

# Wavelengths



## Volume 64 – Issue 5

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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 [wavelengths@ieee-sem.org](mailto:wavelengths@ieee-sem.org). Enjoy!

You can also use this bookmark to view All of the links at a single glance  
<http://bit.ly/sem-upcoming>

Event	Date	Time
<a href="#">TEMS EXCOM April Chapter meeting</a>	01 May 2024	1830 hrs
<a href="#">Computer Chapter Admin meeting</a>	06 May 2024	1930 hrs
<a href="#">Ch8: AdCom Teleconference</a>	09 May 2024	1100 hrs
<a href="#">Section ExCom Monthly Meeting (virtual) For MAY 2024</a>	09 May 2024	1830 hrs
<a href="#">Technical Judging – RoboFest World Championship</a>	11 May 2024	0800 hrs
<a href="#">Monthly Chapter 9 Admin meeting</a>	10 May 2024	1530 hrs
Documentary Night – Maryam Mirzakhani	12 May 2024	1800 hrs
<a href="#">Life Member AG admin meetings</a>	13 May 2024	12 noon
<a href="#">Factory One Tour</a>	13 May 2024	12 noon
<a href="#">Signal Processing for Joint Radar Communications</a>	13 May 2024	12 noon
<a href="#">SSIT Lecture: Implications of Robotics for Public Policy</a>	15 May 2024	1800 hrs
<a href="#">EMC Fest 2024</a>	16 May 2024	0800 hrs
<a href="#">Documentary: Drake Equation</a>	24 May 2024	1600 hrs
<a href="#">Documentary: Rachel Carson</a>	24 May 2024	1830 hrs
<a href="#">This is My Story and I am sticking with it</a>	31 May 2024	1100 hrs
<a href="#">Senior Elevation (IN person)</a>	01 June 2024	1000 hrs



## Chair's Column

### What to look forward to this month of May:

- ✓ We are now into spring 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 April, it was immensely satisfying! We had a total of 31 reported events (compared to 24 in March), out of which 15 were technical in nature (again when compared to March we had 13!). What stood out – is how our events are attracting the keen interests of other sections and regions! One recent April hybrid event generated 105 attendees! I 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 the first of many Distinguished speakers – this time the topic was on Industry trends and tech predictions. It was attended by over 35 persons, with lots of Q&A. let me know if you wish for a copy.
- ✓ The IEEE was recognized by all of our sister technical/professional society peers at the recent Engineering Society of Detroit (ESD) GOLD awards ceremony. The [Anne O. Fletcher award](#) was given in honor of IEEE's service in reaching out to the societies in many a collaborative and c-operative ventures.
- ✓ **SAVE THE DATE (2024-09-21)! The IEEE is now 140 years old.** I have issued a call for volunteers to serve on a planning task force. Similar to what we did back in late October/early November 2023 when we held for the 60<sup>th</sup> anniversary of our Section. Ideas for a venue, type of celebration, theme, etc., are all still being invited. We will have at least a distinguished talk by several IEEE leaders, member awards and recognition, a sumptuous dinner, museum/art tour and memorable eclectic entertainment. Send your suggestions/ideas/emails to [sharan.kalwani@ieee.org](mailto:sharan.kalwani@ieee.org) or [chair@ieee-sem.org](mailto:chair@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 May (20 at last count...). Look for the flyers in this issue, but to list a few:
- ✓ Factory Tour – see the original GM factory where things first got started....
- ✓ The Nanotechnology Chapter has organized two Distinguished Speakers on the following topics:
  - Cubic Boron Arsenide: A promising semiconductor by Dr Jiming Bao and
  - Unconventional Computing using Spintronics by Dr Sanjukta Bhanja
- ✓ Not to forget the annual EMC Fest!
- ✓ Several highly acclaimed documentaries (with a few new ones too!)
  - The Drake Equation – Search for life in our universe
  - Rachel Carson – Author of Silent Spring

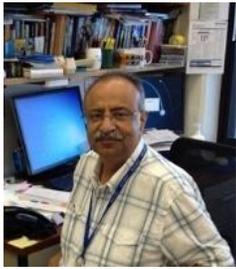
You can find ALL the other upcoming events using the short URL link: <https://bit.ly/sem-upcoming>

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 **3<sup>rd</sup> senior member elevation** event is taking place soon (June 1 at Oakland University). See the flyer in this issue. Note we will be timing these 3 weeks before each A&A panel meeting.

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: [chair@ieee-sem.org](mailto:chair@ieee-sem.org)

Section members are encouraged to engage using any 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:

- 📖 Chair is [chair@ieee-sem.org](mailto:chair@ieee-sem.org)
- 📖 Vice Chair is [vicechair@ieee-sem.org](mailto:vicechair@ieee-sem.org)
- 📖 Treasurer is [treasurer@ieee-sem.org](mailto:treasurer@ieee-sem.org)
- 📖 Secretary is [secretary@ieee-sem.org](mailto:secretary@ieee-sem.org)
- 📖 Advisor is [advisor@ieee-sem.org](mailto:advisor@ieee-sem.org)
- 📖 140<sup>th</sup> event celebration team: [140@ieee-sem.org](mailto:140@ieee-sem.org)

