

Wavelengths



Volume 60 – Issue 03

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Upcoming Events

We have a number of events coming up this month. Be sure to check out the Section Website

<https://r4.ieee.org/sem>

As well as vtools:

[IEEE Region 4 - SE Michigan Section Upcoming](#)

Listed below are some of the events, FYI.

SEM Section ExCom Monthly Meeting (Teleconference)	5-Mar-20	12:00 PM
2020 Detroit SCIENCE FAIR JUDGES - SEM HKN Alumni Chapter	11-Mar-20	7:30 AM
Ch8: AdCom Teleconference	12-Mar-20	11:00 AM
EduCom Monthly Meeting - Mar	24-Mar-20	7:00 PM
SEM Section ExCom Monthly Meeting (Face-Face) for April 2020	2-Apr-20	5:00 PM
Ch8: AdCom Teleconference	9-Apr-20	11:00 AM
EduCom Monthly Meeting - Apr	28-Apr-20	7:00 PM

Chair's Message

Southeast Michigan IEEE members have always been great volunteers. This month, the Wavelengths is highlighting a few ways for our members to get involved outside of the Section. The first is by becoming a science fair judge at the Annual Science and Engineering Fair of Metropolitan Detroit (SEFMD). For years, IEEE members have assisted middle school and high school level students by judging projects relating to electrical engineering. The event is March 11 at the TCF Center. The second event is Robofest. The Section is looking for volunteers to mentor students in Grade 5 through

college and to judge projects. Robofest groups of students together to design and build robots to compete in various categories. The regional championship is this spring and the Robofest World Championship is held at LTU in Southfield in June. Both events are covered in more detail in this issue of the Wavelengths.

Finally, I'd like to highlight an upcoming Young Professional workshop in Jackson, MI. The event is a one-day workshop called Nexus. The purpose of the workshop is to provide students and young professionals the opportunity to network, socialize, and attend keynote speaker presentations. Topics include the Grid of the future, self-driving cars, leadership skills, and involvement in public policy. Attendees will learn how to use IEEE to further career development and personal endeavors effectively. The event is April 4.

More information can be found at:
<https://events.vtools.ieee.org/m/220621>

Thank you to all the volunteers that make events like these successful.

David Mindham: [dmindham -At- ieee.org](mailto:dmindham-At-ieee.org)

Science Fair Judges:**IEEE-SEM MEMBERS NEEDED AS 2020 SCIENCE FAIR JUDGES**

By Don C. Bramlett, PE, LSMIEEE, FMSPE, FESD

Please volunteer to serve on the elite panel of judges for the professional awards sponsored by the Southeastern Michigan Section of the Institute of Electrical and Electronics Engineer, Inc. (IEEE-SEM) at the 63rd Annual Science and Engineering Fair of Metropolitan Detroit (SEFMD). This is the 25th 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 11, 2020** at the Science Fair, located at the TCF Center (formerly called Cobo Hall) in downtown Detroit. **The Science Fair will be in the Michigan Hall this year on the Lower Level.** 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)

It is preferred that if you are not already registered as a Science Fair judge you do so on the Science Fair website, <http://www.sefmd.org>. Identify you will be judging as part of the IEEE professional awards judging team.

As last year, IEEE-SEM plans to provide judging for both the Junior (6th – 8th grade) Division and the Senior (High School) Division. It is anticipated that the IEEE-SEM awards judging will start at **8:30 AM and be completed by 11:30 AM**. IEEE-SEM will tentatively make three Grand Awards, including personalized certificates and cash prizes, and several Outstanding Achievement Awards, consisting of personalized certificates.

This year, like last 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. Students in Wayne, Oakland, Macomb, Lenawee, Livingston, Monroe and Washtenaw counties will participate in the Science Fair. So this year again 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. I anticipate 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.

Look forward to seeing you **Wednesday, March 11 at the Science Fair at the TCF Center.**

Parking is available at the TCF Center Roof Parking site or basement.

Free coffee and muffins are available in the morning.

Filling Gaps:

One of our members recently asked David Mindham, our Section Chair, if the SEM Roster positions that were ‘empty’ and highlighted in yellow would remain vacant until the next election. The short answer is ‘No’!

See the SEM Officer Roster at:

https://r4.ieee.org/sem/wp-content/uploads/sites/6/2020/01/Organization_Roster_2020_Rev0.2A.pdf

As David has said he is the authority to appoint volunteers to fill any vacant position in the Section. In addition, each Chair of a Standing Committee or Geo-unit (Chapter, Branch or Affinity Group) has the authority to make appointments to fill positions within their own organization and to create new positions when they are required.

