Wavelengths



Volume 64 – Issue 6

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Upcoming Events

We have several events coming up this month, all are listed below, FYI. Note: All times are EST/EDT. If any events are missed do kindly bring them to the attention of <u>wavelengths@ieee-sem.org</u>. Enjoy! You can also use this bookmark to view All of the links at a single glance <u>http://bit.ly/sem-upcoming</u>

Event	Date	Time
Senior Elevation (IN person)	01 June 2024	1000 hrs
Computer Society Chapter Monthly Admin meeting	03 June 2024	1930 hrs
AVS Michigan 42 nd Symposium	05 June 2024	0900 hrs
TEMS ExCom Monthly meeting	05 June 2024	1830 hrs
Magnetoelastic Coupling Talk: Magnetics Chapter	06 June 2024	1800 hrs
Magnetics Chapter Admin meeting	06 June 2024	1900 hrs
Life Members AG Admin meeting	10 June 2024	1200 hrs
Standard to minimize misuse of technology for coercive control	11 June 2024	1300 hrs
Section Monthly ExCom meeting (In person)	13 June 2024	1830 hrs
Power Electronics Monthly Admin meeting	14 June 2024	1530 hrs
Why Software Fails and AI cannot help	20 June 2024	1600 hrs
Impact of EVs on AM radio	20 June 2024	1730 hrs
Young professionals DL talk: Advice for Young Researchers	27 June 2024	1200 hrs



Chair's Column

What to look forward to this month of June:

- ✓ We are now more or less into summer and despite the ups and downs of our local weather, we remain active events happening all the time. When we look back at the month of May, we had a total of 16 technical reported events (compared to 24 in April), What stood out is how our events are attracting the keen interests of other sections and regions! think all of our Southeastern Michigan community should be proud of this and step forward to continue raising the profile of the section and its various chapters. See the graphic charts on our YTD performance and in the TACom report.
- ✓ We recently hosted many more Distinguished speakers this time the topics were on Cubic Boron Arsenide and Spintronics. It was attended by over 35 persons, with lots of Q&A. Let me know if you wish for a copy.
- SAVE THE DATE (2024-09-21)! The IEEE is now 140 years old. We have an active volunteer planning committee going. The venue has been decided it is the Wright Museum of African American History in Detroit, Michigan. You can look up details about this at https://thewright.org. We are still open to other ideas on the celebration program. We have invited several IEEE leaders and a speaker from the IEEE History center. They will share a lot about the IEEE and our contributions to society. We will have at least 1 distinguished talk by a leading Michigan leader, member awards and recognition, a sumptuous dinner, museum tour and memorable eclectic entertainment. Send your suggestions/ideas/emails to 140@ieee-sem.org

Volunteering:

✓ We, IEEE Southeastern Michigan Section, function based on the work of our volunteers. If someone has important obligations that reduce their ability to volunteer, other volunteers need to step in and carry the load. The more volunteers we have, the easier the workload on everyone. Please volunteer, you will find the experience interesting and rewarding.

What to look forward to:

- ✓ We have a ton of activities planned in JUNE (14 all inclusive, at last count...).
- ✓ Look for the flyers in this issue, but to list a few:
- ✓ AVS Michigan Symposium at Wayne State University
- ✓ Magnetics Chapter kick off their seminar series as well as their
- ✓ Global Microwave Magnetics conference at Oakland University
- ✓ Distinguished Speaker from Carnegie Mellon University Dr David Fisher on why AI cannot help software failures
- ✓ Several highly acclaimed documentaries (with a few new ones too!):
 - Rachel Carson Author of Silent Spring

You can find ALL the other upcoming events using the short URL link: https://bit.ly/sem-upcoming

Remember – every little bit helps, and the Section is here to help! If you have not taken the opportunity, do reach out to any of the Section officers (lifelong email contacts listed below). Who knows what unknown but immense value you may discover, by simply connecting with us. A possible membership annual rate discount, OR an upcoming soft skills event OR need of a professional member for a technical person resource OR opportunity to participate in a standards making process OR a chance to mentor a young graduate student in a domain badly needed in our section of the world OR network with a book publisher OR....the possibilities are limited only by your enthusiasm.

Finally, I ask you to help share news about our IEEE Section to fellow engineers. This will help us fulfill the mission and goals, which is to use technology to help society. Do help us gain more visibility – word of mouth, invitations to our tech events, skills, join as members, post our events to your social media feeds, etc.

Also of note – we take a great deal of interest in our members welfare. The <u> 3^{rd} senior member elevation</u> event is taking place soon (June 1 at Oakland University). See the flyer in this issue. <u>Note we will be timing these 3 weeks before each</u> <u>A&A panel meeting.</u>

[IEEE SOUTHEASTERN MICHIGAN – WAVELENGTHS]

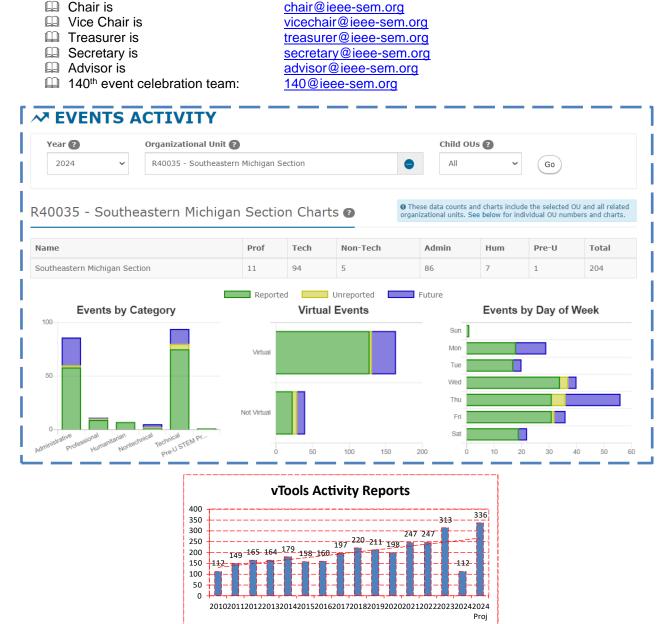
I look forward to hearing from you and seeing you at our events. As always, your ideas and suggestions are encouraged and welcome. If I don't hear back (good or bad) I will assume all is well 😊



Sharan Kalwani Via email: <u>chair@ieee-sem.org</u> Section members are encouraged to engage using <u>any</u> of these online platforms:



To reach any of our SECTION officers, for any help/assistance you seek you may try these easy to remember email addresses. The objective is to ensure business continuity, so one need not try to remember or hunt for the contact information! They can help you find your chapter officers or point you in the right direction for any query. They are:



Events tracking (YTD)

Tech Activities REPORT

			2	2024 IEEE SE Michigan Section Geo-unit Status (Till May 29 th)								
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	0	0	0	0	1	0	Consultants Network	0	1			
LIFE	0	0	1	5	0	0	Life Members	1	6			
WIE	29	21	2	5	1	0	Women In Engineering	0	8			
YP	0	0	0	4	0	0	Young Professionals	0	4			
1	0	0	0	2	0	0	Circuits & Systems, Signal Proc., Info Th.	0	2			
2	151	26	3	3	0	0	Vehicular Technology	0	6			
3	0	0	0	0	0	0	Aerospace & Elec. Sys., Communications	0	0			
4	29	0	5	0	0	0	Trident (Ant, Elect Dev., uWave, Photo)	0	5			
5	57	6	29	4	4	4	Computers	1	41			
6	19	1	3	0	0	0	0 Geoscience & Remote Sensing		3			
7	55	2	2	4	0	1	1 Power Engineering, Industrial App.		7			
8	34	13	7	5	0	0	0 Electromagnetic Compatibility (EMC)		12			
9	54	0	2	4	0	0	0 Power Electronics, Industrial Electronics 0		6			
10	2	1	2	3	0	0	0 Engineering Management 1 5		5			
11	0	0	0	2	0	0			2			
12	16	2	1	1	0	0	Control Systems	0	2			
13	0	0	0	0	0	0	Education	0	0			
14	9	0	1	1	0	1	Robotics & Automation	0	3			
15	29	0	5	0	0	0	Nuclear Plasma Science Society	0	5			
16	0	0	0	0	1	0	0 Computational Intelligence / Sys.Man.Cyber. 0		1			
17	16	1	2	0	0	1 Nano Technology Council 0 3		3				
18	0	0	0	1	0	0 Magnetics Society 0 1		1				
SEM	26	18	3	15	2	2	SEM (Section)	2	22			
Tot	524	90	68	59	9	9	NOTE: Highlight Green = Active	10	145			
		17%			-	-	NOTE: Highlight clear = Concern					

SEM Section Chapter and Affinity group leaders who are not showing any technical or administrative meetings are encouraged to reach out to the TAcom for assistance. We are in a new year within the Section where we plan to exceed our projections for technical meetings hosted for our membership. Thanks to all GAs working to engage their membership.

V/r Jeffery V. Mosley

Chair, Technical Activities Committee (TAcom) jvmosley@ieee.org Southeastern Michigan Section, IEEE Region 4

This Month in June

Or: Notable Events in Engineering & Science History, which I Did Not Know! ©



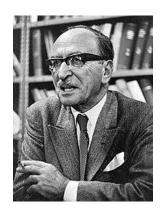
Konrad Zuse; Born 22 June, 1910; died 18 December, 1995.

Award-winning German computer scientist Konrad Zuse created the world's first programcontrolled computer, named Z1. He then moved on to Z3, the first fully functional programmable computer in the world, and Z4, the first commercial digital computer in the world. Post-retirement, he spent most of his time painting.



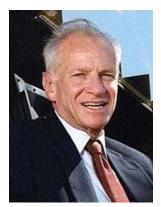
Frank Whittle; Born 1 June, 1907; died 9 August, 1996

Aviation engineer Frank Whittle entered the **Royal Air Force** as an apprentice and rose through the ranks to become a pilot. He invented the jet engine, though his idea of a plane that could fly at a phenomenal speed was initially laughed at. He was later *knighted* for his achievements.



