SOUTHEASTERN MICHIGAN SECTION, IEEE/SEM

Vol.38, No.5

IEEE/SEM Spring '99 Section Meeting

Date: Wednesday, March 24, 1999

Location: Fairlane Training & Development Center, 19000 Hubbard drive, Dearborn, MI

Program

5:30 p.m. Registration & Check-In opens. 5:45 p.m. Concurrent technical meetings. 6:30 p.m. Social period with cash bar. University Showcases and

Vendor Exhibits on display.

7:15 p.m. Check-In closes.

7:30 p.m. Dinner

8:00 p.m. Announcements of Awards.

8.05p.m. Featured speaker: Ross Witschonke.

The meeting will end at approximately 9:00 p.m.

How to Register:

Mail in the registration form on page 7 by March 12th, 1999. Late registrations (full price) are accepted by phone through March 22nd, 1999. There is no fee for attending technical sessions only but preregistration is requested to aid in room assignments. Dinner is not guaranteed to attendees registering after March 22nd as well as the night of the event. See

Page 7 for full registration information.

Student Registration:

Students must register through their student branch to receive discounted prices. Student branch signup procedures are posted on the section's web page.

Contact: Jim Woodyard, 313-577-3758

IEEE/SEM Spring '99 Section Meeting Activities by Jim Woodyard, IEEE/SEM Vice Chair

The IEEE/SEM Spring '99 Section Meeting will be held on the evening of March 24th at the Fairlane Training and Development Center in Dearborn. As of to date, there are eight parallel technical sessions and a student track planned for the meeting. Some of the IEEE/SEM Chapter Chairs are still working on obtaining speakers and topics. The March issue of Wavelengths will contain the final program for the meeting.

The topics for chapters that have completed the planning of their technical sessions are: Off-board Diagnostics for Medium and Light Duty; Development of Computer-Based Instruction in Electrical Engineering; Cellemetry Communication for Control of Electric Systems; Military vs Commercial Electromagnetic Compatibility Standards and Test Methods; UPS Topology; and Challenges in Managing Change.

Following the technical sessions, participants will have the opportunity to view student branch, university showcase and vendor exhibits during the social period. Dinner will be followed by recognition of section awardees and members elevated to fellow grade.

The featured presentation will be given by Ross P. Witschonke of Ford Motor Company and Ecostar Electric Drive Systems Company; and the topic of his discussion will be "Future Vehicles: Lean and Green". Ross will discuss the fact that the auto industry has been devoting a significant portion of its total research and development effort toward the development of more fuel efficient and cleaner vehicles. The strategy for low emission vehicles at Ford Motor Company is to develop affordable, cost efecient technology to support high volume applications. The P2000 project

is underway to develop and demonstrate new low exnission technology. P2000 is an aluminum intensive, lightweight platform being used to evaluate and demonstrate alternative powertrains including advanced internal combustion engines, hybrid-electric powertrains, and fuel cell systems. The Fuel Cell vehicle may be the ultimate solution because of its potential for higher thermal efficiency, low or zero emissions, and the potential to eliminate carbon fuel. Ford has joined in a number of technology partnerships to advance key technologies more quickly, and has joined with DaimlerChrysler and Ballard Power Systems to establish a Fuel Cell Alliance. The Alliance companies - Ballard Power Systems, dbb Fuel Cell Engine Company, and Ecostar Electric Drive Systems Company - are jointly developing fuel cell electric drive vehicle systems. Many challenges are yet to be overcome as new technology is developed for safe, clean and efficient vehicles. One of the biggest challenges is affordability for the customer, a necessity for high volume application. The IEEE/SEM Spring '99 Meeting is co-sponsored by IEEE Southeastern Michigan Section and Ford Motor Company. The program committee has attempted to develop a meeting to meet your professional needs. We invite you and your friends to register and participate in the meeting. Updated meeting details will be presented on the IEEE/ SEM Web site.

Help us manage the meeting more effectively by registering

Contact Jim Woodyard (woodyard@eng.wayne.edu, 313-577-3758) for any relevant information, to volunteer, or to communicate suggestions.

