



# Wavelengths

## Section Chair's Message

Volume 55 - Issue 7  
July 2015

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Wavelengths Newsletter is produced by IEEE volunteers and published by Southeastern Michigan (SEM) Section for the members.  
Newsletter Archive: <http://sites.ieee.org/sem/>



It's summer and there is a lot going on in our Section.

### Our 1<sup>st</sup> IEEE SEM Humanitarian Technology Conference:

On July 17 the first IEEE SEM Humanitarian Technology Conference will be held at Burton Manor in Livonia.

This very timely and important conference features a welcome video address from Governor Snyder and Key Note addresses from Yvette Pearson Weatherton, Program Director NSF.

A final Keynote will be given by David B. Behen who holds dual roles as director of the Department of Technology, Management and Budget and as Michigan's chief information officer.

More details are available on pages 6 to 12 of this Newsletter.

### Proposed Office Terms Change:

A proposed change is being discussed among the Section governing bodies for moving to 2 year terms for your elected section officers (Chair, Vice-Chair, Secretary and Treasurer).

I have proposed this change to reduce the new officer learning curve that occurs after every change in personnel following an election.

One question, to still be debated, is, provided this is approved, 'how would this change get phased in?' .

If all four officers are elected at the same time, the learning curve takes place once for all, every two years, and hopefully one or more officers with experience are re-elected.

If only two of the officers are elected each year, there would be officer experience carryover but it would be harder for an officer to move to a higher position without possibly having to wait a year.

Maybe some assistant positions could resolve this. I am interested in your opinions about this proposal.

### Welcome New Chapter 15:

A new SEM Chapter for Nuclear and Plasma Sciences Society has been officially recognized by IEEE.

David Trescott is the 'start up' Chair. We welcome this new Chapter #15 to our SEM family and extend an invitation to our membership to join. You can find David's contact information at the SEM web site ([www.ieee-sem.org](http://www.ieee-sem.org)) and clicking on the "ABOUT SEM" tab and opening the "Officers Roster".

**Refer a Colleague:**

IEEE is offering discounted first year membership and rewards for referring new members under the "Refer a Colleague, Get Great Merchandise" program. More information about this membership campaign can be found on page #19.

**Date Correction:**

I reported last month an incorrect date for our Section Fall Conference at University of Michigan Dearborn. The correct date is Tuesday, November 17, 2015. More information can be found on page #15 and on the Section home page at [www.ieee-sem.org](http://www.ieee-sem.org) or the conference web site at [www.ieee-sem.org/fall](http://www.ieee-sem.org/fall).

I look forward to hearing from you and seeing you at our events. As always, your ideas and suggestions are encouraged and welcome.

**Robert Neff**  
IEEE SEM Section Chair  
[RLNeff1@gmail.com](mailto:RLNeff1@gmail.com)

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**Attend the SEM ExCom?**

All IEEE meetings are open for all members to attend. (See page 21). If you are interested in taking a look at what goes on in the governance of your Section, why not plan to attend the next Executive Committee face-to-face meeting?

Simply register using the vTools meeting site at:

<https://meetings.vtools.ieee.org/m/31821>

This will let us know how many people we should plan for refreshments and seating.

Why not join us and 'take a look under the hood' at how the Section 'motor' runs?

The next SEM ExCom f2f meeting will take place at:

**Lawrence Technological University**  
21000 West 10 Mile Rd  
Southfield, Michigan  
United States 48075

**Date: 09-July-2015**  
**Time: 05:00PM to 08:00PM**  
In the:  
**Management Building:**  
**Room M218**

We look forward to meeting you there.

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**Nomination for Elections:**

With summer and the eminent approach of fall we have time to turn our attention to the nomination and election of officers for terms beginning in 2016.

Some of our members have commented in the past about beginning the nomination process "...in May when we don't hold the election until October or November."

The IEEE Member and Geographic Activity Board through its "Operations Manual" developed the overall guidelines for holding elections. The first statement in the document states: *"Six months prior to the date of election, the Section Nominating Committee Chair shall issue a "Call for Nominations" for all positions elected at-large to all voting members of the Section through an appropriate medium."* Six months from an October or November election is April or May.

Nominations for election to positions in the section, chapter and affinity groups were opened in June and announced in the June Wavelengths Newsletter.

If you are interested in exploring your options for participation as an officer in the section, contact the current officer in that position and discuss the duties and functions of the office. They are the persons in the section with the most up-to-date knowledge of the requirements of the positions.

See the Officer Roster PDF file on the SEM Website for the listing of current officers:

<http://sites.ieee.org/sem/about-sem/current-officers/>

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## 2015 Spring Conference:

Tuesday April 28, 2015 saw the SEM Spring Conference.

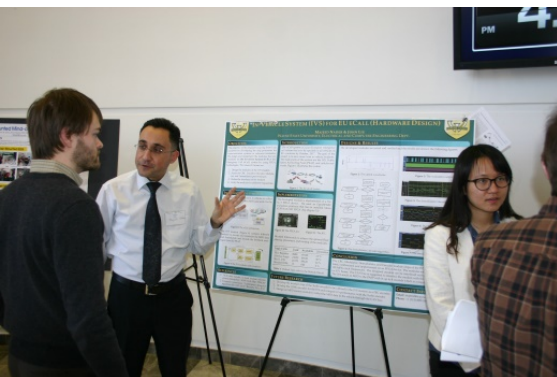
**Nevrus Kaja**, (shown at right) Spring Conference Chair, was relaxed as all the preparations were, at last, finally completed and we all could just enjoy each other's company.



At the registration table, **Ravi Nigam**, (above), Chair of the Communications and Marketing Committee gets a pen in order to sign the petition for form a new IEEE HKN Alumni Chapter in our section.



Dr. Mohamad Berri (Below), Chair of Section Membership, takes the opportunity to network as the attendees gather to enjoy the evening.



### Student Posters:

Presentations by IEEE student members is always a big part of any SEM Section Conference, and this one demonstrated a wide range of technical interests among our student guests.



Keynote Speaker: **Dr. Anthony. W. England** – Dean, College of Engineering and Computer Science University of Michigan, Dearborn



Dr England spoke on the ‘Evolving State of Technology: Trends and Effect on Higher Education.’

Members listened intently to Dr. England.



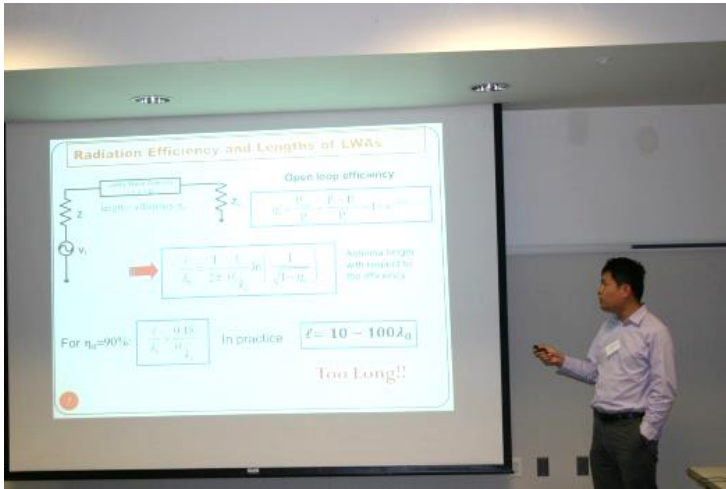
Before dinner began, Malcolm Lunn, Secretary of the Education Committee and Jeff Dulzo, Chair of Chapter 1 engage in a discussion.