Dennis Gabor; Born 5 June, 1900; died 8 February, 1979.

Dennis Gabor was a Hungarian-British physicist and electrical engineer best remembered for inventing holography. His invention earned him the prestigious *Nobel Prize in Physics* in 1971. Gabor won several awards during his lifetime. After his demise, many awards are given in his honor. The *Dennis Gabor Award* and *Gabor Medal* are some of the awards that are named after him.



Ben Rich; Born 18 June, 1925; died 5 January 1995

Benjamin Robert Rich (June 18, 1925 – January 5, 1995) was an American engineer and the second Director of Lockheed's Skunk Works from 1975 to 1991, succeeding its founder, Kelly Johnson. Regarded as the "father of stealth", Rich was responsible for leading the development of the F-117, the first production stealth aircraft. He also worked on the F-104, U-2, A-12, SR-71, and F-22, among others.

[IEEE SOUTHEASTERN MICHIGAN – WAVELENGTHS]

Burt Rutan; Born 17 June, 1943;

Burt Rutan is an American former entrepreneur and aerospace engineer. He is best known for his ability to make strong, light, energy-efficient, and unusual-looking air and space craft. Burt Rutan is credited with designing historically significant aircrafts like the *Virgin Atlantic Global Flyer*, which set the world record for the longest and fastest nonstop circumnavigation flight in history.



Henry Joseph Round; Born 2 Jun 1881; died 17 Aug 1966 at age 85.

English electronics engineer whose numerous inventions contributed to the development of radio communications. He joined the Marconi Company in 1902, and for his earliest work he devised the elements of direction-finding equipment. Round became Chief of Marconi Research in 1921. He was a prolific inventor. Amongst other inventions he designed the Straight Eight Gramophone Recording System, a large audience public address system which was used to relay King George's speech at the Wembley Exhibitions. A talking picture system he invented was used to record sound on to film during the 1930's cinema boom. In total he produced 117 patents. The last was "Pressure Wave Transmission Arrangements" (1964), at age 83.



Alan Dower Blumlein; Born 29 Jun 1903; died 6 Jun 1942 at age 38

British electronics engineer whose 128 patents contributed greatly in a wide field of electronics, including mono and stereo sound reproduction and sound recording, as well as high-definition radar, telephony and electrical measurements. His profuse creativity was achieved within just 18 years, because he died at age only 38 (while flight-testing a radar project during WW II). He began working in 1924 for International Western Electric Co., and by 1929 was with Columbia Gramophone Co. which became EMI (1931) where he invented the stereophonic recording system. Although a few stereo recordings were made in the 1930's, EMI did not extensively develop the technology until the 1950's, when it built on Blumlein's work.



Frederick Emmons Terman; Born 7 Jun 1900; died 19 Dec 1982 at age 82.

American electrical engineer whose research during WW II produced valuable radar countermeasures for the allied forces. He directed the Radio Research Laboratory at Harvard University formed for the purpose of inventing jammers of enemy radar, which included active radio transmitters, passive chaff (aluminum strips to mask targets by producing invalid reflections to enemy radar), and tunable receivers to detect radar signals. Terman also had responsibility for advising industrial contractors (such as RCA, GE, and Western Electric) concerning their manufacture. The radio electronics textbooks were popular because of his clarity. After the war, Terman worked on the design of long-distance electrical transmission and resonant transmission lines.



Tim Berners-Lee; Born 8 Jun 1955.

English computer scientist who invented the World Wide Web and director of the World Wide Web Consortium, which oversees its continued development. In 1984, he took up a fellowship at CERN, to work on distributed real-time systems for scientific data acquisition and system control. While there, he proposed (1989) a global hypertext project, to be known as the World Wide Web, which permitted people to collaborate by sharing knowledge in a web of hypertext documents. On 6 Aug 1991, the first World Wide Web site was made available to the Internet at large, giving information on a browser and how to set up a Web server. He then expanded its reach, always nonprofit, to become an international mass medium.

[IEEE SOUTHEASTERN MICHIGAN – WAVELENGTHS]



Charles-Augustin Coulomb; Born 14 Jun 1736; died 23 Aug 1806 at age 70. French physicist best known for the formulation of Coulomb's law, which states that the force between two electrical charges is proportional to the product of the charges and inversely proportional to the square of the distance between them. Coulombic force is one of the principal forces involved in atomic reactions. The inverse-square relationship is also seen in the relationship of the gravitation force between masses. In 1777, he invented a torsion balance which he subsequently modified for electrical measurements. He also did research on friction of machinery, on windmills, and on the elasticity of metal and silk fibers. Once he was asked to report on the feasibility of a navigable canal. Through his research he concluded that the proposed plan was too expensive—this angered the

French bureaucracy and he was penalized. Knowing that he was right, he felt disappointed with the French government and decided to invest his efforts in the study of physics instead.

This continues the yearlong feature of interesting *engineering* events or milestones that occurred in a specific month. Readers are invited to share their views and opinions (or suggestions) at the accompanying link. Submissions can also be made using direct email to the editors at: <u>wavelengths@ieee-sem.org.</u>

Past readers have asked to feature one or more of these events in more detail. So, starting in January 2024, we have been featuring both documentaries and black & white movies, that will help shed more light on these luminaries and also explore the hidden side of their life stories. We will also endeavor to republish an article from various publications in the same month of Wavelengths.

Here is a <u>link</u> which lists all of the documentaries featuring several of the folks mentioned in past *"This month...."* series. Enjoy!

Sharan Kalwani

2022-2024 Chair, Southeastern Michigan Section, Passionate Engineering History Buff/Aficionado

RoboFest 2024 Report

IEEE SEM Sponsored Robofest World Championship 2024 Report

By CJ Chung

More than 500 students on nearly 100 teams from all over the world competed on May 9-11, at Lawrence Technological University in the 25th annual Robofest World Championship, an autonomous robotics competition sponsored by IEEE since 2004. This was also the 25th anniversary of this global event.

The goals of the Robofest program are to:

(1) generate excitement and interest among young people for Science, Technology, Engineering, and Mathematics (STEM),

(2) develop essential skills such as teamwork, leadership, creativity, communication and problem solving, and

(3) prepare students to excel in higher education and engineering careers.

Teams from Ghana, Hong Kong, Jordan, Mexico, Taiwan, with Michigan and Florida in the United States took home trophies for top spots in several competitions.

Picture 2 shows all the world championship participants who received IEEE SEM medals (See Picture 1). Picture 3 shows over 700 people in the gym when Dean Nelson gave the opening remarks. Picture 4 shows a picture of IEEE SEM Section Chair Sharan Kalwani, one of the Judges, who addressed the gathering during the introduction of Judges.

IEEE SEM Robotics & Automation Society technical chapter Vice-Chair, Victor Manske, also spoke during the opening ceremony (Picture 5). Picture 6 shows seven IEEE members who served as Judges for Jr. and Sr. Exhibition competitions. Other IEEE members served as Judges include Benancio Gonzalez, Hao Jiang. IEEE members who came from New York and other places had a chance to take pictures under the IEEE banner (Picture 7). IEEE SEM Section Chair, Sharan Kalwani received on behalf of the section, a plaque of appreciation from LTU during the closing ceremony (Picture 8)

The complete list of winners and a link to official photos are posted on the World Championship page on the Robofest website. <u>https://www.robofest.net/index.php/world-championship-sp-446</u>



Picture 1. IEEE SEM Medal for Robofest World Championship 2024



Picture 2. Robofest World Championship Contestants who received IEEE SEM medals.



Picture 3. Robofest World Championship 2023 Opening ceremony

[IEEE SOUTHEASTERN MICHIGAN – WAVELENGTHS]



Picture 4. IEEE SEM Section Chair, Sharan Kalwani, speaks during the opening ceremony

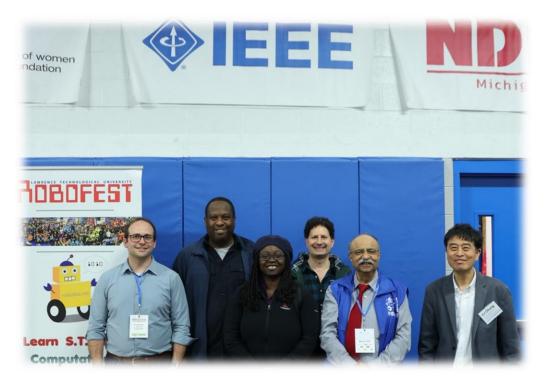


Picture 5. IEEE SEM Robotics & Automation Society Vice-Chair, Victor Manske, speaks during the opening ceremony

[IEEE SOUTHEASTERN MICHIGAN – WAVELENGTHS]



Picture 6. IEEE members who served as Judges (Left to right: Josh Siegel, Jonathan Berent, Victor Manske, Sharan Kalwani, George Pappas, Eric Martinson, CJ Chung; missing were Benancio Gonzalez, Hao Jiang, Kevin Taylor)



Picture 7. IEEE members who came from New York and other places.

[IEEE SOUTHEASTERN MICHIGAN – WAVELENGTHS]



Picture 8. IEEE SEM Section Chair, Sharan Kalwani, on behalf of the Section, received a plaque of appreciation from LTU during the closing ceremony.

You can find more pictures at the following Photo Album link: <u>https://photos.app.goo.gl/Pax3iC1BSFu7MDH37</u>

Elections 2024

We send an eNotice, and an article in the newsletter, to all our Section members in advance of our yearly elections. IEEE MGA requires us to notify all eligible voters 6 months before an election is planned, and this announcement was designed to satisfy that requirement.