You may find many (hopefully most) of the Job Descriptions for volunteer positions on the IEEE SEM Webpage at: <https://r4.ieee.org/sem/>

Use the "[About SEM](#)" button in the top row then scan down the page to the "[Volunteer Portal](#)" where listings of the positions are in alphabetical order.

Or jump directly there using this link: [Volunteer Portal](#)

Training for most of the positions is on the "Training Material" page. Use that button on the “About SEM” page, or by jumping to it using this link: [Training Material](#)

We know it is a lot to take in and we are here to answer questions that may come up so, do not hesitate to contact us when you need answers.

David Mindham: David.Mindham@edpr.com

Kimball Williams: k.williams@ieee.org

Robofest 2020

For the 2020 competition season, IEEE SEM sponsored Robofest is seeking volunteers to judge and mentor students, grades 5 - college, through our events.

Robofest's mission is to generate excitement and interest among young people for Science, Technology, Engineering, and Mathematics (STEM), to develop creativity and problem solving skills, and to prepare them to excel in higher education and engineering careers.

This year's events include: GolfBowl Game, Exhibition, BottleSumo, RoboParade, Vision Centric Challenge, RoboArts, Unknown Mission Challenge and an exciting new category, RoboMed. Regional completions run Feb - April, culminating with the World Championship on May 14 - 16, 2020 at Lawrence Technological University in Southfield, MI. Detailed events held in Southeast Michigan are as follows:

Day, Date	Time	Location	Event
Sat. Feb 15	1pm-5:30pm	LTU, Southfield	Warm-Up Competition and JUDGE TRAINING
Sat. March 7	9am-1pm	Washtenaw Christian Academy, Saline, MI	Junior Game and Senior Game
Sat. March 14	11am-3pm	Bethany Christian Academy, Troy, MI	Junior Game and Senior Game
Fri. March 20	5pm-9pm	University of Detroit Jesuit High School and Academy, Detroit, MI	Junior Game and Junior Exhibition
Sat. March 21	9am-1pm	Achieve Charter Academy, Canton, MI	Junior Game and Junior Exhibition
Sat. March 21	9am-1pm	Warren Woods Christian School, Warren, MI	Junior Game
Sat. March 21	10am-12pm	Napoleon Community Schools, Napoleon, MI	Senior BottleSumo Unlimited
Sat. March 21	2pm-5pm	Napoleon Community Schools, Napoleon, MI	Senior Game

Sat. March 28	9am-1pm	Gallimore Elementary School, Canton, MI	Junior Game
Sat. March 28	9am-1pm	West Bloomfield High School, West Bloomfield, MI	Junior Game and Senior Game
Sat. April 4	9am-2pm	Canton Charter Academy, Canton, MI	Junior Game and Junior Exhibition
Sat. April 4	10am-12pm	Cranbrook School for Boys, West Bloomfield, MI	Junior Bottle Sumo and Senior Bottle Sumo
Sat. April 4	1:30pm - 5:30pm	Cranbrook School for Boys, West Bloomfield, MI	Junior Game, Senior Game and Junior Exhibition
Fri. April 24	5pm-8:30pm	LTU Robofest, Southfield, MI	Michigan Invitational Junior Game
Sat. April 25	9am-12:30pm	LTU Robofest, Southfield, MI	Michigan Invitational Junior Game
Sat. April 25	1pm-4:30pm	LTU Robofest, Southfield, MI	Michigan Invitational Junior Game
Sat. April 25	5pm-8:30pm	LTU Robofest, Southfield, MI	Michigan Invitational Senior Game

* Judge Training will also be available on-line following the live training*

Please consider joining us to use your talents to inspire the upcoming generation of scholars. Contact SEM Education Committee CJ Chung at cchung@ltu.edu to participate in this rewarding competition.

At Regional Competitions, all students will receive the following IEEE sponsored medals.



IEEE SEM Volunteers at the Robofest World Championship, May 2019

Future Cities 2020:

Future City Judging 2020

By Don C.

Bramlett, PE, LSMIEEE, FESD, FMSPE

The annual, national Future City Competition is a STEM pre-university program for 6th, 7th and 8th grade students. The national Future City Competition judging is held at the National Building Museum in Washington DC during National Engineers Week in late February. It is preceded by state/regional competitions, the winners of which compete in the national competition.