A big welcome to everyone who was able to join us at the spring conference.



From Welcome to closing, it was a good section conference.



Individual chapters presented special topics of special interest.



The IEEE Member information table saw a brisk business as members explored further options among the numerous Societies, Councils, Committees and Affinity Groups fliers and brochures.



From Keynote to closing, the conference was enjoyed by all.



Bob Neff sorts out the awards as Mohamad Berri performs 'master of ceremony duties'.

With the final awards of the evening we closed the 2015 spring conference.

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Humanitarian Technology Conference:

# IEEE SEM HUMANITARIAN TECHNOLOGY CONFERENCE – July 17, 2015

Date: 17-July-2015  
Time: 05:00PM to 10:00PM (5.00 hours)



Burton Manor  
27777 Schoolcraft Rd  
Livonia, Michigan  
United States 48150

**Governor R. Snyder (Video Address)**

**Gary Peters (Video Address)**



**Keynote Speaker: Yvette Pearson Weatherton, Ph.D., P.E.**



**Program Director**  
**Division of Undergraduate Education**  
**Directorate for Education and Human Resources**  
**National Science Foundation**

**Talk: A Broader View of Broader Impacts**

**ABSTRACT**

The National Science Foundation (NSF) was established with a mission “to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense,” The agency has established merit review principles and criteria by which all proposals are vetted to ensure NSF-sponsored projects and activities are aligned with this mission. The two merit review criteria are intellectual merit, which "encompasses the potential to advance knowledge," and broader impacts, which "encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes." Both criteria are equally important.

While principal investigators (PIs) generally emphasize the intellectual merit criterion, a large fraction struggles with the potential broader impacts of their projects. Aligned with the IEEE Southeastern Michigan Humanitarian Technology Conference themes of promoting “science, engineering, and technology as solutions to humanitarian problems” and producing “positive and meaningful” impacts upon society, the keynote will

address elements of broader impacts that are not often considered. Examples will be drawn from the presenter's personal experiences as a PI, a program officer, and an individual who identifies with three groups that are typically underrepresented in Science, Technology, Engineering, and Mathematics (STEM) disciplines.

### **BIOGRAPHY:**

Dr. Yvette Pearson Weatherton has 20 years of experience in engineering education. After serving as a faculty member at Southern University for 12 years, she joined the faculty of The University of Texas at Arlington in September 2007, where she is Associate Chair of the Department of Civil Engineering. Originally from Baton Rouge, Louisiana, Dr. Pearson Weatherton holds a B.S. in Civil Engineering and an M.S. in Environmental Chemistry from Southern University, a Ph.D. in Engineering and Applied Sciences from The University of New Orleans, and is a registered Professional Engineer in the State of Louisiana.

Currently an Intergovernmental Personnel Act (IPA) appointee, Dr. Pearson Weatherton is a Program Director in the Division of Undergraduate Education at the National Science Foundation where she manages a large and diverse portfolio of awards geared toward Science, Technology, Engineering and Mathematics (STEM) education and workforce development. Prior to assuming this role, she provided leadership in acquiring and administering nearly \$3 million in funding for projects focused on improving recruitment, retention, and graduation of STEM majors. One of her key focus areas is broadening the participation of students from underrepresented groups – minorities, females and persons with disabilities – in STEM education and careers. Identifying with all three of these groups, Dr. Pearson Weatherton offers a unique perspective shaped by her experiences as an engineering student and professional.

Dr. Pearson Weatherton is a member of the American Society of Civil Engineers (ASCE), where she has served in a number of leadership roles. Most recently, she was appointed as a member of the society's Committee on Sustainability, a Corresponding Member of the Committee on Diversity and Inclusion, and was selected to represent the organization as a Program Evaluator (PEV) for ABET. Additionally, Dr. Pearson Weatherton is an actively engaged member of the American Society for Engineering Education (ASEE), where she regularly participates in conferences as an author/presenter and reviews for one of the organization's journals, *Advances in Engineering Education*, as needed.

Dr. Pearson Weatherton's accomplishments in engineering education and research have been recognized through several honors and awards. She has been invited to Oxford University twice (2007 and 2012) to speak about her work, most recently presenting the results of her research team's efforts to infuse various engineering curricula with sustainability. In 2013, she was ranked among the top 25 women professors in the State of Texas and she received the University of Texas Board of Regents' Outstanding Teaching Award, which is the highest teaching award in the University of Texas System. Dr. Pearson Weatherton also received the 2010 and 2012 UT Arlington Provost's Award for Excellence in Teaching, a 2009 UT Arlington College of Engineering Research Excellence Award, Southern University's Most Outstanding Civil Engineering Faculty Member (five years), and Southern University's 2003 College of Engineering Teacher of the Year award.

**Keynote Speaker: David B. Behen****Director****Department of technology, Management and Budget and Michigan CIO's****Abstract:**

The safety of Michiganders has been a top priority for Governor Rick Snyder since taking office in 2011. An emphasis on adopting new technology has led to more efficient and accurate crime-fighting, cut down barriers in communication between public safety jurisdictions and improved prevention of cyber-crime, the latest threat to public safety. Department of Technology, Management and Budget director and state CIO David Behen has overseen efforts to put Michigan on the cutting edge of citizen safety and offers a broad and unique perspective about what's next.

**Biography:**

David Behen holds dual roles as director of the Department of Technology, Management and Budget and Michigan's CIO. He serves on Gov. Rick Snyder's Cabinet, advising him on technology investments and programs. As DTMB director, he leads a department that provides business services to state agencies, including IT and communications services, facility management, financial services, procurement, real estate, fleet and retirement services, among others. Additionally, Behen is leading a multiyear, multimillion dollar IT alignment process to develop innovative services focused on customer service and citizen engagement.

In 2014 Behen was named a ComputerWorld Premier 100 IT Leader. Under his leadership, DTMB received the 2013 CIO Award from CIO magazine. Also in 2013, he received the Merit Network Award for innovation in networking and information technology, and he and the governor were named to Government Technology magazine's top-25 list of IT doers, dreamers and drivers. In 2012, he received a Crain's Detroit Business CIO Award.

Previously, Behen cofounded a software company and served as vice president and CIO of its parent corporation. He also was CIO and deputy administrator of Washtenaw County.

He earned a bachelor of science degree and a master of science in public administration degree from Eastern Michigan University.