This year's schedule is planned as follows:

- Call for nominations: September 9 30
- Completion of Ballots: October 15
- Ballots out for vote: October 17 31.
- Compile and reconcile results: November 15
- Report results to the ExCom at the December ExCom meeting.

This year we will elect our 2025 set of officers for all Geo-units (Affinity Groups & Technical Chapters). Those officers include the Chair / Vice-Chair / Secretary / Treasurer.

Links to most Job Descriptions may be found on the Volunteer Portal at: <u>https://r4.ieee.org/sem/aboutsem/volunteer-portal/</u>.

Links to the Affinity Groups and to the Chapters may be found at: https://r4.ieee.org/sem/aboutsem/sem-chapters/

Note: Student Branches and HKN Chapters elect their officers on their individual schedules independently on their own.

Direct questions to: K.williams@ieee.org

Officer Training

We encourage members who are considering running for an officer position to take advantage of the 'Training Materials' available on the IEEE SEM Website at: <u>https://r4.ieee.org/sem/aboutsem/training/</u>

<u>FREE Voice over Power Point Training</u>: On-line virtual training modules are available through the SEM Website Training page. These videos will play directly and immediately from Google Chrome browser. They may not work well using Internet Explorer.

Turn OFF your pop up blocker if you don't see it load or download.

Blank Titles (Links) are in development.

(If you wish to rewind sections and play again, we suggest you download the module to your computer and play it using your systems 'media player'.)

Note: If you are beginning training, we recommend starting with Module # 46: Virtual Training Plan, and follow its recommendations for the training sequence. Send Questions about these Training Modules to: Virtual_Training_QA_Forum@googlegroups.com

Please also see the notice detailing ongoing Officer Training on the next page.

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Volunteer/Officer Training



If you missed any sessions – contact us and we can share the slides and video recording links. **NOTE**: All the training, and all the governance meetings are open to all IEEE Members at all grades.

Senior Elevation EVENT

IEEE Southeastern Michigan Section Presents "Senior Membership Elevation 3rd Round Up"





IEEE Southeastern Michigan Section will reprise its Senior Member Round up event, on June 1st, 2024, between 10 AM and 12 noon. Senior Member Reviewers will assist interested member candidates with significant years of experience in their profession.

The way it works is:

- At least 10 years of significant experience with bachelor's degree needs be established to initiate the senior membership elevation.
- If you have a Master's, that is equivalent to 2 years of significant experience. So, you will need 8 additional years to qualify.
- If you have a PhD degree that is 5 years of significant experience, so you need 5 additional years of experience beyond that.

There is no cost to becoming a Senior Member, and this step is a necessary prelude to seeking the IEEE 'Fellow' level. Also certain positions with IEEE also require that a member have achieved senior status. For a complete description of the Senior Member process and its benefits, see the link: https://www.ieee.org/membership services/membership/grade elevation.html

Potential senior members, please register on this site for the event and be ready with copies of your resume, and relevant supporting materials (list of papers, books, patents, etc.), to share with reviewers.

Existing Senior Members are requested to also register and assist potential new members with their application processing.





At A Glance

• When:

Date: June 1st, 2024 Time: 10 to 12 noon (EST/EDT)

Where: Oakland University, EC 281

 Audience: All Eligible/Potential Members and Senior Members (references)

Sponsored by IEEE Southeastern Michigan Section Membership Development <u>https://r4.ieee.org/sem/</u>

Field Day 2024

During the weekend of <u>June 22 & 23, 2024</u> members of the Amateur Radio community will leave the comfort of their home radio stations and set up communications facilities away from the normal power grid, erect antennas and spend 24 hours making as many 'contacts' with other Amateur Radio operators as possible.

You can find where an Amateur Radio Club near you has set up a Field Day site by using the ARRL (American Radio Relay League) website below. I entered my city, state and zip code and got back a map of the areas abound my home with bubbles showing Field Day locations,

By clicking on one of the 'bubbles on the map on Livonia the text showing location of the site for K8UNS, the Livonia Amateur Radio Club (LARC), along with a contact club officer with a phone number and email appears. The same will work for other clubs Field Day sites near you. <u>http://www.arrl.org/field-day-locator</u>



Serious purpose:

This is not just an outing 'for the fun of it' but a practical test of preparedness in case an actual emergency takes out the power grid, the cell phone towers and the roads. How would the world outside the disaster area know what had happened and what help would be needed?

Time after time the Amateur Radio Service and its communications capabilities have been the lifeline between communities in dire need of assistance and the public services organizations most able to provide needed help.

Preparations for possible emergency situations is part of the "Basis and purpose" written into the Code of Federal Regulations that established the Amateur Radio Service. That statement reads, in part; "...as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.".

The Amateur Radio community takes that seriously, and Field Day is just one of many activities that continually exercise and maintain the network of links that form a world spanning communications safety net.

One of my friends in the IEEE Electromagnetic Compatibility Society, Domenico Festa, IZ2GAQ, (Now SK 'silent key') told me one of the villages in the mountains of Italy was devastated by flooding which completely isolated them for four days. During that period, the only communications in or out was by local Amateur Radio operators.

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Preparations for possible emergency situations is part of the "Basis and purpose" written into the Code of Federal Regulations that established the Amateur Radio Service. That statement reads, in part; "...as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.". The Amateur Radio community takes that seriously, and Field Day is just one of many activities that continually exercise and maintain the network of links that form a world spanning communications safety net.

An Amateur Radio operator in Texas sent me an email commenting on one of my articles in the EMC Society magazine. Robert Karon, AA6RK of Wimberley, Texas wrote:

"I've been a HAM since 1965 +- and have been involved with the hobby in many different ways over the years. Of note in terms of "service" is my rescue of a sailboat in the Caribbean for which I received a commendation from the Coast Guard and serviced many terrified people after the earthquake in the San Fernando Valley with Health and Welfare messages. Yes. Amateur Radio is fun, but it serves a vital purpose for the general welfare of the public."

When hurricanes devastated island communities in the Caribbean in recent years, the Amateur Radio bands were full of messages to and from relatives in the US finding out what condition their family members living in the islands were since the 'official' communications channels were too full of needed disaster relief messages to provide personal contact message services. This is where the Amateur Radio community continues to support the 'official' communications during an extended disaster by taking those 'health and welfare' messages off the official channels. Many family members in the US have been relieved to have news of their extended family.

[IEEE SOUTHEASTERN MICHIGAN – WAVELENGTHS]

That history, and the 'official purpose' of Amateur Radio is a major reason for the Field Day exercise each year. Another equally important is as a demonstration of capabilities to the wider general public and a community outreach. Field Day is an educational opportunity in which many Field Day sites sponsored by local Amateur Radio clubs also provide a 'GOTA' station in which licensed operators can assist interested folks to 'Get On The Air' by talking with other amateurs through their radio station at the Field Day site. As most Field Day sites visitors can also observe communications by Voice, by Morse code, by Digital, by High Frequency and Very High Frequency, and Ultra High Frequency means and if orbital conditions are right, by satellite with some of the many Amateur Radio satellites now in orbit about the earth. The Amateur Radio Operator on the International Space Station may also join in. (There is a licensed Ham on every mission to the space station.)

I hope many of you reading this will take the opportunity to visit a Field Day site this year and learn more about the Service which has become a 'Hobby' and an enjoyable avocation but still retains an keen awareness of its community support role in times of need.

73, N8FNC

[IEEE SOUTHEASTERN MICHIGAN – WAVELENGTHS]

ICCM 2024





International Conference on Microwave Magnetics

8th International Conference on Microwave Magnetics

We would like to invite you to attend the 8th International Conference on Microwave Magnetics, which will be held from Sunday, June 16 until Wednesday, June 19, 2024, at Oakland University in Rochester, Michigan, in the United States.

Abstract submission:

Please submit your abstracts electronically using the following template: <u>https://tinyurl.com/ICMM2024-template</u> The link to the submission form can be found here: <u>www.icmm2024.org/registrationsubmissions</u>

Further information can be found at the conference website: <u>www.icmm2024.org</u>

The abstract submission period begins **January 1, 2024**, and the deadline is **February 8, 2024**.

Scope of the conference:

This is the eighth ICMM conference after the success of Fort Collins (USA, 2008), Boston (USA, 2010), Kaiserslautern (Germany, 2012), Sendai (Japan, 2014), Tuscaloosa (USA, 2016), Exeter (UK, 2018), and Beijing (China, 2022). The conference will focus on new developments in all branches of fundamental and applied microwave magnetics. The technical areas covered are as follows:

- Magnetization and relaxation dynamics
- Applications in communication, sensing, and energy harvesting
- Cavity and hybrid magnonics
- Spin waves, spintronics, and nonlinear magnetic phenomena
- Microwave and millimeter wave magnetic materials and devices
- High-frequency magnetic materials and characterization
- Integrated RF and microwave magnetic devices

Features:

- Four days
- Single Session: Keynote, Invited, and Contributed talks
- Poster Session
- Social Outing at Henry Ford Museum
- Banquet Dinner at Meadowbrook Mansion

Special Notice!

If you plan to submit an abstract and/or attend the 8th ICMM 2024, please make an appointment NOW to apply for your visa to visit the U.S. This application process can take some time, so we urge you to submit your application as soon as you read this.

Send your request for a letter of invitation to: icmm2024@gmail.com

Important Dates:

Abstract submission opens: January 1, 2024

Abstract submission deadline: February 8, 2024

> Registration opens: March 1, 2024

Notification of acceptance: March 15, 2024

End of early bird registration: May 1, 2024

> Conference begins: June 16, 2024

Conference ends: June 19, 2024

For more information about the conference, please visit:





Senior Member News



The IEEE southeastern Michigan Section is extremely proud and happy to welcome the following members, who recently got upgraded to senior status. It is all part of our Membership Development on-going initiative to play a role in the professional lives of our members and support them in every which way possible. So congratulations to Naresh Ravuri, YZ, Greg Cesiel, Rick Lombardi and Saikat Dutta!

