IEEE/SEM HONORS OUTSTANDING ENGINEER

by Don C. Bramlett, PE - IEEE/SEM Section Advisor

In the first month of this year, the IEEE/SEM Section Awards Committee reviewed the submitted nominations and recommended that section member David A. Horvath, PE be honored with the Section Outstanding Engineer Award for 1999.

The Section Executive Committee approved this recommendation, and we now have the honor and pleasure of recognizing Mr. Horvath for his contributions to the engineering profession through his technical abilities.



David was honored by the IEEE/SEM Section before the broad engineering and scientific community of metropolitan Detroit and Southeastern Michigan at the Gold Award Banquet, hosted by the Affiliate Council of ESD, The Engineering Society, at the Dearborn Inn on

Wednesday, February 24. David was presented with a plaque by IEEE/SEM Section Chair Sandra Hunter. The Section also honored David at the IEEE/SEM Spring Section Meeting at the Ford Fairlane Training and Development Center in Dearborn on Wednesday, March 24.

David is part-owner and president of Advent Engineering Services, Inc. located in Ann Arbor, Michigan. In this role, he serves the industry as Principal Consultant, Project Manager, and Research Investigator. He has over 25 years of experience in the areas of research, engineering consulting, design, facility maintenance & operations, and project management. His diverse areas of technical expertise include safety system

requirements and performance, electrical insulation aging predictions, nuclear propulsion systems, environmental qualification programs (aging assessment and harsh environment operability), design basis reconstitution, service water system design requirements, thermodynamic/heat transfer modeling, and nuclear security systems.

Previously, David worked for nine years with Bechtel Power Corporation, serving in eight positions of increasing technical and supervisory responsibility. In his last position as Project Manager with Bechtel, David was responsible for several multi-million dollar projects.

Recent accomplishments in his electrical engineering career include:

- As Principal Investigator, completed two SBIR research projects for NASA, related to nuclear rocket propulsion systems for deep space missions
- Two patents pending related to electrical insulation remaining life diagnosis
- Managed and participated on a major design basis reconstitution project at a nuclear power plant
- Chaired IEEE Working Groups responsible for completing IEEE Standard 692-1997 and revising IEEE Standard 1205

David Horvath received his BSEE from West Virginia University in 1972 and an MSE in Nuclear Engineering and an MSE in Electrical Control Engineering both from the University of Michigan respectively in 1979 and 1981. His technical certifications include Nuclear Submarine Gold Dolphins, Nuclear Submarine Chief Engineer Officer, Energy Auditor Technical Analyst, ASME NQA-1 Lead Auditor, and professional engineering registration in six states.

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IEEE/SEM Treasurer's Annual Report to the Section Membership

by Donald J. Silversmith, IEEE/SEM Section Treasurer

Two of my recent predecessors have prepared detailed annual reports to the membership regarding the finances of the Section. Although this report will be shorter, the message will be the

same: The finances of the Southeastern Michigan Section are currently in reasonable shape, but in decline. The Section continues to spend more than it takes in. Using this year's deficit situation as an example, the section is at risk of bankruptcy in a five to ten year time frame.

Our most significant source of revenue is the member rebate from IEEE headquarters, which amounted to nearly \$16,000 in 1998. Other much smaller sources of revenue are bank account interest and advertising from *Wavelengths*. For 1998, the accumulated cost of publishing and distributing *Wavelengths* was

\$19,000, meaning that this expense alone outstripped all of our 1998 revenue. The semi-annual meetings are not significant sources of deficit, primarily because of the superb efforts of our Vice Chairs. These officers have managed to enlist the support of industrial sponsors to subsidize virtually all our expenses not reimbursed by our registration charges. Section support of Chapter activities in 1998 was under \$500, and all other expenses were under \$3000, significantly under budget.

The reserves of the Section are reasonably large, primarily because of our substantial RoI on local and regional technical conference support for a number of years. This source of income

has become infrequent and small in recent years. This year our return on this kind of activity will be under \$400. An aggressive *Wavelengths* advertising and marketing program should yield more than \$6000 for 1999, particularly if this is coupled with an "as earned" revenue collection program. We can be more successful in industrial sponsorship programs, not only for our semi-annual meetings, but also for our awards programs and for specific Wavelength issues.

Finally, the extraordinary cost of printing and distributing *Wavelengths* has to be addressed. Perhaps the time has come to consider a different *Wavelengths* distribution system, such as an Internet magazine in

Adobe Acrobat .pdf format. This way, a member desiring a hard copy can get a high quality copy, even with color, from a PC printer. Distributing *Wavelengths* over the Internet would incur some new charges, including server maintenance. This, however, would free up well over \$10,000 each year, and allow the Section to develop first class educational, professional, chapter support, and student branch programs, something that is unaffordable right now.