David Behen directs Michigan's Department of Technology, Management and Budget, an agency of 2,700 employees providing administrative and technology services. He also serves as the state's CIO.

Behen was named one of ComputerWorld's Premier 100 IT Leaders. CIO magazine and Crain's Detroit Business named him a top CIO, and Merit Network honored him for IT innovation. He and Gov. Rick Snyder were included in Government Technology's top-25 IT doers, dreamers and drivers.



**Speakers**

 <p><b>Dean Aslam</b> Michigan State University</p>	 <p><b>Robert Erlandson</b> Wayne State University</p>	 <p><b>Pieter Frick</b> Oakland University</p>
 <p><b>Carol Miller</b> Wayne State University</p>	 <p><b>Atul Prakash</b> University of Michigan</p>	 <p><b>Kai Yang</b> Wayne State University</p>
 <p><b>Suresh Bansal</b> President, HEV Technology Center</p>	 <p><b>Sanjay Dhall</b></p>	 <p><b>Risarg (Reggie) Huff</b> NSO - Director Homeless Recovery</p>
 <p><b>Taulant Kadiu</b> Balkan American Community Center</p>	 <p><b>Ravindra Nath</b> Children Hospital, Michigan</p>	 <p><b>Zia Uddin</b> St. John Macomb-Oakland Hospital</p>

**Conference**

Organized by IEEE SEM, the technical professional society with over 2000 members, IEEE SEMHTC focuses on advancing technology for the benefit of humanity. This cross-discipline conference provides the perfect venue for those interested in humanitarian projects to join together. The conference attracts an audience of educators, engineers, scientist, practitioners, philanthropists, corporations, foundations, NGO's and others in applying technology to develop effective solutions for the challenges facing the South Eastern Michigan populations.

**Conference Mission:**

- Promote science, engineering and technology as a solutions to humanitarian problems
- Foster exchange of information and networking in the humanitarian field
- Focus attention of businesses on emerging market and social entrepreneurship opportunities
- Impact in positive and meaningful ways the lives of residents of South Eastern Michigan

**Why Attend?**

- Participate in an extensive, vibrant, and innovative technical program
- Learn from world-class knowledgeable practitioners working in the field
- Exchange information, share experiences and network with actively involved attendees
- Gain visibility and recognition for your humanitarian work and projects
- Find new resources, ideas, and potential partners or investors

**IEEE SEMHTC will cover a wide range of topics that include, but are not limited to:**

- Health, Medical Technology, Telemedicine
- Disaster Warning, Avoidance, and Response
- Water Planning, Availability and Quality
- Sanitation
- Power Infrastructure/Off-grid Power/Renewable and Sustainable Energy
- Connectivity and Communications Technologies (data/voice) for Remote Locations
- Educational Technologies
- Agricultural Technologies
- Applying Science, Engineering and Technology for Environmental Sustainability
- Humanitarian Challenges and Opportunities

**Overview**

- The IEEE South Eastern Michigan Humanitarian Technology Conference (IEEE SEMHTC) is the platform for presenting, discussing, and developing technological solutions to humanitarian challenges. The technical focus of the Conference is complemented by an integrated understanding of broader contexts—economics, policy, culture, environment—to create and promote sustainable holistic solutions.
- SEMHTC welcomes participation by individuals and organizations from technical and non-technical backgrounds, including engineers, scientists, academics, small-businesses, corporations, philanthropists, foundations, and government and non-government organizations.

The Conference theme of “*Technology for the Benefit of Humanity*” is presented in five tracks:

- **Energy**—infrastructure and off-grid power, renewable, transportation, lighting, cooking & heating
- **Health**—medical technology, telemedicine, mobile care, primary care
- **Disaster, connectivity, and communication**—disaster warning & avoidance, disaster response, disaster management, networks, remote communication, communication technologies
- **Humanitarian challenges and opportunities**—education, housing, supply chain & distribution, business development
- **Water and agriculture**—clean water, sanitation, irrigation, farming practices & agricultural technologies

## Agenda:

5:00 PM – 6:00 PM	Registration Display Tables/ Posters/ Networking/ Snacks
6:00 PM – 6:30 PM	Poster Presentations and Poster Judging
6:30 PM – 7:30 PM	Technical Presentations/ Panels
7:30 PM – 8:00 PM	Dinner
8:00 PM – 9:00 PM	Keynote Speakers Governor R. Snyder – (Video Address) David B. Behen Yvette Pearson Weatherton
9:00 PM – 9:15 PM	Awards and Recognition
9:15 PM – 9:30 PM	Cultural Activity
9:30 PM – 10:00 PM	Dessert/ Coffee/ Closing

## Registration:

Registration ends July 6 2015 at 11:59 PM. No refunds

Students/Retired/Unemployed (Members).....	\$25
IEEE and ESD Members .....	\$25
Non Members .....	\$30
Primary Poster Authors.....	\$0
Additional Poster Author.....	\$25
Speakers and VIPs.....	\$0
Spouses of speakers and VIPs.....	\$0
Student/ Faculty/ Company Table (10 persons)	\$250
Gold Sponsorship Registration.....	\$3000
Silver Sponsorship Registration.....	\$2000
Bronze Sponsorship Registration.....	\$1000

## COMMITTEE

Chair - Harpreet Singh, [hsingh@eng.wayne.edu](mailto:hsingh@eng.wayne.edu)

- Arun Hundiwal
- Bill Moylan
- David Mindham
- Chaitanya Kumar Setti
- Yi Lu Murphey
- Lora Schulwitz
- Praveen Kumar
- Pieter Frick
- Mohamad Berri
- Kimball Williams
- Nevrus Kaja
- Ali Eydgahi
- Robert Neff
- Rajeev Verma
- Subramanian Ganesan
- Shashank Kamthan
- Kevin Taylor
- Raju Brahmandhabheri
- Scott Lytle
- Robert Reynolds
- Basil Sherlund
- Devinder Kaur
- Lubna Alazzawi
- Ravi Nigam

## CALL FOR POSTERS

### IEEE SEM HUMANITARIAN TECHNOLOGY CONFERENCE 2015

IEEE South Eastern Michigan will be hosting a poster session at the upcoming IEEE SEM Humanitarian Conference on July 17, 2015 at Burton Manor, 27777 Schoolcraft Rd, Livonia, MI, 48150. This IEEE HTC conference is a technical and social event that highlights the cutting edge research activities and technologies for the benefit of Humanity (i.e., Energy, Health, Disaster, Humanitarian Challenges, Education, and Water & Agriculture). This will be a great opportunity to showcase your research and network with people from Industry/Academia/Government. The poster (Professionals and Students) awards will be given to the **three top presented posters in each of the category**, as judged by the review committee. Poster topics related to any of Humanitarian Technologies such as Energy, Health, Disaster, Humanitarian Challenges, Education, and Water & Agriculture are encouraged. More information is available at:

[https://meetings.vtools.ieee.org/meeting\\_view/list\\_meeting/33421](https://meetings.vtools.ieee.org/meeting_view/list_meeting/33421)

Authors wishing to participate in the poster session must submit a poster title and abstract (less than 150 words) at <https://ieee.fluidsurveys.com/s/posters/> no later than **July 6, 2015**. The suggested poster size is **4 feet by 3 feet** or smaller should contain large text to be read from a distance. Poster authors should attend and present their posters during the Poster Session and Competition on the day of the conference.

