



Wavelengths



May/June 2004

Vol. 43, No. 7

Wavelengths is a publication of the Southeastern Michigan chapter of the Institute of Electrical and Electronic Engineers (IEEE).

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Chapter

Executive Committee Column

Let Us Renew Our Efforts to Improve IEEE-SEM Both Qualitatively and Quantitatively

By Suleiman Barada, IEEE/SEM Chair



Friendly greetings!

As we pass through the middle of Year 2004, it is my pleasure to write to you about the state of our South East Michigan Section, and provide you with a proposal on immediate tasks as well as a perspective on what is to be done with the aim of improving the performance and scope of IEEE-SEM activities.

State of IEEE-SEM

Our Section has been passing through a period of slight growth and prosperity in many of its activities and a slight expansion in its organizational structure. This is to be mixed with some sluggishness and stagnation in other aspects of its work. Here is a list of facts, activities, and accomplishments that count on the positive side of the Section's Balance Sheet:

Organizational, Membership, and Functional

1. The Section enjoys a relatively large membership base in South East Michigan. Total membership is nearly 4000. Over the last two years, membership has been holding steady with minor fluctuations. Last year, due to an initiative by Mohamad Berri, the Section purchased an advanced Display Table that has been used since, thereby improving our Section's image and outreach for membership purposes. For more information, contact our Membership Director at mberri@ford.com.
2. IEEE-SEM Executive Committee (XCOM) meetings have been taking place regularly, thereby insuring the continuity of the section's operations. A quick review of XCOM agendas and meeting minutes on our website would reveal the widening scope of the Section's operations. For more information, contact our Secretary Mark Ciechanowski at mark.ciechanowski@ieee.org.
3. The Section enjoys the active participation of twelve Technical Chapters and ten Student Branches. Two of the twelve Technical Chapters, namely the Biomedical Engineering Chapter and the Control Systems Chapter, were established only recently.
4. The Section enjoys the active participation of a number of Standing Committees to deal with matters such as: Communications ("Wavelengths", Website, etc.), Awards, and Elections. Due to my recent leadership initiative, three new Standing Committees have been recently established and approved by XCOM, namely: Women in Engineering (WIE) to be led by Hoda Abdel-Aty-Zohdy, Minorities in Engineering (MIE) led by Freeman gates, and Public Relations (PR) led by Imad Makki. These new committees are expected to expand and improve the Section's scope of work in these critical fields of operation. Another committee to take charge of forming a GOLD (Graduates of the Last Decade) Group is currently being formed. If you are interested in chairing this committee please contact me at: sbarada@ieee.org. To contact any of the Standing Committees, visit the Officers page on our website.
5. The Section enjoys the active participation of a Standing Committee called "Planning Committee-PC", chaired by the vice-chair, whose function is to prepare for and manage the bi-annual Section Conferences. The Planning Committee has played a major role in making the past four Spring and Fall Conferences very successful, indicating steady progress in areas of attendance, organization, program, and satisfaction of participants. For more information contact Hassan Hassan at h.hassan@ieee.org.
6. In the past two years, most of the Chapters have been meeting their minimum meeting requirements. Chapter activities are at the foundations of the whole Section. Some chapters, namely Chapters 1, 2, 5, 7, 8, 9, and 10 have simply been outstanding by meeting more often, attracting bigger audiences, involving students, and inviting outstanding speakers. Chapters 1, 5, and 8 are by far the most active Chapters in our Section. Chapter 8 conducts meetings and workshops just about every month.

Financial

7. The financial status of IEEE-SEM has steadily improved over the last two years. The Section's yearly expenditures have dropped dramatically since the section switched the production of its newsletter from paper to electronic form, in 2002. In addition to the traditional membership rebates from IEEE, the Section has been able to generate some revenues from co-sponsoring local IEEE conferences and workshops such as: WPET (Workshop on Power Electronics in Transportation) and EIT (Electro-Information Tech). Region 4 provides some financial support to our section as well. Cases in point are the R4 sponsorships of an SPAC (Students Professional Awareness Conference) at the University of Windsor (Nov 2003, Windsor, Canada), and the ROBOFEST competition at LTU (April 2004, Southfield). IEEE-SEM Biannual conferences have been relatively self-sustaining. For more information contact the Section's treasurer Chuck Albrecht at calbrecht@patrickengineering.com.

