

# Wavelengths



## Volume 62 – Issue 01

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### Upcoming Events

We have several events coming up this month. Listed below are some of the events, FYI.

Event	Date	Time
<a href="#">Winter 2022 Kick off with MOVIE NIGHT=&gt;The life of James Clerk Maxwell</a>	11 Jan 2022	06:00 PM
<a href="#">Officer Training Classes – 2022</a>	12 Jan 2022	08:00 PM
<a href="#">Ch8: AdCom Teleconference</a>	13 Jan 2022	11:00 AM
<a href="#">NEW OFFICERS MEET AND GREET FOR 2022 MEETING</a>	13 Jan 2022	06:30 PM
<a href="#">Supercomputing 2021 conference report</a>	25 Jan 2022	07:00 PM
<a href="#">How to handle research paper reviews effectively</a>	27 Jan 2022	07:00 PM
<a href="#">Recent Advances in Data Center, Edge Computing Technologies</a>	01 Feb 2022	06:00 PM

*Note: All times are EST/EDT. If any events are missed do kindly bring them to the attention of [wavelengths@ieee-sem.org](mailto:wavelengths@ieee-sem.org). Thank you!*

**Chair's Column**

It is with great pride that I write to you all my first column as Chair of the Section. First of all, I want all of you to join me in thanking David Mindham, for the excellent job he has done for all of us in the past, despite taking over in abrupt circumstances.

We start off 2022 with a ton of catching up to do. Kimball Williams and I, along with a veritable cast of serious past officers will be helping to conduct training for all our newly elected officers. This activity is key to the healthy functioning of our section and the various chapters, units, and affinity groups, so we can better serve our fellow IEEE members and students, as part of the value of belonging to the IEEE. I urge all of you even those who are not yet officers to perhaps consider attending the training as it will help clarify a lot about the vast entity known as IEEE and also learn some key valuable “soft skills” in the process as well! Check out the link: <https://events.vtools.ieee.org/m/296830> .

We have a few technical activities already scheduled, at the time of going to press. You can also use [this link](#) (repeated on the last page of this newsletter as well) to locate upcoming events. Notable are a fascinating documentary on James Maxwell, a supercomputing conference report and how to effectively respond to research paper reviews.

My goal is to engage with all our IEEE members in various ways possible, so that in due course of time, they feel very much part of the Southeastern Michigan IEEE community. I do plan to personally visit all the Student branches as well and jolt (an IEEE technical term) the student community on the hidden treasures of the IEEE in their future. Speaking of which, Oakland University has an opening for a post-doctoral associate in AI, also several graduate student assistantships as well. Find their blurb elsewhere in this issue.

We plan to also spruce up our website as well. By the way, we are looking for social media savvy volunteers to help with our Twitter account, LinkedIn.com and Facebook.com group sites.

For those of you who are not too enamored about Social media, we have an [active Collabratec presence](#). As many of you may not be aware Collabratec is an IEEE-funded and managed online community and very much geared towards all things IEEE (searching members, IEEE articles, papers, research documents, connecting with like-minded members, a single spot to find all IEEE related postings, IEEE local/regional & global in nature, etc.). It replaced the old and clunky *o/c* (online community). We have space for sharing files and archiving Section related documents (e.g. expense reports, Wavelengths, announcements, pictures, etc.). Most of the users are all IEEE members. We plan to have some introductory sessions on this feature sometime soon, so stay tuned!

On the administrative front, we have a solid team with the super experienced Mohamad Berri as our new Vice-Chair, Collen has agreed to continue for the time being and Bhupinder will ratchet up his responsibilities as Secretary for the Section. Kindly do join all of us for our 1<sup>st</sup> ExCom meeting on January 13<sup>th</sup> (<https://events.vtools.ieee.org/m/289865> ) 2022.

Let me also take this opportunity to wish all of our members a happy new year and looking forward to 2022!

**Sharan Kalwani**

Via email: sharan dot kalwani At IEEE dot org



## Introducing 2022 Chair



Let me introduce myself. I'm Sharan Kalwani, the new Chair of the Southeastern Michigan Section. I've been active in the Section since 2013. My background is in a large number of areas including (but not limited to): high performance computing, operating systems (UNIX & Linux), everything else regarding computing, computer networking, electrical and electronics engineering, power & energy, machine learning, AI, taking initiatives, soft skills, public speaking and critical thinking. I enjoy watching "Jeopardy!" whenever I get a chance, Formula 1 racing, global soccer leagues and the game of cricket.

I remember when I joined IEEE soon after my first job after college. At that time technology was exploding due to the introduction of the microprocessor and the IBM-PC at year later (1981). Anil Garg, a colleague introduced me to the various journals of the IEEE and the Association of Computing Machinery (ACM), and I immediately signed up as a member. We did have not any section or chapter in my neck of the woods back then, so everything was slow in arriving via the surface mail system. However simply perusing the various magazines & journals, I learned a lot about the world of applied technology, but very little connection to any people community of sorts. Like David Mindham our previous Chair, I spent the next few years as an IEEE

member, but I didn't really know what that meant and how all the various components/pieces that tied into the greater IEEE.

After a series of work adventures both here and abroad, I then I moved back to Michigan, I was recommended by a former Wayne State University (WSU) and later GM (General Motors) colleague (Thank you Andrea Simon!) to reach out & get involved with the IEEE again. I found a large sized community of engineers of all kinds. (And in those days, free pizza too!). One of those enthusiastic individuals I met was Kimball Williams. If you didn't know Kimball, he has been with our Section for the last several years and remains active. He is one of the best resources for all things IEEE/EMC/Ham Radio, astronomy & the world of Science Fiction. Being gregarious by nature, I dove in with both feet into volunteering with various facets of the IEEE, and so I was awarded the **IEEE-MGA Achievement Award** in 2018, the Chapter 5 (*SEM Computer Society Chapter*) appreciation award in 2020 (during the ESD Gold award ceremony) and the **Region 4 Jack D. Sherman Award** for outstanding member in 2021. All my efforts were very satisfying experiences and certainly it was always a joy to volunteer, share, contribute and boost our community.

I want to thank everyone I have met and worked with in our Section over these years. No matter how you like to interact with IEEE, I promise that 2022 will be full of activity of all sorts (well online at least, till such time as we can engage in F2F again). Our Southeastern Michigan Section has 17 focused chapters that bring significant events to our members. I plan to engage with \*ALL\* of them and reach out to every individual member personally.

My vision is to perform and raise the standing of our Section, so that each member would happily state: "*I am proud to be a member of the IEEE SEM Section!*". Amongst a few things I wish to do immediately is: bring our website more up to date and spruce up many little things, actually meet all of our student branches (F2F or in person under strictly safe protocols) and dispel the notion on many university campuses that the IEEE is some sort of club, actually share with them how the IEEE can make a measured difference in their lives, and while on campus get the academic world once again re-connected with our local Section. At the same time provide active support to all our units, chapters, affinity groups and boost member participation, thereby increase the value of the IEEE to our members. Lastly boost the readership of our monthly newsletter – *Wavelengths* – the official public record of activities in our Section.

I look forward to meeting and working with everyone that wants to get involved. Please feel free to reach out to me or any member of the executive team if you'd like to learn how to get involved.