Judging for the Michigan Regional Future City Competition was conducted on Tuesday, January 28, 2020. This year there were 32 middle school projects submitted for judging in the competition held at the Suburban Collection Showplace in Novi. The overall competition judging is based on how the student team addressed several project elements. The student team, composed of at least 3 members, is supported by a teacher and an engineer mentor. The “SimCity” computer program is used as a basis for the design of the city. One element for judging is an essay on a defined specific subject to be addressed in the city design; this year the subject was maintaining a reliable supply for the future city given a wide range of risks such as drought, flooding and natural disasters. Another element for judging was a 3-D scale model of a section of the city built with excess materials having a value less than \$100. The final important element for judging is a less than 3 minute oral project presentation on the design merits of the city by three student team members to a groups of adult judges.

For the 20th straight year the IEEE Southeastern Michigan (IEEE-SEM) Section has provided a team of volunteer professional award judges to evaluate the

student projects and award the Electro-Technology Award to the project that best demonstrates features associated with IEEE related fields of interests. IEEE-HKN members were especially encouraged to participate as judges. The Section would like to express its appreciation to the IEEE-SEM members who volunteered to be members of the IEEE professional organization judging team. The team of judges included Charles Cohen, Ph.D; James Rofe; Don Bramlett, PE;



Kimball Williams and David Morris, Ph.D.

The IEEE-SEM team of judges awarded the Electro-Technology Award this year to a team of students from DeWitt Middle School in DeWitt, MI. The three student presenters were Landon Thelen, Armond Tavelli and Jace Montgomery, supported also by Jackson Janderwski, all 7th graders. The team was supported by their teacher, Linda Maxwell, and an engineering mentor, Gilbert Barish.

The future city, named Clear Water City, is in SE Kentucky in the year 2128. The main source of electrical power is a dyson sphere, a swarm of solar panels that surround the sun to generate the maximum amount of solar energy. The energy is beamed to a dyson interceptor and receiver. This source is supplemented by an antimatter reactor, hydroelectric power from a dam, and a wind farm. The industries native to the city include farming, using hydroponic farms, and excess electrical power.

The St. John Lutheran School team from Rochester won the local Michigan Regional Future City Competition and represented Michigan in the national competition.

All involved students, parents, teachers, mentors, judges, and staff had great time and look forward to next year. The special subject for the competition in 2021 will involve living on the moon.

Why Amateur Radio?

A couple of months past I was sitting at a park near our home with my small emergency Morse code transceiver and a “*throw it up in a tree*” antenna. The day was planned to be spent operating in the 7 MHz band checking to be sure that all the equipment was in good working order, and that my sending with a ‘straight key’ was still readable. With my ‘home rig’ my Morse code sending is aided by an electronic ‘keyer’...(I was getting out of practice with my straight key – photo below:)



A short while after I began transmitting, a family with a Mother and two children, (a girl and boy), wandered by and of course, he kids wanted to know what all the funny sounds were. After explaining what a radio transceiver and antenna did, and how the Morse code allowed me to talk over very long distances with minimal power they listened while I had a short conversation with a gentlemen in Pennsylvania.

The Mother then asked one of the more usual questions we ‘Hams’ hear... “I thought all that had died out when cell phones became available. Why is Amateur Radio still around?”

Indeed, the question of why is Amateur Radio (Ham Radio) still in existence at all puzzles those who know only of Ham Radio as a ‘Hobby’. They think in terms similar to advocates of steam railway operations, keeping the old engines running for fun on weekends. Few of the general population understand that Amateur Radio is actually a federally mandated public “Service” organization, with some serious goals and objectives.

Shown below, in part, is excerpted from the United States Code of Federal Regulations (CFR), CFR Title 47: Telecommunication

PART 97—AMATEUR RADIO SERVICE

§97.1 Basis and purpose.

“The rules and regulations in this part are designed to provide an amateur radio service having a fundamental purpose as expressed in the following principles:

(a) Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.

(b) Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art.

(c) Encouragement and improvement of the amateur service through rules which provide for advancing skills in both the communication and technical phases of the art.

(d) Expansion of the existing reservoir within the amateur radio service of trained operators, technicians, and electronics experts.

(e) Continuation and extension of the amateur's unique ability to enhance international goodwill.”

(The underlines above are my addition to the text.)