Technical and Professional

8. In the last two years, IEEE-SEM has made a remarkable effort at improving the frequency and quality of technical and professional meetings in most of its chapters, despite the obvious sluggishness exhibited by some other chapters. The Spring and Fall Section conferences have shown remarkable improvement in terms of attendance, scope of technical and professional coverage, companies' participation and sponsorship, and student involvement. For more information contact Subra ganesan at ganesan@oakland.edu and Adel Marzougui at adel.marzougui@ansys.com.

Communications

9. The IEEE-SEM website has also been reformed and enhanced in the past two years. It has become more user-friendly as well as more useful. Currently, the website serves as a vital reference to many informational topics including: Section administration, officers list, XCOM meetings agendas and minutes, upcoming events, chapter activities, section activities, "Wavelengths" issues, Chapter and Section guides, operational forms. It also serves as a reference to important documents such as: Section Bylaws, officers' responsibilities, Section Annual Plan, and Chapter support materials. Vital links to other websites are also listed on the Section's website. The home-page has recently become a bit more vivid exhibiting more relevant and up to date information.

The newsletter "Wavelengths" has become completely electronic, almost bi-monthly, and regularly logged on the website for reference.

A Section postcard continues to be sent to the general membership prior to each bi-annual Section conference.

A new drive to further improve the Section website was approved by XCOM at the May 2004 meeting.

For more information contact the Communications Committee Director, Jim Woodyard at woodyard@eng.wayne.edu or Wavelengths Editor, Dan Romanchik at danr@ieeeseem.org.

Relations with Region 4 and IEEE

10. In December 2002, a new draft of IEEE-SEM Bylaws was adopted by a vote of the general membership. The new Bylaws not only improved the legal terms of operation of the Section but also switched the Section's mode of operation from the academic year (July to June) to the calendar year (January to December). This change to academic year effectively put IEEE-SEM in compliance with the IEEE calendar.
11. The Section continues to strengthen its communications and connections with IEEE-Region 4, IEEE-USA, and IEEE-International. The Section has steadily sent delegates to and exchanged information with these organizational units. Section delegates have also brought materials from meetings, conferences, and workshops, and disseminated them within the Section. Most recently attended meetings were: Biannual R4 XCOM meeting (January 2004, Chicago), and IEEE-USA Professional Awareness workshop (March 2004, Atlanta). The most recent IEEE World Section Congress attended was in the summer of Year 2002.

Recent Activities

12. In addition to the numerous technical and professional meetings held by various chapters, recent remarkable section activities include:
 - a. Organizing the New Officers Training Workshop in January 2004 based a new informal and more attractive format that included a free dinner for officers of IEEE-SEM.
 - b. Organizing the Spring 2004 Section Conference, that was held on March 24, 2004, at "bps Training and Conference center" in Beverly Hills, Michigan. This conference was attended by about 180 people, a drastic increase in comparison to those levels attained prior to year 2003. At this conference, many awards were given to conference speakers, and special awards were given to the following individuals and Student Branch for outstanding performances:
 - Frank Denbrook, for Outstanding Engineer,
 - Mohamad Berri, for Outstanding Section Involvement,
 - Steve Kishok, for Outstanding Chapter Involvement,
 - University of Windsor, for Outstanding Student Branch.
 - c. In the course of conference preparations in the last two years, one of the remarkable advances that our section has made is the development of OnLine Registration page and the Registration Update page. This effort was led by Scott Lytle.
 - d. Participation in the 10th Annual Michigan Regional Future Society Competition, which is coordinated by the Engineering Society of Detroit (ESD), that was held on January 23, 2004, at the Laurel Manor in Livonia. An Electro-Technology Award was given out by IEEE-SEM at this competition.
 - e. Participation in the Science and Engineering Fair

- of Metropolitan Detroit (SEFMD) that was held on March 31, 2004, at Cobo-Hall.
- f Co-sponsorship of the Student Professional Awareness Conference (SPAC) that was held in November 2003, at the University of Windsor, Canada. At this conference, attended by about 200 people, I had the chance to make a presentation, on behalf of our section, high-lighting the nature and organizational structure of IEEE, as well as the benefits of IEEE membership to students and professionals...
 - g Co-sponsorship of ROBOFEST 2004 Competition that was held in April 2004, at Lawrence technological university (LTU). Lisa Anneberg played a key role on Section's behalf at this competition, attended by no less than 500 people. I also had the chance to represent our section by receiving an Appreciation Plaque that was presented to IEEE-SEM and R4 at this competition.
 - h Regular attendance by IEEE-SEM representatives (Sam Barada, Don Bramlett, Mark Ciechanowski) at the ESD Affiliate Council meetings, where, information exchange and networking with other professional Engineering societies, usually takes place.

