



# Wavelengths

## Section Chair's Message



**It's been a busy month and much has happened.**

### 2017 Section Budget:

A budget process that started last October has been completed with the ExCom approval of the 2017 budget in our early January meeting. Officers and volunteers are expected to run their portions of our organization according to this approved budget.

### Spring Conference:

Robert Adams is leading our Spring Conference Organizing Committee. Robert's committee is having monthly meetings. If you wish to volunteer, you can contact Robert at [robert.t.adams5@gmail.com](mailto:robert.t.adams5@gmail.com).

### Volunteering:

The Spring Conference situation brings up an important point about volunteering. We, IEEE-SEM, function based on the work of our volunteers. If someone has important obligations that reduce their ability to volunteer, other volunteers need to step in

and carry the load. The more volunteers we have, the easier the work load on everyone.

Please volunteer, you will find the experience interesting and rewarding.

### Policies and Procedures:

Most Policies and Procedures that we, IEEE SEM, follow are spelled out in the IEEE MGA manual. A few are unique to our Section.

Those unique to our section policies will be placed in a folder in the On-Line Community for referral by officers and members of our section. Right now they are the Expense Reporting Procedure (How the Treasurer wants expense reports submitted) and the Financial Request Procedure (How requests for funding non-budgeted events and projects are requested and handled).

Additional information will be added as needed. A document with links to the MGA Manual will also be located in that folder.

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)

*Volume 57 – Issue 2*

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## January 2017

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

**e-Wavelengths:**

Most of our readers will have already received eNotices giving links to the new system **e-Wavelengths**. This new service is designed to provide rapid notification of events of interest to IEEE members in our Section, and in neighboring Sections.

A persistent problem with any newsletter, such as our traditional 'Wavelengths' is the 'time delay that is inevitable in printing a periodic publication. Often items of interest to members will come to the attention of the editorial staff almost immediately after the most recent issue is launched. At that point, no effective changes are possible.

One solution to this dilemma is to separate the information about time dependent events from the 'historical' and 'informative' portions of the document. Those events then are published in a rapid response format that can be modified 'on the fly' if required, in order to make the most current information available to our members.

This is the function of the new web based **e-Wavelengths**:  
[www.e-wavelengths.org](http://www.e-wavelengths.org)

An example is extracted from the December 2016 publication is shown below.

The function and place of our traditional newsletter format, which you are reading now, remains, to give long range

planning information, record the results of Section events, provide references to consistent and stable information of use to our members and our officers.

The intent of the PDF version of the Wavelengths is to become our 'History' of Section operations in a month by month record.

Your comments on both formats would be appreciated by the editors of each.

To comment on e-Wavelengths:  
[benjamin.doerr@gmail.com](mailto:benjamin.doerr@gmail.com)

To Comment on Wavelengths PDF version:  
[k.williams@ieee.org](mailto:k.williams@ieee.org).

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**Upcoming Meetings and Webinars:** *(example of e-Wavelengths content. In the webpage, the links are live.)*

**Wireless Technology for the Internet of Things** -- (ComSoc) -- Half-day Webinar: intermediate level course for engineers creating products for use with IoT applications ...

*(on the Internet)*

Feb 14 from 10:00 am to 2:00 pm

[icalGoogleoutlook](#)

**Wireless Evolution of the Overall Network Architecture** -- Half-day Webinar - legacy, directions, standards, interfaces, protocol stacks, 4G, 5G, performance ...

*(on the Internet)*

Feb 16 at 10:00 am

[icalGoogleoutlook](#)

**EMC Society - What Causes Electromagnetic Radiation and Consequent EMC/EMI Implications**

Feb 16 from 5:30 pm to 7:00 pm

[icalGoogleoutlook](#)

**TensorFlow: A Framework for Scalable Machine Learning** — (ACM) — Webinar: open-source project, basics, Sessions, Variables, large-scale training ...

*(on the Internet)*

Feb 24 at 10:00 am

[icalGoogleoutlook](#)

**Pitfalls of the Perfect Life, and Advantages of Letting Go** -- (IEEE-USA) - perfectionism, working too hard, enjoying too little, finding balance ...

*(on the Internet)*

Mar 2 at 2:00 pm

[icalGoogleoutlook](#)

## SEM HKN Chapters:

## SEM Student Branches

Lawrence Technological University  
(Theta Upsilon).