There is **No registration fee for each poster and its one presenter**. All the additional authors for a particular poster need to be registered at registration link

[https://meetings.vtools.ieee.org/meeting\\_registration/register/33421](https://meetings.vtools.ieee.org/meeting_registration/register/33421) with a Fee of \$25.

Every participant will receive a **Certificate of Participation**.

**VENUE: BURTON MANOR, 27777 SCHOOLCRAFT RD, LIVONIA MI 48150**

**SEM Chapter 7:**

Chapter 7 is one of our 6 "Joint" technical chapters. A joint chapter represents more than one technical society.

Chapter 7 is composed of both the [Power Engineering Society](#) and the [Industrial Applications Society](#).

, Chapter 7 is on the SEM Website at: <http://www.ieee-sem.org/ChapterVII/ChapterVII.html>

**Power Engineering Society**

*"The scope of the society embraces research, development, planning, design, construction, maintenance, installation and operation of equipment, structures, materials and power systems for the safe, sustainable, economic and reliable conversion, generation, transmission, distribution, storage and usage of electric energy, including its measurement and control."*

**Industrial Applications Society**

*"The scope of the Industry Applications Society, as a transnational organization, is the advancement of the theory and practice of electrical and electronic engineering in the development, design, manufacture and application of electrical systems, apparatus, devices and controls to the processes and equipment of industry and commerce; the promotion of safe, reliable and economic installations; industry leadership in energy conservation and environmental, health, and safety issues; the creation of voluntary engineering standards and recommended practices; and the professional development of its membership."*

**Southeastern Michigan Officers:****Chair: Ian Hutt:**

served as PES chapter treasurer for 3 years. Ian now holds the position of chapter chair for the SEM PES chapter, and is working to increase chapter activities.

*"The function of an IEEE chapter chairperson is to encourage volunteer participation and develop those who have an interest in IEEE. We lead both our chapter and our section, and push to accomplish great things through IEEE. On every issue opinions are solicited and carefully considered, and choices are made though consensus of the group. This method of collaboration gets buy in from the members of the group, and brings innovative and constructive ideas forth."*

*"The organization is volunteer driven, and keeping everyone engaged is a key factor for success. The chapter goals this year include increasing the amount and quality of technical events, and reaching out to all areas in southeast Michigan, including population centers of Lansing, Ann Arbor and Jackson."*

Ian has been involved with IEEE since his time at Central Michigan University, where he helped start a student branch on campus. Ian has demonstrated leadership ability with IEEE through his efforts with the 2011 PES general meeting, where he organized and led a team of volunteers for the event.

Ian has been an active participant in the IEEE SEM Section and has Ian

is an electrical power engineer working in system protection for Commonwealth Associates as a

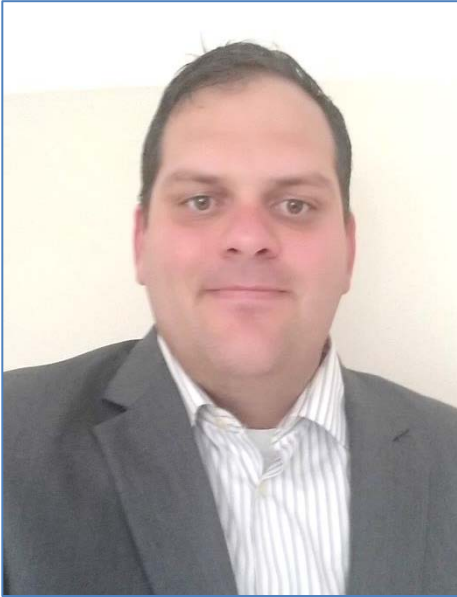
consultant to the utility industry. His focus is on relay settings, and is an expert in the CAPE and ASPEN engineering software packages. He is working with clients all across the US, and focuses on high voltage transmission systems. Key areas of study that interest Ian include arc flash analysis, power flow analysis, EMF study, cascade analysis and energy marketing.

Ian has various interests and hobbies outside of IEEE. He is an engineer through and through, and feels right at home tinkering with old muscle cars in his garage.

He also has a penchant for sports, and is an avid golfer in the summer and snowboarder in the winter. Ian is a family man, with a wife and two children at home, the latest arriving in June 2015

The next big things on Ian's mind are home improvement projects and spending time with his family.

Ian is also excited for the upcoming section and chapter events, and is looking forward to new life for the PES and IAS chapter of SEM IEEE.

**Ch 7 - Continued:****Secretary: Michael Fleck****Treasurer: Chris Nelson****Vice-Chair: David Mindham**

David has been active in IEEE SEM since transplanting to Michigan in 2011. He has served as section secretary, Chair of Government Activates, and Vice Chair of the PES / IAS Chapter. He is currently serving on the organizing committee for the 2016 I&CPS Conference to be held in Detroit and serves on the Industry Advising Board for the Power System Engineering Research Center.

David works as a transmission planning engineer at ITC Holdings Corp. in Novi, MI. His focus is on new interconnections to the high voltage transmission system. He has a BSEE from Iowa State University and a MSEE from Michigan Tech.

He believes the role of leadership within the chapter is to facilitate professional development and networking events.

He is currently working to bring PES and IAS distinguished lecturers to SEM. He lives in Walled Lake, MI. His interests include golfing and traveling.



Michael has been involved in IEEE and PES since for over 12 years. In 2010 his family transplanted to Michigan where he has been involved in a number of IEEE PES activities. More recently he has been serving as secretary of the SEM IEEE/IAS Chapter.

He works at ITC Holdings Corp. in Novi, MI and holds the position of Supervisor of Relay Design responsible for settings, compliance related activities, relay philosophy, and a number of other duties throughout the ITCT, METC and ITCGP footprints.

He has a BSEE from Rose-Hulman Institute of Technology and an MSEE from Arizona State University. He is a registered professional engineering in Indiana and Michigan.

He believes the role of leadership within the PES/IAS chapter is to promote professional development and encourage volunteer involvement in IEEE activities, both socially and technically based. He feels that sharing his experiences in the power industry at universities that have strong power programs is one of the best ways to encourage the next generation to consider careers in the industry.

His interests include doing home improvement projects and traveling.



Chris's goal for the year is to make contact with the various universities in Southeastern Michigan. Chris organized a small event for students at Michigan State and a larger one at the University of Michigan. Chris hopes to assist students at U of M Ann Arbor to start a PES chapter in the coming months.

*"As officers, we need to strive to make the section better. This can come in a variety of forms, but being active is the key. There is always room for improvement."*

Chris is an electrical power engineer working in system protection for Commonwealth Associates as a consultant to the utility industry. He is working with clients across the US, and focuses on high voltage transmission systems. Key areas of study that interest Chris include power flow analysis, relay settings and coordination, SCADA, and arc flash analysis.