Other Items of Interest

- 13 Based on the approval of XCOM, the responsibility for maintenance of the IEEE-SEM officers list has shifted to Mark Ciechanowski. My thanks go to David Horvath for his excellent service to the list for the past several years.
- 14 It has been pointed out in XCOM meetings that IEEE has developed a process called "e-notice" available to all officers who wish to send notices, newsletters, and other items to target recipients in the IEEE data base. All officers are encouraged to use this new service. It seems to be quite efficient.
- 15 Lately, I have been forwarding my email of the "SCOOP" usually sent by the main IEEE office to Section chairs. I invite you to read the "SCOOP" for it contains some valuable information.
- 16 In early April, the IEEE received the following good news: The Office of Foreign Assets Control (OFAC) at the U.S. Department of Treasury ruled that the peer review, editing, and publication of manuscripts submitted to the IEEE by authors living in U.S.-embargoed countries, including Cuba, Iran, Libya, and Sudan, can be conducted free of U.S. government restrictions. This ruling, represents only one step towards the restoration of full rights to IEEE members of those embargoed countries. I invite you to press ahead in this direction. For more information on the debate on this topic visit <http://www.ieee.org/ofac> . Also, read IEEE president's column on this issue in the June 2004 issue of IEEE newsletter "The Institute".

Some Negatives

On the other hand, here is a list of some of the items that count on the negative side of the Section's Balance Sheet:

- 1 Lack of attendance of some Section directors at XCOM meetings.

- 2 Lack of attendance of some Chapter chairs at the Section XCOM meetings.
- 3 Lack of activity by some Chapter officers to levels that may lead to the complete de-activation of those specific Chapters.
- 4 Lack of activity or new initiatives to be directed by the Section towards the Student Branches. In this connection, it should be mentioned that the SPAC that was held at the University of Windsor in November 2003 was actually organized by Tarek Lahdhiri on behalf of Region 4, in coordination with the Student Branch at the university.
- 5 Lack of coordination in the course of preparations for the Spring 2004 Section Conference.
- 6 Lack of attraction of visitors to the Section website.
- 7 Lack of development by the Section of courses or workshops related to the educational aspects of Engineering.
- 8 Lack of enthusiasm by the Section on moving forward with forming a GOLD affinity group.

Immediate Tasks and a Perspective on What Is To Be Done

The immediate tasks ahead for IEEE-SEM should include addressing each of the items listed above as belonging to the negative side of the Section's Balance Sheet. In a brief summary, I hereby propose the following program of action for our Section to move forward in the upcoming period:

- 1 Improving attendance by Chapter officers at Section XCOM meetings.
- 2 Providing additional assistance to chapters exhibiting sluggish performance levels.
- 3 Forming a GOLD affinity group. A volunteer is needed to lead this effort.
- 4 Completing the work on surveying the Technical Interest Profile of IEEE-SEM members. This effort should influence the formation of new chapters, and is currently being led by Jim Woodyard and Mohamad Berri.
- 5 Strengthening the relationship between IEEE-SEM and universities and the industrial institutions.
- 6 Further improving the website and "Wavelengths" by enacting the recent Communications Committee initiative approved by XCOM in the May 2004 meeting. Making more effective use of "e-notice" service by IEEE. For more information contact Dan Romanchik at dandr@ieee-sem.org.
- 7 Holding an SPAC event at least once a year, and developing an exciting student competition project with awards given out to winners in order to improve student involvement in IEEE. This effort is to be led by the Director of Student activities.
- 8 Providing employment Assistance to IEEE members. A volunteer is needed to lead this effort.
- 9 Providing social support and legal defense to IEEE members in their capacities as employees of companies and educational institutions at their jobs sites. A volunteer is needed to lead this effort.
- 10 Improving the publicity and enhancing the image of IEEE in the public domain. This effort requires a public relations campaign and is currently being led by Imad Makki.
- 11 Combating discrimination, in all of its forms, directed against IEEE members world-wide. This effort is to be carried out in the spirit of international solidarity and equal rights among all global members of IEEE. A volunteer is needed

to lead this effort, which should be carried out in cooperation with the Public Relations (PR) committee.