**Sharan Kalwani**

Via email: sharan dot kalwani At IEEE dot org

## Technical Activities Report

Ch's & AG's	Ave Tech Mtg. Attend	Ave Tech Mtg Guest	#L31 - Technical	#L31 -Admin	#L31 Professional	#L31 -Other	Geo-Unit Name	# Unreported	Total Mtgs
Cnslt	20	1	1	5	1	0	Consultants Network	0	7
LIFE	45	42	1	0	6	0	Life Members	0	7
WIE	0	0	0	10	2	0	Women In Engineering	2	12
YP	0	0	0	0	0	0	Young Professionals	0	0
1	2	1	3	3	0	0	Circuits & Systems, Signal Proc., Info Th.	2	6
2	40	9	3	1	0	0	Vehicular Technology	0	4
3	124	69	4	0	0	0	Aerospace & Elec. Sys., Communications	0	4
4	22	7	5	0	0	0	Trident (Ant, Elect Dev., uWave, Photo)	0	5
5	35	4	57	13	7	3	Computers	0	80
6	300	200	1	0	0	0	Geoscience & Remote Sensing	1	1
7	41	8	7	4	0	0	Power Engineering, Industrial App.	0	11
8	77	32	15	11	0	0	Electromagnetic Compatibility (EMC)	0	26
9	42	14	4	1	0	0	Power Electronics, Industrial Electronics	0	5
10	4	0	3	1	0	0	Engineering Management	0	4
11	0	0	0	0	0	0	Eng. in Medicine & Biology	0	0
12	42	1	2	3	0	0	Control Systems	0	5
13	45	4	18	1	4	0	Education	0	23
14	15	10	2	0	0	0	Robotics & Automation	0	2
15	64	39	5	0	0	0	Nuclear Plasma Science Society	4	5
16	0	0	0	0	0	0	Computational Intelligence / Sys.Man.Cyber.	0	0
17	21	17	3	0	0	0	Nano Technology Council	0	3
SEM	22	2	4	15	4	1	SEM (Section)	4	24
Tot	959	460	138	68	24	4	NOTE: Highlight Green = Active	13	234
		48%					NOTE: Highlight clear = Concern		

The monthly Section Health report now includes columns representing the numbers of Unreported Meetings see Column (#Unreported) as well as Total Meetings Column (Total Mtgs) for each GA.

The following GAs have unreported meetings, WIE (1); Chapter 1 (2); Chapter 6 (1); and Chapter 15 (3). Your activity is applauded. However, I encourage the leadership in each GA identified to make every effort to take the action to either complete the report or input that the meeting was cancelled. Also Young Professionals and our EXcom have meetings that need attention.

GA leaders are requested to review the report and clarify any unreported meeting activity by either submitting the appropriate L31 status report or by contacting the undersigned for assistance.

Our Section receives funds to support our technical meetings as a result of the reported meetings from our GAs. Let's finish this year as strong as possible, by getting our reports in by next month. Remember that our technical chapters and societies can conduct joint technical meetings where both groups can receive recognition by IEEE and our Section. Please endeavor to engage your group membership by: 1. Meeting F2F or virtually to discuss IEEE presentations or other technical content germane to your group; 2. Invite members or outside speakers to present relevant technical

achievements and or issues; and 3. Collaborate with other GAs on relevant joint technical topics of interest via webinar. These are just a few suggestions to maintain healthy technical interchanges within our Section.

Thank you goes out to the leadership and members in Chapters 5, 8, and 13. You all have far exceeded IEEE goals for engagement in technical activities and discourse valuable to our organization. Planning for all GAs to be as active in the coming year.

Your Technical Activities Committee (TACom) stands ready to assist as needed. Stay well and stay safe.

Jeff Mosley

Chairman, Technical Activities Committee, R4 IEEE SEM, [jvmosley@ieee.org](mailto:jvmosley@ieee.org).

## Member News



## Increased Section Membership Retention

The IEEE Southeastern Michigan Section Membership Development is pleased to report that our Section for the 2<sup>nd</sup> year running has achieved the Silver Award for membership. We are also planning a bevy of activities in cooperation with several of the student branches, outreach events in January and February of 2022. Plus, there will be a senior elevation event also scheduled for February 2022 (we need activities to keep us all warm!). Look for the email from the section tools site. If you do not get those emails, contact the undersigned for tips on how to enable notification.

I am also happy to report that one of our well known and esteemed members – Professor [Subramaniam Ganesan](#) of the ECE department, Oakland University, was recently awarded the IEEE Region 4 Outstanding Professional award for 2021. An excerpt from the Region 4 website describing this award (see <https://ewh.ieee.org/reg/4/awards.php>):

### ***“Outstanding Professional Award***

*To recognize members of Region 4 who, through their technical abilities, have made outstanding contributions to their profession. It acknowledges the development of new technical concepts, significant patents, development of new devices, development of applications, new designs, considerable cost reductions using known techniques, etc.”*

On behalf of everyone in the Section: Congratulations to Professor Ganesan! The award is scheduled to be given at the end of January 2022 at the Region4-Region 6 annual Strategy meeting, but at this point in time it is uncertain if that event will be held. In which case it will be awarded virtually and shipped to him.

**Sharan Kalwani,**  
**Chair, IEEE SE Michigan Section Membership Development**  
**2019-2020~2021~2022**

CFP: ECCE 2022



IEEE ENERGY CONVERSION CONGRESS &amp; EXPO Detroit, Michigan, USA Oct. 9-13

## IMPORTANT DATES

**January 15, 2022**

Digest submission

**May 1, 2022**

Author notification

**July 1, 2022**

Final papers with  
IEEE copyright forms

## Call for Papers



**General Chair**  
**Emmanuel Agamloh**  
Baylor University, USA

**ECCE 2022 Technical  
Program Co-Chairs**

**Navid R. Zargari**  
Rockwell Automation, Canada

**Annette Muetze**  
Graz University of Technology,  
Austria

**Andrea Cavagnino**  
Politecnico di Torino, Italy

**Mohammad Islam**  
Halla Mechatronics, USA

**Gerry Moschopoulos**  
University of Western Ontario,  
Canada

**Brandon Grainger**  
University of Pittsburgh, USA

**Contact email:**  
ecce2022pc@gmail.com

The Fourteenth Annual IEEE Energy Conversion Congress and Exposition (ECCE 2022) will be held in Detroit, Michigan, USA, from October 9 to October 13, 2022. ECCE is a pivotal international event on energy conversion. ECCE 2022 will feature both industry-driven and application-oriented technical sessions as well as an exposition. The conference will bring together practicing engineers, researchers and other professionals for interactive and multidisciplinary discussions on the latest advances in areas related to energy conversion.

Technical papers are solicited on any subject pertaining to the scope of the conference including, but not limited to, the following major topics:

### Energy Conversion Systems & Applications

- ▶ High power/voltage power conversion
- ▶ High voltage isolation techniques
- ▶ Energy harvesting
- ▶ Energy conversion for information technology and communication systems
- ▶ Energy efficiency for residential, commercial, and industrial applications
- ▶ Big data and artificial intelligence in energy conversion
- ▶ Renewable and alternative energy power electronic systems
- ▶ Smart grids, microgrids, and utility applications (HVDC, FACTS, and Solid State Transformers)
- ▶ Electrical energy storage
- ▶ Wireless power transfer

### Component, Converter & Subsystem Technologies

- ▶ Power electronic devices (silicon and wide bandgap) and applications
- ▶ Passive components and materials
- ▶ Power electronic packaging integration
- ▶ Reliability, advanced fault protection systems, diagnostics, prognostics, and health management
- ▶ Thermal management and advanced cooling technologies
- ▶ Electromagnetic interference and electromagnetic compatibility
- ▶ Power conversion topologies, modulation, and control
- ▶ Electrical drive systems and topologies and their control
- ▶ Rotating/linear electromechanical devices
- ▶ Enabling technologies for Industry 4.0: advanced manufacturing, additive manufacturing, digital twins, cloud design, big data analytics

**Digest Submission:** Prospective authors are requested to submit a single column, single spaced digest no longer than five (5) pages summarizing the proposed paper. The digest should include key equations, figures, tables, and references as appropriate, but no author names or affiliations. Digests not conforming to these requirements will be rejected without review. The digests must clearly state the objectives of the work, its significance in advancing the state of the art, and the methods and specific results in sufficient detail. All digests will go through a double-blind peer review process to ensure a confidential and fair review. The papers presented at the conference will be included in the IEEE Xplore Digital Library. Please refer to the conference website for a detailed list of technical topics and the digest submission method.