My personal outing that day, related directly to item “(a)”: “emergency communications.” The exercise was intended to be a check of both equipment operation and to ‘dust off’ my personal skills at setting up communications equipment, away from my home ‘station’, and my ability to operate (make contact with other ‘Hams’) successfully when required. During an actual emergency would be a bad time to discover that some critical element in the radio system had developed a problem. Better to find out before hand and fix it then.

Amateur Radio operators do these exercises often as individuals and in groups during the year, with the most usual participation during “Field Day” at the end of June. Field Day sees hundreds of individual Hams and Amateur Radio clubs participate in a weekend long simulation of a national emergency and operate for 24 hours straight through the night passing messages, and ‘working’ as many other Field Day stations as possible.

This dedication and preparation pays off when hurricanes, tornados, earthquakes or other natural disasters take out the local electrical grid along with the satellite and cell phone infrastructure.

The afternoon was drawing toward evening, and I had accomplished my primary objectives, so I packed up my ‘rig’, said ‘good bye’ to the family in the park and walked home. I thought that perhaps, in a few years, I might meet one of those children again in a STEM class, or an Amateur Radio license class. We never know what a small seed planted in a park might grow to become in future years.

Hamvention Bus:

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Hamvention Bus Trip



**Saturday
May 16, 2020**

Sponsored by:
**ARROW Communication
Association**



Hamvention Bus:

The **ARROW Communication Association** is once again proud to sponsor a motor coach trip to the **2020 Hamvention** at its *improved location*: Greene County Fairgrounds and Expo Center in Xenia, Ohio. Started in 2002, this annual club activity has grown in size and reputation with hams across Michigan. We have been host to over 700 hams for this event.

Join us on **Saturday, May 19, 2020**, when we depart from the park-and-ride lot beside Ann Arbor Pioneer High School (601 W. Stadium Blvd) at 5:00 a.m., arriving in Xenia around 9:00 a.m. On board, you can stretch out, relax, take a nap, chat with other hams, and enjoy a continental breakfast with coffee as the coach takes you directly to the country's largest amateur radio event!

We arrive at Hamvention early enough so that you can enjoy a full day!

- Visit exhibits
- See what's new from major manufacturers
- Attend seminars
- Take license tests
- Shop the largest outdoor swap meet in the United States

When Hamvention closes at 5:00 p.m., return to the bus with your purchases for the 5:30 p.m. ride back home. No standing in lines waiting for a shuttle bus or fighting traffic!

**Got stuff to sell? We can help!**

We will have a booth in the flea market. If you buy a bus ticket, you can sell your stuff at our booth. All we ask is that you limit it to a reasonable amount and that you volunteer for one hour at the booth. The cost of a booth alone is \$70, more than the cost of our ticket, which makes the ARROW trip a GREAT value!

For our out-of-town guests!

If your QTH is too far away to drive to meet our bus which leaves at 5:00 a.m., and you need information about hotels in Ann Arbor, contact us at the information listed below for details.

This is no ordinary bus trip – it's an ADVENTURE!

Bus Tickets are \$65. This does **NOT** include your admission to the Hamvention. We suggest that you purchase your 2020 Hamvention ticket(s) in advance to take advantage of the discount and enjoy the day without waiting in line for your tickets.

See the box below with the link to the Hamvention ticket site.

In years past, we have offered a variety of door prizes. The number and value vary from year to year as we depend on the generosity of donors.

For those of you who are not ARROW members, join up and support our goals, such as our newly purchased 440 MHz DMR repeater.

When you add it all up, taking the bus with the ARROW is the most economical and relaxing way to attend Hamvention. For more information on the 2020 trip, go to our website, w8rp.org

Contact information:

John Wasciuk, WA8TON
(616) 560-3365
e-mail: jwasciuk@gmail.com

Entrance tickets to the Hamvention site must be purchased separately.

Use the link at: <https://hamvention.org/>

We suggest purchasing entry tickets to Hamvention early to take advantage of the lower 'early bird' rate.