Chris spends his time learning new things and is always striving to improve himself socially, physically, and intellectually. Some of his recent interests are billiards, sailing, remote control helicopters, boxing, lifting weights, and he plans to go skydiving this summer.

The next big thing for Chris is studying for the PE exam.

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## Fall Section Conference:

**Autonomous Vehicles, Their Legacy and Future**

**Date:** November 17, 2015

**Location:**

U of M Dearborn – Fairlane Conference Center  
(North Building)

**Keynote Speaker:**

Bob Neff – SEM Section Chair

**Topic:**

“Autonomous Vehicles, Their Legacy and Future”



What will our life be like with autonomous vehicles?

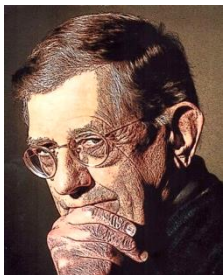
Will it be the anticipated utopia or will there are new concerns that have to be considered?

Autonomous vehicles are not a new idea. In 1925, the Houdina Radio Control Company demonstrated a driverless radio controlled called the "Linrrikan Wonder" at New York City. The General Motors Futurama Exhibit at the 1939 World's Fair depicted radio-controlled electric cars that were propelled with electromagnetic fields embedded in the roadway. Interest and research has continued thorough out the years up to the present time. Only since the 1990s has the development focus shifted to autonomous vehicles that have to operate in the current traffic patterns.

The presentation provides a brief history of Automated Vehicles and Highways and highlights the National Automated Highway Demonstration in 1997. Many automated features have evolved since the demonstration driven by many forces as shown in this presentation. The presentation will discuss the challenges facing the usage of these features including adoption and education, and show how vehicle to vehicle communication can facilitate the future of autonomous vehicles. Finally, the presentation will offer a vision of what life will be like with autonomous vehicles.

**Registration: Registration Website:**

[https://meetings.vtools.ieee.org/meeting\\_registration/register/34367](https://meetings.vtools.ieee.org/meeting_registration/register/34367)



Our **Fall Conference Chair, Basil Sherlund**, has 40 years of experience in Computer Design and Information Technology. As a professional he received a BS in Electrical Engineering, with honors, and a MS in Computer Science. He is a life member of Eta Kappa Nu, the electrical engineering honor society.

Basil is a former member of the executive board of the IEEE Software Engineering Standards Committee, the Technical Committee on Software Engineering and has held two offices and three chapter positions in IEEE Region 4 and SEM, and he is a member of the Region 4 Educational Activities Committee. The conference committee, in support of Basil and the 2015 Fall Section

Conference, also need volunteers to help this event achieve its full potential as an educational and networking opportunity for all our section members. Anyone who wishes to help out with the planning and preparation for the conference is encouraged to contact Basil and discuss positions on the planning Gantt Chart that he will be filling in the next few weeks.

If your interest is to be of help at the actual event, you are encouraged to contact Basil ([bsherlund@ieee.org](mailto:bsherlund@ieee.org)) and let him know that you wish to assist on the day of the conference.

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## Michigan Shakespeare Festival Ticket Discounts:

Advertisement:

# MICHIGAN Shakespeare FESTIVAL

[www.MichiganShakespeareFestival.com](http://www.MichiganShakespeareFestival.com)

As the Official Shakespeare Festival of the State of Michigan, the Michigan Shakespeare Festival is a professional Equity theatre company (LOA/LORT) dedicated to producing world-class classical plays. Now in our 21st year, we perform in Jackson's lovely Baughman Theatre, and are expanding to a second location in Canton's beautiful Village Theatre of Cherry Hill.

Come share the joy, adventure, tension, misadventure and humor as we present Shakespeare's classic comedy

***A Midsummer Night's Dream***,

and his violent and heart-wrenching history ***Henry IV***,

as well as Richard Brinsley Sheridan's breezy romantic comedy ***The Rivals***.

These shows will perform in Jackson July 9 through 19 and in Canton from July 29th through August 16.



A special ticket code good for \$5 off any ticket is available for IEEE members. Please be sure to use **IEEE2015** when ordering your tickets.



For tickets at the Jackson College Potter Center, please call 517-796-8666 and give them the discount code information.

For tickets at the Village Theater in Canton please follow this link:

<http://www.michiganshakespearefestival.com/#!blank/c1xy8>

Click on the red ribbon for tickets in Canton and enter **IEEE2015** in the coupon code box in the upper right hand corner of the page.

A limited number of sale price tickets are listed on the web site. If you do not see available seating for the date you need, please call our office at 517-998-3673 and someone would be happy to help you arrange seating.

If you have any questions at all about the shows or about The Michigan Shakespeare Festival, please call our office at 517-998-3673. We would love to talk with you.

Advertisement:

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## Officer Appointments:

### Appointments:

With a large and diverse section like ours, we experience what is referred to as a 'churn' among our officer ranks.

'Churn' implies that we have an officer body that is in constant evolution and growth. Because the experience of serving as an IEEE officer tends to prepare someone for greater responsibilities, many of our officers find themselves being handed job advancements that take them into more demanding positions.

When that happens, they often need to 'cut back' on their direct involvement in IEEE in order to address the new challenges of their new position. Since IEEE is a totally volunteer organization, we expect officers to focus on other life demands as they manifest themselves. When that happens, we need to consider replacements.

One of the most productive training grounds for increased job responsibilities is that of an IEEE Secretary. It requires training in order to carry out for the secretarial responsibilities; it is also one of the most often positions that needs to be filled.

The following positions requiring a secretary are currently open. This may be just the opportunity you need to improve many of your administrative and communications skills. Please consider the following opportunities:

#### **Secretary Positions Open:**

- **Section Finance Committee**
- **Communications Committee**
- **Membership Committee**
- **Nominations Committee**
- **Professional Activities**

While the above section positions with section standing committees only require a sincere interest and willingness to learn, the positions below require membership in the individual affinity group or technical society.

#### **These are:**

- **Women In Engineering**
- **Chapter 3 (Vehicle Technology)**
- **Chapter 10(Management)**
- **Chapter 12(Control Systems)**
- **Chapter 13(Education)**

#### **Training:**

It is possible that volunteering for a secretarial position may be your first experience engaging in an IEEE committee. While previous experience is always helpful, if you are just starting in a new position it is helpful to quickly review your past training, and go over any available training for the new position.

Several training modules have been posted on the IEEE SEM Website for an IEEE secretary (administrative assistant). They are PowerPoint and Voice over Power Point (VoPPT) modules. They are located at: <http://sites.ieee.org/sem/about-sem/training/>

It is recommended, at a minimum, the following modules be reviewed:

- #32: [Secretary Controller of Operations](#), and  
 #42: [Suggestions for Leading a Committee](#)

If you are interested in exploring options for participation in IEEE SEM through one of these positions, please contact:

**Kimball Williams**  
[k.williams@ieee.org](mailto:k.williams@ieee.org)  
 313-355-4396

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**Other' Coming Events**

We try to publish IEEE events in several places to ensure that everyone who may want to attend has all the available relevant information.