[www.ieee-ecce.org/2022](http://www.ieee-ecce.org/2022)

Detroit, Michigan, USA – October 9–13, 2022

## 2022 Science Fair

2022 IEEE Judging for the Future City Competition  
*By Don Bramlett, SMIEEE*

This is the 22<sup>nd</sup> year that the IEEE-SEM Section will have provided a dedicated team of judges and a special professional organization award for the project having the most innovative application of electrotechnology in the design of the city in the future. This is one of the premier pre-university STEM programs for energized middle school students. The Future City Competition in 2022 has the theme of “A Waste Free Future.”

The competition and judging will be conducted in a virtual format again this year. The student teams still have to prepare an essay and a model of part of the city, but the presentations will be YouTube recordings.

The professional organization judging will be completed before January 25, 2022. The IEEE-SEM Section sponsored “Electrotechnology Award” will be presented to the selected school in a pre-recorded Zoom file and the pre-recorded award presentation will be included as part of the final category judging on January 25.

IEEE-SEM members wishing to participate on the team of judges should contact Don Bramlett at [d.bramlett@ieee.org](mailto:d.bramlett@ieee.org) or 313-608-6223.



## Robofest Update

Robofest eNewsletter 12-20-21

- (1) [Robofest World Championship Format Survey](#)
- (2) **Annual Report and Assessment Reports Posted**
- (3) [Workshop Dates Scheduled](#)
- (4) **2022 Robofest Game \*OceanBots\* Updated**
- (5) [Second Kickoff Meeting Saturday, January 15 at 10:00 am on Zoom](#)
- (6) **Site Host Opportunity Returns for 2022**
- (7) [Warmup Competition/Judge Training February 12 at 1:00 pm at LTU](#)
- (8) **MCWT Grant for All-Girl Robofest Teams**
- (9) [LTU Robofest Scholarship Opportunity](#)

Note: All times are listed in EST unless noted

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### (1) Robofest World Championship Format Survey

At the December kickoff meeting, we announced the dates and format for the Robofest World Championship Events. Since that time, we have received some feedback that some teams may prefer different options due to possible travel restrictions related to the pandemic. We would like to gather more detailed information in order to make final decisions and provide opportunities for all teams to participate in the 2022 Robofest season World Championship and open category events. Please complete this short survey by January 5 <https://forms.gle/RW6uogSVWXVuTrqn7>. We will announce the final plans at the January 15 meeting, on the website and through eNews.

### (2) Annual Report and Assessment Reports Posted

The 2020-2021 Robofest Annual Report and Assessment Report have been posted to the Whats New section on the Robofest.net home page or directly at: <https://robofest.net/images/2021/robofest21report.pdf> and <https://robofest.net/images/2021/robofest21assessment.pdf>. The Annual Report includes site and team statistics and the Assessment Report includes links to the anonymous survey results.

### (3) Workshop Dates Scheduled

All of the 2022 workshops will be held in the Computer Science Robotics Lab - J234. Registration is free to teams that have registered paid for a qualifier. (Pre-registration is available)

- o VEX IQ with Robot Mesh: Sat, Feb 26, 9:00am ~ Noon
- o Spike Prime / Robot Inventor with Scratch: Sat, Mar 12, 9:00am ~ Noon
- o EV3 with Scratch: Sat, Mar 12, 1:00pm ~ 4:00pm
- o Spike Prime / Robot Inventor with Python: Sat, Mar 19, 1:00pm ~ 4:00pm

Registration opens on January 5. To register your students, select \*Available Workshops\* on the left menu of the registration page on Robofest.net. Additional workshops may be added based on the demand

### (4) 2022 Robofest Game \*OceanBots\* Updated

The 2022 Game rules have been modified slightly to add clarifications and FAQs. The updated version has been posted to the Robofest.net website. Click on the **Get Involved/Game** page. OceanBots Draft Rules: <https://robofest.net/images/2122/Game2022V051.pdf>. The US Final rules will be finalized on January 18. If you have any questions about the rules that you would like to have clarified, please send an email to Shannan Palonis ([spalonis@ltu.edu](mailto:spalonis@ltu.edu)) and we will answer them in the FAQ and/or update the rules to add clarity.

### (5) Second Kickoff Meeting Saturday, January 15 at 10:00 am on Zoom

Site Hosts, coaches, volunteers and corporate partners ~ please join us via Zoom on January 15 at 10:00 am for the kickoff meeting to introduce the rules and plans for the upcoming 23<sup>rd</sup> Robofest season. The December 8 Meeting Slides and link to the recorded meeting are posted on the **Get Involved/2022 Main Page**.

To Join the January 15 Zoom Meeting, click:

<https://ltu.zoom.us/j/95877755557?pwd=cWd2NnFEUThMWGZqcExocTJ0UIBadz09>

Or login directly with meeting ID: 958 7775 5557 and Passcode: 649126

#### **(6) Site Host Opportunity Returns for 2022**

Robofest is seeking site hosts for the following categories: Game Qualifiers, Exhibition Qualifiers, BottleSumo, RoboParade and other Open Category events during the Spring of 2022. Returning Site Hosts may contact the Robofest Office at [spalonis@ltu.edu](mailto:spalonis@ltu.edu) to start the registration process. The online application is available on the **Registration** page. Downloadable forms and “New Site Host Information and FAQ” documents are now available on the [For Site Hosts](#) page on the Robofest.net website.

#### **(7) Warmup Competition/Judge Training February 12 at 1:00 pm at LTU**

This event will be held on Saturday, Feb 12, 2022 from 1:00pm ~ 5:30pm in Room J234 in the Taubman Complex. Teams who would like to participate should send an email to [spalonis@ltu.edu](mailto:spalonis@ltu.edu). Check-in for registered teams begins at 1:00 pm and Judge training will start at 1:45 pm. We invite and encourage Michigan Site Hosts and Volunteer Game Judges to attend. Registration for judges will open on January 5.

#### **(8) MCWT Grants for All-Girl Robofest Teams**

The Michigan Council of Women in Technology Foundation, 18-year sponsor of Robofest, is once again providing \$500 grants for up to ten Michigan all-girl Robofest teams for the 2022 Robofest Game and Exhibition competitions. More information, the application and deadline will be posted to their webpage: <https://mcwt.org/programs/list/K-12-Initiatives/ROBOTICS-GRANTS>

#### **(9) LTU Scholarship Opportunity for all Robofest Participants**

High School students who have participated in Robofest at any time and who are planning to attend LTU, can apply for a \$3,000 renewable scholarship (Total of \$12,000). Submit a 400-word essay describing your Robofest experience and your career goals, a letter of recommendation from one of your Robofest adult coaches or mentors, and the Scholarship Application by **April 1, 2022**. To find more information visit: [https://www.ltu.edu/financial\\_aid/scholarships-freshmen.asp](https://www.ltu.edu/financial_aid/scholarships-freshmen.asp)

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Lawrence Technological University / Robofest / J-233 / 21000 W. Ten Mile Rd, Southfield, MI 48075

Dr. Christopher Cartwright, Director, [ccartwig@ltu.edu](mailto:ccartwig@ltu.edu)

Elmer Santos, Assistant Director, [esantos@ltu.edu](mailto:esantos@ltu.edu)

Shannan Palonis, Coordinator, [spalonis@ltu.edu](mailto:spalonis@ltu.edu)

Pam Sparks, Coordinator, [psparks@ltu.edu](mailto:psparks@ltu.edu)

Dr. CJ Chung, Advisory Board Chairperson, [cchung@ltu.edu](mailto:cchung@ltu.edu)

<https://www.robofest.net/>

<https://facebook.com/robofest>

## Need Science Fair Judges!

### IEEE-SEM MEMBERS NEEDED AS 2022 SCIENCE FAIR JUDGES

By Don C. Bramlett, LSMIEEE, FMSPE, FESD

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 65th Annual Science and Engineering Fair of Metropolitan Detroit (SEFMD). This is the 27th straight year that the IEEE-SEM Section has provided judges and sponsored **professional awards** for projects associated with electrical, electronics, computer engineering and IEEE related fields.