David Horvath has received numerous commendations and awards throughout his career.

David has been an IEEE Member for over 30 years and a Senior Member since 1983. David has served in several offices of the Southeastern Michigan Section of IEEE, including Chair in the 1996-97 Section business year. He is an active member of the IEEE Power Engineering Society. David is also an active member of three IEEE standards committees and three working

groups, incorporating state-of-the-art technology and approaches into industry standards on aging management, safety system design and post-accident monitoring. He is a member and past President of the Michigan Society of Professional Engineers (MSPE) Ann Arbor Chapter. He is also a member and past Chair of the American Nuclear Society Michigan Section.

Please join us in us recognizing and celebrating David's contributions to the engineering profession, IEEE and the community.

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IEEE Southeastern Michigan Section Executive Committee

Officers

Chair	Sandy Hunter	248-524-0645
Vice Chair	James Woodyard	313-577-3758
Secretary	John Miller	313-322-7486
Treasurer	Donald Silversmith	313-577-0248

Administrative Activities

Past Chair	George Peters	519-972-2727 x4447
Section Advisor	Don Bramlett	313-235-7549
Student Activities	Mohamed Zohdy	248-370-2234
Professional Activities	Tarek Lahdhiri	519-253-4232 x3436
Technical Activities	Anthony Will	810-986-9557
Educational Activities	Ece Yaprak	313-577-8075
Membership	Maurice Snyder	734-973-1300

IEEE/SEM Chapters

I Circuits & Signal Processing: Acoustics, Speech & Signal Processing (ASSP-01), Circuits & Systems (CAS-04), Information Theory (IT-12) and Control Systems (CS-23)

II Vehicular Technology: Vehicular Technology (VT-06)

III Comm. & Aero. Electronics: Aerospace & Electronics

Systems (AES-10) and Communications (COM-19)

IV *Trident*: Electron Devices (ED-15), Microwave Theory & Techniques (MTT-17) and Antennas & Propagation (AP-03)

V Computer: Computer (C-16)

VI Geoscience & Remote Sensing: Geoscience & Remote Sensing (GRS-29)

VII Power Eng. & Ind. Apps.: Power Engineering (PE-31) and Industrial Applications (IA-34)

VIII EMC: Electromagnetic Compatibility (EMC-27)

IX Power & Ind. Electronics: Power Electronics (PEL-35)
and Industrial Electronics (IE-13)

X Engineering Management: Eng. Management (EM-14)

EDITORS

PRINTER

Progressive Printing 1326 Goldsmith Plymouth, Michigan 48170 734-459-2960



COPY DEADLINE: News items are due the first day of the month for the following month's issue, e.g. April 1 is the deadline for the May issue.

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Visit the following IEEE World Wide Web sites:

Section: www.ieee.org/regional/section/se_michigan

IEEE: www.ieee.org

IEEE Region 4: www.ieee.org/regional/r4/

Calendar of Events

Monday	Event:	Executive Committee Meeting
April 5 th	Time:	Dinner at 6:00PM, Meeting 6:30PM
-	Location:	Eaton Corp., 26201 Northwestern Highway, Southfield
	Contact:	Kimball Williams, 248-354-2845
Tuesday	Event:	Power Electronis in GM Electrical & Hybrid Vehicles
April 13 th	Time:	TBD
-	Speaker:	Dr. V.B.Murty, IEEE Fellow, GM Tech Center
	Location:	Oakland center

knrao@oakland.edu

Monday Event: Executive Committee Meeting
May 3rd Dinner at 6:00PM, Meeting 6:30PM

Contact: Dr. Ken Rao, 248-266-3587

Location: Eaton Corp., 26201 Northwestern Highway, Southfield

Contact: Kimball Williams, 248-354-2845

Tuesday **Event: Robotics in Automotive Applications**

May 18th Time: TBD

Speaker: Dr. Loh, Prof. Oakland University

Location: Oakland center

Contact: Dr. Ken Rao, 248-266-3587

knrao@oakland.edu

Monday Event: Computer & Technology Showcase

May 18th -19th Time: 10:00AM-5:00PM

Location: Novi Expo Center, Novi, Michigan

Contact: Free Registration (Online: www.techshows.com)

Details available at IEEE/SEM website.

Monday Event: Design for Automotive EMC TOPTEC

May 26th -27th Time: 10:00AM-5:00PM

Location: Novi Hilton Hotel, Novi, Michigan

Contact: SAE Professional Development, 724-772-7148

oremail: profdev@sae.org

Members are welcome to attend Executive Committee Meetings. Please inform Kimball Williams if you plan to attend.



