the Fall event. Among the things the planning committee has defined is that the conference theme will be "The Great Lakes Green Technology Initiative", which will have topics about:

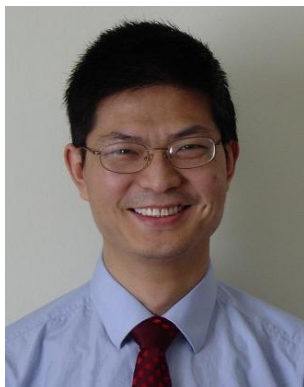
- Renewable energy like wind, solar, geothermal and bio mass

- Fossil fuels
- System modeling for the environment
- Federal and State Government policies towards green technology research and development
- Space for environment monitoring and power generation
- Architecture
- Urban planning
- Agriculture
- Biology and bio chemistry
- Material science for solar collectors, batteries, insulators, etc
- Water sources and waste water management
- Nano Technology

Also included will be a review of current research projects that impact all the above. We need your input and suggestions. The larger the participation of our members the better we can present your interest and have a successful conference.

So remember Saturday, November 8, 2008 8:00 AM to 4:00 PM for our first all day conference. Breakfast will be available starting 8:30 AM and lunch will be served at around 12:00 PM.

IEEE Distinguished Lecturers Program



Chris Mi, Ph.D.
Section Chair

Most IEEE Societies offer a Distinguished Lecturers Program (DLP). The primary purpose of the Distinguished Lecturer Program is to help local chapters provide interesting and informative programs to serve the needs of the local members of that society and to enhance their professional vitality by keeping them informed of new technological developments and applications. The Distinguished Lecturer Program is not intended to support plenary speakers for conference/symposium/workshop or university seminars.

The hosting society usually cost share the expenses of the speaker's travel. Local IEEE chapters, sections, and student groups can use the speaker for their events. IEEE student groups are especially encouraged to make use of the program to invite outstanding speakers. Distinguished lecturers will receive no honorarium.

Requesting a Distinguished Lecturer

Based on the interests of the members, the Chapter Chair selects a topic and lecturer from the list of

Distinguished Lecturers from IEEE DLP data base, or their respective society website (examples below):

- [IEEE DLP Database>>](#)
- [Electron Devices Society>>](#)
- [Circuits and Systems Society>>](#)
- [Robotics and Automation Society>>](#)
- [Power Electronics Society>>](#)

As soon as the Chapter Chair is interested in inviting the distinguished lecturer, he/she should contact the lecturer directly or contact the Chapter Development Chair to receive help. Some societies require approval from the society. In general, the society offers to cover the travel expenses and the local chapters would cover the local expenses. There is also a Regional Lecturers Program to support chapter meetings at lower cost.

Once the request is approved and a date of mutual agreement has been determined, then the event can be publicized. The lecture should be open to all members of IEEE.

Reimbursement Procedure: In general, the lecturer will submit his/her expenses directly to the society treasurer for his travel expenses. If there is any out-of pocket expense by the lecturer that needs to be reimbursed by the local chapter, the chapter chair is responsible to file an expense report and send it to section treasurer.

Becoming a Distinguished Lecturer

Each society has a committee to accept nominations for Distinguished Lecturers (DL). Experts in his/her field willing to become a DL need to be nominated by a member of his/her society, with his/her most current CV, and a list of topics he/she can talk about if elected. The information is sent to the DL program coordinator for evaluation. There is usually a deadline each year for the nomination. If anybody in our section is interested, please contact me at [mi AT ieee DOT org](mailto:mi@ieee.org) or Kevin Taylor ([k2356 AT aol DOT com](mailto:k2356@aol.com)) for more details. Kevin is the PES DL coordinator.

Call for IEEE Fellow Nominations



IEEE Fellow Nominations
Committee

Nominations are being accepted for the IEEE Fellows class of 2010. The rank of IEEE Fellow is the institute's highest member grade, bestowed on an IEEE Senior Member who has had an extraordinary record of accomplishments in any of the IEEE fields of interest. The deadline for nominations is 1 March 2009.

Senior Members can be nominated in one of four categories: application engineer/practitioner, research engineer/scientist, educator, or technical leader.