- 12 Improving on the recruitment and retention of new volunteers. This effort has been led in the past two years by Sam Barada, Maurice Snyder, and few others resulting in attracting few new volunteers to IEEE. A much wider effort is needed in this respect involving at least all section officers and many more members as well. Please do not hesitate to contact me if you are interested in contributing to this effort.
- 13 Enhancing our understanding of IEEE functions and keeping ourselves informed of its events, publications, services, benefits, and policies. One suggestion would be to Read the IEEE newsletter, "The Institute", and similar publications on a regular basis. Another suggestion is to write, become more active, and contribute more effectively in shaping the character and policies of IEEE-SEM and IEEE.

Finally, I am hopeful that IEEE-SEM will continue to move forward and flourish in the service of its members as well as the local and global communities. Let us work together in a spirit of mutual respect!

I invite your comments at sbarada@ieee.org.

Consider Serving as an IEEE SEM Section or Chapter Officer

By Dr. Maurice Snyder, IEEE/SEM Junior Past Chair



It is time to look ahead to our leadership for the 2005 calendar year. The IEEE/SEM Executive Committee invites you to consider opportunities in leadership at either the section or chapter level. Serving as an IEEE/SEM officer is a great way to meet and work with enthusiastic and proactive section members. It's a way to network with local professionals, meet internationally known technical experts, utilize planning and organizational skills, and have fun while growing professionally.

It is also a way to be involved in our Spring and Fall Section Meetings where international experts are invited to give keynote addresses.

Terms of office begin Jan. 1, 2005 and last for one year, except for section directors who are elected to two-year terms. There are five Directors and the terms are staggered (two elected one year, three the next year) so not all directors change each year.

Consider becoming active with a chapter of your technical interest. Serving as a chapter officer is a good way to meet others in your field, keep current on the technology and become familiar with other IEEE activities. If you have interest in the section activities, consider an office at the Section level. Both Chapter and Section activities are excellent experiences to have when applying for Senior Member or Fellow of IEEE.

All of you are invited to any of our Xcom meetings on either the first Monday or first Tuesday of each month, except July. Check our web site for the exact dates, <http://www.ieee-sem.org/>. You will be our guest for dinner. Contact me at mfsnyder@ieee.org for a dinner invitation or further information.

Elections for Next Year and Request for Nominations of Officers

The schedule for elections for next year, Jan. 1 to Dec. 31, 2005 is as follows:

- May/June, 2004 Wavelengths: Request for nominations
- There is no July or August Wavelengths
- Sept. 1, 2004: Nominations closed
- Sept., 2004: Wavelengths Ballot published
- Sept. - October, 2004: Voting by members via web site or mail in
- October 22, 2004: Voting closed
- November 10, 2004: Fall Section Meeting, results announced
- December, 2004: Training session for new officers

Offices to be elected include:

- 1 Section Officers: Chair, Vice-Chair, Secretary, Treasurer (one-year term)
- 2 Section Directors of Educational Activities and Student Activities (Section Directors of Membership, Professional Activities, Technical Activities are not up for election since these are two-year terms that end Dec. 31 2005)
- 3 Chapter Chairs, Vice-Chairs, Secretaries and Treasurers for the following chapters:
 - Chapter 1 Circuits and Signal Processing
 - Chapter 2 Vehicular Technology
 - Chapter 3 Communication and Aero. Technology
 - Chapter 4 Trident
 - Chapter 5 Computers
 - Chapter 6 Geoscience & Remote Sensing
 - Chapter 7 Power Engrg. & Industrial Applications
 - Chapter 8 EMC (Electromagnetic Compatibility)
 - Chapter 9 Power & Industrial Electronics
 - Chapter 10 Engineering Management
 - Chapter 11 Engineering in Medicine and Biology
 - Chapter 12 Control Systems

Officer's duties can be found on the Web page Officer Roles and Responsibilities.

Please submit your nominations to me, Maurice Snyder at email mfsnyder@ieee.org. You can nominate yourself or have someone nominate you. You can also place a nomination on line using the Officer Nomination Form.

IEEE SEM Needs You!