> Mohamad Berri & Sharan Kalwani. Membership Development committee



Naresh Ravuri



Naresh Ravuri's extensive experience in Automotive Embedded Software over 18 years, particularly in Automated Driving Embedded Software, positions as a key figure in the industry. With dual master's degrees in computer science engineering, one from Birla Institute of Technology and another from Acharya Nagarjuna University, with a solid academic foundation that complements his practical experience. As Senior Engineering Manager at Magna for Automotive ADAS (Advanced Driver Assistance Systems) Software , oversees critical aspects of Driver Monitoring System Software development designed to improve road safety by monitoring distracted driving and making roads safer in the interest of national benefit.

Naresh Ravuri's creation of multiple patents, with at least 3 of them published and more than 10 filed, is a testament to Ravuri's innovative contributions to the field. <u>https://patents.google.com/?q=(Naresh+Ravuri)&oq=Naresh+Ravuri</u>, reflect significant advancements in automotive technologies and software, highlighting Ravuri's role in shaping the future of automotive safety and efficiency.



Yang Zhang

YZ is a Professor and Engineering Physics Chair in the Department of Nuclear Engineering and Radiological Sciences, Department of Materials Science and Engineering, Department of Robotics, and Applied Physics Program at University of Michigan. He received his B.S. in Electrical Science and Technology from University of Science and Technology of China in 2004 and his Ph.D. in Nuclear Science and Engineering from Massachusetts Institute of Technology in 2010.

He was a Clifford G. Shull Fellow at Oak Ridge National Laboratory (2010-2012) and a professor at University of Illinois Urbana-Champaign (2012-2022). YZ's research can be summarized into two words: Matter and Machine. In the realm of Matter, his group synergistically integrates

statistical mechanics and molecular fluid mechanics theories, accelerated molecular simulations, understandable Al methods, and neutron scattering experiments to extend our understanding of rare events and long timescale phenomena in complex material systems. Particular emphasis is placed on the physics and chemistry of liquids, glasses, and complex fluids, especially at interfaces, under extreme conditions, or when driven away from equilibrium. Concurrently, on the Machine front, leveraging their expertise in materials and modeling, his group advances the development of soft robots and human-compatible machines, swarm robots and collective intelligence, and robots in extreme environments.

These two research areas, spanning from fundamental to applied, serve as integral pillars in their overarching mission to foster a sustainable, resilient, and secure energy infrastructure. He has been recognized with several awards, including the American Nuclear Society Landis Award.[<u>https://z.engin.umich.edu/</u>]



Saikat Dutta

Saikat is a distinguished professional renowned for his expertise in Enterprise Architecture strategy, brings over 17 years of invaluable experience to his role. With a B.Tech degree in Computer Science and Engineering and currently pursuing a Master of Science degree from the University of Michigan-Dearborn, Saikat adeptly navigates the intersection of academia and industry. His profound understanding of organizational complexities and IT infrastructure nuances equips him to craft tailored strategies that drive digital transformation and innovation for clients worldwide.

As a Principal Architect at the esteemed Boston Consulting Group, Saikat embodies a fusion of academic rigor and real-world expertise, particularly in technology strategy. He leads with a visionary approach and orchestrates strategic initiatives that propel organizations toward

digital excellence and market leadership. With a sharp focus on identifying emerging trends and disruptive technologies, Saikat navigates complex landscapes with finesse, guiding clients through transformative journeys that unlock untapped potential and drive sustainable growth. His reputation as a trusted advisor and thought leader in Enterprise Architecture and tech strategy continues to shape the global business landscape, leaving an indelible mark on organizations' digital futures.

Riccardo D (Rick) Lombardi:



Rick started working in EMC in 1985, working on fuel pump motor suppression, back EMF suppression for motors, AC Clutch Coils, etc. He helped develop the first 315MHz antenna for the Remote Keyless Entry FOB and receivers. Later, he worked at Ford Motor Company and Visteon for 33 years, first as a technologist, then EMC Test Engineering, and became an EMC Technical Manager and Technical Specialist, responsible for an A2LA accredited laboratory. Supported many products, including radios, instrument clusters, powertrain and Body control modules. Then he went to Continental Corporation, supporting Drive by Wire Brake Controllers for EMC. Presently working in the Radiation/Specialty Engineering group at General Dynamics.



Greg Cesiel

Greg's career at General Motors included roles within Vehicle Engineering, Research & Development and Global Propulsion Systems. He began his career designing engine controls. He advanced to engineering manager, Body Electronics. As Program Manager of the Vehicle Controls Integration Innovation Program, he led the team that developed an electrical architecture used across GM vehicles. The vehicle software teams were formed under his leadership as Senior Manager, Vehicle Software and Controls. Greg advanced to Program Director, Fuel Cell Activities, and led the Equinox fuel cell vehicle program. As Program Director, Global Electric Vehicle Development Team, he was responsible for the technical content of the Chevrolet Volt launch program activities. Within Vehicle Electrification, he managed all advanced projects for Electrification along with U.S. Department of Energy demonstration programs and battery chemistry development activity with the University of

Michigan. In his last role at GM, Greg led the Dynamic Controls team responsible for engine stop-start, hybrid shift execution and propulsion interface software. For 13 years Greg was a FIRST Robotics mentor and managed GM's sponsorship of FIRST Robotics teams.

Greg holds two patents and four GM Chairman's Honors awards along with a Bachelor of Electrical Engineering from Kettering University. He also completed the Executive Development Program at the Kellogg Graduate School of Management, Northwestern University. Greg's three children have also pursued STEM careers.

Next Senior Elevation

IEEE HQ Admission and Advancement (A&A) Review Panel Meeting Schedule

The Admission & Advancement (A&A) Review Panels meet six times annually to review applications and/or nominations for election or elevation to Senior Member (SM) or Life Senior Member (LSM) grade.

- The review panel meetings are held in various locations throughout the world.
- A panel of reviewers is recruited among Senior members, Life Senior members, and Fellows in the section where the meeting is to be held. This full-day session is presided over by the Admission and Advancement Chair and/or Vice Chair, as well as a representative of the Member and Geographic Activities staff.
- In order for an application to be reviewed at the next Panel meeting, the application, resume, and required reference forms have to be submitted and received at least Seven days prior to the meeting date. [hence <u>https://events.vtools.ieee.org/m/416546</u> †] We have scheduled ours to be June 1 giving us enough time to fix any gaps, etc.
- About two weeks following a review panel meeting, an update report with the names of the newly elevated Senior members is published and available for those who hold a volunteer position.

Review panel dates and locations (note: Dates and locations are subject to change without notice.) *Please see Meeting Deadlines (Eastern Standard Time) below for more details.*

2024 Meeting Dates	Meeting Deadlines (Eastern Standard Time)	
22 June 2024	11:59 p.m. on 15 June 2024	
3 August 2024	11:59 p.m. on 27 July 2024	
28 September 2024	11:59 p.m. on 21 September 2024	
23 November 2024	11:59 p.m. on 16 November 2024	

2024 IEEE HQ Panel Meeting Dates

+See our own Section organized event at: <u>https://events.vtools.ieee.org/m/416546</u> OR check the Section web site OR see page 14

2024 SEM Officers

The IEEE SEM Organizational Roster is Located in the IEEE Southeastern Michigan website at: http://sites.ieee.org/sem/

Under the TAB titled "About SEM" use the button: "<u>Organization Roster</u>" to download the PDF version of the current Roster.

(Note: It is also a good idea to download the <u>Organization Org Chart</u> as well in order to get the complete 'big picture' of the Section.)

(Note: To protect the members from getting spam email, the roster is password protected. Request access by sending email to our web master – Scott Lytle.)

Years ago, we used to publish the complete Chart and Roster in the Newsletter. But that was when we had only 5 committees and 9 chapters.

Today we have 16 committees and sub-committees, 18 Technical Chapters, 4 Affinity Groups and 8 Student Branches. The total roster divides into 12 pages with 247 identified officer positions.

That seems like a large organization, and it is, but it also presents our members with many volunteer opportunities to grow their capabilities through the experience of working with leaders who can guide and nurture engineering talent and widen the scope of volunteering through 'hands on' training in those 'soft skills' that can only be mastered by 'doing.'

We often refer to learning the non-technical side of an engineering career as similar to learning to play a musical instrument, or a sport, or how to dance. You can read all the books you want but, you only <u>really learn</u> by doing.

Reading the Roster

Once downloaded notice that the roster is divided into five major segments:

- Executive Committee
- Standing Committees
- Affinity Groups
- Technical Chapters
- Student Branches

Within each segment you should find, at a minimum, the e-mail account for each officer, and in many cases, a work phone and a cell phone for quicker contact.

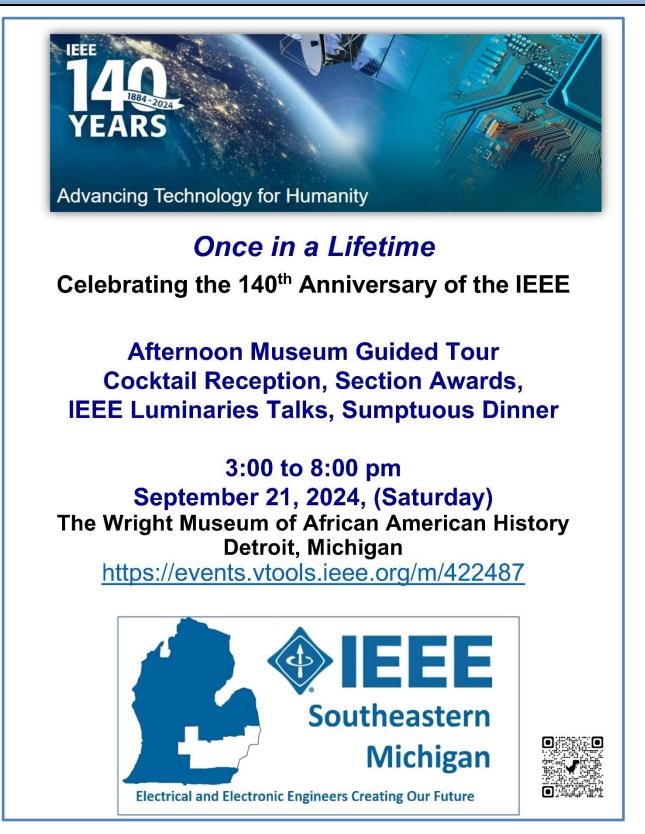
You may note a number of identified officer roles that have a blank cell (highlighted in yellow) where we would expect an officer name. These are vacant officer positions.