*Eastern Michigan University  
(STB11091)*

Michigan State University  
(Gamma Zeta)

*Lawrence Technological University  
(STB03921)*

Oakland University  
(Iota Chi)¶¶

*Michigan State University  
(STB01111)*

University of Detroit Mercy  
(Beta Sigma)¶¶

*Oakland University (STB06741)  
University Of Detroit-Mercy  
(STB00531)*

University of Michigan - Ann Arbor  
(Beta Epsilon)¶¶

*University Of Michigan-Ann Arbor  
(STB01121)*

University of Michigan – Dearborn  
(Theta Tau)

*University Of Michigan-Dearborn  
(STB94911)*

Wayne State University  
(Delta Alpha) –  
currently inactive and may need help with  
rejuvenation.

*Wayne State University  
(STB02251)*

IEEE HKN - Southeastern Michigan  
Section Alumni Chapter  
New!

These organizations form the basis for initial introductions of new students to the professional association of IEEE. Many of them currently have IEEE Mentors that participate in the student activities and provide connection to the wider IEEE community and awareness of events of interest beyond the university boundaries.

If you would like to participate in coaching and guiding these young professionals, contact the Chair of the Student Branch Mentors Committee:

Don Price at:  
+1 248 347 8895  
[d\\_price@ieee.org](mailto:d_price@ieee.org)

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### Science Fair Judges:

#### SEM MEMBERS NEEDED AS SCIENCE FAIR JUDGES

By Don C. Bramlett, PE, SMIEEE

Please volunteer to serve on the elite panel of judges for the professional awards being sponsored by the Southeastern Michigan Section of the Institute of Electrical and Electronics Engineer, Inc. (IEEE-SEM) at the 60th Annual Science and Engineering Fair of Metropolitan Detroit (SEFMD).

This is the 22nd straight year that IEEE-SEM has provided judges and sponsored professional awards for projects associated with electrical, electronics, computer engineering and IEEE related fields.

Judging will be on **Wednesday March 15, 2017** at the Science Fair, located at Cobo Hall in downtown Detroit. **The Science Fair will be in the Michigan Hall this year on the Lower Level or Level (0).** Please plan your arrival for **between 7:45 and 8:30 AM** at the Science Fair, to enjoy some free coffee and muffins.

We will be near the Professional Awards Judging Desk (front of hall near the muffins and coffee); bypass the normal judge check-in as you enter the front of Michigan Hall.

As last year, IEEE-SEM plans to provide judging for both the Junior (5<sup>th</sup> – 7<sup>th</sup> grade) Division and the Senior (High School) Division.

It is anticipated that the IEEE-SEM awards judging will start at **8:45 AM and be completed by 11:30 AM**. IEEE-SEM will tentatively make two Grand Awards, including framed certificates and cash prizes, and several Outstanding Achievement Awards, consisting of framed certificates.

There has been a major change in the categories of projects. There is no longer simple Engineering, Computer Science, and Physics categories. This year some projects in the IEEE related fields may be found in the categories of Systems Software, Robotics & Intelligent Machines, Physics & Astronomy, Environmental Engineering, Engineering Mechanics, Energy: Physical, Energy: Chemical, Embedded Systems, etc. There are also a larger than normal number of team projects.

Beside schools in Wayne, Oakland and Macomb counties, schools in the Ann Arbor and surrounding counties will participate in the Science Fair. So this year will be a real interesting experience judging the Junior Division and Senior Division projects.

The planned routine will be to separate into small groups at first and quickly roam assigned sections of the project displays to identify those projects related to electrical, electronics and computer engineering that are worthy of further review by the panel of IEEE-SEM judges.

It is anticipated that the number of relevant projects will be rather small. We will then form one team of judges to evaluate at a greater depth the selected projects. Based on the number and quality of the selected project displays, the judges may choose to use the supplied Project Evaluation and Judging Forms to grade the projects in each Division or to use a less formalized process, as deemed appropriate.

Please direct any questions you may have to me at home (734) 591-1452, or on my cell phone at 313-608-6223; or you may contact me at my e-mail address [d.bramlett@ieee.org](mailto:d.bramlett@ieee.org).

Look forward to seeing you **Wednesday, March 15 at the Science Fair at Cobo Hall.**

Parking is available at the Cobo Hall Roof Parking site. Free coffee and muffins are available in the morning.