The Science Fair and judging will again be conducted in a virtual manner. Students will provide a project presentation (up to 12 pages in a pdf format) and a short video link. There will be no interviews for the **professional awards**. The Science Fair and I will communicate further details to those that will be IEEE judges. Session 1 judging, which includes **professional awards** judging, will be completed prior to March 25, 2022.

It is necessary that if you are already registered as a Science Fair judge or a new judge, to go to the Science Fair website: <https://www.sefmd.org>

Judging: *Identify you will be judging as part of the IEEE **professional awards** judging team during Session 1. Also provide the information for a background check with the Michigan State Police. Inform me if you are registered to be an IEEE **professional awards** judge, at [d.bramlett@ieee.org](mailto:d.bramlett@ieee.org)*

Like last year, IEEE-SEM plans to provide judging for both the Junior (6<sup>th</sup> – 8<sup>th</sup> grade) Division and the Senior (High School) Division. 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.

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 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) .

Looking forward to working with you on this event!

**Call for WiE Volunteers****CALL FOR VOLUNTEERS**

As we move to next year, we are excited to start thinking about 2022 WiE events. Some of our events are in the planning stages but we need support of our WiE members to make this happen.

Below are some of our ideas for the coming year:

1. Interactive session @ Henry Ford-International Day of Women and Girls in Science on February 11, 2022
2. Collaboration with other chapters for events
3. Networking session in summer and winter
4. Collaboration with schools to promote STEM

We are looking for volunteers who can support us in organizing these events.

We have the following position vacant. We may not be able to arrange any of the above events if we do not have a chair.

- **2022 WiE Chair**

Following are our officers for 2022:

- **Vice-Chair: Ashfiqua Connie**
- **Secretary: Colleen Chmielewski**
- **Webmaster: Olivia Miller**

You can also check out our website to know our officers: <https://r4.ieee.org/sem-wie/about-us/>

Please reach out to Ashfiqua Connie ([ashfiqua.connie@gmail.com](mailto:ashfiqua.connie@gmail.com)) for any questions.

## Oakland Univ Openings

Job Title: Post-Doctoral Associate  
Requisition #: 0000612

### Job Description Summary:

We are seeking a Postdoctoral Research Associate to conduct impactful, innovative, multi-disciplinary research in developing clinical decision support systems for infectious diseases and neurological disorders. The candidate will be working on advancing the state of the art in prediction of infectious diseases and neurological disorders using federated learning, knowledge-infused learning, active learning, and explainable AI. We are specifically seeking a candidate with experience handling multimodal health data (mainly clinical text, and medical imaging). The position requires innovative thinking to design and implement machine learning, or algorithmic solutions to real world problems in healthcare and biomedical research, novel thinking, teamwork, and discovery in finding new approaches for analyzing massive and complex data and publishing groundbreaking results.

### Candidates should demonstrate:

- Strong knowledge in Machine/Deep Learning with experience in active learning, federated learning, and knowledge-infused learning.
- Prior experience in medical imaging such as DSA, MRA, CTA, and CT/MRI is preferred.
- Interest in solving challenges related to data fusion, federated learning, Explainability and robustness of AI models.
- Hands-on experience with Federated Learning frameworks, Knowledge Graphs, and Explainable AI.
- Excellent analytical, technical, and problem-solving skills
- Excellent programming skills in Python and PyTorch.
- Excellent communication and presentation skills, including experience in communicating across discipline boundaries.
- Working in a Linux environment, with experience of shell scripting, cluster, or cloud computing.
- Experience with, and a commitment to, diversity and inclusion.

The initial appointment is for one year, and renewal for an additional year is expected if progress is satisfactory. The candidates will have opportunities to work with outstanding collaborators in neuroscience, engineering and medicine at Oakland University and other collaborators (University of Michigan, Imam Mohammad Ibn Saud Islamic University Riyadh, Kingdom of Saudi Arabia, and collaborating local and international hospitals).

### Minimum Qualifications:

- Ph.D. in Computer science, Electrical Engineering, Computer Engineering, or related disciplines with interest in medical imaging, clinical text processing and deep learning. The applicants must have a track record of publications at top-tier conferences and high-impact journals in the field. Of special interest are applicants who specialize in interdisciplinary AI research, particularly those with demonstrated evidence of collaborations with healthcare practitioners.

The expected start date is February 15, 2022. However, the search will be continued if the required applicant is not found by the end of January 15, 2022.

### Special Instructions to Applicants:

Applicants should submit a letter of intent, a statement of research interests, curriculum vitae including a list of publications, transcripts (unofficial) and a statement of diversity which demonstrates their experience or commitment to diversity and inclusion, and names and contact details for two referees. The letter of intent should describe their long-term research vision, the reason for applying this job, and why they think they are the right candidate to fill this position (max. 2 pages).

Candidates should upload their application at following URL: <https://jobs.oakland.edu/postings/23359>

For questions please contact Dr. Malik: [mahmood@oakland.edu](mailto:mahmood@oakland.edu)

### School/College & Department Program Summary:

Oakland University is a public institute located in southeastern Michigan with over 20,000 students. The school of engineering and computer science (SECS) consists of the following five departments: Computer Science and

Engineering, Electrical and Computer Engineering, Industrial Engineering, Mechanical Engineering, and Biomedical Engineering. SECS offers BS in Computer Science, BS in Information Technology, BS in Electrical and Computer Engineering, BS in Mechanical Engineering, BS in Biomedical Engineering, and BS in Industrial Engineering. At the master level, SECS offers MS in Computer Science, MS in Cyber Security, MS in Software Engineering and Information Technology, MS in Mechanical Engineering, MS in Electrical and Computer Engineering, MS in Embedded Systems, MS in Mechatronics Systems, and MS in Industrial Engineering. All five departments of SECS also offer PhD programs. For information about SECS and Oakland University, please visit the respective homepages: <https://www.oakland.edu/> and <https://www.oakland.edu/secs/>

Oakland University is a nationally recognized doctoral university of high research activity located on 1,443 acres of scenic land in the cities of Rochester Hills and Auburn Hills in Oakland County, Michigan. The University has 142 bachelor's degree programs and 138 graduate degree and certificate programs. Academics include programs in the College of Arts and Sciences, School of Business Administration, School of Education and Human Services, School of Engineering and Computer Science, School of Health Sciences, School of Medicine and School of Nursing.

Date Search Opened:  
12/09/2021

Open Until Filled:  
Yes

Job Category:  
Full-time Faculty

EEO Statement:  
Oakland University is an Affirmative Action/Equal Opportunity Employer and encourages applications from women and minorities.