If you notice a vacancy where you might be interested in contributing to fill that role, please contact the relevant 'Chair' in that organization and discuss the duties of the office and consider helping out in that element.

As with all others, the road to this learning begins with the first step. That step is inquiring and finding out what skills go with each position. That information is maintained in the IEEE Center for Leadership Excellence at: <u>https://ieee-elearning.org/CLE/</u>

Good luck!

SAVE THE DATE: 140th!



Why AI cannot help!

IEEE Southeastern Michigan Presents:

Why Software fails and AI cannot help



It was once widely believed that computers would enhance the speed, reliability, and applicability of human deductive reasoning in the physical and social sciences, much as motorized vehicles (e.g., cars, trains, airplanes) have enhanced the speed, reliability, and applicability of human manual abilities in transportation. Yet, 60 years later, computers can be used confidently only for paperwork tasks, analysis of regularly structured data, and simple process control applications. Complex software rarely satisfies user needs, is untrustworthy and difficult to maintain, and largely opaque to its users. Artificial intelligence (AI) methods including heuristics, machine learning, and statistical methods are in opposition to sound deductive reasoning. This presentation explains certain practical and logical impediments to computer enhancement of human deductive reasoning, the deductive limitations of modern programming languages, the role of AI, and provides some promising alternatives.

Speaker Bio: David A Fisher is a senior life member of the IEEE, emeritus professor at Carnegie Mellon University, and chief engineer at Reasoning Technology LLC. He has had an eclectic career in industry, academia and Government. He is an inventor of programming languages, high performance algorithms and computer architectures.





At Glance

When:

Date: June 20th , 2024 Time: 04:00 – 5:15 PM (EST/EDT)

• Where:

M218 (Buell Building) Lawrence Tech Univ, 21000 W 0 Mile Rd, Southfield MI 48075

Audience: OPEN to ALL*

Sponsored by IEEE SE Michigan Computer Society Technical Chapter



RoboFest News

Robofest eNewsletter 05-23-24



- (1) 2024 Robofest World Championship Wrap Up
- (2) Student, Coach, and Volunteer Surveys
- (3) Summer Day Camps
- (4) One-week Summer Camp for LTU College Credit: C WITH ROBOTS
- (5) 2024 Appreciation Dinner Scheduled

Note: All times are listed in EDT/EST unless noted otherwise

(1) 2024 Robofest World Championship Wrap Up

Thank you to all for an incredible Robofest season!! Congratulations to all the teams who participated in the Robofest World Championship Finals and Open Categories. The official press release from the LTU News Bureau can be found at:

https://www.ltu.edu/content/news/teams-from-ghana-hong-kong-jordan-mexico-taiwan-usa-take-top-spots-at-ltus-robofestworld-championships

The complete list of winners is posted on the World Championship page on the Robofest website.

We have uploaded the final scores to each event page (go to Registration) under *files* so you can see the final results.

Any teams that are interested in purchasing duplicate trophies for team members, our trophy vendor will be taking more orders. Contact <u>kdakathy@gmail.com</u>.

(2) Student, Coach, and Volunteer Surveys

Each year, we assess the efficacy of STEAM education through Robofest robotics. An email was sent out to every coach on Sunday May 19 from Robofest Founder & Executive Council Chair Dr. CJ Chung who volunteers to evaluate Robofest programs.

We ask that the coaches please forward the email with the URL and ask your student team members who participated in Robofest to take an anonymous post-survey online. Please note that Robofest does not send survey emails directly to student participants.

Coach survey emails were also sent from Dr. Chung on Monday, May 20. Volunteer survey emails will be sent shortly. We are very interested in hearing what Coaches and Volunteers have to say about the Robofest experience, so please remember to submit your survey so we know where improvements can be made. If you do not receive the email with the student post-survey or Coach/Volunteer survey link, please contact the Robofest office: robofest@ltu.edu

(3) Summer Day Camps

Tuesday, June 25: BottleSumo for LEGO SPIKE Prime with Scratch

Wednesday, June 26: Game Skills for LEGO SPIKE Prime with Scratch

These one-day summer camps with a mini competition are designed for students to get hands-on experience with LEGO SPIKE Prime robots AND experience the thrill of putting what they have learned to the test. Hosted at LTU, in the Computer Science Robotics Lab, Room J234 (building 8 on the LTU Campus Map)

Each camp runs from 9:00 am to 3:30 pm. Registration fee is \$20 per participant. Students register individually, and will be formed into teams of 2 or 3 students. A robot and laptop will be provided for each team.

Camp agendas and additional information can be found under *Get Involved/Camps* on the Robofest.net website.

(4) One-week Summer Camp for LTU College Credit: C WITH ROBOTS

July 22-26, 2024, 9:00 am~4:00 pm

[IEEE SOUTHEASTERN MICHIGAN – WAVELENGTHS]

C stands out as one of the most widely used programming languages. This intensive camp course covers essential C programming skills, including variable types, conditional statements, loops, arrays, functions, formatted input/output, file operations, and more. A distinctive feature of this camp is the hands-on application of acquired skills to solve robotics problems. Students will actively engage in writing C code for VEX IQ robots, incorporating various sensor types and actuators. The camp course includes 5+ assignments, a project, a quiz, and a final exam, providing a comprehensive learning experience. LTU's Computer Science bachelor's programs require two MCS1111 coding club classes and this camp will satisfy one of them. To register, go to: https://apply.ltu.edu/register/mcs1111summer24

(5) 2024 Appreciation Dinner Scheduled

Save the Date: Thursday, August 22, 5:30 pm~7:00 pm. We are hosting our Site Host, Volunteer and Coach Appreciation Dinner at LTU in the Computer Science Robotics Lab, Room J234. In addition to dinner, we will have some giveaways, share our wrap-up video and season statistics, and announce plans for the 2025 Robofest season. We hope you can join us!

Lawrence Technological University / Robofest / J-233 / 21000 W. Ten Mile Rd, Southfield, MI 48075 Prof. Elmer Santos, Director, <u>esantos@ltu.edu</u> Shannan Palonis, Assistant Director, <u>spalonis@ltu.edu</u> Pam Sparks, Coordinator, <u>psparks@ltu.edu</u> Dr. CJ Chung, Robofest Founder, Executive Council Chair, <u>cchung@ltu.edu</u> Dr. Chris Cartwright, Executive Council Member

Dr. Eric Martinson, Executive Council Member

http://www.robofest.net http://facebook.com/robofest https://www.linkedin.com/company/robofest-official

Past EMC Chapter News

On January 20, 2024, the Southeastern Michigan IEEE EMC Chapter presented a full day EMC Basics+ Workshop. Scott Lytle and Dr. Candace Suriano organized the workshop with the help of Barry Steltz of Monolithic Power Systems; Peggy Girard and Jim Tuckwell of AP Americas; Dr. John Suriano, Ph.D. of Nidec; University of Detroit Mercy Professor Mark Steffka; EMC Expert at Visteon Robert Adams; Rohde & Schwarz Graduate Development Program members Maeve Ryan, Grace Roupe, and Sophie Platten; as well as Chapter photographer Akio Fujimaki. Monolithic Power Systems provided a marvelous meeting room, AP Americas sponsored the luscious lunch, and Suriano Solutions donated super snacks. Rohde & Schwarz provided scopes and spectrum analyzers to teach attendees how to drive them.





University of Detroit Mercy Professor Mark Steffka (far right) explained the physics of a magnetic loop antenna during the EMC Basics+ Workshop.

Monolithic Power Systems host Barry Steltz taught EMC Basics+ Workshop participants how the cones and ferrite tiles function in an anechoic chamber.

Scott Lytle started the workshop with warm words for the attendees and presenters. Candace Suriano explained that the rationale for the EMC Basics+ Workshop started when she began working in an EMC lab, over twenty years ago, and she did not understand the filtering in the spectrum analyzer. She finally found the Gaussian filter in the spectrum analyzer's intermediate frequency filter. Dr. Suriano quickly went over the basics of EMC. She explained the two sides of EMC, emissions, and radiation. What you need to know to work on EMC, what is involved in the study of EMC, the types of tests, where tests are carried out, and various other essential parts of EMC. The best part of EMC, Candace said, is that EMC is magic!

Dr. John Suriano presented compelling case studies that showed how EMC could be mitigated. Dr. Suriano asked if the noise the device was giving off was broadband or narrowband, if it was con¬ducted, radiated, or both. John showed how a motor creates common mode currents. He showed how he made a small DC motor quieter with a bypass capacitor and a common mode choke. His demo used a homemade current probe (maybe you too can make one) with the help of an SDR play to see the emissions on his laptop screen. He went over a way to quiet the differential noisemaker light dimmer, how to shield a keyboard from ESD (along with how to make a super sparker ESD gun), and how noise from a high frequency cell phone can interfere with your low frequency audio. He had many more demonstrations, but he ran out of time!

