



Wavelengths



October 2002 **Section Advisor's Column**

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Sections Congress 2002

Don C. Bramlett, IEEE/SEM Section Advisor



The IEEE Sections Congress, held this year from October 18 to October 21 in Washington D.C. is a triennial gathering of Section leadership sponsored by the IEEE Regional Activities Board. An event which includes four days of working sessions and networking, Sections Congress involves hundreds of delegates from all ten Regions around the world. At Sections Congress the Section delegates learn how to utilize the resources of the IEEE to maximize their effectiveness as IEEE volunteer leaders. Workshop, panel and tutorial sessions are held on topics of interest to the Sections.

The Sections Congress is the one major meeting sponsored by the IEEE which brings together a large number of the Institute's grassroots leadership so that they can share ideas, concerns and solutions.

The Sections Congress is also a forum where the Section delegates speak as the collective voice of IEEE membership, expressing ideas about how the Institute can better serve its members, both now and going forward. The issues generated at Sections Congress have had a major impact on the plans made by the IEEE Leadership for the future of the Institute.

The IEEE Southeastern Michigan (IEEE/SEM) Section will be represented at Sections Congress 2002 in Washington D.C. by Dr. Suleiman Barada, the Section Vice Chair, as the Section's primary delegate, and Dr. Mohamad Berri, the Section Director of Membership Activities, as the Section's alternate delegate.

Several other IEEE/SEM Section members will also be participants at Sections Congress 2002 due to their volunteer involvement with IEEE Region 4 (R4), the IEEE Region that the IEEE/SEM Section is in geographically. These additional representatives include Don C. Bramlett, PE, R4 East Area Chair; Sat Basu, R4 Technical Activities Committee Chair; Mark Hunter, R4 Membership Development Committee Chair; and Tarek Lahdhiri, R4 Regional Employment & Career Services Coordinator. The IEEE Region 4 Executive Committee will meet in Washington D.C. on October 17 & 18, immediately prior to Sections Congress 2002.

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

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Deadline for the November issue is October 25!

Fall Section Meeting

42 V Systems Explained at Fall Section Meeting

Wednesday, October 23, 2002

Lawrence Technological University
Buell Management Building
21000 West Ten Mile Road
Southfield, MI

[map for getting to LTU](#) | [map for getting around LTU campus](#)

Norman Traub, Director of 42 V Initiatives for SAE will give the keynote speech at our Fall Section Meeting on Wednesday, October 23, 2002 at Lawrence Technological University. This talk is timely as all vehicle manufacturers are faced with the challenge of providing more electrical power to offer increasingly fuel efficient and safer vehicles with additional customer features. This can best be accomplished by raising the system voltage provided by the on-vehicle "utility company."



For approximately the last six years, vehicle manufacturers and their suppliers have been discussing the most cost effective way to provide the higher amounts of energy being forecasted. All are in agreement that global cooperation and standardization will be needed. This presentation will outline efforts by the automotive community to provide a degree of standardization to the process and will define some of the technical challenges facing implementation in production vehicles.

Each of the Southeast Michigan IEEE Chapters are also sponsoring speakers at this event as described below.

For complete information, including registration information, visit the [Fall Section Meeting page](#).

Chapter I - Circuits and Systems, Information Theory, Signal Processing, and Control and

Chapter III - Communications and Aerospace Electronics

Title: Embedded Information System Technology for Interoperability of Aerospace and Command and Control (C2) Platforms,

Speaker: Charles P. Satterthwaite, Embedded Information System Engineering Branch, Air Force Research Laboratory, Wright-Patterson AFB, OH

Chapter II - Vehicular Technology

Title: Lean-Burn Technology for Spark Ignition Engines - A Perspective on Opportunities and Challenges

Speaker: Gopichandra Surnilla, Technical Specialist, Ford Motor Company

Chapter IV - Trident

Title: Autonomous Robotics - A Wonderful Motivator in AI research and Science & Engineering Education

Speaker: Chan-Jin Chung, Math and Computer Science Dept, Lawrence Technological

University

Chapter V - Computer

Title: Embedded Software Development for Automotive Applications

Speaker: Pradeepan Srinivasan, Senior Project Engineer, General Motors

Chapter VII- Power Engineering and Industrial Applications

Title: Substation Integration and Automation - Best Practices

Speaker: John D. McDonald, P.E.

Chapter VIII - EMC

Title: Testing above 1 GHz - Site Considerations

Speaker: Mike Windler, Underwriter's Laboratories, Northbrook, IL

Chapter IX - Power Engineering and Industrial Electronics

Title: Super Junction Power Semiconductor Devices and Their Impact on Power Electronic Systems

Speaker: Dr. John Shen, Electrical and Computer Engineering Department, University of Michigan--Dearborn

Chapter X - Management

Title: Leadership and Philosophy

Speaker: Randal C. Gaereminck, Deputy Program Executive Officer for Combat Support and Combat Service Support at the U.S. Army Tank-Automotive and Armaments Command (TACOM).