Required Applicant Documents:

1. Cover Letter
2. Curriculum Vitae (CV)
3. Diversity Statement
4. Research Statement
5. Transcripts (unofficial)

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### **AI in Healthcare and AI in Cybersecurity Graduate Research Assistants – Winter, Summer, and Fall 2022**

Secure Modeling and Intelligent Learning in Engineering Systems (SMILES) Lab has multiple Ph.D. research assistant openings starting from Winter 2022 in the areas of AI in healthcare and AI in cybersecurity. Highly motivated applicants with prior experience in Knowledge Graph, Machine Learning, Multimedia Forensics, explainable AI, NLP, Federated Learning are encouraged to apply. For details of projects and publications, see <https://www.secs.oakland.edu/~Mahmood/>

#### **Essential Qualifications for AI in Healthcare project Neurology and Neurosurgery:**

- Applicants must have B.S. or M.S. degree in Computer Science, Computer Engineering, or a closely related field. Must have a 3.0 or higher cumulative GPA
- Basic knowledge of Machine/Deep Learning with federated learning, and Trust-worthy AI.
- Basic Knowledge of signal processing and Medical Imaging or Clinical Text processing.
- Prior experience in medical imaging such as DSA, MRA, CTA, and CT/MRI is preferred.
- Basic knowledge of Brain and Spine Anatomy is preferred.
- Interest in emerging deep learning architectures such as visual transformers, knowledge graph generation, knowledge-infused learning.

- Interest in solving challenges related to data fusion, federated learning, explainability and robustness of AI models.
- Excellent analytical, technical, and problem-solving skills
- Excellent programming skills in Python and PyTorch.
- Excellent communication and presentation skills, including experience in communicating across discipline boundaries.
- Working in a Linux environment, with experience of shell scripting, cluster, or cloud computing.

**Essential Qualifications for AI in Cybersecurity:**

- Applicants must have B.S. or M.S. degree in Computer Science, Computer Engineering, or a closely related field. Must have a 3.0 or higher cumulative GPA
- Basic knowledge of Machine/Deep Learning, multimedia forgery detection/generation models, and Trust-worthy AI.
- Interest in emerging deep learning architectures such as visual transformers, deep reinforcement learning, etc. knowledge graph generation, hybrid knowledge and machine learning techniques.
- Basic Knowledge of Audio and Video processing.
- Prior experience in Audio video forgery detection including deep fake is preferred.
- Interest in solving challenges related to data fusion, federated learning, AI Explainability, and robustness of AI models.
- Excellent analytical, technical, and problem-solving skills
- Excellent programming skills in Python and PyTorch.
- Excellent communication and presentation skills, including experience in communicating across discipline boundaries.
- Working in a Linux environment, with experience of shell scripting, cluster, or cloud computing.

If interested, please email me ([mahmood@oakland.edu](mailto:mahmood@oakland.edu)) with a full CV, publications/examples of academic writing (report, thesis if applicable), and transcripts.

## Officer Training 2022

## Candidate &amp; Officer Training 2022

In 2022 we will offer 'Officer Training' to our 'new' officers as well as any IEEE member, at any grade level or position. Our wish is to help all gain a fuller awareness of the communication and management skills used within IEEE, how they function and how to employ them both as IEEE officers, and in your everyday work and life. These are often popularly referred to as '*soft skills*' in that they are not based on the physical principles we all learned as we worked toward our engineering degrees. They are psychological, organizational, interpersonal and their training requires that they be 'learned' in two associated ways.

The first part is an appreciation of the principles and techniques involved. That is usually part of a class or study covering the basics (theory) of the method. That part we intend to offer in the form of 'on-line' classes and reference study material. The second part requires putting the 'theory' into active practice. We often liken this to learning a sport, such as playing a game of tennis. No amount of 'book study' can teach you how it feels to swing a racket, or how to know when your swing connects perfectly, and the ball goes exactly where you intended. Those elements of a skill only come with practice!

Within the IEEE, the soft skills "practice" grounds can be found in our organizational elements. Those are Sections, Technical Chapters, Affinity Groups, Student Branches and HKN (honor society) Chapters. Each of these is organized and directed in its activities by its administrative committee of appointed or elected officers.

Each officer "position" has its own specialized skill sets and lessons to be mastered. While there is some degree of 'overlap' in skills and responsibilities, a complete understanding and mastery of those specialized skills can only come with direct, active, and focused experience. For the experience to be fully successful, you should approach a new officer assignment with the same dedication you would any university class in which you intended to succeed.

A fully functional administrative unit is composed of a set of officers, who are familiar with the skills of their position, or actively developing those skills. In the ideal situation, each officer should be familiar with the requirements and functions of all the officers they work with. Only when each officer is aware of what they need to provide to the others on their team and what they should expect from them in return can the organization function successfully.

**Note:** In the fullness of time, the most complete understanding and 'mastery' of all the skills require each officer to spend sufficient time in each position (Treasurer, Secretary, Vice-Chair, Chair) to fully appreciate all the lessons each position has to 'teach'.

**Classes:**

As an introduction to the 'theory' portion of these skills, we will offer a set of virtual classes supported by study materials available through the SEM Section website and the IEEE Center for Leadership Excellence. These virtual classes will begin in the 2<sup>nd</sup> week of January 2022 and conclude at the end of February of 2022. Each class will be conducted via Webex as an 'overview' of the topic 'de jour' and a discussion or Q&A session to answer questions and clarify issues.

**Note:** Space for these classes is limited, so you must register to receive the necessary codes and passwords to attend.  
**Register at:** <https://events.vtools.ieee.org/m/296830>

We understand that not all interested members will be able to attend any set of pre-scheduled classes. Our intention is to record each class for review later and the class topic will be known in advance and the reference materials listed along with their on-line sources to allow each student time to fully appreciate the material. Each class will remain on the SEM website until replaced by the succeeding class the following week. We hope this arrangement will permit 'flexibility' for those with schedule conflicts to 'keep up' with the classes.



**Class Schedule:**

Classes will begin on-line in the 2<sup>nd</sup> week of January on January 12<sup>th</sup>. Classes will be conducted on Wednesdays at 8 PM local time (EST/EDT) with a review and discussion session on Sundays at 1 PM. Hopefully the Sunday sessions will allow anyone who missed one of weekly classes to ask any lingering questions. The final review session on February 27<sup>th</sup> will wrap up the classes for all.

## Primary classes

Date	Week	Wed: 8 PM	Primary Topic	Officer Focus
1/12/2022	1	vTools	Communications	Primary Team (Chair/Vice-Chair/Treasurer/Secretary)
1/19/2022	2	Reporting	Coordination	Extended Team
1/26/2022	3	Relationships	Leadership	Chair
2/2/2022	4	Publish Success	Support	V-Chair
2/9/2022	5	Coordination tools	Scheduling	Secretary
2/16/2022	6	Accounting Tools	Tracking	Treasurer
2/23/2022	7	The big picture	Reaching Out	Section officers & ExCom members

## Review Sessions

Date	Sun: 1 PM	Primary Topic	Officer Focus
1/16/2022	Review & Summary	Communications	Team
1/23/2022	Review & Summary	Coordination	Extended Team
1/30/2022	Review & Summary	Leadership	Chair
2/6/2022	Review & Summary	Support	V-Chair
2/13/2022	Review & Summary	Scheduling	Secretary
2/20/2022	Review & Summary	Tracking	Treasurer
2/27/2022	Wrap Up	Reaching Out	Engagement

Who: All IEEE members  
 Where: IEEE Southeastern Michigan Section online via Webex,  
 When: Wednesdays 8 PM - Beginning January 12<sup>th</sup> continuing for 7 weeks,  
 How: IEEE SEM Webex Account,  
 What: IEEE Organizational positions, tools and skills,  
 Why: Gain skills for life management.

**Register at:** <https://events.vtools.ieee.org/m/296830>

**IEEE SEM 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.

## Feedback at Work

If you want to freak out the people you work with, tell them, “We need to talk.” If you really want to freak them out, say those four magic words late on a Friday, or even better, the day before someone goes on vacation. “We need to talk” is rarely followed by, “and you’re awesome.” People know bad news is likely coming, and they’ll inevitably be on edge.

The antidote to asking for time to talk is to create opportunities to give feedback regularly.

There are many reasons giving feedback is hard. One of them is we wait too long. Something happens. We know we should address it, but we don’t want to. So, we wait to see if the behavior is really ‘a thing.’ Then it happens again. And now we know it’s ‘a thing.’ But we still don’t want to address it. Then the situation gets really bad, and now we have to say something. The conversation then takes 90 minutes, is painful, and everyone goes home unhappy.