The Fellows Web pages contain information regarding the history of the IEEE Fellows program, the nomination process, access to the Fellows Nomination Kit, lists of Fellows who are eligible to be references and more about the Fellow program. Please visit the [Fellows website>>](#).

University of Michigan Solar Car Update



Dean Wisniewski, P.E.
University of Michigan –
Ann Arbor IEEE Student
Branch Mentor

The IEEE-SEM welcomed two University of Michigan – Ann Arbor engineering students as speakers at the 2008 Section Spring Conference. Jeff Rogers (*BSE CSE '08*, HKN Beta Epsilon) and



(L-R): Steve Hechtman, Dean Wisniewski, and Jeff Rogers at the spring conference

Steve Hechtman (*BSE EE '09*, Solar Car Project Manager) talked about “Electronics of a Solar Powered Race Vehicle”. As featured in the February 2008 edition of IEEE Spectrum, a

Solar car is an Electric Vehicle with onboard photovoltaics charging the batteries for extended driving range. Find out more about the [UM-AA Solar car team>>](#)



July 2008 Solar Car “Rayce”

The University of Michigan Solar Car Team successfully defended their North American Champion title against university race teams from USA, Canada, UK, and Germany. From Dallas to Calgary, the 2,400 mile North American Solar Challenge is the

longest solar car race in the world. The Wolverines finished the race in a cumulative time of 51 hours and 42 minutes, outpacing the closest team by almost ten hours. The vehicle, named “ContinuUm”, was on display at the recent Traverse City automotive management briefing and also had a celebratory victory lap at the

Woodward Dream Cruise. The winning solar car technology included:

- Emcore Triple-Junction GaAs photovoltaics (2 kW peak power)
- Lithium Polymer batteries (5kWh capacity)
- CSIRO in-wheel electric motor

Additional information can be found at [umsolar blogspot >>](#) and [American Solar Challenge >>](#) websites.

Go Fast, Go Smooth, Go Blue!

dB Café: A Synergy of IEEE and HKN



Dean Wisniewski, P.E.
UM-AA IEEE Student
Branch Mentor

Eta Kappa Nu (HKN) is a national Electrical and Computer Engineering student honor society presently negotiating to become an organizational unit of the IEEE (As mentioned in April 2008 issue of Wavelengths Vol. 48, Issue 2). In Ann Arbor, the IEEE student branch and HKN student chapter members have already seen the benefits of working together.

The *dB Café* was formed by the merger of the Ann Arbor **IEEE** Student Branch bagel stand and the **HKN**, Beta Epsilon chapter, pizza and donut stand. A permanent home has been established for the dB café, in the University of Michigan - Ann Arbor Electrical Engineering and Computer Science (EECS) atrium. More information can be found at the UM IEEE [Student Branch Website >>](#).

IEEE End of School Year Student Event



Aisha Yousuf
Director of Student
Activities

The IEEE Southeastern Michigan Section hosted the end of school year event for the student and graduate student members of IEEE SEM section to mark the end of the school year. The event was hosted on Sunday, May 4, 2008 10:00 AM - 4:00 PM at the University of Michigan – Dearborn Fairlane Center. Lunch was provided by the section and there was no cost of attendance for the students.

Three speakers were invited to prepare the graduating students for the future. Dr. Nabil Sarhan from Wayne State University informed the students about the graduate programs in Electrical and Computer Engineering. He emphasized the importance of attending graduate school and educated students about how to get into and get funding for grad school. Mark Ciechanowski P.E., a certified Six Sigma Black belt from Ford Motor

Company, gave a brief overview of the Six Sigma. He talked about the benefits and applications of six sigma and how it is used in the industry today. He supplemented his presentation with little hands-on six sigma activities for students. Lastly, Lora Schulwitz, the Chair of the section Graduates of the Last Decade (GOLD) affinity group talked about the IEEE GOLD group and the benefits of getting involved in GOLD.