TEMS Conference:



Call for Papers

2020 International Conference
IEEE Technology and Engineering Management Society (TEMS)



TEMSCON 2020
The Embassy Suites by Hilton Detroit
Livonia Novi, Michigan (USA)
19525 Victor Parkway
Livonia, MI 48152
2020.temscon.org



June 3-6, 2020

Managing the Development of Connected Systems

The greater Detroit area has a long history as a hub for engineering and manufacturing automobiles. With the ever-accelerating progress on innovation and a push for market-ready automated, connected and electrified vehicles, Detroit remains the heart of the automotive industry. Southeast Michigan has also diversified its economic base in emerging technology areas including information technology, health care and biomedical, power and energy, advanced manufacturing, and higher education and research. We invite contributions from engineering leaders, researchers, educators, innovators, entrepreneurs, and students to help advance the understanding and the state of practice related to successful technology and engineering management. Contributions may be research or practical. Research papers may be conceptual, empirical, or theoretical, but they must discuss how the results could be applied in practice. Practice-focused papers may consist of case studies, description of best practices, or application experiences, but they should also shed light on new challenges and unresolved future issues, which could be addressed by the research community. We thus provide a venue where different points of view interact to yield new understanding and ideas on leading innovation as well as the future of technology and engineering management.

- Paper Submissions Due: 29 Feb 2020
- Notification of Acceptance: 28 Mar 2020
- Revisions Due (For Papers Requiring Revisions): 18 Apr 2020
- Final Papers Due: 2 May 2020

Selected papers will be invited to submit to the *IEEE Engineering Management Review* or *IEEE Transactions on Engineering Management*.

Topic areas include, but are not limited to, the following:

- *Innovating in rapidly changing markets and sectors, e.g., biotech and health systems, manufacturing, etc.*
- *Leading and managing innovation and transformation*
- *Adopting new technologies: challenges and risk mitigation*
- *Management of software versions and their interoperability among different vehicle ages and makers*
- *Understanding trends and applicability of new technologies*
- *Leveraging enterprise data, e.g., successful use of AI, analytics, blockchain, IoT*
- *Leading societal change, e.g., mobility, intelligent transportation, health care, public policy*
- *Enhancing industry, university, and/or government collaboration*
- *Developing personal skills for leading innovation initiatives*

In addition, we invite proposals for half-day workshops, including special sessions from other technical societies, related to the conference theme.

Industry perspectives will be featured throughout the meeting via panels and plenary talks.

Conference attendees will have the opportunity to visit nearby Detroit area landmarks including the Henry Ford Museum, Greenfield Village, Detroit Institute of Arts, Motown Museum, and Automotive Hall of Fame.

Organizing Committee:

Conference Chair – Liang Downey, lxdowney@ieee.org

Program Co-Chairs – Jason Hui, jason.k.hui@ieee.org, Tugrul Daim, t2td@uodt.edu

Publications Chair – Ed Perkins, e.perkins@ieee.org

S.E. Michigan TEMS Society Chapter 10 Challenge:

I had the privilege of meeting and talking with some of the TEMS Society EXCOM members during the event and the reoccurring topic was the support by the local chapter for TEMSCON2020. I strongly believe that for our chapter members to grow and stay well-informed with changes in managing people and technology you need to take an active role & support this event. You will have the opportunity to network, hear great paper presentations, and speakers. Your role in support of this event can be limited to a small block of time helping the day to day running of the event. I encourage you to contact Mark Robinson or myself to help with the conference. Our contact Information can be found in an issue of Wavelengths.

Ray Sasinowski

TEMSCON 2020

TEMSCON 2020 will bring together 200+ engineering leaders, researchers, educators, innovators, entrepreneurs, and students to gather at the conference to help advance the understanding and the state of practice related to successful technology and engineering management from around the world and focuses on the art and science of management and leadership driving innovation and change.

TEMSCON 2020's theme is *Managing the Development of Connected Systems*. The greater Detroit area has a long history as a hub for engineering and manufacturing automobiles. With the ever-accelerating progress on innovation and a push for market-ready automated, connected and electrified vehicles, Detroit remains the heart of the automotive industry. Southeast Michigan has also diversified its economic base in emerging technology areas including information technology, health care and biomedical, power and energy, advanced manufacturing, and higher education and research.

The conference provides a venue where different points of view interact to yield new understanding and ideas on leading innovation as well as the future of technology and engineering management.

About [IEEE TEMS](#)

TEMSCON 2020 topics include

- Innovating in rapidly changing markets (e.g. biotech and health care, manufacturing)
- Leading and managing innovation and transformation
- Adopting new technologies: challenges and risk mitigation
- Management of in-vehicle software versions and interoperability among different vehicle ages & brands
- Understanding trends and applicability of new technologies
- Leveraging enterprise data, e.g., successful use of AI, analytics, blockchain, IoT
- Leading societal change, e.g., mobility, intelligent transportation, health care, public policy
- Enhancing industry, university, and/or government collaboration
- Developing personal skills for leading innovation initiatives

Call for papers TEMSCON 2020!!