Here are two keys to make giving feedback easier:

**Giving feedback strategy one:** Debrief everything. Do a quick plus/delta on a regular basis to assess how things are going. Plus – what went well? Delta – what would we change if we could/what did we learn?

I recommend doing a quick debrief at the end of important meetings, hiring processes, projects, and when anything changes. Conduct a short debrief when you have staffing changes, gain or lose a client, launch or eliminate a product or service, etc. Change is an opportunity to evaluate how you work and to make appropriate adjustments.

When you debrief important events, you tell people that feedback is important and that it’s ok to be candid. Conducting regular debriefs also gives employees a chance to practice giving feedback, which is a hard skill. And like anything, the more we give feedback, the easier it becomes.

Conducting short, regular debriefs is one of the easiest ways to learn from the past and become a more candid culture.

**Giving feedback strategy two:** Schedule five to fifteen minutes each week to talk as a team or with direct reports. When you know you have time each week to talk with your manager, direct reports, and/or team members, you never have to ask for time to talk. Issues don’t build up or linger. Breakdowns and frustrations are discussed within of few days of their occurrence, and no one is on edge that bad news is coming at their end of their vacation.

The key to being effective at giving feedback is to give feedback regularly. Short, frequent feedback conversations are much more effective than infrequent, long conversations that everyone dreads and leaves feeling exhausted and demoralized.

Debrief everything meaningful. Meet with people weekly. Ask for and give feedback as things happen and watch your culture change.

### About [Shari Harley](#)

Shari Harley is the founder and President of Candid Culture, a Denver-based training firm that is bringing candor back to the workplace, making it easier to give feedback at work. Shari is the author of the business communication book *How to Say Anything to Anyone: A Guide to Building Business Relationships that Really Work*. She is a keynote speaker at conferences and does training throughout the U.S. Learn more about Shari Harley and Candid Culture’s training programs at [www.candidculture.com](http://www.candidculture.com).

## Handling Research Paper Reviews Effectively

**IEEE SE Michigan Computer Society & Education Society Chapters**

Presents:

**Handling Research Paper Reviews Effectively**

Research paper writing is an important part of conveying the results of one's own research to the technical community and getting the paper accepted in reputed journals is a difficult task. It is both an art and science. The most important part of the review process is to answer properly the reviewer's questions in the first review as most of the papers generally get into a major revision process.

Based on the speaker's experience in both academia and R&D over 50 years, the speaker will present important ways of handling and writing replies to the reviewer's comments properly in a step by step approach. The lecture will be highly interactive, and the participants are expected to share their experiences in writing replies to the reviewers and become enlightened of the right ways of handling the reviewer's comments.

Speaker:

Professor N Sundararajan (retired), IEEE Life Fellow  
Nanyang Technological University, Singapore

**\*Pre-Registration Required!**

<https://events.vtools.ieee.org/m/297305>



**IEEE Southeastern Michigan Section**

Credit: Photos by Convert Kit & Med Badr Chemmaoui on Unsplash \*

## At Glance

- **When:**  
Date: Jan 27<sup>th</sup>, 2022  
Time: 07:00 – 8:00 PM  
(EST/EDT)
- **Where:**  
Online via Webex (to be shared only after you have a confirmed registration)
- **Audience: OPEN to ALL\***

*Sponsored by*  
**IEEE**  
**SE Michigan**  
**Computer Society**  
**&**  
**Education Society**  
**Chapters**



## Supercomputing 21 report

**IEEE SE Michigan Computer Society Chapter  
Presents  
“Supercomputing Conference SC21 report”**



Since it started in 1988, Supercomputing (SCxy), has been known as one of the HPC industry’s leading conferences on high-performance computing ecosystem and all related integrated domains. In the last few years, many advances have been made in the field of High-Performance Computing. This talk will highlight many of these advances, as reported at the recent Supercomputing 2021 conference, held in a hybrid+virtual mode for the first time in St Louis, Missouri (MO), USA. At SC21, there were many workshops, tutorials, papers, panels, and different technology presentations, all showing how HPC is pushing the envelope on many fronts, resulting in the evolution (and occasionally revolution) in computing techniques, applications hardware choices.

#### Speaker Bio:

Sharan Kalwani is an industry technology specialist with 25+ years of experience. He has worked in many diverse areas and is a sought-after speaker at many a diverse conference and seminars. Sharan is a senior member of IEEE-Computer Society, IEEE-Education Society and Vehicle Tech Society, an Emeritus member of Michigan!UNIX/user group (mug.org) the oldest of the \*nix user groups based in Michigan (1985), member of Association for Computing Machinery (ACM) and also leads the SIG-Linux section of SEMCO. He enjoys teaching, holds an Adjunct Faculty position at several educational sites. He has published one book and is now working on his second. He is a recipient of the IEEE MGA Achievement award for his contributions to IEEE activities in 2018. Recently in 2021 he was honored with the 2021 Jack Sherman Outstanding member award



#### At Glance

- **When:**  
Date: January 25<sup>th</sup>, 2022  
Time: 06:00 – 7:30 PM (EST/EDT)
- **Where:**  
Online via Webex (to be shared only after you have a confirmed registration)
- **Audience: OPEN to ALL\***

**Sponsored by  
IEEE  
SE Michigan  
Computer Society,  
& Education Society  
Chapters**

**\*Pre-Registration Required!**

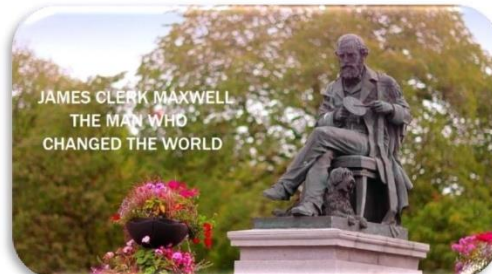
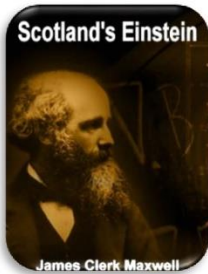
<https://events.vtools.ieee.org/m/287365>

IEEE Southeastern Michigan Section



## James Maxwell Movie

**IEEE SE Michigan Computer Society  
Presents A Video Documentary on  
The life of James Clerk Maxwell**



James Clerk Maxwell is responsible for many of things that dominate the modern world. He is the man who inspired Albert Einstein and his discoveries helped in the development of electricity, radio, television and so much more. Many physicists regard Maxwell as the 19th-century scientist having the greatest influence on 20th-century physics. His contributions to the science are considered by many to be of the same magnitude as those of Isaac Newton and Albert Einstein. Despite this Maxwell remains largely unknown to the general mainstream population.

He used his genius to work across a wide range of subjects in the 19th century - astronomy, physiology, color, optics, thermodynamics, electricity and magnetism - and changed many of them to the next level.