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**'STEM' Activity:**

Through the generosity of ZF and its STEM program “**ZF Gives**” the SEM library classes in ‘Fundamentals of Electricity’ were given a substantial boost with the acquisition of appropriate electrical / electronic tools to allow the students to easily build their own circuits and make their own measurements. *(All the tools and equipment become the property of the Dearborn Heights Caroline Kennedy library to enable future classes with only minimal requirements for maintenance and / or replacements.)*



The first technical class emphasized a review of the on-line training topics (The Bohr / Rutherford model of the atom, the periodic table and the basics of static electricity.). This was followed by ‘hands-on’ experiments in

**Electrical STEM Tools:**

The ability to provide students with tools to create circuits and measure and evaluate their behavior has encouraged a complete redesign of the class content to emphasize much more hands-on activity.

The physical tools for each student are collected into carry cases and ‘checked out’ as library materials so that students can continue to experiment at home between classes and increase their learning rate through self-study / experimentation.



(Above: left to right: Malcolm Lunn: our chief STEM instructor, Robert Neff, Section Chair, Bryan Johnson, the Senior Manager of ZF Corporate Communications, Akio Fujimaki, ZF engineering).

At the 2016 Section Fall Conference Bryan Johnson, the Senior Manager of ZF Corporate Communications presented a ‘giant’ symbolic check to our Section officers. This STEM fund program is managed by ZF Corporate Communications.

2017 Fundamentals of Electricity classes began on January 23, 2017, with Introduction & Registration in which the plan for classes and the requirements expected of each student were presented.

the use of easily built ‘tools’ (an electrophorus, a tin-foil electroscope, plus ‘charged’ balloons and a hanging strip of ‘plastic wrap’) which gave everyone a ‘feel’ for the behavior of static electricity, what it can do and what it cannot do.



Virtual tools will also be presented which allow students to ‘build’ their own circuit models and run simulations before they ‘build’ them as ‘real’ circuits with physical hardware.

**Follow on classes:**

The ZF grant has allowed us to expand the STEM program to provide follow on classes for students who complete the “Fundamentals of Electricity” class. The next class supported by the ZF grant will focus on:

**“Micro-Computer and Expansion**

This class will use ‘Arduino’ micro computers with expansion boards to allow students to experiment with the circuits they have constructed in the “Fundamentals” class and to interface those with the computers, alternative sensors, and a variety of actuators.

Simple programming language will be used to develop applications for learning and play, depending on the student’s interests.

## EMC in Milwaukee:

**2017 Seminar Fee**

IEEE Members	\$ 125.00
Non IEEE Members	\$ 175.00
IEEE Life Members	\$ 50.00
IEEE Student Members	\$ 20.00

Registration includes Tutorial Record

Attendance Limited to 160 ... *Register Early*

This Seminar qualifies for 8 PDH –  
Personal Development Hours as defined by  
the State of Wisconsin - Department of Safety  
and Professional Services

**Registration Instructions**

Due to the rising cost of  
Hotel Conference Facilities,  
and IEEE Conference Rules,  
No Group Discounts may be offered.

**To Register - go to:****[www.emcmilwaukee.com](http://www.emcmilwaukee.com)****Crowne Plaza Milwaukee Airport**

6401 South 13th Street  
Milwaukee, Wisconsin 53221  
414-764-5300

The Crowne Plaza Milwaukee Airport Hotel is  
offering reduced room rates for reservations prior to  
Friday March 10<sup>th</sup>, 2017.

Room Rates are \$95.00 (single or double occupancy)

Mention "IEEE Seminar" when making room  
reservations.**2017 EMC Seminar Committee**

Chairperson – 2017 EMC Seminar  
EMC Chapter Chairperson

**Jim Blaha**

IEEE EMC Chapter Chair

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[james.blaha@tul.com](mailto:james.blaha@tul.com)

Co-Chairperson / Technical Advisor

**Tom Smith**

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Logistics Coordinator / Technical Advisor

**Don Koller**

Rockwell Automation

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Technical Advisor

**Toni Ruel**

Johnson Controls

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The EMC Chapter of the  
IEEE Milwaukee Section presents the  
2017 EMC Seminar

**Global Market Access**

**An In-Depth Study of  
GMA's impact  
on EMC Testing**

with

**Elya Joffe**

President of Elya Joffe - Electromagnetic  
Solutions, Ltd. and EMC Engineering  
Specialist and Consultant  
and

**Mark Maynard**

American Certification Body (ACB)  
President - IEEE Product Safety  
Engineering Society (PSES)

**March 14, 2017**

## EMC in Milwaukee: (Cont.)

**About Today's Seminar –****Who Should Attend?**

Design Engineers, Program Managers and Regulatory Managers. This seminar addresses EMC Design Techniques along with Global Safety Regulations and Markings. Today's Seminar will address how our Global Environment requires all three functions to be addressed simultaneously to meet Targeted Dates and Targeted Costs. The attendee will also have access to over 40 Providers of EMC Testing Products and Services.