Student Track

Title: Creativity and Innovation for Electrical and Computer Engineering Research Using TRIZ Theory.

Speaker: Hassan Hassan, PhD, PE., Associate Professor of Electrical and Computer Engineering at Lawrence Technological University

On Frequency

Ham Radio, Anyone?

I know that many of you are either currently hold an amateur radio license or would like to get one. Ham radio is, after all, the perfect hobby for those of us who enjoy electronics. That being the case, I'd like to suggest that we form an IEEE/SEM ham radio club.

It doesn't have to be anything real formal--we wouldn't charge dues or issue membership cards. Instead, I am proposing that we form a loose network (pun intended) of IEEE/SEM members interested in amateur radio. I can think of a couple of activities that would be beneficial to the members, including:

- a moderated mailing list that would allow us to share information on local clubs, dealer, and amateur radio events,
- a net on a local VHF repeater, and
- a talk on new (or even old) amateur radio technology at a spring or fall section



meeting.

I know that the IEEE is supposed to be a professional society, but that doesn't mean we can't have a little fun, too. If you'd like to be a part of the IEEE/SEM Ham Club, email me at d.romanchik@ieee.org or look for me on the ARROW repeater (146.96-) or on 20m CW around 14.055 MHz.

Dan Romanchik, KB6NU, Editor



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Workshop Provides Auto Power

The seventh annual Workshop on Power Electronics in Transportation (WPET2002) is slated to take place October 24-25, 2002 at the DaimlerChrysler Technical Center in Auburn Hills. Co-sponsored by the IEEE Power Electronics Society, Southeastern Michigan Section, the IEEE Vehicular Technology Society, and SAE International. WPET2002 will focus on various aspects of power electronic circuits and systems in vehicles and provide a forum for in-depth discussions among researchers from industry, academia, and government.

The workshop will include technical sessions covering:

- Electrical Architectures
- Converters and Inverters
- Electric Drives and Motor Control
- Power Semiconductors
- Power Electronics Applications

There will also be a panel discussion on emerging power technologies.

For more information, go to the [WPET2002 website](#).

Bylaws Revisions

By Anthony J. Rhein, IEEE/SEM Secretary

In an effort to streamline to operation of the Southeastern Michigan section of IEEE, and in order to bring section in compliance with the IEEE National operations guidelines, it is necessary for the Southeastern Michigan Section to update our bylaws. This update has not been taken lightly, and has been a process working over the past few years.

In order to approve, the changes must receive an affirmative vote from 2/3 of the voting membership of the Southeastern Michigan Section of IEEE required for the majority of the articles. We hope that you will vote on this matter, as the bylaws are the very fabric by which our organization is based upon, and without effective bylaws, our organization can not function properly.

In order to help you understand the changes to the bylaws, we have posted a [detailed listing](#) of the changes to the bylaws. This allows you to easily see which items are receiving changes. We have also posted the [complete bylaws](#) as they would stand assuming the approval of all proposed changes.

To vote for or against these changes, there is a ballot below. Please print this ballot and mail it to **A.J. Rhein, IEEE SEM Secretary, 6406 Buxton Dr., West Bloomfield, MI 48322**. The ballot must be postmarked by December 15, 2002 to be counted in the election.

If you have any questions regarding the bylaws revisions being proposed or the process used to obtain these revisions, please contact Anthony J. Rhein, P.E. at 734-591-4000 or ajrhein@moylaneng.com.

Bylaws Revision Ballot

Name: _____

IEEE Member Number: _____

Signature: _____

Date: _____

I am in favor of the proposed changes to the section bylaws.

YES [] NO []

Soliciting Nominations for IEEE Awards

by Maurice Snyder, IEEE/SEM Chair



The IEEE/SEM Spring Meeting 2003 will mark the 11th annual awards ceremony for our Section. During the past decade we have honored members and student branches who have set high standards of IEEE service. To again acknowledge deserving individuals and student branches we are asking your help to identify their contributions. We are soliciting your nominations from our membership in the following areas:

Outstanding Engineer: For demonstrated outstanding service or accomplishment in the electrical, electronic or computer engineering profession. The award recognizes such long-term achievements in business, academia, and private enterprise through patents, publications, development of standards, encouragement of student interest and other professional activities.

Outstanding Section Involvement: For acknowledging a member who has been active in Section activities and has gone beyond the norm in leadership, participation and accomplishments.

Outstanding Chapter Involvement: For a member with outstanding commitment and dedication to one of the IEEE/SEM Technical Society Chapters. This is for special recognition of leadership, enthusiasm and accomplishments in chapter activities and programs.

Outstanding Student Branch Involvement: For a Student Branch, Student Branch member(s), Section member (s) or a Student Branch Advisor in recognition of their leadership, participation, support, or accomplishments in operations and programs of a Student Branch(s) and for promoting the engineering profession among students. More than one award may be presented in any year.