*Running time: 59 minutes*

## At Glance

- **When:**  
Date: January 11<sup>th</sup>, 2022  
Time: 04:00 – 6:00 PM  
(EST/EDT)
- **Where:**  
Online via Webex (to be shared only after you have a confirmed registration)
- **Audience: OPEN to ALL\***

*Sponsored by  
IEEE  
SE Michigan  
Computer Society  
&  
Education Society  
Chapters*

**\*Pre-Registration Required!**

<https://events.vtools.ieee.org/m/286356>



**IEEE Southeastern Michigan Section**



## ORG UNITS cheat sheet

**Section Unit Name or Affinity Group or Chapter Name (Organizational Unit is in parentheses)**

Consultants Network Affinity Group:	(CN40035)
Life Members:	(LM40035)
Young Professionals:	(YP40035)
Women in Engineering:	(WE40035)
Chapter: 01 (CH04049) (SP01)	Signal Processing Society, (CAS04) Circuits and Systems Society and (IT12) Information Theory Society
Chapter: 02 (CH04051) (VT06)	Vehicular Technology Society
Chapter: 03 (CH04053) (AES10)	Aerospace and Electronic Systems Society and (COM19) Communications Society
Chapter: 04 (CH04050) (AP03)	Antennas and Propagation Society, (ED15) Electron Devices Society, (MTT17) Microwave Theory and Techniques Society,
Chapter: 05 (CH04055) (C16)	Computer Society
Chapter: 06 (CH04056) (GRS29)	Geosciences and Remote Sensing Society
Chapter: 07 (CH04057) (PE31)	Power Engineering Society, (IA34) Industrial Applications Society
Chapter: 08 (CH04088) (EMC27)	Electromagnetic Compatibility Society
Chapter: 09 (CH04087) (IE13)	Industrial Electronics Society, (PEL35) Power Electronics Society
Chapter: 10 (CH04142) (TEM14)	Technology and Engineering Management Society
Chapter: 11 (CH04099) (EMB18)	Engineering in Medicine & Biology
Chapter: 12 (CH04103) (CS23)	Control Systems Society
Chapter: 13 (CH04113) (E25)	Education Society
Chapter: 14 (CH04115) (RA24)	Robotics And Automation Society
Chapter: 15 (CH04144) (NPS05)	Nuclear Plasma Sciences Society
Chapter: 16 (CH04125) (CIS11)	Computational Intelligence Society, (SMC28) Systems, Man and Cybernetics Society
Chapter: 17 (CH04128) (NANO42)	Nanotechnology Council

**Section Unit Name or Affinity Group or Chapter Name (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)

Useful when searching the vtools page for entering L31s or creating new events or searching for existing events!

**Curated & Maintained By**

**Sharan Kalwani,**  
**Chair, IEEE SE Michigan Education Society Chapter**  
**Vice-Chair, IEEE SE Michigan Computer Society Chapter**  
**Editor, Wavelengths,**  
**2018~2019~2020~2021~2022**

## Activities & 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 located at <http://r4.ieee.org/sem/>**

### SEM Wavelengths:

<https://r4.ieee.org/sem/about-sem/sem-history/wavelengths-magazine-archive/>

### SEM Calendar of events:

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

Select “SEM Calendar” button in the top row of the website. 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 Collabratec Workspace:

<https://ieee-collabratec.ieee.org/app/workspaces/5979/IEEE-Southeastern-Michigan-Section/activities>

An IEEE supported space for online chat, discussions, connecting with other global IEEE entities, besides our local Michigan folks.

### vTools Meetings:

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

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

## Other Happenings

Here are some of the non-IEEE functions 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. **NOTE: You may need to copy the URL and paste it into your browser address bar.**

Send details to: [wavelengths@ieee-sem.org](mailto:wavelengths@ieee-sem.org) OR [letters@ieee-sem.org](mailto:letters@ieee-sem.org)

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**Michigan Institute for Plasma Science and Engineering:** Seminars for the 2021-2022 academic year:

[https://mipse.umich.edu/seminars\\_2122.php](https://mipse.umich.edu/seminars_2122.php)

### Model RC Aircraft

<http://www.skymasters.org>

### Model Rocketry

<https://www.nar.org/find-a-local-club/nar-club-locator/>

### 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

<https://www.robofest.net/index.php/about/contact-us>

### Science Fiction Conventions

<https://2021.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 2019/2020/2021/2022 arrangement of communications links designed to provide inter-unit coordination and collaboration.

The SEM Executive Committee meets in a teleconference each month on usually on a Thursday at 6:30 pm. 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 **Bhupinder Mavi**, the section secretary at: [bmavi@outlook.com](mailto:bmavi@outlook.com), 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.

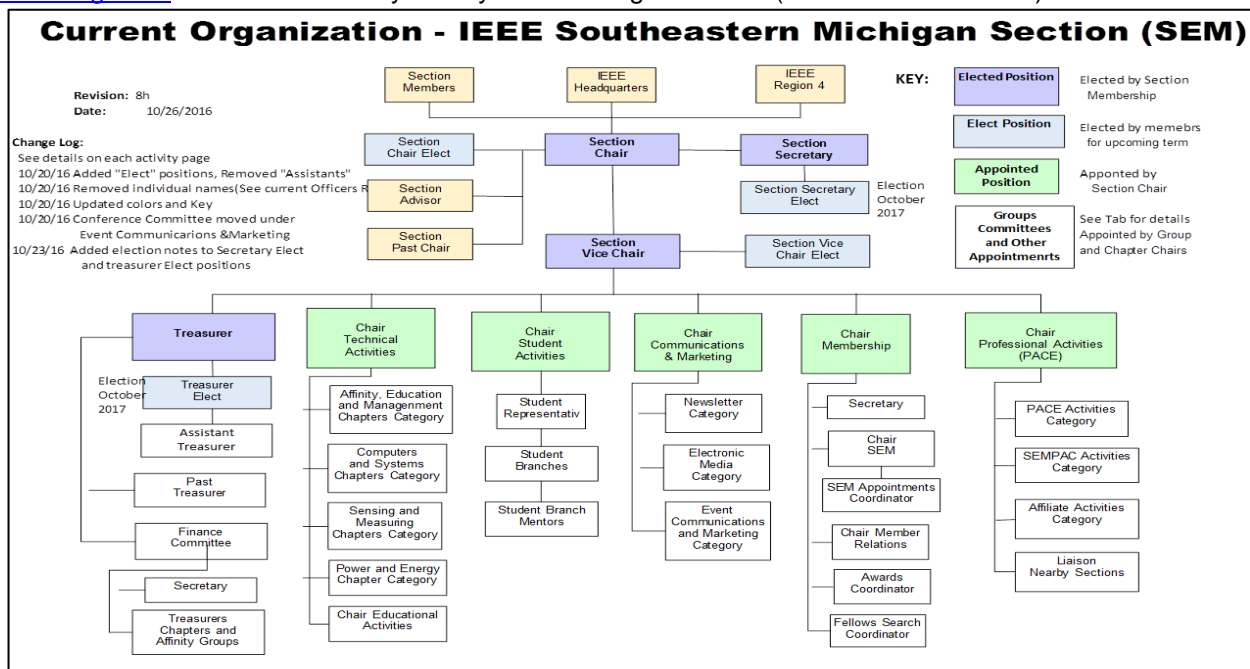
However, members of the section may have multiple technical interests and would like to have meeting information of other chapters. In order to communicate the meeting dates of all the chapters, affinity groups etc., to our members to facilitate their attendance, leaders of the groups are requested to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

**Bhupinder Mavi** - SEM Secretary 2021

If you wish to download the complete SEM Organization Chart, in PDF format, it will be made available soon at <http://r4.ieee.org/sem/> . In the meantime you may use the diagram below (soon to be refreshed!)





## ExCom Meeting Schedule

**NOTE: All SEM members are invited to attend ALL ExCom (executive committee) meetings:**

Below is the 2022 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. Please mark your calendars for the 2022 meetings. Or, link your personal calendar to the SEM Web calendar.