Spring 2004 Section Conference a Great Success!

by Dr. Hassan Hassan, IEEE/SEM Vice Chair and Student Activities Director

The IEEE/SEM Spring 2004 Section Conference was held on the 24th of March 2004, at bps Corporate Training and Conference Center in Beverly Hills, Michigan. On behalf of the IEEE/SEM Executive Committee, I extend our appreciation to all of the volunteers and sponsors for supporting this event, which proved to be quite a successful and exciting gathering of more than 180 Electrical and Computer Engineering professionals in South East Michigan. The Program Committee was made up of dedicated individual volunteers who devoted many hours of preparation to make this meeting outstanding and successful. My sincere thanks go out to the Program Committee, which consisted of:

Dr. Hassan Hassan, Program Committee Chair, Section Vice Chair and Student Activities Director
 Dr. Maurice Snyder, Jr. Past Chair
 Dr. Suleiman Barada, Section Chair
 Mr. Scott Lytle Registration, Ch 8 Chair
 Dr. Lisa Anneberg Registration, Ch 4 Chair
 Mr. Kimball Williams, Counsel
 Dr. Tarek Lahdhiri Professional, Council
 Dr. Adel Marzougui, Professional Activities Director
 Dr. Mohamad Berri, Membership Activities Director
 Dr. John Shen, Educational Activities Director
 Mr. Chuck Albrecht, Section Treasurer
 Mr. Don Bramlett, Awards & Counsel
 Dr. Jim Woodyard, Communications Committee Chair
 Mr. Dan Romanchik, Webmaster and Wavelengths Editor
 Mr. Sat Basu, Counsel
 Mr. Mark Ciechanowski, Section Secretary
 Ms. Angela Kwan, Registration

Registration and Attendance

bps Corporate Training and Conference Center proved again to be a very suitable place for our meeting. The facility is a compact place in which all the elements of the Event, namely the parallel technical sessions, the Display Tables, the Dinner, Speeches, and Keynote Presentation, all could come together at the same location in a relatively harmonious and complementary fashion. Special thanks go to our Registrar Mr. Scott Lytle and his Registration Team, and to our Treasurer Mr. Chuck Albrecht, who made the Registration and Accounting process as organized and smooth as possible. Special thanks also go out to all of the volunteers who helped with registration and many other tedious details of organization. We had a total of 190 attendees at this event. Guests included our keynote speaker, Dr. Pieter A. Frick, Dean of the School of Engineering and Computer Science at Oakland University; in addition to our technical session speakers and their guests and our awardees (see Tables below!).

Exhibitors

Before and after the technical sessions attendees had the opportunity to visit Vendor Displays, University Showcases, and Student Branch Exhibits. All the displays and exhibits were set up

in the lobby area stretching across all of the Session rooms and the Cafeteria. Thanks to the efforts of Dr. Adel Marzougui, this meeting set a new record for the largest participation of Vendors, University Showcases and Student Table Sponsors at a Section meeting. The following companies and universities joined us for the evening:

Student Table Sponsorship Companies

dSPACE, Inc, Novi, MI. Lawrence Bihn. 248-567-1229.
 Trico, Rochester Hills, MI. Dave Peck. 248-371-1700.
 Yazaki North America, Canton, MI. Scott Lytle, 734-983-1000.
 Ansoft Corporation, Milwaukee, WI. Mark Jenich, 414-302-5996.

University Showcases

University of Detroit Mercy - Dr. Armand Ash, 313-993-3365.
 Lawrence Technological University - Dr. Richard Maslawski, 248-204-2500.
 Michigan State University - Dr. Jim Valentine, 517-432-3176.
 Wayne State University - Gail Evans-Howe, 313-577-1101.
 Oakland University - Dr. Mohamed Zohdy, 248-370-2234.
 University of Michigan - Dearborn - Emily Limchoa, 248-703-6231.

Vendor Table Companies

Agilent Technologies, Livonia, MI. Marty Gubow, 734-542-3215.
 Pro Resource Associates, Marine City, MI. Stratos Dallis, 810-765-1181.
 Applied Dynamics International, Ann Arbor, MI. Rick Schlosser, 734-973-1300.
 Mentor Graphics, Ann Arbor, MI, Tom Egel, 734-332-0153.
 Opal-RT Tech Inc., Montréal, Quebec, Canada. Wensi Jin, Paul Goossens 734-717-0150, 877-935-2323.
 EnGenius, Inc., Livonia, MI, Kevin Stofflet, 734-522-2120.
 Applied Comp Tech, Inc., West Bloomfield, MI, Mouhamad Naboulsi, 248-388-0211.
 ESD, Southfield, MI, Marcy Dwyer, 248-355-2910.