**Elya Joffe**

Elya B. Joffe is the President and Principal EMC Specialist of "Elya Joffe - Electromagnetic Solutions, Ltd". With a total of over 30 years of professional experience, his work focuses on consulting and training in EMC and Electromagnetic Effects Engineering. Elya is a Registered Professional Engineer, an iNARTE-Certified EMC Engineer, EMC Master Design and ESD Control Engineer. He has authored/co-authored over 30 papers and is Author of the book "Grounds for Grounding". Elya can be reached at: [ebj@StopEMI.com](mailto:ebj@StopEMI.com)

**Mark Maynard**

Mark Maynard is the Business Development and Communication Manager at American Certification Body, Inc., and has over 25 years of experience in compliance engineering, in the areas of EMC/EMI, wireless/telecom, product safety, environmental, and quality management systems. He also currently serves as the President-Elect for the IEEE Product Safety Engineering Society, and is the Exhibitions Chair for the 2017 IEEE EMC Symposium. Mark can be reached at [markm@acbcert.com](mailto:markm@acbcert.com).

**Welcome ... from Jim Blaha, EMC Chapter Chairperson**

2017 is our 16<sup>th</sup> year in offering an IEEE EMC Seminar. This year's program is focused on "Global Market Access" and the Hidden Challenges within the phases of Product Development. This Seminar brings together two Global Experts that understand this Challenge. Elya Joffe is past President of both the IEEE EMC Society and the IEEE Product Safety Engineering Society. He has Lectured and Consulted Globally addressing both applications.

Mark Maynard is current President of the IEEE Product Safety Engineering Society and has extensive experience with Global Certifications, including Wireless Certifications. Join us, seating is limited. Our Goal of providing an EMC Seminar that is Local, Affordable and Providing the Highest Level of Educational Value is again accomplished with Elya Joffe and Mark Maynard.

**An In-Depth Study of GMA's impact on EMC Testing****7:30 – 8:20am****Registration and Continental Breakfast****8:20 – 8:30am****Welcome and Introductions****8:30 – 10:00am****1st Technical Session****Mr. Mark Maynard****What is Global Market Access?**

Where does EMC fit in with Product Safety?  
Product Markings, DOC's, Directives ...  
IoT – What is IoT? How is it Regulated? and  
Who is Responsible?

**10:00 – 10:30am****Morning Refreshment Break****Exhibitors Display and Demonstrations****10:30 – 12:00pm****2nd Technical Session****Mr. Elya Joffe****The Challenges in Ultra-High Speed PCB****Design for EMC and Signal Integrity**

High-speed channel characterization / modeling  
3D IC and 3D packaging  
Measurement Techniques

**12:00 – 1:00pm****Lunch with the Exhibitors and  
IEEE Acknowledgments****1:00 – 2:30pm****3rd Technical Session****Mr. Elya Joffe****How to Fail EMC in 10 Easy Lessons**

Take Home Review Sheet to keep Posted in  
your office.

**2:30 – 3:00pm****Afternoon Refreshment Break****Exhibitors Display and Demonstrations****3:00 – 3:15pm****IEEE Recognition Awards****3:15 – 4:45pm****4th Technical Session****Mr. Mark Maynard****Wireless Global Market Access**

Wireless Access – Government Controlled  
FCC Certification vs. the World  
How to Design for Wireless GMA

**4:45 – 4:50pm****Mr. Jim Blaha****Closing Comments and Seminar Survey****4:50 – 5:45pm****Post Seminar Social with Exhibitors**

ESD Gold Awards:

# GOLD AWARD

## RECEPTION & RECOGNITION 2017

This Year's Event will Include:

**2017 Gold Award  
Affiliate Society Awards**

**SAVE THE DATE**

Wednesday, March 29, 2017 • 6:00 P.M.