On the TEMSCON 2020 website you find information on paper topics and submission dates.

- Paper Submissions Due: 29 Feb 2020
- Notification of Acceptance: 28 Mar 2020
- Revisions Due (For Papers Requiring Revisions): 18 Apr 2020
- Final Papers Due: 2 May 2020

<http://www.ieee-tems.org/>

ZF Employment Ad



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Section Matters**Joint Chapter Meetings: A Painless Way to Keep Current**

Engineering, as are most disciplines in the world, is evolving. Electrical engineering is evolving very rapidly. How many of today's EEs know the function of a suppressor grid or the task of a 6SN7? Software was the domain of mathematicians and the occasional scientist. Solid state was the domain of physicists and chemists. The challenge for today's engineer is to stay apace with rapid technological advancements.

IEEE has Sections that focus on EEs staying current in their field and exploring other areas through a variety of ways, including conferences, meetings and courses. IEEE SEM has all of these available. Since there is a finite amount of time to attend meetings, conferences and take courses, the challenge is to become more efficient in staying current and expanding one's networks of contacts and interests. Holding joint meetings with other Chapters is an easy solution. Joint Chapter meetings lighten the administrative burden while reducing the cost for each Chapter. A joint meeting can allow exploration of an area that is a complimentary field of interest, or is one you always wanted to know about. What better way to do this than by having a joint meeting?

Chapter officers should contact one (or more) of their fellow Chapter officers to explore scheduling a joint meeting. Chapter members should let their officers know which Chapters they would like to join with for a meeting. Joint meetings are easy, reduce administrative burden and expenses, and can even be fun. Joint meetings are a painless way to expand everyone's horizon.

Joe Giachino

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 to 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 to 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

ORG UNITS crib sheet**Section Unit Name or Affinity Group or Chapter Name (Organizational Unit is in parentheses)****Consultants** Network Affinity Group: (CN40035)**Life Members:****Young Professionals:****Women in Engineering:**

Chapter: 01 (SP01) Signal Processing Society,
 (CAS04) Circuits and Systems Society and
 (IT12) Information Theory Society

Chapter: 02 (VT06) Vehicular Technology Society

Chapter: 03 (AES10) Aerospace and Electronic Systems Society and
 (COM19) Communications Society

Chapter: 04 "Trident" (AP03) Antennas and Propagation Society,
 (ED15) Electron Devices Society,
 (MTT17) Microwave Theory and Techniques Society,

Chapter: 05 "Computer" (C16) Computer Society

Chapter: 06 (GRS29) Geosciences and Remote Sensing Society

Chapter: 07 (PE31) Power Engineering Society,
 (IA34) Industrial Applications Society

Chapter: 08 "EMC" (EMC27) Electromagnetic Compatibility Society

Chapter: 09 (IE13) Industrial Electronics Society,
 (PEL35) Power Electronics Society

Chapter: 10 (TEM14) Technology and Engineering Management Society

Chapter: 11 (EMB18) Engineering in Medicine & Biology

Chapter: 12 (CS23) Control Systems Society

Chapter: 13 (E25) Education Society

Chapter: 14 (RA24) Robotics And Automation Society

Chapter: 15 (NPS05) Nuclear Plasma Sciences Society

Chapter: 16 (CIS11) Computational Intelligence Society,
 (SMC28) Systems, Man and Cybernetics Society

Chapter: 17 (NANO42) Nanotechnology Council

IEEE Student Branches in Southeastern Michigan Section (Organizational Unit is in parentheses)

University Of Detroit-Mercy: (STB00531)

Michigan State University: (STB01111)

University Of Michigan-Ann Arbor: (STB01121)

Wayne State University: (STB02251)

Lawrence Technological University: (STB03921)

Oakland University: (STB06741)

Eastern Michigan University: (STB11091)

University of Michigan-Dearborn: (STB94911)

Curated & Formatted By

Sharan Kalwani,
Wavelengths,
2017 ~ 2020

Non-IEEE 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. **NOTE: The IEEE SE Michigan section website is changing to its new home, kindly make a note of it! The new home is located at <http://r4.ieee.org/sem/>.** The old links will continue to work for some time, but will be changing permanently in the near future.