**SEM Web Calendar:**

<http://sites.ieee.org/sem/>

Select "SEM Calendar" button in the top row of the website.

**SEM Web Meetings:**

<http://sites.ieee.org/sem/>

Select "SEM Meeting List" button in the left-hand column.

**vTools Meetings:**

<http://sites.ieee.org/vtools/>

Select "Schedule a Meeting" button in the left-hand column of buttons.

**Other Happenings:**

However, since IEEE members tend to have eclectic interests, we want to give everyone a heads up for some of the non-IEEE events that may be of interest.

Let us know if you have a special interest in a field that encourages technical study and learning, and wish to share opportunities for participation with members of the section.

Send the particulars to

[k.williams@ieee.org](mailto:k.williams@ieee.org)

An announcement may be placed in the newsletter.

Below are links to local SEM Clubs engaged in technical hobbies as well as links to sites that may be useful for locating clubs in the area.

**Amateur Radio Clubs in Southeastern t Michigan**

(This is a fairly comprehensive listing of all the 'Ham' clubs in SEM.)

<http://www.wa2hom.org/ham-radio-clubs-in-se-michigan/>

**Model RC Aircraft:**

<http://www.skymasters.org/>

**Model Rocketry:**

<http://team1.org/>

**Astronomy:**

<http://www.go-astronomy.com/astro-clubs-state.php?State=MI>

**Experimental Aircraft Association:**

<https://www.eaa.org/en/ea/ea-chapters/find-an-eea-chapter>

**Robots:**

<http://therobotgarage.com/about-us.aspx>

**Science Fiction Conventions:****Great Lakes Comic-Expo**

Saturday, July 18, 2015 at

Trinity Lutheran Church.

38900 Harper Ave,

Clinton Twp, MI 48036.

<http://www.greatlakescomicexpo.com/>

**Mad Science:**

<http://www.madscience.org/>

**ESD PE Review Class:**

[www.esd.org](http://www.esd.org)

**Maker Faire:**

<http://www.thehenryford.org/events/makerFaire.asp>

Maker Faire Detroit takes place on Saturday, July 25, 2015 and Sunday, July 26, 2015, at The Henry Ford in Dearborn, Michigan.

Volunteers will need to attend an orientation meeting on either Wednesday, July 22, 2015 or Thursday, July 23, 2015 from 6:00 to 8:00 p.m.

Where is Maker Faire?

For more information, visit

[www.thehenryford.org](http://www.thehenryford.org).

We welcome volunteers who are 18 years old and older.

You can volunteer by emailing Meg Anderson at The Henry Ford at [AllStaff@thehenryford.org](mailto:AllStaff@thehenryford.org).

**Links:**

## Refer a Colleague:

**Refer a Colleague, Get Great Merchandise**

In conjunction with IEEE-USA, we are pleased to continue this special offer for US members.

[Refer a colleague to join IEEE](#). They'll get a US\$25 discount off their first year membership, and you'll get a gift. But this discount expires on 28 February - submit your referrals now!

IEEE-USA gift items you can choose from include:

- Cooler backpack
- Computer backpack
- Portable battery charger
- Tablet case
- Portable speaker
- Parker pen and mechanical pencil set
- Parker ballpoint pen
- Travel coffee mug and tumbler set
- Golf balls
- Baseball hat
- Golf umbrella
- Travel umbrella

You will also be eligible to receive incentives through the IEEE Member-Get-a-Member (MGM) program.

How it works:

- Refer your colleague via the [online form](#).
- Your referral will receive an e-mail inviting them to join at a US\$25 discount off their first-year membership dues.
- This discount expires on 28 February.
- Your referral will provide your IEEE member number as they join.
- Within 1-3 weeks after your referral joins, you will receive an e-mail confirming your recruiting success, including a link to select your IEEE-USA merchandise item.
- You will receive a separate e-mail for each new member you recruit.

Please help spread the word and share your IEEE experience - no one knows how beneficial IEEE Membership is for technical and career development better than you, the member. [Refer your friends and colleagues today!](#)

Sincerely,

Elyn Perez

*IEEE Member & Geographic Activities*

Important to know: There is no limit to the number of merchandise items you can earn; as long as your referrals join as professional members. Student members and Society Affiliates are not eligible for this promotion. You also remain eligible for the [MGM incentive awards](#) given out once per year in September.

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**Executive Committee**

The SEM Executive Committee is the primary coordination unit for Southeastern Michigan (SEM) IEEE operations. The basic organization chart below shows the 2015 arrangement of communications links designed to provide inter-unit coordination and collaboration.

The SEM Executive Committee meets in a teleconference each month on either the first Wednesday or first Thursday at noon. The specific meeting days, times, phone or WebEx numbers and log in codes are published on the IEEE SEM Website calendar: <http://sites.ieee.org/sem/> Click on the "Calendar" button in the top banner on the first page of the web site.

If you wish to attend, or just monitor the discussions, please contact David Mindham, the section secretary at: [dmindham@ieee.org](mailto:dmindham@ieee.org) and request to be placed on the distribution list for a monthly copy of the agenda and minutes.

More meeting details are available on the next page of this newsletter.

**Other Meetings:**

Most of our members maintain memberships in one or more of the IEEE technical societies, which automatically makes them members of the local chapter which is affiliated with that society. As a result, they should receive notices of the local chapter meetings each month.

However, members of the section may have multiple technical interests and would like to have meeting information of