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Michael B. Saldana, P.E. Project Engineer

1999 - 2000 Official Election Results

by George Peters, Election Committee Chair

The results of the 1999-2000 officer elections for the IEEE Southeastern Michigan Section have been tallied. I would like to thank those who participated in the election process as well as congratulate the elected officers.

Even though all candidates were unopposed, voting is important to show your support for what these volunteers, many of whom have held office for quite some time, are doing with your section and chapters. As you read through the list of officers, you may want to consider how you can contribute in the upcoming year and decide next year you will send in your vote.

Section Officers

ChairJames WoodyardVice-ChairJohn M. MillerSecretaryDon SilversmithTreasurerMohammad Zohdy

Dir. of Educational Activities Ece Yaprak

Dir. of Student Activities TBD

Note: The position for Director of Student Activities is **still open.** If you would like to volunteer for the position and help your IEEE/SEM section, then please contact: **George Peters** at 519-972-2727x4447 or email at gp@ican.net.

Chapter Officers

Chapter I: Circuits & Signal Processing

Chair Hoda Abdel-Aty-Zohdy

Technical Vice-Chair Rob Cadena

Program Vice-Chair Charles R. MacCluer

Operation Vice-Chair Robert Nowak

Publicity Vice-Chair Ning Xi

Chapter II: Vehicular Technology

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Program Vice-Chair Edzko Smid

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Chapter IV: Trident

Chair Lisa M. Anneberg

Program Vice-Chair Leo Kempel
Technical Vice-Chair Joseph Burns

Chapter V: Computer

Chair Subramaniam Ganesan

Program Vice-Chair Sylvia Karmanoff
Operations Vice-Chair Charles Severance
Publicity Vice-Chair Syed Misbahuddin
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Chapter VIII: EMC

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Technical Vice-Chair Thomas Shigeru

Program Vice-Chair Ka C. Cheok

Operations Vice Chair Shamala Chickamenahalli

Secretary Gamze Erten

Chapter X: Engineering Management

ChairPrakash ShrivastavaTechnical Vice-ChairMartin BiancalanaProgram Vice-ChairStephen Kishok

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New IEEE Web Site Features Virtual Reading Room

The IEEE Educational Activities Department announces its Online Education Reading Room at www.ieee.org/eab. Once inside the virtual room, viewers can click on any book in the best-selling IEEE Selected Readings series or Engineers 'Guides To Business Series, and "flip through" the full text of its pages. Titles up for browsing include Cellular Radio And Personal Communications, Smart Antennas, Recent Developments in Power Electronics, Marketing for Engineers, Working In A Global Environment, Writing For Career Growth, and more! Logical and user-friendly in its design, the reading room features:

- Keyword, title, and author search options
- Full table-of-contents displays for each title
- Navigation tools that enable viewers to move from page to page and section to section, and to zoom in for a closer look at diagrams and formulas
- Online ordering options

"Having a reading room on the Internet gives visitors the opportunity to browse through books before buying them, just as they would in a traditional bookstore," says Alan Trembly, Business Development Manager for IEEE Educational Activities. "A distribution medium such as this really enhances the IEEE's image as practitioner of the technology of the future." For more information about the reading room contact Alan Trembly at a.trembly@ieee.org

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Chapter X: Engineering Management

Engineering Management Update

by Prakash Shrivastava, Chair

The Engineering Management Chapter meets on the second Wednesday of even month from 6:30 PM to 8:00 PM at ERIM International, Ann Arbor, MI. In the past few technical meetings, the chapter has focused on topics such as application of decision theory, managing change, the dynamics of merger



and acquisitions, etc. Other discussion topics have included "methodologies to measure engineering effectiveness of organizations across the spectrum from research to manufacturing support."

The Chapter held a joint meeting with the Student Branch of IEEE at Ann Arbor on the 9th of February, where the traits for becoming a technical manger were discussed. Our featured speaker at the spring section meeting was scheduled to be Dr. Peter Banks, CEO of ERIM International. The topic was a discussion on the effects and challenges of taking a "non-profit" organization to a "for-profit" organization.

Members from other chapters are welcome to participate in our meetings. For more information, please call:

Prakash Shrivastava at 810-986-2206

or

Martin Biancalana at 734-994-1200



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Message from the Past Chair

by George Peters

This marks my sixth year being directly involved in the IEEE/ SEM executive committee. It seems that every year, I would

submit an article regarding the activities associated with the current office I was holding. Being the 1998-1999 Past Chair, it seems almost appropriate for me to reminisce on the years gone by and to look to a bright future for our section. Each of the executive committee officers worked admirably to fine tune the way in which they performed the duties of their respective offices, for example, upgrading the type of software used



by the Treasurer, employing efficient methods of setting meeting agendas and past minutes, organizing the Fall and Spring Section meetings to the caliber of mini-conferences, maintaining a tight and focused executive committee meeting, rewarding the achievements of our valued members by conducting a well-publicized awards ceremony, meeting financial challenges, to name several.