We thank all the companies, Universities, and organizations for their participation; and we look forward to seeing them again at our Fall Conference on November 10th, 2004.

Dr. Pieter A. Frick, the Dean of the School of Engineering and Computer Science of Oakland University delivered the keynote address.

Technical Sessions

The Fourteen Technical Sessions including the Student and Professional Track Sessions were well attended and covered many interesting and up to date topics that generated live discussions and commentaries.

Dinner and Keynote Speech

One hundred and thirty meals were served at dinner. IEEE extends its appreciation to the seven companies and their representatives who sponsored Student Tables and participated at this event. During dinner, a number of exciting short speeches were made by: Dr. Suleiman Barada (Chair of IEEE/SEM), Dr. Mau-

Spring 2004 Section Conference a Great Success!

by Dr. Hassan Hassan, IEEE/SEM Vice Chair and Student Activities Director



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orities and Challenges". The keynote speaker were introduced by Dr. Hoda Abdel-Aty Zohdy. Newly formatted surveys were distributed to all attendees for evaluation and feedback.

Special Awards

During the speeches, IEEE/SEM had the privilege of awarding all of the Session Speakers and the Keynote speaker with special Certificates of Appreciation. The following persons or groups were recognized for their outstanding contributions to the IEEE and the Profession:

- Frank A. Denbrock, PE (IEEE/SEM Section Outstanding Engineer Award)
- Mohamad Berri, PhD, Director of Membership and Co-Chair of Chapter XII (IEEE/SEM Section Outstanding Section Involvement Award)
- Steve Kishok, Chapter X Vice-Chair (IEEE/SEM Section Outstanding Chapter Involvement Award)
- University of Windsor Student Branch (IEEE/SEM Section Outstanding Student Branch Award)

Also, acknowledged and congratulated the following persons for their Fellow grade in IEEE:

- Edmund Durfee, University of Michigan
- Mardjan J. Jankovic, Ford Research Laboratory
- Daniel Koditschek, University of Michigan
- Jing Sun, University of Michigan

Again, my sincere thanks go to every person who contributed to the success of the Spring 2004 Section Conference.



Don Bramlett recognizes the University of Windsor as the section's outstanding student branch.

Committee Aims to Increase Minority Participation

by Mr. Freeman Gates, Ford Motor Company

Several months, IEEE SEM XCOM formed the Minorities in Engineering Committee. Our primary objective is to increase minority membership in the Southeastern Michigan Chapter, with particular emphasis on African Americans. We also intend to establish a mentorship program with local High Schools, Universities and entry level Electrical Engineers in local industries.

Our initial focus is forming our "core team." This team will canvas HR activities and personal contacts in local companies,

such as Daimler Chrysler, Ford Motor, General Motors, Delphi, Visteon, Detroit Edison, and EDS, to provide assistance in the selection of likely candidates.

The core group is also developing an "awareness seminar." We hope to finalize plans for the seminar by the middle of July and conduct the seminar sometime in the third quarter.

If you're interested in helping with any of these activities, please contact me by e-mail or by phone at 313-322-4807.

On Frequency A Call for Contributors

By Dan Romanchik, Wavelengths Editor

We would like to encourage IEEE SEM members to contribute items of interest to both Wavelengths, our newsletter, and to our website. These items could include: announcements of upcoming events, news of chapter meetings, items in the news that you feel IEEE SEM members should note, and opinion pieces on technical or professional issues.



To get an item into Wavelengths, you should submit it directly to me by e-mail at danr@ieee-sem.org. You can also submit items directly to the website.

To do this, you must first become a registered user. To become a registered user, click on the "user account" link near the top of the page. Then, type in a username and e-mail address in the "Create new user account" box on the next page. If the username or e-mail address you typed is not currently registered, the website will then e-mail you a password.

Once you receive the password, you must log in to the website. Again click on "user account" and then type your username and password in the appropriate fields in the "Log In" box.

Once you've logged in, click on the "submit" link. You'll then be given the choice of entering a forum topic or story. To submit an item that will appear on the home page, click on "story" and fill in the appropriate fields. To have the story appear on the home page, be sure to check the "Promoted to front page" box.