While there were few attendees, the students found the talks very relevant and educational. The interactive formats of all the presentations allowed students to ask questions during the talks and get to know other students and speakers. The section hopes to host a similar event again at the end of next school year for a larger audience

Robotics & Automation and Education Society News



Douglas Czinder
Chair



Robotics and Automation
Chapter

Update from Dr. Chung of Lawrence Technological University:
"Robofest teams were invited at Oakland University during the 16th Intelligent Ground Vehicle Competition ([IGVC >>](#)). On Sunday June 1st, 37 students from 10 schools, many teachers, and parents participated in this mini Robofest event. Students also had a chance to see autonomous robotic vehicles created by college students from top level Universities.

Senator Carl Levin visited Robofest booth and watched the L2Bot Mini Urban Challenge as well as Sumo demonstrations on June 2. Pictures of the event are available [online >>](#).

Senator Levin and the Tank-Automotive Research, Development, and Engineering Center (TARDEC) are encouraging students to pursue robotics education. [TARDEC >>](#) is located in Warren at the Army's Detroit Arsenal. It is the "nation's laboratory for advanced military automotive technology."

The media release of [Senator Levin's comments >>](#) is also available online.

Dr. Chung, Robofest Director, would like to thank Prof. Keith Bozin, Natural Science Dept, and Jeff Sparling, Robofest coordinator, for assisting/coordinating the event.

In other news, I am very excited to announce that the education society chapter will be co-hosting an exceptional workshop for K-12 teachers at UM-Dearborn on August 18, 2008. This workshop is the product of Dr. Aslam of Michigan State University. Dr. Aslam has received high praise from his colleagues at Harvard and Princeton for his unique educational approach. This workshop will allow K-12 teachers to bring micro and nano-technology concepts and experiments into their curriculum. The workshop is co-hosted with the IEEE Education Society, Nanobrick, WIMS, and the National Science Foundation. A second workshop is planned for October. Watch for details at the [section website >>](#).

In September, I will be teaching a free workshop focusing on the Lego NXT and the NXT-G programming environment. This will be a good introduction or refresher for teachers wishing to enter the Robofest competition during the 2008-2009 academic year. The workshop will be at LTU on Saturday, September 20, 2008. Register by emailing me at chair AT semrobotics DOT org.



(L-R): Dr. Chung and Senator Levin



Robofest Demonstration

IEEE 2009 Vehicle Power and Propulsion Conference (VPPC'09)



Aisha Yousuf
VPPC'09 Publicity Chair

The 5th International IEEE Vehicle Power and Propulsion Conference (VPPC'09) comes to Dearborn, Michigan, the heartland of automotive industry, from September 7-11, 2009. The theme for this conference is 'Sustainability: Hybrid, Plug-in, Fuel Cell and Battery Technology'. This conference is co-sponsored by the IEEE Power Electronics Society and the IEEE Vehicular Technology Society. More details about the conference can be found on the [VPPC'09 website >>](#).

VPPC'09 will feature keynote speakers from top executives of major automotive companies. The venue for the conference includes the Ritz-Carlton Hotel and the University of Michigan - Dearborn in Dearborn, MI. In addition, a special banquet will be held at the Henry Ford Museum. A Ride-n-Drive will be provided for the convenience of the attendees.

VPPC'09 will feature five technical tracks, special sessions, technical forum for authors who would like to present their work without contributing full papers, tutorials, and an exhibit. Regular papers and abstracts for technical forums must be submitted through the conference website by March 1, 2009. The proposal for tutorials, however, must be submitted directly to the tutorials chair. Similarly, companies wishing to display their products at the exhibit and sponsoring the conference should contact the exhibit chair directly. More information is available in the [call for papers >>](#).

The organizing committee is working very hard to make this a successful conference, as well as, the conference of choice for people in this field. Please show your support by participating and promoting this event. In addition, the conference will also be

looking for volunteers that will be allowed free admission to parts of the conference. For more information about the conference, please contact Aisha Yousuf at

ayousuf AT ieee DOT org or Chris Mi at mi AT ieee DOT org. Also, please refer the conference website and the wavelengths for further updates.