**2017 Gold Award Recipient  
Pranab Saha, PhD, PE, INCE Bd Cert, FESD  
Nominated by SAE Detroit Section**

Henry Ford College • 5101 Evergreen Road, Dearborn, MI 48128



THE ENGINEERING SOCIETY OF DETROIT\*  
FOUNDED IN 1955



# GOLD AWARD

## RECEPTION & RECOGNITION 2017

Join the ESD Affiliated Technical Societies as we come together to honor and recognize our leaders – engineers, scientists and technical professionals who have distinguished themselves through outstanding achievement and service within their respective Societies.

Hosted by The Engineering Society of Detroit and its Affiliate Council, the event will feature this year's Gold Award winner. This award is given to an individual who is collectively upheld by the council for his or her outstanding contributions to the fields of science and engineering.

### PROGRAM

Wednesday, March 29, 2017

Henry Ford College

Andrew A. Mazzara Conference Center

5101 Evergreen Road, Dearborn, Michigan 48128  
(Complimentary parking adjacent to building)

6:00 PM

Reception

7:30 PM

Awards Program

### COST

**\$45** per person if registered by March 1, 2017;

**\$55** thereafter.

Please register by March 15, 2017;  
late registrations will be accepted if space is available.

Cost includes:

A variety of hors d'oeuvre stations,  
beer and wine.



THE ENGINEERING SOCIETY OF DETROIT®  
FOUNDED IN 1879



visit**detroit**.com



Register online at [www.esd.org](http://www.esd.org) or by phone at 248.353.0735

## EMC in Detroit:

## ADVANCE PROGRAM



The Southeastern Michigan  
EMC Chapter Proudly  
Presents:  
**EMCFest '2017**

# “EMC Troubleshoot ing Kit:”

A Tutorial and Exhibition  
With Honored Guest Speaker

**Ken Wyatt**

**Thursday, May 11,  
2017**

At  
**Embassy Suites**  
19525 Victor Parkway,  
Livonia, MI 48152  
734-462-6000

IEEE Electromagnetic  
Compatibility (EMC) Society.  
EMCFest'2017 Home Page:  
<http://www.emcfest.org>

**Register On-Line!**

**Program Outline  
Thursday May 11,  
2017**

6:00	Vendor Table Setup (till 8:30)
8:30	REGISTRATION & EXHIBITS CONTINENTAL BREAKFAST
9:00	EMC Essentials
10:00	Break & Exhibits
11:00	Common EMC Issues
12:00	LUNCH
1:00	Developing an EMC Troubleshooting Kit
2:00	Break & Exhibits
3:00	Pre-Compliance Testing & Case Studies
4:00	Ice Cream Reception
5:00	Close of EMCFest

## The Program:

### EMC Troubleshooting Kit:

This program is focused on developing a Personal EMC Troubleshooting Kit and using it to perform Key Pre-Compliance Tests that will meet today's challenges of tight engineering budgets. A review of EMC Basics and Product Design Fundamentals will keep the “Focus of EMC” at the forefront of your designs. Mr. Kenneth Wyatt has developed an outstanding approach that can be implemented for less than \$5,000.00, including a spectrum analyzer! Those attending will greatly benefit from Ken's tutorials and classroom experimentation of these recommended tools. His experience as lead EMC engineer for HP and Agilent Technologies and his independent consulting for a period of over 30 years, will provide interesting insights to his practical approach in solving EMC issues.

NOTE: breaks will be scheduled at the speaker's discretion. Table-top displays (exhibits) will be open during registration, lunch, all breaks, and the reception. Access to the table-top displays is available during the technical sessions, but the displays may not be manned during those times.

## EMC in Detroit–(Cont.)

## Speaker:

**Kenneth Wyatt** is president and principle consultant of Wyatt Technical Services LLC, as well as the senior technical editor for Interference Technology. He has worked in the field of EMC engineering for over 30 years. His specialty is EMI troubleshooting and pre-compliance testing and is a co-author of the popular EMC Pocket Guide and RFI Radio Frequency Interference Pocket Guide. He also coauthored the book with Patrick André, EMI Troubleshooting Cookbook for Product Designers, with forward by Henry Ott. He is widely published and authored The EMC Blog hosted by EDN.com for nearly three years. Kenneth is a senior member of the IEEE and a long time member of the EMC Society. He may be contacted at [ken@emc-seminars.com](mailto:ken@emc-seminars.com).

or  
[kwyatt@interferencetechnology.com](mailto:kwyatt@interferencetechnology.com).