Professor Mark Steffka from the University of Detroit-Mercy came next with a presentation on the Basics of Antennas and Transmission Lines. Professor Steffka explained the use of a transmission line is to send energy from point/device A to point/device B with low loss. He went over the characteristics of an electromagnetic wave. He said we use transmission lines to guide the electromagnetic wave, because a transmission line is a defined path where we can control some of the parameters. Transmission lines are frequently coaxial cables because the return path acts as a shield. Professor Steffka showed us the circuit simulator, at falstad.com/circuit/. He showed the importance of impedance matching! He explained radiation resistance and introduced the audience to the falstad.com/antenna/ antenna simulator. It was a fascinating presentation!

EMC Expert at Visteon, Robert Adams, spoke next on the Spread Spectrum Spectacular! He was the head of the EMC Design group at Visteon during 2022-2023. Bob then moved to a Subject Matter Expert role working mostly on battery management systems for Electric Vehicles. Bob said that spread spectrum is an intentional variation of the frequency of a period signal to lower the peak emissions of that signal and its harmonic. To say it another way, the waveform of the electric pulse is changed to modify the output spectrum of the circuit/system in both conducted and radiated ways. These changes are made after the power and signal integrity of the design is validated. He said spread spectrum is not a

[IEEE SOUTHEASTERN MICHIGAN – WAVELENGTHS]

replacement for good design! Bob said it could at most lower emissions by 15 to 20 dB. Sometimes spread spectrum can move an emission out of the AM or FM bands, but unfortunately, it seems like it cannot modify emissions enough to allow AM radios in Electric Vehicles. Bob used simulations to show how spread spectrum can change the output spectrum. It was an essential informative session to help us understand the value of spread spectrum. All Chapters need this knowledge!



EMC Basics+ Workshop participants from North American Lighting connected their demo units to the Rohde & Schwarz scopes.



The Southeastern Michigan EMC Chapter's Michael Kirkhart, electronics engineer, hacker, lifelong student, and amateur radio operator, was the NanoVNA workshop presenter.

Last up were Rohde & Schwarz Graduate Development Program members: Grace Roupe, Maeve Ryan, and Sophie Platten. They taught a hands-on section of how to drive oscilloscopes and spectrum analyzers, some of the basic tools of EMC engineering. They showed the block diagrams for scopes and spectrum analyzers. They explained bandwidth, noise floor, spectral energy, and more. They presented interesting and informative hands-on demonstrations.

EMC engineers love to make things and understand how they work. EMC engineers know that NanoVNAs are miraculous measurement machines. Thus, the idea for a NanoVNA give away to the Southeastern Michigan IEEE EMC Society members came from Steve Tomba of the Southeastern Michigan IEEE EMC Society chapter board. A nominal fee was charged for the event and the Southeastern Michigan IEEE EMC Society chapter underwrote the rest of the cost of the NanoVNAs. The facility sponsor was Monolithic Power Systems hosted by Barry Steltz. Thank you Barry and MPS! The pizza, pop, and salad sponsor was ZF with contact liaison Alex Simonov. Thank you ZF and Alex Simonov!

The Southeastern Michigan EMC Chapter's Michael Kirkhart, electronics engineer, hacker, lifelong student, and amateur radio operator, was the NanoVNA workshop presenter. Michael explained that during his time as an RF test engineer, he used vector network analyzers (VNAs) as part of his daily work. As an amateur radio operator, Michael uses NanoVNAs. His homemade SWR bridge, which he used for tuning antennas, now sits on a shelf gathering dust. Michael said maybe he is "not an expert", but he is an experienced VNA user, and during this event, he provided an overview of VNAs along with specific use cases, all using the (relatively) inexpensive NanoVNA-H4. Michael explained how to calibrate the NanoVNAs, with open, load, short, and through calibrations. He showed how to connect the various Devices under Test (DUTs) to the NanoVNA. Michael said NanoVNAs are not nearly as capable as a professional grade VNA (for example, they cannot perform full 2-port, 2-path measurements and they cannot adjust stimulus power), but they are "good enough" for many basic measurements, and are much, much lower in price.

Reprinted from ©2024 IEEE Electromagnetic Compatibility Magazine – Volume 13 – Quarter 1

June Celebration Days

International Science and Engineering Celebration Days

The more time I spend as an engineer in various roles and with various colleagues all over the globe – the more I discover things I did not know!

a) World Environment Day, 05 June 2024. World Environment Day is celebrated on June 5th every year. It was established by the United Nations in 1972. This day is dedicated to raising awareness about environmental issues and promoting solutions for



sustainable living. Each year, a different theme is chosen for World Environment Day. Participate in an environmental awareness campaign to commemorate World Environment Day by getting involved in a community clean-up operation, reading a book about the environment, or going for a walk instead of driving. Official Link: https://www.worldenvironmentday.global/

b) International Women in Engineering Day, June 23rd. International Women in Engineering Day is celebrated every year on June 23. The day celebrates the accomplishments of women engineers worldwide and strives to encourage more girls and young women to consider engineering as a career. Join the celebration on International Women in Engineering Day by posting an inspirational quote from an inspiring female engineer in your life! Useful link: https://www.inwed.org.uk/



Sharan Kalwani is the current Chair of the IEEE Southeastern Michigan Section as well as the Chair of the Computer Society Technical Chapter. Besides working in the field of High-Performance Computing as his daytime job, he is also Adjunct Faculty and teaches a number of courses such as: Introductory Computer Science, Information Security or Cybersecurity/ Computer Science Research Seminar/ Principles of Programming Languages/etc. He is the author of one book and is working on his second. He is active in the field of Sustainable Tech, having served as the Vice Chair of IEEE Sustech 2021, Sustech 2022 and Sustech 2023. He is also the media person for the 100% virtual 2023 IEEE Online Forum on Climate Change Technologies.

EMCFest Report

EMC Fest May 16, 2024 www.emcfest.org

EMCFest organized by the Southeastern Michigan IEEE EMC Society was May 18th 2024. Kenneth Wyatt of Wyatt Technical Services LLC was the featured speaker. Doug Smith and Kenneth Wyatt were both to present, but Doug injured his knee, and Kenneth graciously agreed to cover all four segments. Kenneth Wyatt has over 30 years of EMC engineering experience specializing in EMI troubleshooting and pre-compliance testing is the principal consultant of Wyatt Technical Services LLC, past editor of Interference Technology Magazine, author of many articles on EMC engineering, co-author of the <u>EMI Troubleshooting Cookbook for Product Designers</u>, and the recently published <u>EMC Troubleshooting Trilogy</u> (Volumes 1-3).

The sessions started with a presentation on putting together an economical toolbox for EMI troubleshooting and precompliance measurements. Toolbox price is mostly dependent on the price of the spectrum analyzer chosen. Participants were grounded in the basics of EMC by gaining an understanding of the typical preferred path taken by EMI. If any of the following parts of EMI, energy source, coupling path, or EMI antenna are eliminated, EMI will cease. It is essential to understand the coupling between the energy source and the victim circuit. Various probes and antennas useful for EMI and compliance analysis were discussed.



MAY 16 Show Floor 2: Attendees learn valuable information on the EMCFest show floor.

The physics of EMI, field models and circuit models of circuit boards' energy transmission, were shown to relate to circuit board emissions. Empirical data illustrated important features of circuit boards and techniques to reduce their emissions. Various tips to mitigate EMI and the value of localized shielding were explained. In between some of the four sessions Kenneth Wyatt stayed in the classroom and answered questions.

[IEEE SOUTHEASTERN MICHIGAN – WAVELENGTHS]



MAY 16 Show Raffle 1: Southeastern Michigan President Scott Lytle hands over a drill bit set to one of the raffle winners at the 2024 EMCFest.

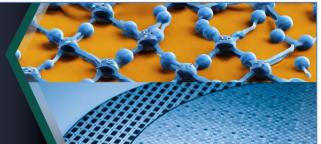
During the breaks, audience members visited the sensational show floor with various vendors explaining how their products assist in reducing radiation and susceptibility. Closing the EMCFest, there was an ice cream social with chocolate and vanilla sundaes featuring a vast array of unhealthy toppings. The raffle lavished gifts upon more ten percent of the audience members! Come to the EMCFest next year!

CR Suriano, PhD Suriano Solutions

[IEEE SOUTHEASTERN MICHIGAN – WAVELENGTHS]

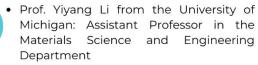
AVS @WSU





Our Speakers:

- Prof. Michael Manfra from Purdue University & Scientific Director, Microsoft Quantum Lab Purdue
- Prof. Angela Wilson from Michigan State John University: A. Hannah Distinguished Professor of Chemistry, Associate Dean of Strategic Initiatives



- Prof. Bige Unluturk from Michigan State University: Assistant Professor in the Departments of Electrical & Computer Engineering & Biomedical Engineering
- Dr. Alexandre Bourassa, Research Scientist at Quantum Al Google
- Prof. Jonas N. Becker from Michigan State University: Assistant Professor in the Department of Physics and Astronomy, Chair of Exp. Physics
- Prof. Aaron Rury from Wayne State University: Associate Professor in the **Chemistry Department**
- Prof. Cagliyan Kurdak from University of Michigan: Professor, Director of **Applied Physics**

https://avs.org/about-avs/chapters/avs-regionalchapters/michigan/symposium/ Conference Chair: Gozde Tutuncuoglu, gozde@wayne.edu Chapter Secretary: Pilar Herrera-Fierro,

Wavelengths is published monthly as the official organ of the IEEE Southeastern Michigan Section

[IEEE SOUTHEASTERN MICHIGAN – WAVELENGTHS]

Materials, Processes, and **Devices for Novel Computing** Hardware 2024 AVS Michigan Chapter Spring Symposium Co-Sponsored by

AVS MI Chapter Wayne State University, College of Engineering



Program & registration information

Wednesday, June 5th, 2024 College of Engineering, Wayne State University, Detroit, MI

Symposium Theme

The AVS Michigan Chapter's 2024 Spring Symposium will discuss cutting-edge research on novel computing paradigms that transcend traditional CMOS devices and von Neumann architectures. Speakers will explore the fundamental material, device, and computational challenges in enabling the fabrication of emerging devices and systems.