DEADLINES: Return 1999 Spring Section Meeting Registration Form before March 12 Return 1999-2000 Section/Chapter Officer Ballot before March 15

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Section Meetings: Times have changed!

The challenge of IEEE/SEM officers is to carry out the duties associated with their offices and contribute to the future direction of the IEEE/SEM Section. The terms of officers start on July 1st and end June 30th. It is not much time to learn and carry out the duties of an office and make contributions to future directions of the section.

Last July I assumed the office of vice chair. The vice chair's primary duty is to plan and execute the fall and spring section meetings. Section meeting attendance was about thirty members ten years ago. The vice chair arranged for a featured speaker, dinner and meeting venue. The registration process, food service and audio-visual equipment orders were managed by the vice chair with the assistance of members of the IEEE/SEM Executive Committee. To be sure, the duties of the vice chair for the section meetings were challenging.

Over the past ten years the attendance at section meetings has grown to about 150 members. About one-third of the attendees are student members. The format of the meeting has changed from a dinner with a featured speaker to one that includes about ten concurrent sessions followed by a social period, dinner and featured presentation.

The social period is held in a common area with three programs: the IEEE/SEM Student Branch Showcase, Educational Institutions Showcase and Vendor Exhibit Programs. Each aspect of the current section meeting is a demanding undertaking in itself!

While the scale of IEEE/SEM section meetings has escalated, I have observed the decrease of the value of professional activities within large companies and research universities. The volunteers that carry out the activities of IEEE/SEM today do it, for the most part, because

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by Jim Woodyard, IEEE/SEM Vice Chair



of a desire on their part to contribute to the professional development of colleagues or to provide a service to the broader community. They receive little recognition and resources from their employers for these professional activities. It is for this reason that I believe that it is difficult for individuals holding full-time jobs to assume responsibility for the section's meetings. The

tasks are too onerous for any one person or group of people to learn and carry out on an annual basis. In addition, it also represents a loss of human capital to have volunteers learn the many facets of a successful section meeting and then not be involved in future section meetings.

I believe the size and scope of section meetings suggest that it is time for the executive committee of IEEE/SEM to review the policies related to the duties of the vice chair relating to section meetings. Moreover, I suggest a standing committee should be formed by the executive committee for long term planning and the administration of section meetings. I believe the section should recruit a team who have a long-term commitment to plan and execute a high-quality section meeting. Times have changed and the section needs to respond to the changes in a way that optimizes volunteer resources.

Please contact me at woodyard@eng.wayne.edu or 313-577-3758 with your comments on this matter as well as to indicate if you are interested in joining an IEEE/SEM standing committee charged with the long-term responsibility of planning and executing high-quality section meetings.

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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)

Visit the following IEEE World Wide Web sites:

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

IEEE: www.ieee.org

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

Calendar of Events

Sun-Sat Feb. 21 st - 27 th	Event: Contact: Email:	National Engineers Week Don Bramlett, 313-235-7549(0) d.bramlett@ieee.org
Monday March 1 st	Event: Time: Location: Contact:	Executive Committee Meeting Dinner at 6:00PM, Meeting 6:30PM Eaton Corp., 26201 Northwestern Highway, South field Kimball Williams, 248-354-2845
Wednesday March 24 th	Event: Time: Location: Contact: Email:	42 nd Annual Science fair 8AM-Noon Wayne Hall, Concourse level, Cobo Hall, Detroit. Don Bramlett, 313-235-7549(0) d.bramlett@ieee.org
Wednesday March 24 th	Event: Time: Location: Contact: Email:	Spring Section Meeting 5PM-9PM (tentatively) FTDC, Ford Motor Company James Woodyard, 313-577-3758(0) woodyard@eng.wayne.edu
Monday April 5 th	Event: Time: Location: Contact:	Executive Committee Meeting Dinner at 6:00PM, Meeting 6:30PM Eaton Corp., 26201 Northwestern Highway, South field Kimball Williams, 248-354-2845
Monday	Event:	Deadline for Ballots