I especially look back fondly on all of the section meetings. The events offer many technical, profession and educational activities all in one evening— ideal for the working professional. Also during these events, student branches get the opportunity to caucus and sometimes plan joint activities. Most importantly, one shouldn't forget the fact that these are social evenings where members and guests have the time to mingle with their peers. It's no wonder why these meetings are so well attended.

At the end of this program year I will progress to Senior Past Chair. In this role I hope to at least assist the section in progressing successfully into the new millenium. I can only expect that the section will continue to be run optimally, using our resources to the maximum. I also envision the section fostering more support from corporate sponsors, as this is an observed growing trend.

My involvement with IEEE/SEM has been beyond rewarding. I wish to close by stating that I'm so glad I overcame my initial hesitation six years ago when I first considered volunteering for the section. I met many new friends, I learned new life skills, I attended many interesting meetings and conferences, and I enjoyed myself every step along the way.

17 Section Members Achieve Senior Membership in 1998!

Senior membership is a membership grade, like student or member, which distinguishes members with experience and significant performance reflecting professional maturity. Currently only about 8% of the IEEE membership are Senior Members.

This year, Southeastern Michigan Section had 17 members elevated to Senior Membership. The highest number of new Senior Members in any other Region 4 section, including the Chicago area was five! The section would like to congratulate these members on their new status:

Ka K. Wong	March 25
Aravind S. Bharadwajm	April 30
Kim A. Winick	April 30
Jeffrey A. Cook	August 25
Edmund H. Durfee	August 25
Timothy Grotjohn	August 25
Sandra E. Hunter	August 25
John R. Troxell	August 25
William I. Grosky	October 13
Mark K. Krage	October 13
Yu Qin	October 13
Xi Zhang	October 13
John A. Zipp	October 13
Michael J. Cloud	December 11
Gerard J. Labut	December 11
Andrzej W. Olbrot	December 11
Richard G. Tengler	January 12

These members and all other Senior Members and Fellows are encouraged to help other members attain Senior Membership by nominating eligible members or acting as a reference for a Senior Member application.

Every member should apply for and hold the highest IEEE membership grade for which they are qualified. As an added bonus in 1999, newly elected Senior Members receive walnut plaques with a brass nameplate. Our section will receive a \$10 bonus for new Senior Members IF "R40035,S.E.MI" is placed on the nominating entity line.

To access and submit Senior Member forms on-line, go to www.ieee.org/ra/md; then select, complete and submit your Senior Member application or reference form. Keep an eye on *Wavelengths* plus the Region and Section web pages for more information on Senior Membership throughout the year. Contact Mark Hunter at m.hunter@ieee.org for additional information.

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Congratulations 1999 IEEE Technical Field Awards Recipients

Please Congratulate these two SEM winners of 1999 IEEE Field Awards:

David Sarnoff Award

Gerard Albert Mourou, University of Michigan

"For pioneering contributions to high-speed, highintensity opto-electronic measurement techniques, including electro-optic sampling and femtosecond high-voltage switching."

Solid-State Circuits Award

Kensall D. Wise, University of Michigan

"For pioneering contributions to the development of solid-state sensors, circuits and integrated sensing systems."

Congratulations 1999 IEEE/SEM Fellows

New IEEE Fellows are listed on the web at www.ieee.org/awards/fellows.htm. Our section has seven new fellows, including section secretary, John Miller. Please congratulate these people on their accomplishments.

Yilong Chen

General Motors, Detroit, MI

"For contributions to integrated robotics and CAD systems with application to the automotive industry."

Stephane Lafortune

University of Michigan, Ann Arbor, MI

"For contributions to the theory of discrete event systems."

Pinaki Mazumder

University of Michigan, Ann Arbor, MI

"For contributions to the field of VLSI design."

John Michael Miller

Ford Motor Company, Dearborn, MI

"For contributions to the development of integrated power electronics, novel electric machines, and drives for automotive applications."

Balarama Vempaty Murty

General Motors R&D Center, Warren, MI

"For contributions to Automotive Power Electronics Systems and Electrical Drives."

Stella W. Pang

University of Michigan, Ann Arbor, MI

"For identification and removal of process-induced damage in Si and compound semiconductor devices, and advancing the science of nanofabrication technology."

Carlton Edward Speck

General Motors R&D Center, Warren, MI

"For the application of the theory and practice of electrostatic effects in the automotive industry."

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