Check his web site for more information: <http://www.emc-seminars.com>.



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

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Photography: Mike Tykoski  
 Yazaki  
 734-983-6228  
[Tykoski@emcsociety.org](mailto:Tykoski@emcsociety.org)

FEE SCHEDULE	
IEEE Members, Registered before April 24	\$50
Non IEEE Members, Registered before 24	\$75
Full-time Students with copy of valid Student I.D.	\$25
Unemployed / Retired IEEE Member	\$25
CEU Certificate Only	\$25
All Registrations after April 15 <sup>th</sup>	\$100
Registrations & Website	
Scott Lytle	
Yazaki North America	
734-983-6012	
<a href="mailto:scott@emcsociety.org">scott@emcsociety.org</a>	
Treasurer: Matt Feusse	
734-983-6004	
<a href="mailto:matt@emcsociety.org">matt@emcsociety.org</a>	

**REGISTER ON LINE!**

The registration fee includes one copy of the tutorial record, continental breakfast, lunch, and reception. The organizing committee reserves the right to substitute speakers, restrict size, or to cancel the tutorial. In the event EMC Fest 2017 is canceled by the organizing committee, registration fees only will be fully refunded. Individuals canceling their registration prior to April 15 will receive a full refund.

No refunds will be made to individuals who cancel their registration after April 15.

Attendance is limited. Registration will be confirmed on a first come, first served basis.

**Hotel Information**

**The Embassy Suites Hotel** is located 18 miles from Detroit Metropolitan Airport. From I-275 take the 7 Mile Road – East. Travel approximately 1/4 of a mile to Victory Parkway. Turn left on proceed approximately 1/4 mile. Embassy Suites will be on the left. Contact (734) 462-6000 to make arrangements. Airport shuttle is not available so plan a taxi or car to travel to the hotel.

There is no airport shuttle available. Please plan for rental car or taxi transportation.

**Embassy Suites in Livonia** is offering reduced room rates for reservations. Special Room rates are available (standard room) \$121, plus tax. Internet, pool, exercise facility, breakfast and a cocktail reception are free.. There are a LIMITED number of hotel rooms at the reduced price. You must mention "Group ID:385806" to get this special rate and reserve your room by April 13. After which rooms and rates are subject to availability.

**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 e-Wavelengths:**

[www.e-wavelengths.org](http://www.e-wavelengths.org)

This is our 'Active' event listing site where everyone should look first to see what events are scheduled for our Section in the near future.

**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 IEEE Local Meetings:**

<http://www.e-wavelengths.org/>

**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.

**Links:****Michigan Institute for Plasma Science and Engineering:**

Seminars for the 2015-2016 academic year:

<http://mipse.umich.edu/about/seminars.htm>.

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 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-eaa-chapter>