Meeting schedule

8:00 Registration and Breakfast

8:40 Opening Remarks, Gozde Tutuncuoglu (Organizer), Ali Abolmaali (Dean of College of Eng.) Session I:

Chair: Gozde Tutuncuoglu, Wayne State University 8:50 (Plenary) Michael Manfra, Purdue University/Microsoft, Nanoscale electronic devices probe topology: Direct observation of anyonic braiding statistics

9:35 Cagliyan Kurdak, University of Michigan -Emergence of Two- and One-Dimensional Conduction Paths in Topological Insulators

10:05 Alexandre Bourassa, Google Quantum Al Suppressing quantum errors by scaling a surface code logical qubit

10:35 Short Break

Session II:

Chair: Sergey V. Baryshev, Michigan State University 10:45 (Plenary) Angela Wilson, Michigan State University, Quantum Research and Opportunities in Michigan and Beyond

> 11:30 Jonas Becker, Michigan State University, Synthetic Diamond for Classical and Quantum Computing: Opportunities & Challenges

- 12:00 Aaron Rury, Wayne State University, Quantum optics of hybrid molecular systems
- 12:30 Lunch Break

Session III:

Chair: Sabrina Peczonczyk, Ford Motor Company

1:45 Bige Unluturk, Michigan State University Harnessing Biological Paradigms for Breakthroughs in Computational Technology

2:15 Yiyang Li, University of Michigan-Thermodynamic and kinetic origins of nonvolatile 2:15 information retention in resistive memory

2:45 Tatjana Stone, Angstrom Engineering, System Configurations, Features & Trends in Quantum Device Fabrication Equipment

- 3:15 Coffee Break + Networking
- 3.30 Poster Session/ Industry Exhibition
- 5:30 Student Poster Awards 6:00
 - Symposium Ends

Registration

Registration can be made using the AVS webpage. Please refer to the link to register.

Location

The symposium will be held in the College of Engineering, Engineering Auditorium (Room 1507) Wayne State University, 5050 Anthony Wayne Dr, Detroit, MI, 48202

Parking

Free parking is available at Parking Structure 2: 5150 John C Lodge Fwy, Detroit. Parking map is provided in the next page

Student Poster Session

Posters need to be displayed before lunch break. The poster session will take place between 3:30 and 5:30, and poster judges will evaluate the posters. The following awards will be presented First place: \$500, Second place: \$400, AVS Chapter* prize: \$400. Please note that student poster awards are only available for master's and PhD students. *The presenting student must be an AVS member.

Equipment Exhibit

part of the symposium, industry As representatives will display analytical and processing equipment of interest to attendees of the meeting. The exhibit will be open to all symposium attendees during the entire day. For questions about exhibition logistics, reach out to Pilar Fierro at pilar.c.fierro@gmail.com.



TALE 2024





EduScape 2024: Pioneering-NextGen Tech for Sustainable Humanity

IEEE TALE is the IEEE Education Society's flagship Asia-Pacific conference series, catering to researchers and practitioners with an interest in engineering, technology, and integrated STEM education as well as those interested in the innovative use of digital technologies for learning, teaching, and assessment in any discipline. The conference target audience is diverse and includes those working in the higher education, vocational education and training (VET), K-12, corporate, government, and healthcare sectors.

TALE is held in December every year in the **Asia-Pacific region** (IEEE Region 10), complementing the other events in the IEEE Education Society's suite of conference offerings, including <u>Frontiers in Education</u> in North America (IEEE Regions 1–7), <u>EDUCON</u> in Europe/Middle East/Africa (IEEE Region 8), <u>EDUNINE</u> in Latin America (IEEE Region 9) and <u>LWMOOCS</u> focused on digital education and MOOCs worldwide.

13th edition of TALE Conference is organized jointly by the IEEE Education Society, IEEE Region 10, IEEE Bangalore Section, IEEE Education Society Bangalore Chapter, and Manipal Institute of Technology during Dec 9–12, 2024 at MIT, MAHE, Bengaluru, India

SUBMISSION GUIDELINES

All accepted and registered full, short and work-in-progress papers that are presented at TALE 2024 will be published in the conference proceedings and submitted to the IEEE *Xplore*[®] digital library.

- » Full (6-8 pages) Paper for Oral Presentation
- » Short (4-5 pages) Paper for Oral Presentation
- » Work-in-Progress Paper (2-3 pages) for Poster Presentation

The call for papers (including tracks, topics, paper formats, and preparation guide) is available here

LIST OF TOPICS

Core Tracks » Computing & IT Education	» Online Learning (Integrity	and Academic	» Cyber Physical Systems and AI in Engineering Education		
 » Engineering Education » STEM EducationTechnology- Enhanced Learning » Open, Flexible & Distance Learning » Work-Integrated Learning 	 » Problem-based Learning » Ethical and Societal Considerations in Engineering Education » Student Engagement and Retention Strategies in engineering program 		 » Assessment and Evaluation in Engineering Education » Artificial Intelligence in Education 		
GENERAL CHAIRS Dr. R Venkata Siva Reddy Professor, REVA University Bengaluru IMPORTANT DATES	Dr. Jagann Director, MI	•		a h H. Jangamshetti Incellor, Haveri University, Ia	
	ission Deadline Acceptance Notif 0, 2024 1 st September 202			Conference 9-12, December 2024	
httj	os://2024.tale	-conference.c	org/		

ORG UNITS cheat sheet

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			p or Chapter Name (Organizational Unit code is in parentheses)
		finity	Group: (CN40035)
Life Members			(LM40035)
Young Profes			(YP40035)
Women in Eng			(WE40035)
Chapter: 01			
			Circuits and Systems Society and
		(IT12)	
Chapter: 02			
Chapter: 03			Aerospace and Electronic Systems Society and
			Communications Society
Chapter: 04			Antennas and Propagation Society,
			Electron Devices Society, Microwayo Theory and Techniques Society
Chaptor, OF			Microwave Theory and Techniques Society,
Chapter: 05 Chapter: 06			Computer Society Geosciences and Remote Sensing Society
Chapter: 07	1 1		Power Engineering Society,
chapter. 07		(IA34)	Industrial Applications Society
Chanter: 08			Electromagnetic Compatibility Society
Chapter: 09			Industrial Electronics Society,
chapter. 05			Power Electronics Society
Chapter: 10			
-			Engineering in Medicine & Biology
Chapter: 12			Control Systems Society
Chapter: 13			Education Society
Chapter: 14			Robotics And Automation Society
-			Nuclear Plasma Sciences Society
-			Computational Intelligence Society,
-			Systems, Man and Cybernetics Society
Chapter: 17	(CH04128) ((NANO42)	Nanotechnology Council
Chapter: 18	(CH04162)((MAG33)	Magnetics Society
Section Unit N	lame or Affir	nity Grou	p or Chapter Name (Organizational Unit code is in parentheses)
University ((STB00531)
Michigan Sta	ate Univers	sity:	(STB01111)
University ()f Michigan	-Ann Ar	bor: (STB01121)
Wayne State			(STB02251)
Lawrence Teo	chnological	L Univer	rsity: (STB03921)
Oakland Univ	-		(STB06741)
Eastern Mich	-		(STB11091)
University of	C 14' 1 '	D 1	orn: (STB94911)

Use the Geo-unit 'Code' for faster access in the vTools system applications.

HKN Code	HKN Name (Student IEEE Honor Society)					
HKN029	University of Michigan-Ann Arbor, Beta Epsilon					
HKN042	University of Detroit-Mercy, Beta Sigma					
HKN054	Michigan State University, Gamma Zeta					
HKN073	Wayne State University, Delta Alpha					
HKN163	University of Michigan-Dearborn, Theta Tau					
HKN164	Lawrence Institute of Technology, Theta Upsilon					
HKN190	Oakland University, Iota Chi					
HKN244	Southeastern Michigan Alumni					

Organization Unit IEEE Code	Student Technical Chapter name
SBC00531	University of Detroit-Mercy, Computer Society Chapter
SBC02251	Wayne State University, Computer Society Chapter
SBC03921	Lawrence Tech University, Computer Society Chapter
SBC06741	Oakland University, Engineering in Medicine & Biology

Why do we publish this? Well, this is most 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 Southeastern Michigan Section (2022-2024) Editor, Wavelengths (Serving you as an active newsletter contributor since 2018) Enthusiastic IEEE volunteer since 2011

Use the Geo-unit 'Code' for faster access in the vTools system applications.

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** <u>http://r4.ieee.org/sem/</u>

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: Copy the URL and paste it into your browser address bar. These websites were checked in June 2022 and found viable. Send details to: wavelengths@ieee-sem.org OR letters@ieee-sem.org

Michigan Institute for Plasma Science and

Engineering: Seminars for the academic year: https://mipse.umich.edu/seminars.php

Model RC Aircraft http://www.skymasters.org

Model Rocketry

https://www.nar.org/find-a-local-club/nar-clublocator/

Astronomy

http://www.go-astronomy.com/astro-clubsstate.php?State=MI

Experimental Aircraft Association

https://www.eaa.org/en/eaa/eaa-chapters/find-aneaa-chapter Robots https://www.robofest.net/index.php/about/contact-us

Science Fiction Conventions https://2022.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/

It appears that the SouthWest Michigan Maker Faire was a casualty of the Global Pandemic, as were many of our friends and several organizations.

However, we retain this link for anyone wishing to make contact and consider pumping life back into what was a wonderful experience.

Executive Committee

The Executive Committee is the primary coordination unit for Southeastern Michigan (SEM) IEEE operations. The basic organization chart below shows the 2023 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: <u>http://r4.ieee.org/sem/</u> 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 **Christopher Johnson**, the section secretary at <u>secretary@ieee-sem.org</u> 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.