EDITORS

248-699-4253 x1826 248-362-3605 na.barberi@gale.com
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PRINTER

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



March 15th

Contact:

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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POSTMASTER Send address changes to:

IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854 Phone:732-981-0060x150. USPS 878-660

POSTAL INFORMATION NOTICE

The newsletter of the Southeastern Michigan Section of IEEE, "Wavelengths", (USPS 878-660), is published monthly 8 times per year except June, July, August & December by the Institute of Electrical and Electronics Engineers, Inc. Headquarters: 3 Park Avenue, 17th Floor, New York, NY 10016-5997. \$1.00 per member, per year (included in annual dues) is designated for each member of the Southeastern Michigan Section. Periodicals Postage Paid at New York, NY and at additional

Wavelengths Needs A Volunteer

George Peters, 519-972-2727 Ext.4447

GPeters@stclairc.on.ca

It is a great opportunity! Develop editing and layout skills while helping your IEEE section. Wavelengths is looking for a person to help with editing and layout of each issue. If interested please contact Anita Malhota, 313-845-2409, amalhot1@ford.com or Gianna Barberi, 248-699-4253 x1826, gianna.barberi@gale.com for more information.

IEEE Email Alias

The IEEE email alias is an email forwarding service, free to IEEE members. The service is not an email server and does not store emails for you. It forwards email sent to it to whatever other email address you specify to IEEE. The value of this is if you change jobs or move, you simply notify IEEE of your new email server address which could be your business email or personal home email address. You never need to change the IEEE email address. Email sent to the IEEE email simply gets forwarded to the new address.

For more details of the IEEE email alias service please check the web site: http://mail.ieee.org/eleccomm/personal-aliases.html

Future articles will cover additional IEEE services and benefits. Please access the IEEE web site (www.ieee.org) for details of all IEEE services including online membership application.

mailing offices.

CHAPTER VII: GOALS & MISSION FOR THE FUTURE

by Thomas Powell, Chapter Chair

I have been involved with IEEE/SEM, as a volunteer for 6-7 years. All these years, my primary responsibility has been in identifying meeting topics and coordinating speakers for the meetings for the combined Power Engineering and Industrial Applications Chapter. As officers, we really do not know if a meeting topic will appeal to the members, or not. It was following the fall meeting at Wayne State University that the idea of identifying goals for the chapter surfaced.

Some of the Goals identified for the Chapter are being listed below. These goals are being presented here, so that we obtain feedback from you, the members at large. This is your Chapter and your input and involvement is needed to make this chapter a success.

Goals of the Chapter:

- To uphold the integrity of the electrical engineering profession and generate interest by younger engineers (20-40 age group) in Power and Industrial Application Engineering.
- 2) To serve as a technical refresher for topics that conventional training no longer covers.
- To offer members the opportunity to network with other engineers in the industry to improve job security and become aware of business opportunities.
- To inform engineers how Deregulation in the Power Industry will affect them.
- To participate in moving the power industry into a competitive environment.
- 6) To demonstrate applications of emerging technologies.
- 7) To demonstrate "real-life" power engineering topics and problems.

To address some of the goals stated above and keep the members abreast of the latest developments, problems and research taking place in our field, we think that the following are some relevant meeting topics:

- · Substation Automation
- Merchant Generation Plants/ Distributed Generation Plants
- · Deregulation and how it will affect Engineers of All Ages
- · Automated Meter Reading
- Opportunities for Graduating Engineers in Power and Industrial Application
- Grounding
- Testing methods and procedures (test equipment)
- Switchgear communication.
- Remote control telemetry
- · Co-generation control and implementation

Please provide feedback. This will help us identify, the topics of most interest to the membership and also will enable to improve the quality of meeting topics and increase the attendance to the meetings.