A contribution that also pays you back (financially)
We also have a need for another kind of contributor, namely someone to sell advertising in Wavelengths and on our website. The purpose of the advertising is to help defray the costs of producing Wavelengths and to cover our website hosting expenses. The payback to you is a commission on each sale.

If you have any questions about contributing to Wavelengths or the website, or if you're interested in selling ads in Wavelengths, please e-mail me at danr@ieee-sem.org or phone me at 734-930-6564.

Contribute to Wavelengths!

Robofest 2004 Encourages Science Students

By Dr. Chan-Jin Chung, Associate Professor, Dept. of Math and Computer Science, Lawrence Tech University

The fifth annual Robofest sponsored by IEEE Region 4 PACE and SEM and among others was held at the following sites on Saturday, April 24, 2004 simultaneously:

- Dexter-Elmhurst Family Center, Detroit Michigan
- Macomb Intermediate School District Center, Clinton Township MI
- Lawrence Tech University, Southfield Michigan
- RoboTech Center, Nashua New Hampshire

As an open contest for students fifth grade and up, Robofest gives students a chance to show off their autonomous robots while learning science, engineering and technological skills as well as teamwork. Robofest challenges students to solve a problem on the day of the competition.

In this year's event, robots were designed to go on a search-and-rescue mission to save trapped people after a simulated earthquake. Autonomous robots were sent out to a burning building to remove debris, and then construct a bridge with a ladder to rescue a group of trapped people. The official playing field and the last part of the mission were unveiled on Saturday at the same time at four different sites.

Walnut Creek Middle School team won the prestigious Robofest National Championship trophy in the Advanced Robot Division. The completion time at the final was 41.28 seconds. Christ the King Comets from Christ the King Separate School in Windsor won the National Championship in the Lego Robot Division. Their time at the final was 48 seconds. A team from Farmington Harrison High School set the National Record. During the first round, their Handy Board robots completed the entire mission for 40.28 seconds and no other teams broke the record afterwards. Details of the results can be found at <http://www.robofest.net/2004/results.htm>.

Robofest was started in 2000 as a low-cost competition that would encourage every student to use technological skills in a hands-on event. As more schoolteachers join the competition with their students, the number of participants continues to grow each year. This year, 85 teams and 354 students participated in Robofest and worked hard for about three months. The following figure shows the number of students participated since 2000.

In order to promote creativity, Robofest has an open exhibition stage for autonomous robotics projects. Each team has freedom to create an autonomous robot, such as robot pets, dancing robots, storytelling with robots, robots for scientific experiments and practical robotics applications. This year, many interesting robotics exhibitions were presented. For example, a team Cinemaniacs from Cranbrook Kingswood who won a Judge's Award demonstrated robotics project about robots and movie-making.

Dr. Chambers, President of Lawrence Technological University,

introduced IEEE and presented a plaque of appreciation to IEEE SEM chair, Dr. Suleiman Barada for their Robofest sponsorship. More than 600 spectators saw IEEE Banner hung in the Field House and IEEE logo placed under the trophy table.

In summary, Robofest 2004 has achieved its goals:

- to inspire students to use their imagination and creativity,
- to encourage students to explore science, engineering, and technology in a fun, hands-on way,
- to promote the spirit of team works and cooperation,
- to enhance students' problem solving skills using technologies.

Please visit the Robofest website at <http://www.robofest.net/2004/results.htm>. There, you will find the following information:

- All the award winners
- Detailed score sheets
- Hundreds of photos
- Official program flyers at Lawrence Tech site
- More statistical data

IEEE/SEM Science Fair Awards

By Don C. Bramlett, PE, IEEE/SEM Section Advisor

The 47th Annual Science and Engineering Fair of Metropolitan Detroit (SEFMD) was held from March 30 through April 3, 2004 in the Michigan Hall of the Cobo Conference Exhibition Center in downtown Detroit. Judging of student projects was performed on Wednesday, March 31. This year the SEFMD again had over two thousand projects on display in two Divisions, the Junior Division (Middle School students) and the Senior Division (High School students). Exhibits are classified into 13 general categories for judging; including engineering, computer science, physics, and environmental science.

For the eleventh straight year the IEEE/SEM Section has provided a team of volunteer judges to evaluate student projects associated with electrical, electronic and computer engineering related subjects. The Section would like to express its appreciation to the IEEE Section members who volunteered to be members of the IEEE judging team this year. The level of participation on the IEEE special awards judging team at the SEFMD demonstrates annually a true sense of volunteerism among our membership and a real interest in the technology and science education of our children in the K-12 grades, who will become the future engineers and scientists of this world.