SEM e-Wavelengths:

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://r4.ieee.org/sem/>

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

SEM Web Meetings:

<http://r4.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

Here are some of the non-IEEE events that may be of interest to you or someone you know. 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 details to: wavelengths@ieee-sem.org

Michigan Institute for Plasma Science and Engineering: Seminars for the 2018-2019 academic year: <http://mipse.umich.edu/seminars.php>

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://www.therobotgarage.com/about-us.html>

Science Fiction Conventions
<https://2019.penguicon.org/>

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

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

ESD PE Review Class
<https://www.esd.org/programs/pe/>

Maker Faire:
<https://swm.makerfaire.com/>

Executive Committee

The **SEM Executive Committee** is the primary coordination unit for Southeastern Michigan (SEM) IEEE operations. The basic organization chart below shows the 2019 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://r4.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 Eric George, the section secretary at: eric.george.us@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.

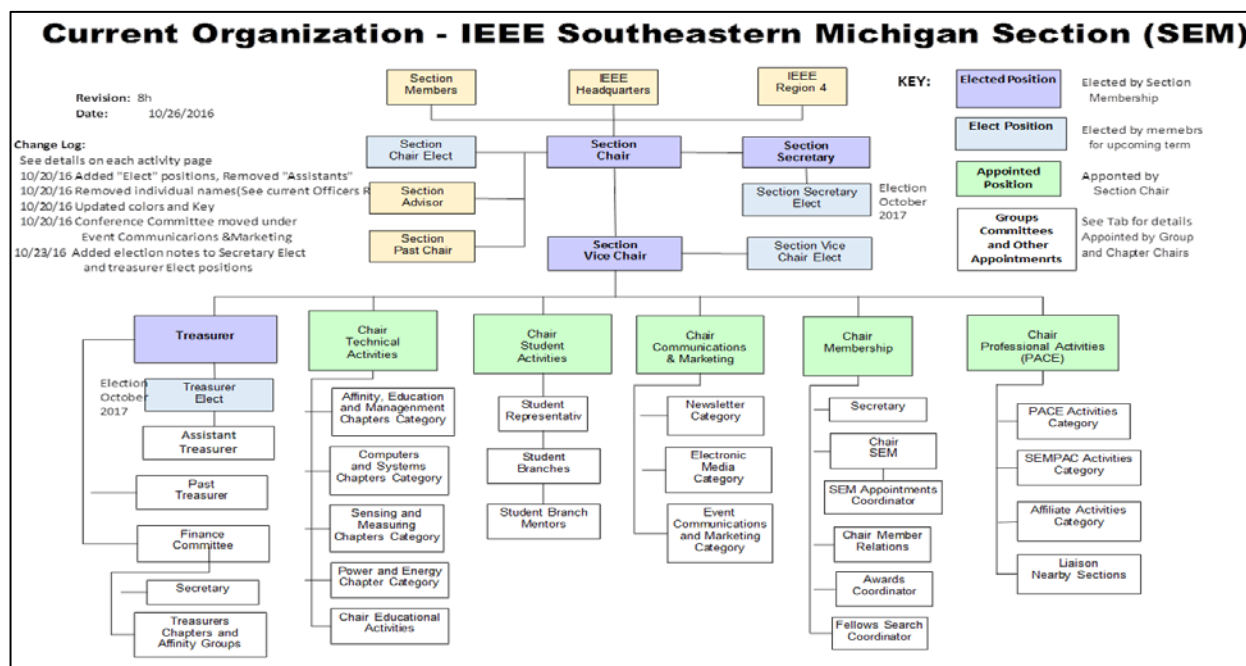
However, members of the section may have multiple technical interests and would like to have meeting information of other chapters. In order to communicate the meeting dates of all the chapters, affinity groups etc., to our members to facilitate their attendance, leaders of the groups are requested to send meeting information to our webmasters for posting on section’s calendar.

More detailed information on meetings may be found through the IEEE SEM Website: <http://r4.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.

Eric George - SEM 2019 Asst. Secretary

Download the **complete SEM Organization Chart**, in PDF format, from our Website at: <http://r4.ieee.org/sem/> Click on “**About SEM**” Tab and “**Current Officers**” (*NOTE: this is now password protected*)



ExCom Meeting Schedule

Below is the 2020 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 each scheduled ExCom meeting. Information on each Face-to-Face (in-person) Meeting will be sent out once the venue is confirmed.

Please mark your calendars for the 2020 meetings. Or, link your personal calendar to the SEM Web calendar.