**Robots**

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

**Science Fiction Conventions**

<http://www.conclavesf.net/>

**Mad Science**

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

**ESD PE Review Class**

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

**Makers Faire:**

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



## 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:

About half 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

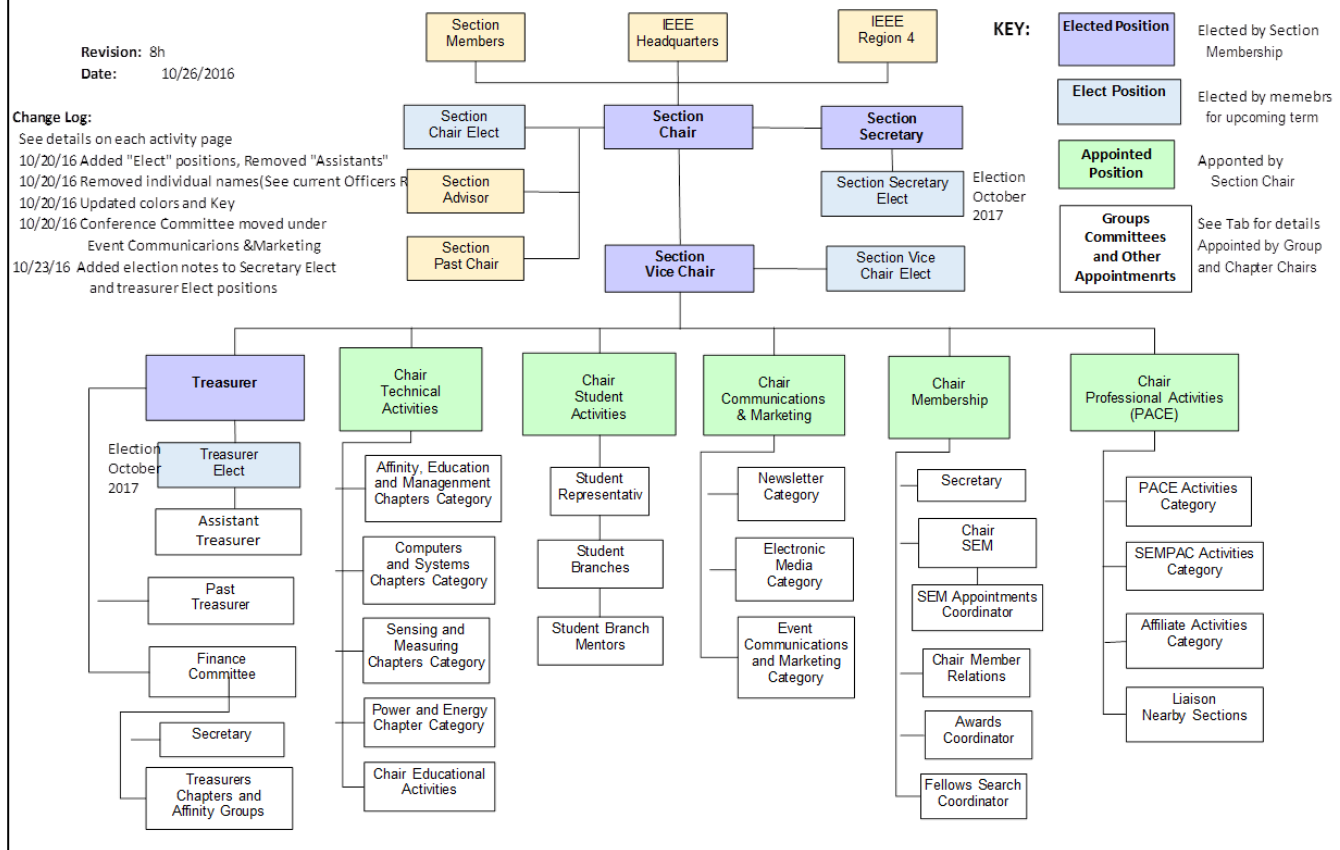
other chapters. In order to communicate the meeting dates of all the chapters, affinity groups etc., to our members to facilitate their attendance, leaders of the groups are requested to send meeting information to our webmasters for posting on section’s calendar.

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”

**ExCom Meeting Schedule:**

Below is the 2017 schedule for the Section ExCom meetings with links to add the events to your calendar. It is important that at least one person from each Chapter/Affinity Group attends the meetings. Information on the January Face to Face Meeting will be sent out once the venue is confirmed. Please mark your calendars for the meeting.

February 2, Thursday, Teleconference, 12:00 – 1:00 P.M. [https://meetings.vtools.ieee.org/feed/meeting\\_ical/42548](https://meetings.vtools.ieee.org/feed/meeting_ical/42548)

March 1, Wednesday, Teleconference, 12:00 – 1:00 P.M. [https://meetings.vtools.ieee.org/feed/meeting\\_ical/42549](https://meetings.vtools.ieee.org/feed/meeting_ical/42549)

April 6, Thursday, Face to Face, 5:30 – 8:00 P.M. [https://meetings.vtools.ieee.org/feed/meeting\\_ical/42551](https://meetings.vtools.ieee.org/feed/meeting_ical/42551)

May 3, Wednesday, Teleconference, 12:00 – 1:00 P.M. [https://meetings.vtools.ieee.org/feed/meeting\\_ical/42552](https://meetings.vtools.ieee.org/feed/meeting_ical/42552)

June 1, Thursday, Teleconference, 12:00 – 1:00 P.M. [https://meetings.vtools.ieee.org/feed/meeting\\_ical/42553](https://meetings.vtools.ieee.org/feed/meeting_ical/42553)

July 12, Wednesday, Face to Face, 5:30 – 8:00 P.M. [https://meetings.vtools.ieee.org/feed/meeting\\_ical/42558](https://meetings.vtools.ieee.org/feed/meeting_ical/42558)

August 3, Thursday, Teleconference, 12:00 – 1:00 P.M. [https://meetings.vtools.ieee.org/feed/meeting\\_ical/42554](https://meetings.vtools.ieee.org/feed/meeting_ical/42554)