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21000 West Ten Mile Road Southfield, MI 48075-1058 1-800-CALL-LTU, ext. 1 TDD (248) 204-4117 http://www.ltu.edu For the fall section meeting we had a very informative presentation on the Midfield Terminal at the Detroit Metropolitan Airport. This is the facility that Northwest Airlines will be occupying. Many issues that impact the final design were presented to the audience. I was able to take several engineering concepts away from the presentation. The first was that this facility was going to be huge. A multi-level facility with passenger access on one level with support services and facilities on the others needs a significant source of power. Additionally, the



facility was going to be expanded in less than ten years. Since the power system is part of the "underground", the framework for the expansion needed to be established prior to placing the first phase into service. A second thought was how many people issues impacted the electrical engineering design. These were not just cosmetic issues, but convenience and accessibility. Consider the recent power outages discussed in the news at the airport. It stands to reason that communication needs to continue in the event of a power outage. But what about "automatic-flush" toilets. The auto-flush toilets are normally installed for the health and safety of passengers, but they require power. How will these issues be addressed. Think also about security and security breaches at the airport. How can a facility be accessible and secure at the same time. Just another day in the life of a power engineer!

Some design issues can be quickly resolved, and others require deliberation between many parties. Many issues demonstrate that today's engineers are not isolated inside a cubicle. Communication with other design team members (including those within other companies) and the Owner of the facility are extremely important. The success of today's engineer depends not only on their technical skill but also on their communication abilities. I want to thank Tony Tomaino for his fine presentation.

Please provide feedback on both the Goals and topics for technical presentation for the chapter. This will help us define the direction this section should take in the coming future so as to serve its membership. Please either call me (313-297-6447 daytime) or email powell@mcnamee.com.

Finally, for the last several meetings I have been providing an email notification to the members of the meeting topic. Our chapter database includes the electronic addresses of 261 members. Not all of those addresses are valid, and about 25% were returned to me by the server. If you did not receive these notifications, and would like to be included in future notifications, please email me at powell@mcnamee.com with a request to add to the email list.

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NATIONAL ENGINEERS WEEK®

FEBRUARY 21-27, 1999

National Engineers Week (NEW) is February 21-27, 1999. Since NEW was founded in 1951 by the National Society of Professional Engineers (NSPE), the purpose or mission of NEW has been to increase the awareness and appreciation of the engineering profession. The theme of NEW, "Engineers: Turning Ideas Into Reality" highlights the fact that engineers are practical problem solvers that use the laws of science to better the existence of mankind. This occasion allows us the opportunity to make the general public more aware of the contributions of engineers and hopefully heighten the stature of engineering as a career and profession.

Each year the IEEE/SEM Section encourages the members of the Section to get involved with NEW. Examples include suggestions such as:

- 1) Section members go to middle and high schools to make "Discover E" (E for Engineering) presentations.
- 2) Assist as mentors and judges in the Detroit (all Michigan) regional Future City Competition
- Coordinate in-house visiting/tour programs at companies and universities.
- 4) Coordinate exhibits and demonstrations in libraries, malls, community centers or science centers as part of the "Engineering Goes Public" campaign.

Detroit Engineers Week Council came into existence this year. It was recently organized with the help of ESD - The Engineering Society. This is a council of representatives from various engineering societies, educational institutions and corporations wanting to communicate and work together to promote effective NEW programs. I represent the IEEE/SEM Section on the Detroit Engineers Week Council. The mission statement of the Council is "To increase public awareness and appreciation of the engineering profession, to increase visibility of engineering and technical fields, and to coordinate, develop and publicize Engineer's Week events in the Metropolitan Detroit area."

In addition to coordinating and publicizing existing programs, the Council is pursuing an aggressive public relations campaign including the display of billboards and large signs in prominent locations, arranging announcements and interviews in the various broadcast and news media, and working with companies and government entities to provide a more visible presence of the engineering profession.

Engineers: Turning Ideas Into Reality

The Council in conjunction with the Detroit Science Center is bringing the "Breaking Through: The Creative Engineer" exhibit from the National Building Museum in Washington D.C. to the Detroit Science Center for the three months of February - April 1999. This exhibition debuted at the National Building Museum during NEW in 1998, will be a part of Detroit Science Center, during its stay in Detroit for NEW 1999. This is an exciting 2,000 square foot exhibition, subdivided into 8 case studies, consisting of games, puzzles, interactive computer programs, and other learning challenges that invite visitors of all ages to explore their creative capabilities. In addition, the exhibition investigates traditional examples of creativity, such as visual arts, music, architecture and literature, which stimulate visitors to think about what it means to be creative, and the specific processes used by engineers.