Section Administrative Committee (ExCom) Meeting Schedule for 2020:

Note: All IEEE Members are welcome at any IEEE meeting, at any time but please register so we can be sure to accommodate you. This month's meeting is highlighted in **Bold**.

Teleconference, Thursday March 5 <https://events.vtools.ieee.org/m/216750>

FACE TO FACE, Thursday, April 2 <https://events.vtools.ieee.org/m/216969>

Teleconference, Wednesday May 6 <https://events.vtools.ieee.org/m/216752>

Teleconference, Thursday June 4 <https://events.vtools.ieee.org/m/216754>

FACE TO FACE, Wednesday July 8 <https://events.vtools.ieee.org/m/216970>

Teleconference, Thursday August 6 <https://events.vtools.ieee.org/m/216755>

Teleconference, Wednesday September 2 <https://events.vtools.ieee.org/m/216756>

FACE TO FACE, Thursday October 7 <https://events.vtools.ieee.org/m/216971>

Teleconference, Wednesday November 4 <https://events.vtools.ieee.org/m/216759>

Teleconference, Thursday December 2 <https://events.vtools.ieee.org/m/216760>

Chris Johson
SEM Secretary
cgjohnson@ieee.org

Editor's Corner

Previous editions in this series may be found on the IEEE SEM website at: <http://r4.ieee.org/sem/>. Click on the "Wavelengths" button in the top row of selections.

Comments and suggestions may be sent to the editorial team at wavelengths@ieee-sem.org

OR

sharan.kalwani@ieee.org

nilesh.dudhaia@ieee.org

k.williams@ieee.org

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.

Editors:

We are always looking for members interested in helping to edit the newsletter. The process is always more fun with more people to share the duties. Having more participants and contributors also helps us keep the newsletter interesting.

Heads Up

We are contemplating making the submissions of articles and events for the Wavelengths, a little easier and a little more inviting. Ideas are of course welcome and to this end, we are toying with setting up a little "newsletter portal". Stay tuned for some news on that end!

Join the Team:

If you feel you might like to join the team, or would like to train with us, please contact one of us at:

wavelengths@ieee-sem.org OR any one of the following:

sharan.kalwani@ieee.org

nilesh.dudhaia@ieee.org

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	ESD - GOLD
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://r4.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.”

Section Officers

Section Chair

David Mindham

Section Secretary

Chris Johnson

Section Vice-Chair

Sharan Kalwani

Section Treasurer

Michael Folian

Standing Committees:

Section Adviser

Don Bramlett

Chair Communications & Marketing

Chair Educational Activities

Christopher Guirlanda

Chair Finance

Nevrus Kaja

Chair Membership Development

Sharan Kalwani

Chair Nominations & Appointments

Kimball Williams

Chair Professional Activities (PACE)

Sharan Kalwani

Chair Student Activities

Mel Chi

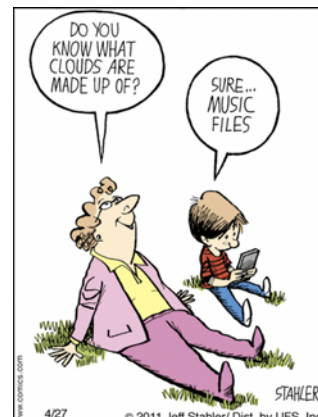
Student Representative

Chair Technical Activities

Jeffery Mosley



Visit Us on the Web at:
<http://r4.ieee.org/sem>



Advertising Rates

SEM Website & Newsletter
Advertising is coordinated through
our e-Wavelengths website at:

http://www.ieee-sem.org/ewavelengths/?page_id=181.

Please see the information listed on
the site, and contact our web editor
of e-Wavelengths, Nevru Kaja, for
further details.

Leadership Meetings

SEM Executive Committee Monthly Teleconferences:

- 1st Wednesday or Thursday of Each Month @ Noon
- Check the Section Web Calendar at:
<http://r4.ieee.org/sem/sem-calendar/>
(Select the "SEM Calendar" button in the top row.)

SEM Executive Committee Face-to-Face Meetings:

- Once every Qtr. Find the location, and Registration at:
<https://meetings.vtools.ieee.org/main>

SEM Standing Committee Meetings:

SEM Affinity Group Meetings:

SEM Technical Society/Chapter Meetings:

SEM University Student Branch Meetings:

- Meeting schedules are announced on SEM Calendar
<http://r4.ieee.org/sem/>
(Select the "SEM Calendar" button in the top row.)
- Registration for all at:
<https://meetings.vtools.ieee.org/main>