Free EMC Layout and Design Software

to solve even the most complex EMC issues



As part of the curriculum in Donald Sweeney and Roger Swanberg's EMC by Your Design Seminar/Workshop students will use, and then take home free-of-charge, a copy of the proprietary EMC Layout and Design software program created by the instructors. This proven software package addresses design considerations from component level, through circuit boards, to enclosure level, including cabling and interconnects and enhances the theories presented both in the class and in the Mardiguian textbook. The

four-day seminar/workshop is presented in a practical, hands-on style providing the step-by-step design process to avoid EMC problems. After the workshop attendees can put their acquired knowledge to immediate use in an optional, free, 45-minute design evaluation of their own product.

To register call Carol at (847) 537-6400 or email her at cgorowski AT dlsemc DOT com. More information can also be found [online >>](#).

Announcements

Section GOLD Affinity Group Formation

An IEEE Graduates of the Last Decade (GOLD) affinity group has recently been formed in the Southeastern Michigan Section. We greatly appreciate those who supported the petition through IEEE to officially form the GOLD group. GOLD plans to host professional development seminars, general interest technical seminars, and social activities in various Southeastern Michigan locations. If you are interested in becoming a member of the GOLD group or would like to join the GOLD email list, please contact Lora Schulwitz at lora.schulwitz AT gd-ais DOT com.

New SEM Senior Member Elevation

IEEE Southeastern Michigan Section would like to recognize **Mark Pasik** on getting elevated to the IEEE Senior member level. Congratulations Mark!

Advertising in Wavelengths

Wavelengths is published six times a year and sent to more than 3,500 members. These readers are responsible for specifying and purchasing a wide range of electronics components, equipment, and services.

Rates:

Size	Rate
Full Page	\$500
Half Page	\$250
Third Page	\$165
Quarter Page	\$125
Eighth Page	\$65

There is no extra charge for color. For more information, contact Aisha Yousuf at [ayousuf AT ieee DOT org](mailto:ayousuf@ieee.org)



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October 2, 3, 6 and 7, 2008
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\$300 discount if you register by Sept. 9, 2008

Upcoming Events

Embedded System Workshop

**October 11, 2008, Dodge Hall - Room 200, Oakland University
Rochester, Michigan 48309 - 8:30 AM to 4 PM**

IEEE Southeastern Michigan Computer Chapter, jointly with GL-Spin, and Oakland University, is offering a one day workshop on Embedded Systems. This is a **free** workshop open to all engineers and students. This is the second in a series of in-depth workshops in embedded system design and applications. The aim of this workshop is to disseminate knowledge, benefit the IEEE members and indirectly ***improve the technology and Michigan economy.***

Speakers and experts from the embedded systems industry will be making presentations, and will also be available for discussions and networking throughout the day. Please be sure to publicize this event

in your organization for maximum participation in this workshop. Limited seating is available. Please confirm your participation with Dr. Ganesan at ganesan AT oakland DOT edu. When responding, please indicate ***your lunch preference: turkey, chicken or cheese sandwich.*** For Technical questions, contact Dr. Subra Ganesan at ganesan AT oakland DOT edu or by phone at (248) 370-2206.

Register and attend for a chance to win a Digital camera/ MP3 player. Second and third door prizes also given.

Certificate of Attendance will be available for participants who do pre-registration and attend the full event.

IEEE-SEM 2008 Fall Conference

Saturday, November 8, 2008 - Fairlane Center, University of Michigan – Dearborn – 8:00 AM - 4:30 PM

This year, the IEEE of Southeastern Michigan will focus the annual Fall Section Conference on the development, implementation, and commercialization of Green Technology in the Great Lakes Region. Our goals are simple: We wish to raise awareness of the diverse regional activity in Green Technology in the area. We will explore the research efforts, the opportunities for realizations, present examples of implementations, and discuss the business opportunities.

This will be our first full-day conference and we hope that it will be successful.

Agenda:

8:00am – 9:00am Breakfast, Welcome Remarks, and Keynote

9:00am – 12:00pm Two Morning Technical Session Tracks

12:00pm – 1:30pm Lunch, Awards Ceremony, Speaker Recognition

1:30pm – 4:30pm Two Afternoon Technical Session Tracks

The Keynote Speaker for the Fall Conference will be Paul Savage, CEO of Nextek Power Systems Inc.