IEEE/SEM members are encouraged to attend the exhibition and invite friends and associates to attend as well. Happy National Engineers Week!!

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

Chapter VIII: EMC

CHAPTER VIII (EMC) News

Electromagnetic Compatibility is defined as the condition which allows electronic equipment and systems to operate in close proximity without a degradation in performance due to electromagnetic coupling, effects the design and performance of much of the electronic equipment that we have become dependent on in today's high tech society. I am sure we all have experienced incidences of interference in portable telephones, television sets, audio equipment, and computers where mysterious "glitches" cause video distortion, audio noise and loss of data.

The SEM/EMC chapter provides a forum for educating students and engineers about EMC related problems and their solutions. In addition, the EMC society, through local meetings and presentations, provides an opportunity for engineers and students from various disciplines, organizations, and backgrounds to meet, compare problem solving techniques, and discuss common organizational issues.



by Dennis Barberi, Chapter VIII Chair

1998 was another busy year for the IEEE Southeastern Michigan (IEEE/SEM) Electromagnetic Compatibility (EMC) Chapter. As a continuing service to the local engineering community, several talks on Electromagnetic Compatibility (EMC) design, testing, and requirements were held, including talks at both the spring and fall SEM meetings.

Vice Chair Scott Lytle, Secretary Kimball Williams, and Chapter Chair, Dennis Barberi look forward to 1999 with hopes of more member involvement, more joint activities with the other IEEE Chapters, and more interesting and informative presentations and activities.

IEEE/SEM 1999 Spring Meeting Registration Form

Complete and mail form with an early registration fee of \$25 per person. The registration fee includes technical session attendance and dinner. If this form is for multiple people, you must provide full contact information for one person plus Name, Technical Session Preference, and Meal Selection for each additional registrant. Please make check payable to IEEE/SEM and forward along with a completed registration form to:

Ece Yaprak, Wayne State University, College of Engineering 4855 Fourth Street, Rm. 1152, Detroit, MI ??????

There will be express check in for pre-registered attendees.

TOI	4		• 4
Please	tvne	\mathbf{or}	nrint:
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Name:	
Company:	
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Phone Number:	[]H[]W
Tech. Session #:	(* Select from list to right, 0 for none)
Meal Selection:	[] None, [] Chicken, [] Vegetarian

Total amount enclosed: \$_____ Registration (\$25 per person)

Fees	Amount	Deadline
Pre-Registration	\$25 US	Received by mail before March 12, 1999.
Late Registration	\$30 US	Contact Ece Yaprak at 313-577-8075 or
		yaprak@eng.wayne.edu by
		5 p.m. March 22, 1999.
Student Branches	\$ \$12 US	Register & pay through student branch.

Technical Sessions (*Indicate select by #*):

1. Chapter I: Circuits & Signal Processing

Chapter IV: Trident
Topic to be determined

2. Chapter II: Vehicular Technology

Off-board Diagnostics for Medium and Light Duty

3. Chapter III: Comm. & Areo. Electronics

Chapter VII: Power Eng. & Ind. Apps.

Cellemetry Communication for Control of Electric Systems

5. Chapter V: Computer

Student Track

Development of Computer-Based Instruction in EE

8. Chapter VIII: EMC

Topic to be determined

9. Chapter IX: Power & Ind. Electronics

UPS Technology

10. Chapter X: Engineering Management

Challenges in Managing Change

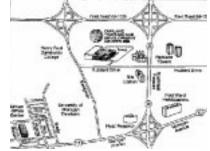
Additional Registrants (Non-Students Only)		* Tech.				Fee
Name	Company	Session #	None	Chicken	Vegetarian	\$25 Each

Directions to the 1999 IEEE/SEM Spring Section Meeting at Fairlane Training and Development Center

If traveling from the north, exit the Southfield Freeway at Ford Road, Exit 7. Follow the Southfield Service Drive to Hubbard Drive and turn right. The Fairlane Training and Development Center is located on the north side of Hubbard.