The Section wishes to thank the four (4) IEEE members, and their companies/institutions, for taking the time to volunteer and help to make the Science Fair a more pleasurable and meaningful experience for the middle school and high school students who participated. The IEEE/SEM judging team was composed of the following volunteers:

- Detroit Edison (DTE Energy), Don C. Bramlett, PE, SMIEEE
- Ford Motor Company, Scott A. Amman, Ph.D., PE

- University of Michigan, William D. Becher, Ph.D., PE (retired) (author of "An Ocean Between", a historical novel)
- Wayne State University, Laurence G. Dishman, Ph.D.

Other IEEE/SEM Section members; such as Dave Morris, a University of Michigan Ph.D. candidate; and Paul Ostrowski, Ph.D., CCE, Chief Biomedical Engineer with the Veterans Administration Medical Center in Detroit; served as general category judges at the SEFMD.

The judges had the opportunity to view and evaluate a large number of exhibits, especially some outstanding projects in areas pertinent to IEEE-related fields. The judges and the high school students in the Senior Division had the pleasure to interface and discuss in depth some of the principles, scientific techniques, engineering approach, experimental results and applications pertinent to the projects.

The IEEE/SEM Section, based on the evaluations of the panel of judges, awarded two (2) First Place Grand Awards, consisting of a personalized certificate and \$100 for the one individual student project and a personalized certificate and \$50 for each of the three students for the team project. These two awards were presented to:

Senior Division:

- Andrew Turckes, a senior at Dearborn Senior High School, for his project entitled, "The Self-Recharging Mobile Robot Project."
- James Bergren, Luke Duncan and Mark Skwarski, students at Dearborn Senior High School, for their project entitled, "Hands-Free Computer Interface Project."

The panel of judges also determined that the IEEE/SEM Section would provide Honorable Mention Awards to three other noteworthy projects, in the Junior and Senior Division. The Honorable Mention Awards each consisted of a personalized certificate for each awardee. These awards were presented to:

Senior Division:

Andrew Frantz led a team of students at Grosse Pointe North High School, for their project entitled, "Engineering and Implementation of a Research-Grade Radio Telescope."

Junior Division:

Kevin Grafmiller, a student at Detroit Country Day Middle School, for his project entitled, "Fuel Cells Heat Up."
Peter Livesey, a student at Detroit Country Day Middle School, for his project entitled, "Solar Cells, Sun's Angle and Power."

The IEEE/SEM Section plans to continue to staff other panels of special awards judges at both the Future City Competition and the SEFMD in 2005, and in subsequent years. These are some of pre-college education programs that the IEEE/SEM Section promotes.

Events

Sept 14 -15, 2004

Reverberation Chamber EMC Testing Workshop

The Southeastern Michigan Chapter of the IEEE EMC Society presents:

- Michael O. Hatfield, Naval Surface Warfare Center, Dahlgren, Virginia
- Terry North, DaimlerChrysler
- Laura Ball and Kevin Pender, General Motors
- Garth D'Abreu, ETS-Lindgren and
- Sean Emerson, Rohde & Schwarz

For more information, see the IEEE Southeastern Michigan EMC website., www.emcsociety.org.

Location: EST, 47523 Clipper Street, Plymouth, MI 48170-2470, 734-455-6350

Contact: Scott Lytle, 734-983-6012, s.r.lytle@ieee.org

Wednesday, Nov 10, 2004

6:00 pm

Fall Section Conference

Please join us for an evening of socializing and technical sessions.

Location: bps Training and Conference Center, 31301 Evergreen Road (near 13 Mile Road), Beverly Hills, MI.

Contact: Hassan Hassan, h.hassan@ieee.org.

Tuesday, Dec 7, 2004

6:00 pm

IEEE SEM Management Society Meeting

Topic tbd

6:00pm Socializing and networking, 6:30pm Presentation.

Location: Ford Sustainable Mobility Technologies Lab II (SMTL) building, conference room 16, 15000 Commerce Drive North, Dearborn.

Contact: Mark Ciechanowski, mark.ciechanowski@ieee.org

Want to have your event listed?

Fill out and submit the form at
<http://www.ieee-sem.org/eventform.html>

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