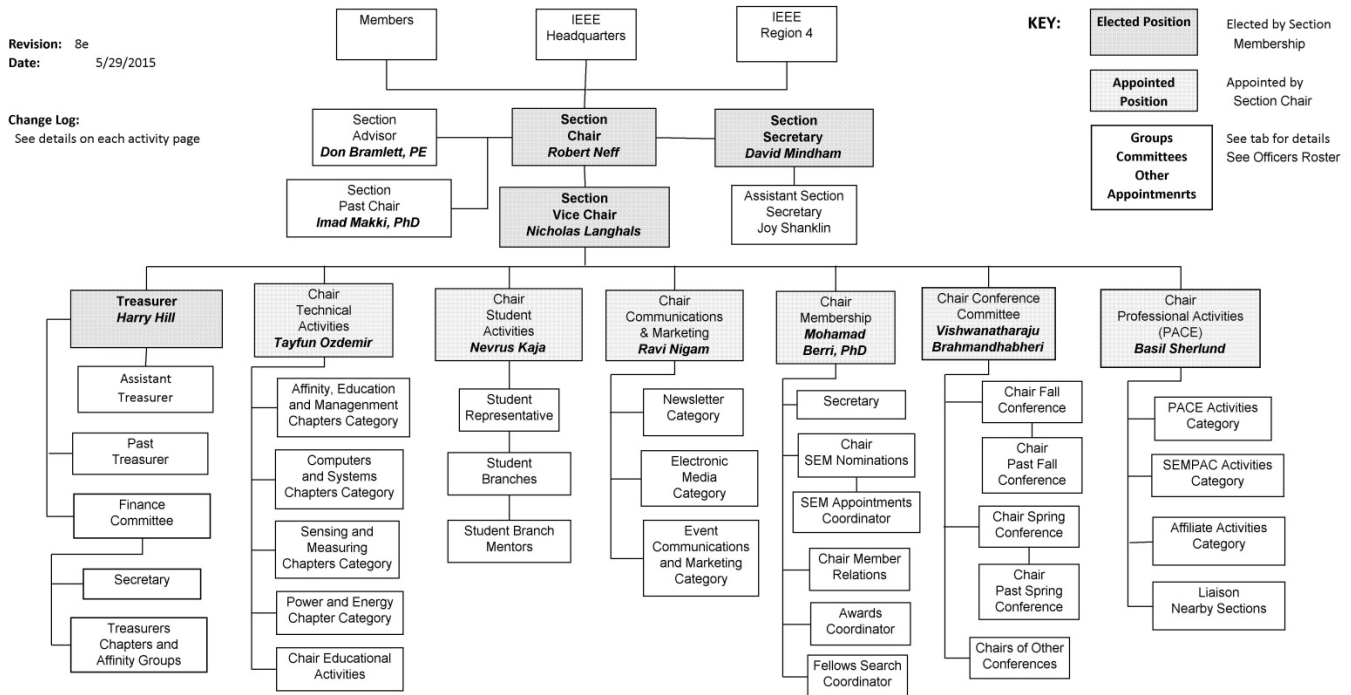
other chapters. In order to communicate the meeting dates of all the chapters, affinity groups etc., to our members to facilitate their attendance, leaders of the groups are requested to send meeting information to our webmasters for posting on section's calendar.

More detailed information on meetings may be found by using the IEEE meetings site. This may be found through the IEEE SEM Website: <http://sites.ieee.org/sem/> and clicking on the **SEM meetings list** button near the bottom of the left hand banner.

Automatic e-mail notification of web updates may be received using the "Email Notifications" button at the top of the **SEM Tools/Links** side banner.

**David Mindham - SEM Secretary**

**Current Organization - IEEE Southeastern Michigan Section (SEM)**



Download the complete SEM Organization Chart, in PDF format, from the SEM Website at: [www.ieee-sem.com](http://www.ieee-sem.com) Then, click on "About SEM" Tab, followed by, click on "Current Officers"

**Section Mission & Goals****Section Focus:**

The IEEE SEM Senior Officers of the Section have reaffirmed the overall Mission and Goals of the Section, which align with the overall objectives of IEEE worldwide and with the guidance provided by our leadership in Region 4.

You have probably seen the Mission and Goals before. However, it is important to keep these clearly in mind and remind ourselves often that this is what we are about and what we are trying to accomplish.

**Section Mission**

Inspire – Enable – Empower and Engage Members of IEEE at the local level.

For the purpose of:

- Fulfilling the mission of IEEE (...**foster technological innovation and excellence for the benefit of humanity.**)
- Enhancing the members' growth and development throughout their life cycle
- Providing a professional home

**Section Goals**

- Increase member engagement,
- Improve relationships with and among members,
- Increase operational efficiency and effectiveness, within the section and its interfaces,
- Enhance collaboration – serve as the local face of IEEE to the community,
- Increase membership,
- Ensure the collection of appropriate information necessary to assist the IEEE to become a data driven organization.

It is now the task of the section leadership to guide and coach all section officers and elements to focus their activities on achieving those goals.

**SEM Monthly Meetings****Scheduled Meetings:**

The regular meetings of the SEM 'Leadership' (Executive Committee) are scheduled well in advance to allow everyone to place them in their personal planning calendars, and then defend those dates against encroachment. (*Not always possible.*)

Two types of Monthly meetings are normally scheduled:

**Monthly Teleconference / WebEx** as well as:

**Quarterly Face-to-Face.** (See Below)

**Note: All** IEEE meetings are '**Open**' for all members to attend.

The only caveat is that you please register using the specific meeting form on found on the vTools site at:

<https://meetings.vtools.ieee.org/main>

This will ensure we have sufficient space, refreshments and support for everyone who joins the meetings.

**Teleconference Schedule**

(held from 12-1 p.m.):

- August 5, 2015
- September 3, 2015
- November 5, 2015
- December 2, 2015

**F2F Meeting Schedule:**

- **July 9, 2015 @ LTU**
- October 7, 2015
- January 7, 2016

More information for the f2f meetings will be sent out with the approach of the dates.

Keep in touch via the SEM website (<http://sites.ieee.org/sem/>) or use the links to the SEM Facebook or LinkedIn pages on the SEM website.

All the normally scheduled meetings of each of the other section chapters, affinity groups etc. are listed each month in the vTools area of our SEM website at:

[http://ewh.ieee.org/r4/se\\_michigan/calendar1.php](http://ewh.ieee.org/r4/se_michigan/calendar1.php)

These announcements refer to:

**Standing Committee Meetings:**

**Affinity Group Meetings:**

**Technical Chapter Meetings:**

**University Student Branch Meetings:**

**Calendar Schedule:**

Meetings are also announced on the SEM Calendar web page

<http://sites.ieee.org/sem/>

(Select the "**SEM Calendar**" button in the top row.)

**Note:** Often meetings of the 'Executive Committees' of Chapters and Affinity Groups (and standing committees, of course) are listed only in the 'SEM Calendar' page, since it is felt that most members would not wish to sit through the 'administrative' meetings.

However, if this type of meeting is just your 'cup of tea', then contact the officers of the unit that is conducting the meeting, and ask to be 'linked' into their teleconference, SKYPE, Google Hangout, or WebEx meeting. They would be happy to have you as a participant.

Many volunteers become interested in section activities when they get a chance to attend a monthly meeting and 'peek under the hood' to find out how the machinery of the section actually runs. It can be a rewarding experience.

**David Mindham**

SEM Section Secretary.

[dmindham@ieee.org](mailto:dmindham@ieee.org)

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**Editors Corner**

Previous editions in this series may be found on the IEEE SEM website at: <http://sites.ieee.org/sem/>. Click on the "Wavelengths" button in the top row of selections.

Comments and suggestions may be sent to the editor at [k.williams@ieee.org](mailto:k.williams@ieee.org). We also recommend a cc to the chair of the Communications and Marketing Committee, **Chaitanya Setti** at: [chaitanyagini@ieee.org](mailto:chaitanyagini@ieee.org).

The newsletter does not have a staff of reporters to 'investigate' what is going on in the section and write up informative articles.

We rely on our officers and members to provide the 'copy' that we finally present to our readers as the newsletter.

The **Wavelengths Focus Plan and Personal Profiles** plan shown in the matrix below is presented to ensure coverage of section activities and events.