If traveling from the south, exit the Southfield Freeway at Michigan Avenue, Exit 6. Follow the Southfield Service Drive to Hubbard Drive and turn left. The Fairlane Training and Development Center is located on the north side of Hubbard.

Enter the Fairlane Training and Development Center and follow the IEEE signs to the north side of the building. Park and follow the IEEE signs to the north entrance.





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INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS SOUTHEASTERN MICHIGAN SECTION - 1999-2000 OFFICIAL BALLOT



VOTING ELIGIBILITY REQUIREMENTS & VOTING INSTRUCTIONS:

- Student and Associate members are not eligible to vote. Only IEEE/SEM Full Section Members for 1999 are eligible to vote.
- All voting members may vote for Section Officers and Section Directors presented in Part 1 of the ballot.
- You must be a member of at least one of a chapter's societies to vote for that chapter's officers in Part 2 of the ballot.
- Vote for a candidate by checking the box to the left of the candidate's name. You may vote for only one candidate per office.
- Write-in candidates are accepted for any office. Only full members may hold office. To enter a write-in candidate, place the office title, candidate name and member number in the area provided below. Additional write-in candidates may be submitted on a separate sheet of paper. Sign the sheet and attach it to this ballot.

Office Title	Candidate Name	IEEE Membership#

Canadian Members may mail ballots to: George Peters, ?????, ?????, CANADA

IEEE/SEM Election Ballots
George Peters

JUDGES NEEDED FOR THE SCIENCE FAIR

For the fifth year, IEEE/SEM will provide a dedicated team of judges and awards for both the Junior (middle school) Division and the Senior (high school) Division projects at the Science and Engineering Fair of Metropolitan Detroit (SEFMD). These projects are related to electrical, electronics and computer engineering subjects.

The 42nd annual Science Fair will be held on Wednesday, March 24, 1999 in the Wayne Hall, on the street level (1) or concourse level of Cobo Hall in downtown Detroit. The event will be from 8:00 AM to 12 Noon. Judges will be provided with free parking, coffee, donuts, and lunch. This pleasurable and fulfilling task will only take ½ day of your precious time.

IEEE-SEM will grant two Grand Awards, certificates, money, and several Honorable Mention certificates. Response to the call for judges in the past years, from section members has been outstanding. Let us make this year no exception, please volunteer and be among those who comprise the desired team of eight or more judges.

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

I encourage everyone with an interest in either the science and math education of our youth or an interest in student outreach programs to consider being a judge at the Detroit Science Fair. As a judge myself in previous years, I have found the experience of talking with the students, finding out their interests and observing their projects/ presentations to be very rewarding. So please come out and spend the morning with us as we meet with some of the potential engineers, scientists and Nobel Prize winners of the future.

If interested in obtaining more information pertaining to being a judge for IEEE/SEM contact Don Bramlett at 313-235-7549 during normal weekday business hours, or at home at 313-525-5422 or by email at d.bramlett@ieee.org.

General information on the Science Fair and last year's winners may be found at www.sefmd.org. Inquiries related to being an individual, general judge for the Science Fair organization can be made to Carol Dendler at the SEFMD office at 313-832-2066.

1999-2000 IEEE/SEM OFFICIAL BALLOT

BALLOT INSTRUCTIONS:

- 1) Enter your name, membership number and mailing address in the space to the right if it is not printed there already.
- 2) Review Eligibility Requirements and Voting Instructions on the reverse side of this page.
- 3) After voting, sign the ballot on the line at the bottom of this page.
- 4) Fold on dashed lines with the ballot names inside and the return address on the back.
- 5) Tape the flap to seal the ballot.
- 6) Place stamp, and mail before March 15, 1999 in order to be counted as valid.

Periodical Po	STAGE P AID
AT PLYMOUTH,	MICHIGAN

PART 1: SECTION OFFICER & DIRECTOR POSITIONS								
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