Rules for nominations:

1. All nominees and nominators must be IEEE members or student members in good standing.
2. Must be submitted on IEEE/SEM forms.
3. Must be received on or before the following deadlines:

- a. Outstanding Engineer by Friday Dec. 6, 2002
- b. Outstanding Section Involvement by Friday Dec. 6, 2002
- c. Outstanding Chapter Involvement by Friday Dec. 6, 2002
- d. Outstanding Student Branch Involvement by Friday Feb. 7, 2003

Please download nomination forms from IEEE/SEM web site:

http://www.ewh.ieee.org/r4/se_michigan/

Please complete the forms on or before the above deadlines and email to Maurice Snyder at email: snyder@adi.com. The IEEE/SEM Awards Committee asks and appreciates our member's help in recognizing their peers. Thank you.

IEEE Student Members Sought for Summer Internships in Washington

IEEE-USA is looking for outstanding student members with strong leadership skills and an interest in public policy to participate in the Washington Internships for Students of Engineering (WISE) during the Summer 2003 program (June 2 - Aug. 8). In addition to U.S. citizenship, applicants must also be in their Junior or Senior years or a recent grad entering a policy-related Masters program.

During the 10-week program, participants learn how the U.S. government addresses complex technological issues and how engineers can contribute to legislative and regulatory public policy decisions. In addition to meetings with government decision-makers and policy organizations, each WISE Intern prepares a research paper on an engineering-related public policy issue. IEEE's 2002 WISE Interns tackled policy issues related to digital rights management, the Digital Millennium Copyright Act (DMCA), and the role of Gigabit Ethernet over Fiber as a broadband infrastructure option. Other WISE topics range the gamut from overcoming barriers to the next generation of nuclear technology to use of iris recognition identification systems for homeland security.

Students work under the guidance of a faculty advisor and are mentored by government relations staff and volunteers from the IEEE-USA Washington office. Interns receive a stipend of \$2,100 plus lodging at George Washington University.

The application deadline is 6 December 2002.

For more information or to apply, contact WISE at <http://www.wise-intern.org>, or Sharon Richardson, IEEE-USA at s.richardson@ieee.org.



Your ad here will reach nearly 4,000 members of the IEEE/SEM section.

Contact Dan Romanchik, 734-930-6564 or d.romanchik@ieee.org for more information.

EMC Laboratory:

Ford, GM, Toyota & Honda Testing
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Other Testing Services: environmental, vibration and mechanical.

Contact: Graeme Rogerson, 734 455 4841, Plymouth MI

Calendar Of Events

Date

Event

Wednesday, October 23 [Fall Section Meeting](#)

Location: Lawrence Technological University

Our semi-annual section meeting will feature a keynote presentation on 42 V automotive electrical systems and technical presentations from many of our chapters

Contacts: [Suleiman Barada](#)

Thursday,
October 24 -
Friday,
October 25

[7th IEEE Workshop on Power Electronics in Transportation \(WPET2002\)](#)

Location: DaimlerChrysler Technical Center, Auburn Hills, Michigan, USA

WPET2002 will focus on various aspects of power electronic circuits and systems in vehicles and provide a forum for in-depth discussions among researchers from industry, academia, and government.

Topics covered include electric and hybrid drivetrains, motor drive and motion control, fuel cell technology, batteries, inverters and converters, 42V PowerNet, conventional load control, control design, on-board power management, power semiconductors, CAD/CAE, EMI/EMC, and thermal management and packaging.

To have your event listed here, [submit this form](#).

Executive Committee

Officers

Chair	Maurice Snyder	734-973-1300	snyder@adi.com
Vice Chair	Suleiman Barada	313-561-5747	s_barada@msn.com
Secretary	Anthony Rhein	734-591-4000	ajrhein@moylaneng.com
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Section Advisor	Mr. Don Bramlett	313-235-7549	d.bramlett@ieee.org
Student Activities	Dr. Hassan Hassan	248-380-1650	h.hassan@ieee.org
Professional Activities	Dr. Tarek Lahdhiri	810-947-2398	tl007@ieee.org
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Membership	Dr. Mohamad Berri	313-999-3358	berri@mberry.com

IEEE/SEM Chapters

Chapter I- Circuits and Signal Processing

[Chapter II - Vehicular Technology](#)

Chapter III - Communications and Aerospace Electronics

Chapter IV - Trident

Chapter V - Computer

Chapter VI - Geoscience and Remote Sensing

Chapter VII - Power Engineering and Industrial Applications

[Chapter VIII - EMC](#)

Chapter IX - Power Engineering and Industrial Electronics

[Chapter X - Engineering Management](#)

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Wavelengths is published eight 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.

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Eighth Page	270W x 180H	\$500	\$90

There is no extra charge for color. Special placements can be requested, and will be accommodated if possible. Payment must accompany insertion order.

For more information, contact Dan Romanchik, Wavelengths Editor, phone 734-930-6564, e-mail: d.romanchik@ieee.org.