### Section Administrative Committee (ExCom) Meeting Schedule for 2022:

**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**.

<i>ExCom Meeting</i>	<i>Date &amp; Time</i>
<b>Jan 13,2022 New Officers Meet and Greet for 2022 meeting (Teleconference)</b> <a href="https://events.vtools.ieee.org/m/289865">https://events.vtools.ieee.org/m/289865</a>	<b>6:30 PM</b>
Feb 10,2022 - SEM Section ExCom Monthly Meeting (Teleconference) for February 2022 <a href="https://events.vtools.ieee.org/m/289866">https://events.vtools.ieee.org/m/289866</a>	6:30 PM
March 03,2022 - SEM Section ExCom Monthly Meeting (Teleconference) for March 2022 <a href="https://events.vtools.ieee.org/m/289867">https://events.vtools.ieee.org/m/289867</a>	6:30 PM
April 07,2022 - SEM Section ExCom Monthly Meeting (Teleconference) for April 2022 <a href="https://events.vtools.ieee.org/m/289868">https://events.vtools.ieee.org/m/289868</a>	6:30 PM
May 05,2022 - SEM Section ExCom Monthly Meeting (Teleconference) for May 2022 <a href="https://events.vtools.ieee.org/m/289869">https://events.vtools.ieee.org/m/289869</a>	6:30 PM
June 02,2022 - SEM Section ExCom Monthly Meeting (Teleconference) for June 2022 <a href="https://events.vtools.ieee.org/m/289870">https://events.vtools.ieee.org/m/289870</a>	6:30 PM
July 07,2022 - SEM Section ExCom Monthly Meeting (Teleconference) for July 2022 <a href="https://events.vtools.ieee.org/m/289871">https://events.vtools.ieee.org/m/289871</a>	6:30 PM
August 04,2022 - SEM Section ExCom Monthly Meeting (Teleconference) for August 2022 <a href="https://events.vtools.ieee.org/m/289872">https://events.vtools.ieee.org/m/289872</a>	6:30 PM
Sept 01,2022 - SEM Section ExCom Monthly Meeting (Teleconference) for September 2022 <a href="https://events.vtools.ieee.org/m/289873">https://events.vtools.ieee.org/m/289873</a>	6:30 PM
October 06,2022 - SEM Section ExCom Monthly Meeting (Teleconference) for October 2022 <a href="https://events.vtools.ieee.org/m/289875">https://events.vtools.ieee.org/m/289875</a>	6:30 PM
Nov 03,2022 - SEM Section ExCom Monthly Meeting (Teleconference) for November 2022 <a href="https://events.vtools.ieee.org/m/289876">https://events.vtools.ieee.org/m/289876</a>	6:30 PM
Dec 01,2022 - SEM Section ExCom Monthly Meeting (Teleconference) for December 2022 <a href="https://events.vtools.ieee.org/m/289877">https://events.vtools.ieee.org/m/289877</a>	6:30 PM

**Bhupinder Mavi**  
SEM Secretary 2021  
[bmavi@outlook.com](mailto:bmavi@outlook.com)

**Editorial 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](mailto:wavelengths@ieee-sem.org)

OR

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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.

*We always encourage all chapters and student branches to share news of activities (both past and future) in their arenas. Please feel free to share any and all information so your peers, colleagues can hear about all the good work you do.*

Quote:

*“If a tree falls in a forest and no one hears it, how do you know it actually fell??”*

**So, publicize your work, one never knows when it can pay off!**

**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.

**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](mailto:wavelengths@ieee-sem.org)

**Sharan Kalwani,**  
**Chair, IEEE SE Michigan Education Society Chapter**  
**Vice-Chair, IEEE SE Michigan Computer Society Chapter**  
**Co-Editor, Wavelengths,**  
**2018~2019~2020~2021~2022**

*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	New Year Officers	Officer's Welcome	The Year Ahead	
Feb	Cons	2		MSU	Science Fair Judges	National Engrs Wk.	Surviving Winter	
Mar		3	13	EMU	Elections - Prep			
Apr		4		U/M-D		ESD Gold Awards	Chapter Focus	
May	Life	5	14			Science Fair		
Jun		6					Leadership Skills	
Jul		7	15				Students Issues	
Aug	WIE	8			Nominations Call		Womens Issues	
Sep		9	16	LTU	Ballots	Engineers Day?	Professional Skills	
Oct		10		U/M-AA	Elections!	IEEE Day		
Nov	YP	11	17	WSU	Election Results	New Fellows		
Dec		12		U/D-M	IEEE-Com Apmts.		Happy Holidays	R4 Nom

*Wavelengths Annual Publication Plan for Personal Profiles*

Month	Profiles	Profiles	Committees
Jan	Chair	New Officers	ExCom
Feb	Treasurer		Communications
Mar	Secretary		Conference
Apr	Stud-Rep		Education
May	V-Chair		Executive
Jun	Sect-Adviser		Finance
Jul	Sr Officers		Membership
Aug			Nominations
Sep			PACE
Oct			Student Activiies
Nov			Technical Activiies
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 Twitter Account (new)

(Select the “” button under the top row)  
Or try <https://www.twitter.com/ieeesemich>

### SEM Collabratec Workspace (new)

<https://iee-collabratec.ieee.org/app/workspaces/5979/IEEE-Southeastern-Michigan-Section/activities>

### 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 “Organization Roster”

### Section Officers

#### Section Chair

Sharan Kalwani

#### Section Vice-Chair

Mohammad Berri

#### Section Secretary

Bhupinder Mavi

#### Section Treasurer

Colleen Chmielewski

### Standing Committees:

#### Section Adviser

Don Bramlett

#### Wavelengths Co-Editors

Sharan Kalwani, Kimball Williams, Akio Fujimaki, Nilesh Dudhaia, Chris Johnson

#### Chair Educational

Christopher Guirlanda

#### Chair Finance

Sharan Kalwani

#### Chair Membership Development

Sharan Kalwani

#### Chair Nominations & Appointments

Kimball Williams

#### Chair PACE

Sharan Kalwani

#### Chair Student Activities

Mel Chi

#### Student Communications Coordinator

Michael Anthony

#### Student Representative Open!

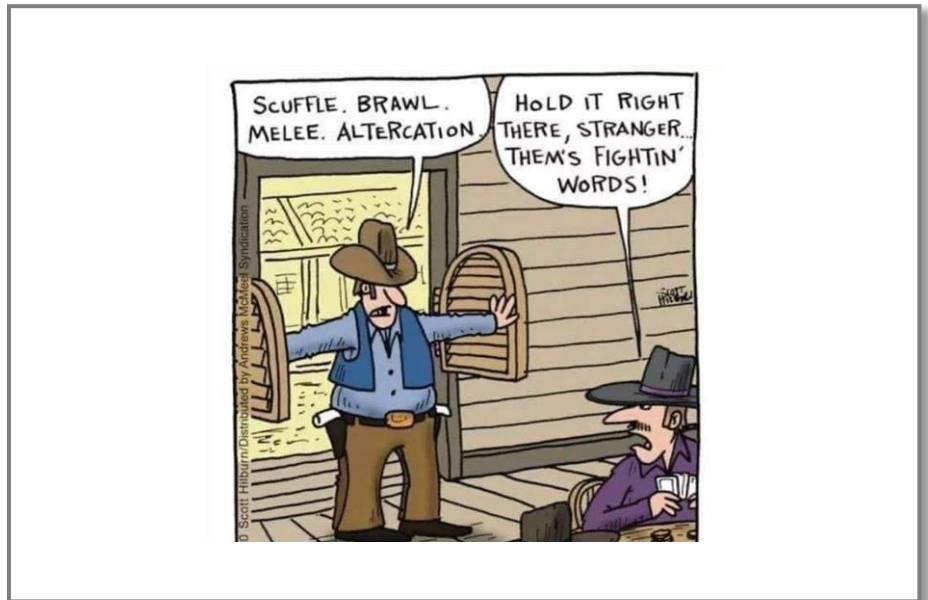
#### Chair Technical Activities

Jeffery Mosley



IEEE Southeastern Michigan

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



### Advertising Rates

SEM Website & Newsletter

### Leadership Meetings

#### SEM Executive Committee Monthly Teleconferences:

- 1<sup>st</sup> 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:  
<http://bit.ly/sem-ieee>

#### 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:  
<http://bit.ly/sem-upcoming>