September 6, Wednesday, Teleconference, 12:00 – 1:00.M. [https://meetings.vtools.ieee.org/feed/meeting\\_ical/42555](https://meetings.vtools.ieee.org/feed/meeting_ical/42555)

October 5, Thursday, Face to Face, 5:30 – 8:00 P.M. [https://meetings.vtools.ieee.org/feed/meeting\\_ical/42559](https://meetings.vtools.ieee.org/feed/meeting_ical/42559)

November 1, Wednesday, Teleconference, 12:00 – 1:00 P.M. [https://meetings.vtools.ieee.org/feed/meeting\\_ical/42556](https://meetings.vtools.ieee.org/feed/meeting_ical/42556)

December 7, Thursday, Teleconference, 12:00 – 1:00 P.M. [https://meetings.vtools.ieee.org/feed/meeting\\_ical/42557](https://meetings.vtools.ieee.org/feed/meeting_ical/42557)

David Mindham  
SEM Secretary

**Note:** All IEEE SEM Members are welcome at any IEEE meeting, at any time but, please register so we can be sure to accommodate you.

David Mindham  
SEM Secretary

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

The IEEE SEM Section Officers have reaffirmed the Mission and Goals of the section with the guidance of the Region 4 leadership. The Mission and Goals conform with those of IEEE worldwide.

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, and
- 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, and
- 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 (F2F).** See schedule on the page above:

**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 the vTools site at: <https://meetings.vtools.ieee.org/main>

Registering will ensure there is sufficient space, refreshments and support for attendees.

**Teleconference Schedule**  
(held from 12-1 p.m.):

**F2F Meeting Schedule:**

More information for F2F meetings will be emailed to all officers, (and any members requesting the schedule), in a timely manner before the meeting dates.

Contact **David Mindham** the SEM Section Secretary at: [dmindham@ieee.org](mailto:dmindham@ieee.org) for more information.

Additional information may be found at (<http://sites.ieee.org/sem/>).

The links to the SEM Facebook or LinkedIn pages on the SEM website may also be checked for updates.

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)

The information is for:

**Standing Committee Meetings**  
**Affinity Group Meetings**  
**Technical Chapter Meetings**  
**University Student Branch Meetings**  
**University HKN Chapter 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 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 will 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)

## 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, [Ravi Nigam](mailto:Ravi Nigam) at: [rnigam154934mi@comcast.net](mailto:rnigam154934mi@comcast.net).

We rely on our officers and members to provide the 'copy' that we finally present to readers of 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 complete the newsletter layout a week before the first of the month to allow time for review and corrections. If you have an article or notice, please submit it two weeks before the first of the month 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.

newsletter alive and lively by providing alternative points of view.

### Review:

Each month Jim Woodyard takes time to review the current issue and try to keep us from too many errors of both English and content. Jim likes to work in the background but, a special thank you is deserved for his continuous efforts and dedication to the quality of the publication. Thank you Jim!

### Editors:

We are always looking for members interested in helping to edit the newsletter. The process is always more fun with more members to share the duties, and help keep the

### Join the Team:

If you feel you might like to join the team, or would like to train with us, [k.williams@ieee.org](mailto:k.williams@ieee.org)

## Wavelengths Annual Publication Plan for Articles

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		U/M-D	National Engrs Wk.	Future Cities	Chapter Focus	GOLD Award
May	Life	5	14		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!		Humanitarian	
Dec		12		U/D-M	IEEE-Com Apmts.	Fall Conference	Happy Holidays	

## Wavelengths Annual Publication Plan for 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**  
Liang Xi Downey

**Section Treasurer**  
Basil Sherlund

### Standing Committees:

**Section Adviser**  
Don Bramlett

**Chair Communications & Marketing**  
Ravi Nigam

**Chair Educational Activities**  
Chaomin Luo

**Chair Finance**  
Nevrus Kaja

**Chair Membership**  
Aisha Yousuf

**Chair Nominations & Appointments**  
Kimball Williams

**Chair Professional Activities**  
Basil Sherlund

**Chair Student Activities**  
Nevrus Kaja

**Student Representative**  
Maoxu Liu

**Chair Technical Activities**  
Tayfun Ozdemir

**Past Section Chair**  
Kimball Williams



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/sem-calendar/>  
(Select the "SEM Calendar" button in the top row.)

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

- 1/Qtr. Find the location, and 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>