For more conference information, please visit the [section website >>](#)

IEEE-USA Student Professional Awareness Workshop
October 18, 2008 - Wayne State University
8:30 AM - 4:00 PM

This Workshop is designed for current and incoming IEEE Student Branch Leaders or any Student Branch Members who desire to become a leader in the future in *any* aspect of your career – not just IEEE.

This Workshop is fun, informative, and interactive - containing information on various aspects of growing personally in the area of **Professional Awareness** and developing **Leadership Skills** that you can use in your personal, academic, career, and IEEE Student Branch areas. There will be a lot of idea-sharing and discussions among the different schools and leaders who attend. Additionally, this is also a great chance to network with other schools and IEEE leaders in your region. The topics covered in this workshop deal with a wide range of issues that you will face in your career and as an IEEE Student leader, such as:

- Vision and Team Building
- Communication Skills
- Effective Meetings
- Time Management
- Professional Awareness

WORKSHOP FACILITATORS

This IEEE Student Professional Awareness Workshop (S-PAW) will be facilitated by members of the IEEE Student Professional Awareness Committee (SPAC), which is made up of IEEE Leaders from all over USA. The collective experience of these IEEE SPAC members in various leadership positions covers their professional, personal, and IEEE experiences, when all pooled together results in an unforgettable and valuable workshop for each of YOU!

TAKE ADVANTAGE OF THIS OPPORTUNITY! DON'T MISS IT!

The workshop will be hosted by the Wayne State University IEEE Student Branch

SPECIAL ADDED BONUS

A special session within the Workshop has been scheduled where you will learn about very valuable programs, Student Professional Awareness Conferences (S-PACs) and Student Professional Awareness Ventures (S-PAVes). The process of planning and putting on a SPAC or S-PAVe is considered one of the most rewarding experiences for IEEE Student Branch leaders, for many reasons. In addition to providing a fun, informative, and valuable service to Student Branch members, many other benefits are obtained, such as obtaining valuable networking/ leadership/teamwork skills, developing planning/time-management expertise, and others. Therefore, we have allotted a portion of the Workshop time to working with you to **PLAN AN ACTUAL S-PAC OR S-PAVe FOR YOUR SCHOOL THIS YEAR!** We will show you and help you with the planning process by going through all the steps in a "break-out" team format.

This workshop is **free** for IEEE student members and includes lunch and snacks. For more information on this workshop, please contact Aisha Yousuf at [ayousuf AT ieee DOT org](mailto:ayousuf@ieee.org). Space is limited so sign up early. To sign up please contact Vukasin Denic at [vuk AT wayne DOT edu](mailto:vuk@wayne.edu)

For a complete list of section events, please visit the [Section Online Community >>](#)

2008 IEEE SE Michigan Section Officers

Section Chair	Chris Mi, Ph.D.
Section Vice Chair	David Laurent
Section Treasurer	Kevin Taylor
Section Secretary	Randy Stevenson
Section Senior Past Chair	Sam Barada, Ph.D.
Section Junior Past Chair	Mark Ciechanowski, P.E.
Director of Technical Activities	Angela Sodan, Ph.D.
Director of Professional Activities	Adel Marzougui, Ph.D.
Director of Membership Activities	Mo Berri, Ph.D.
Director of Student Activities	Aisha Yousuf
Director of Educational Activities	Liang Downey
Section Advisor	Don Bramlett, P.E.
Section Webmaster	Scott Lytle
Section Newsletter Editor	Aisha Yousuf
Graduates of the Last Decade (GOLD) Committee Chair	Lora Schulwitz, Ph.D.
Women in Engineering Committee Chair	Angela Sodan, Ph.D.
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Chapter XI Chair (Engineering in Medicine and Biology)	Darrin Hanna, Ph.D.
Chapter XII Chair (Control Systems)	Sam Barada, Ph.D.
Chapter XIII Chair (Education)	Richard Johnston
Chapter XIV Chair (Robotics and Automation)	Douglas Czinder
Chapter XV Chair (Systems, Man, and Cybernetics)	Oleg Gusikhin
Chapter XVI Chair (Computational Intelligence)	Aisha Yousuf
Wayne State University Student Branch Mentor	Kevin Taylor
University of Michigan – Ann Arbor Student Branch Mentor	Dean Wisniewski

Contact Information for the officers can be found on the [section website >>](#)