We try to finish each issue assembly by the week before the first of each month to allow time for review and corrections. If you have an article or notice, please submit it to us before the deadline or earlier if possible.

The plan below relies on the contributions of our members and officers, so please do not be shy. If you have something that

should be shared with the rest of the section, we want to give you that opportunity.

**Co-Editors:**

I am selfishly looking for members interested in helping to edit the newsletter along with me who can learn the process, share the duties, and help keep the newsletter alive and lively by providing alternative points of view.

If you feel you might be that person, or would like to train to become that person, please let me know.

[k.williams@ieee.org](mailto:k.williams@ieee.org)

**Wavelengths Focus Plan:**

Month	AG's	Ch's	Ch's	SB's	Special Notice	Reporting Events	Monthly Focus	Awards
Jan		1		OU	Future Cities Judges	Election Results	Resolutions	
Feb	Cons	2		MSU	Science Fair Judges	Officer's Welcome	Surviving Winter	Future Cities
Mar		3	13	EMU	Spring Conf. Flyer	Spring Conference	Spring Conference	Science Fair
Apr		4			National Engrs Wk.	Future Cities	Chapter Focus	GOLD Award
May	Life	5	14	U/M-D	Outstanding Eng Awd	Science Fair	Elections - Prep	New Fellows
Jun		6			IEEE-USA Apmts.	ESD Banquett	Leadership Skills	SEM Awards
Jul		7	15		Nominations Call	MD-Webcasts	Students Issues	Region 4
Aug	WIE	8			MGA - Apmts.	Tech-Webinars	Womens Issues	
Sep		9	16	LTU	Region 4 Apmts.	Engineers Day	Professional Skills	
Oct		10		U/M-AA	Fall Conf. Flyer		Fall Conference	
Nov	YP	11	17	WSU	ELECTIONS!		Humanatarian	
Dec		12		U/D-M	IEEE-Com Apmts.	Fall Conference	Happy Holidays	

**Wavelengths – Personal Profiles:**

Month	Profiles	Profiles	Committees
Jan	Chair	New Officers	
Feb	V-Chair	Secretary	Communications
Mar	Treasurer	Sect-Adviser	Conference
Apr	Stud-Rep		Education
May		Sr Officers	Executive
Jun			Finance
Jul			Membership
Aug			Nominations
Sep			PACE Activities
Oct			Student Activities
Nov			Technical Activities
Dec		Editor-WL	



## Web & Social Sites

### SEM Website

<http://sites.ieee.org/sem/>

Each of the sites below may be accessed through the SEM Website:

### Section Website Event Calendar

(Select the “SEM Calendar” button - top row.)

### SEM Facebook Page

(Select the “” button under the top row.)

### SEM LinkedIn Page

(Select the “” button under the top row.)

### SEM Officers:

For a complete listing of all - Section - Standing Committee - Affinity Group - Chapter and Student Branch Officers, see the SEM Officers Roster on the SEM web page under the “About SEM” button and select “Current Officers”.

### SEM On Line Community

<http://sem.oc.ieee.org>

## Section Officers

### Section Chair

Robert Neff

### Section Secretary

David Mindham

### Section Vice-Chair

Nicholas Langhals

### Section Treasurer

Praveen Kumar

### Section Adviser

Don Bramlett

### Chair Communications & Marketing

Ravi Nigam

### Chair Conferences

Raju Brahmandhabheri

### Chair Educational Activities

Chaomin Luo

### Chair Finance

Basil Sherlund

### Chair Membership

Mohamad Berri

### Chair Nominations

Kimball Williams

### Chair Professional Activities

Basil Sherlund

### Chair Student Activities

Nevrus Kaja

### Student Representative

Samer Koda

### Chair Technical Activities

Ali Eydgahi

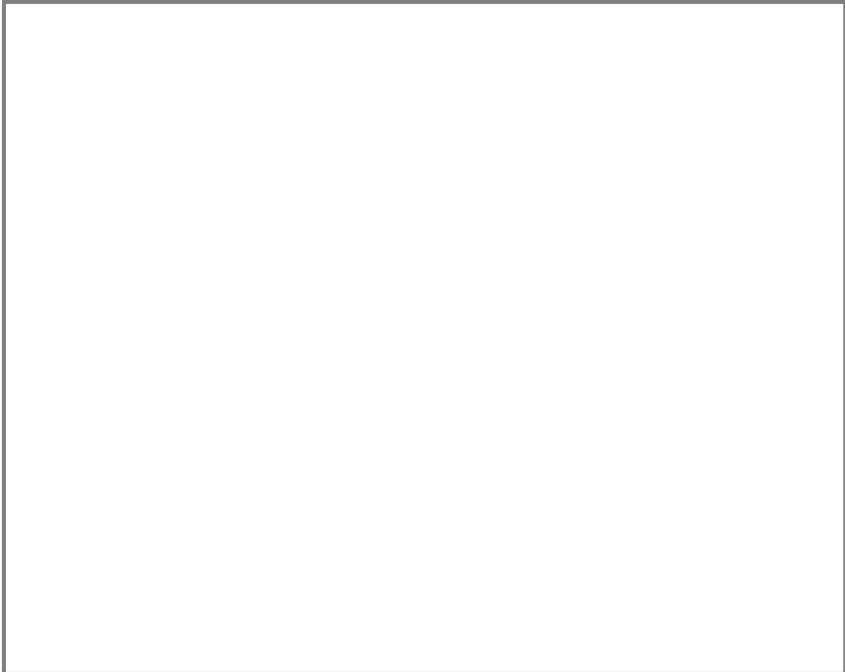
### Past Section Chair

Imad Makki



IEEE Southeastern Michigan

Visit Us on the Web at:  
<http://sites.ieee.org/sem>



**Leadership Meetings**

All IEEE members are welcome to join us at any regularly scheduled meeting:

**Advertising Rates**

SEM Website & Newsletter  
Advertising Rates / Month:

Our readers specify & purchase a wide range of electronic components, equipment and services.

Our sponsors come from industry, education, and nonprofit organizations.

**Full page \$500,**

**Half page \$250**

**Quarter page \$125,**

**Eighth page \$65.**

**SEM Executive Committee Monthly Teleconferences:**

- 1<sup>st</sup> Wednesday or Thursday of Each Month @ Noon
- Check the Section Web Calendar at:  
<http://sites.ieee.org/sem>  
(Select the “SEM Calendar” button in the top row.)

**SEM Executive Committee Face-to-Face Meetings:**

- 1/Qtr. Usually held at U/M-D Fairlane Center
- Registration at:  
<https://meetings.vtools.ieee.org/main>

**SEM Standing Committee Meetings:**

**SEM Affinity Group Meetings:**

**SEM Technical Chapter Meetings:**

**SEM University Student Branch Meetings:**

- Meeting schedules are announced on SEM Web Calendar  
<http://sites.ieee.org/sem>  
(Select the “SEM Calendar” button in the top row.)
- Registration for all at:  
<https://meetings.vtools.ieee.org/main>