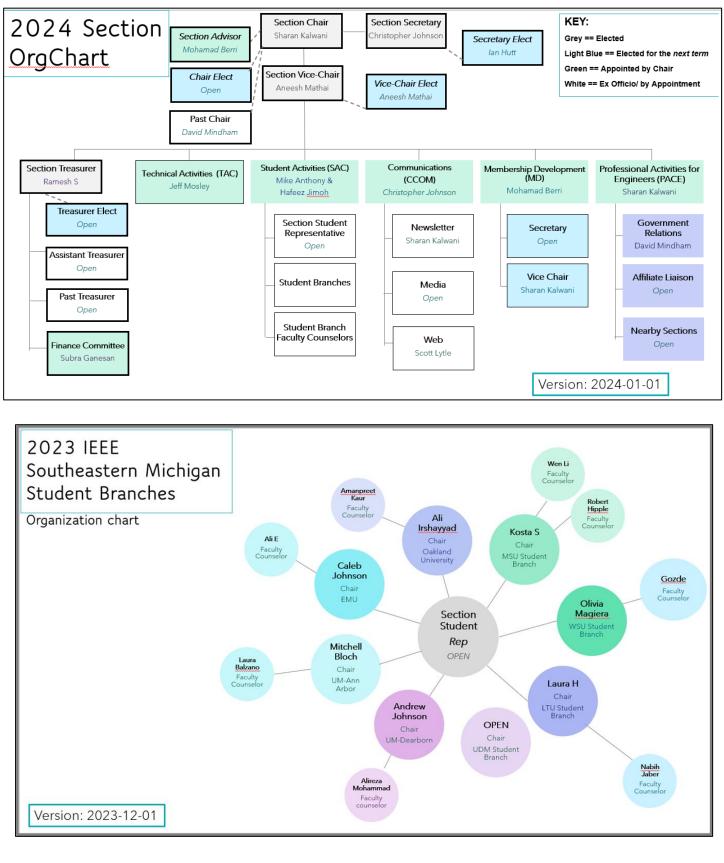
More detailed information on meetings may be found through the IEEE SEM Website: <u>http://r4.ieee.org/sem/</u> and clicking on the **SEM meetings list** button near the bottom of the left-hand banner.

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.

Christopher Johnson (Secretary) Email: <u>secretary@ieee-sem.org</u>

IEEE SOUTHEASTERN MICHIGAN – WAVELENGTHS

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



ExCom Meeting Schedule

<u>NOTE</u>: All SEM members are invited to attend ALL ExCom (<u>Executive Com</u>mittee) meetings:

Below is the 2024schedule for the Section ExCom meetings with links to add the events to your calendar. It is important that <u>at least one person</u> from each Chapter/Affinity Group attends each scheduled ExCom meeting. Please mark your calendars for the 2024 meetings. Or link your personal calendar to the SEM Web calendar.

Section Administrative Committee (ExCom) Meeting Schedule for 2024: (clickable links)

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

ExCom Meeting (all clickable links)	Date & Start Time, Duration
Section ExCom Monthly Meeting (Hybrid) For JUNE	13 Jun 6:30 PM, 2 hours
Section ExCom Monthly Meeting (virtual) For JULY	11 Jul 6:30 PM, 1 hour
Section ExCom Monthly Meeting (virtual) For AUGUST	08 Aug 6:30 PM, 1 hour
Section ExCom Monthly Meeting (Hybrid) For SEPTEMBER	12 Sep 6:30 PM, 2 hours
Section ExCom Monthly Meeting (virtual) For OCTOBER	10 Oct 6:30 PM, 1 hour
Section ExCom Monthly Meeting (virtual) For NOVEMBER	14 Nov 6:30 PM, 1 hour
Section ExCom Monthly Meeting (In Person) For DECEMBER	12 Dec 6:30 PM, 2 hours

Christopher Johnson (Secretary)

Email: secretary@ieee-sem.org

IEEE SOUTHEASTERN MICHIGAN – WAVELENGTHS

Section Administrative Committee (ExCom) Meeting Schedule for 2024: (screen snapshot)

IEEE VTOOLS EVE VTOOLS - SEARCH MY E	ENTS EVENTS MANAGE EVENT	'S API	ABOUT CO	NTACT		¢.	IEEE
Q SEARCH EVEN	ITS			Lean	n how to inte	grate Event notices v Hey! I want the	vith your website old Search page.
Search Options					4	Advanced Search	Clear Search
Search Term 🕐	Organizationa	al Unit 🕐		D	ate Range ?)	
section excom	R40035 - S	outheasterr	Michigan Sect	•	Upcoming	~	Search
Showing 12 of 12 upcoming ever Title	nts, based on search crite	ria.	Date		Host	Location	Options
SEM Section ExCom Monthly Meetin	ng (virtual) For JANUARY 2024		11 Jan 2024 (06:30 PM	R40035	_	View
SEM Section ExCom Monthly Meetin	ng (virtual) For FEBRUARY 2024	1	08 Feb 2024 (06:30 PM	R40035		View
SEM Section ExCom Monthly Meetin	ng (Hybrid) For MARCH 2024		14 Mar 2024 (06:30 PM	R40035	Southfield, chiga	n View
SEM Section ExCom Monthly Meetin	ng (virtual) For APRIL 2024		11 Apr 2024 (06:30 PM	R40035		View
SEM Section ExCom Monthly Meetin	ng (virtual) For MAY 2024		09 May 2024	06:30 PM	R40035		View
SEM Section ExCom Monthly Meetin	ng (Hybrid) For JUNE 2024	¢	13 Jun 2024 (06:30 PM	R40035	Southfield, Michiga	n View
SEM Section ExCom Monthly Meetin	ng (virtual) For JULY 2024		11 Jul 2024 0	6:30 PM	R40035		View
SEM Section ExCom Monthly Meetin	ng (virtual) For AUGUST 2024		08 Aug 2024	06:30 PM	R40035		View
SEM Section ExCom Monthly Meetin	12 Sep 2024	06:30 PM	R40035	Southfield, Michiga	n View		
SEM Section ExCom Monthly Meetin	ng (virtual) For OCTOBER 2024		10 Oct 2024 (06:30 PM	R40035		View
SEM Section ExCom Monthly Meetin	ng (virtual) For NOVEMBER 202	4	14 Nov 2024	06:30 PM	R40035		View
SEM Section ExCom Monthly Meetin	ng (In Person) For DECEMBER	2024	12 Dec 2024	06:30 PM	R40035	Southfield, Michiga	n View

IEEE SOUTHEASTERN MICHIGAN – WAVELENGTHS

Editorial Corner

Previous editions in this series may be found on the IEEE SEM website at: <u>http://r4.ieee.org/sem/</u>. 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 cgjohnson@ieee.org akio@emcsociety.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 <u>do not be shy</u>. 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

Sharan Kalwani, Chair, IEEE SE Michigan Education Society Chapter Vice-Chair, IEEE SE Michigan Computer Society Chapter Co-Editor, Wavelengths, 2018~2019~2020~2021~2022-2023-2024

IEEE SOUTHEASTERN MICHIGAN – WAVELENGTHS

<u>Month</u>	AG's	Ch's	Ch's	<u>SB's</u>	Special Notice	Reporting Events	Monthly Focus	<u>Awards</u>
Jan	T	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	
Мау	Life	5	14			Science Fair		
Jun		6					Leadership Skills	
Jul	T	7	15				Students Issues	
Aug	WIE	8			Nominations Call		Womens Issues	
Sep	Ι	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 Articles

Wavelengths Annual Publication Plan for Personal Profiles

<u>Month</u>	Profiles	Profiles	<u>Committees</u>
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

Southeastern Michigan Section Website http://r4.ieee.org/sem/

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

Section Website Event Calendar (Select the "SEM Calendar" button - top row) SEM Facebook Page

(Select the "f" button under the top row) https://www.facebook.com/groups/ieeesemich

SEM LinkedIn Page

(Select the "in" button under the top row) https://www.linkedin.com/groups/1766687/

SEM Twitter Account (new)

(Select the "²" button under the top row) <u>https://www.twitter.com/ieeesemich</u>

SEM Collabratec Community Page

<u>https://ieee-</u>

collabratec.ieee.org/app/section/R40035/IEEE-Southeastern-Michigan-Section

SEM Collabratec Workspace Page

https://ieee-

collabratec.ieee.org/app/workspaces/5979/IEEE-Southeastern-Michigan-Section/activities

SEM Instagram (new)

https://www.instagram.com/ieeesemich/

SEM Officers:

For a complete listing of all - Section - Standing Committee - Affinity Group - Chapter and Student Branch OAdvertising RatesSEM Officers Roster on the web page (top banner) Section Officers Section Chair Sharan Kalwani

Section Vice-Chair Aneesh Mathai

Section Secretary Christopher Johnson

Section Treasurer Ramesh Sethu

Standing Committees: Section Adviser Mohamad Berri

Wavelengths Editor Sharan Kalwani

Educational Committee Anthony Will (Chair)

Finance Committee Subra Ganesan (Chair)

Membership Development Mohamad Berri (Chair)

Awards & Nominations Jerry Song (Chair)

PACE Sharan Kalwani (Chair)

Student Activities Michael Anthony & Hafeez Jimoh (Co-Chairs)

Student Mentors OPEN

SECTION Student Rep OPEN

Technical Activities Jeffery Mosley

Information Management

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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:

- 2nd Thursday of Each Month @ 6:30 PM
- Check the Section Web Calendar at: <u>http://r4.ieee.org/sem/sem-calendar/</u> (Select the "SEM Calendar" button in the top row.) OR

SEM Executive Committee Meetings:

 Find the location, and Registration at: <u>http://bit.ly/sem-ieee</u>

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 <u>http://r4.ieee.org/sem/</u> (Select the "SEM Calendar" button in the top row.)

Registration for all at: <u>http://bit.ly/sem-upcoming</u>