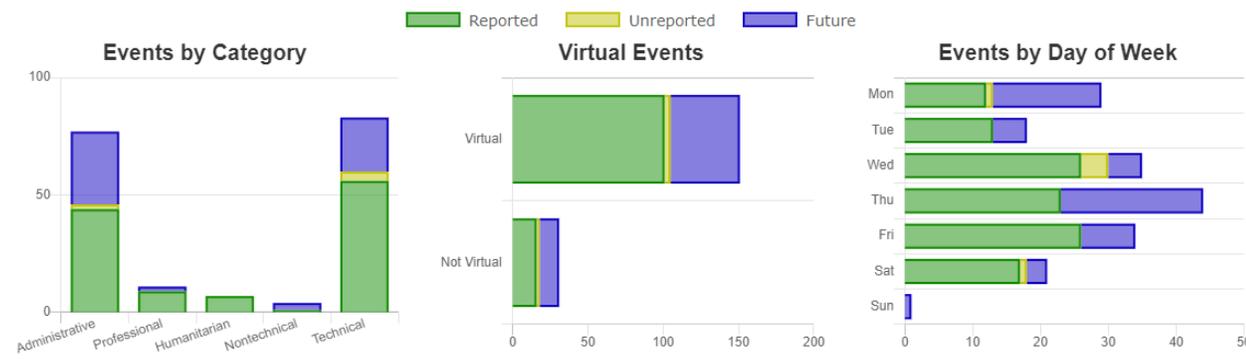
## EVENTS ACTIVITY

Year: 
 Organizational Unit: 
 Child OUs:

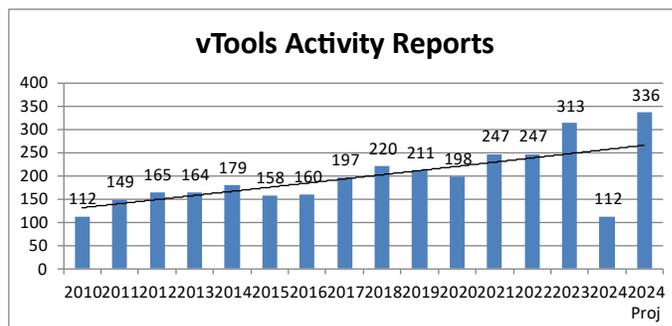
### R40035 - Southeastern Michigan Section Charts

These data counts and charts include the selected OU and all related organizational units. See below for individual OU numbers and charts.

Name	Prof	Tech	Non-Tech	Admin	Hum	Pre-U	Total
Southeastern Michigan Section	11	83	4	77	7	0	182



### Events tracking (YTD)



Tech Activities REPORT

2024 IEEE SE Michigan Section Geo-unit Status (Till April 29th)								
Ch's & AG's	Ave Tech Mtg. Attend	Ave Tech Mtg Guest	#L31 -Technical	#L31 -Admin	#L31 Professional	#L31 -Other	Geo-Unit Name	# Unreported
CnsIt	0	0	0	0	1	0	Consultants Network	0
LIFE	0	0	0	4	0	0	Life Members	0
WIE	18	15	2	4	1	0	Women In Engineering	1
YP	0	0	0	3	0	0	Young Professionals	0
1	0	0	0	2	0	0	Circuits & Systems, Signal Proc., Info Th.	0
2	14	0	1	1	0	0	Vehicular Technology	0
3	0	0	0	0	0	0	Aerospace & Elec. Sys., Communications	0
4	29	0	5	0	0	0	Trident (Ant, Elect Dev., uWave, Photo)	0
5	65	5	23	3	4	4	Computers	0
6	17	0	2	0	0	0	Geoscience & Remote Sensing	0
7	55	2	2	3	0	1	Power Engineering, Industrial App.	1
8	47	18	5	4	0	0	Electromagnetic Compatibility (EMC)	0
9	87	0	1	2	0	0	Power Electronics, Industrial Electronics	0
10	4	1	1	2	0	0	Engineering Management	0
11	0	0	0	2	0	0	Eng. in Medicine & Biology	1
12	0	0	0	1	0	0	Control Systems	0
13	0	0	0	0	0	0	Education	0
14	0	0	0	1	0	0	Robotics & Automation	0
15	29	0	5	0	0	0	Nuclear Plasma Science Society	0
16	0	0	0	0	1	0	Computational Intelligence / Sys.Man.Cyber.	0
17	0	0	0	0	0	1	Nano Technology Council	0
18	0	0	0	0	0	0	Magnetics Society	0
SEM	39	27	2	14	2	2	SEM (Section)	1
	403	68	49	46	9	8	NOTE: Highlight Green = Active	4
		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](mailto:jvmosley@ieee.org)  
 Southeastern Michigan Section, IEEE Region 4

## This Month in May

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



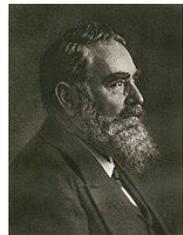
**Frank Conrad (Station 8XK 1920), Born 4 May 1874, died at age 67.**

An American electrical engineer whose interest in radio telephony led to the establishment of the first commercial radio station. Conrad worked for Westinghouse as assistant chief engineer at its East Pittsburgh Works and acquired over 200 patents in his lifetime. As an amateur, having built a transmitting station on the second floor of the garage behind his home in Wilksburg, PA, when he substituted a phonograph for his microphone, he discovered a large audience of listeners who had built their own crystal radio sets and who, upon hearing the music, wrote or phoned requests for more music and news. When he became swamped with these requests, he decided to broadcast regular, scheduled programs to satisfy his listeners. He coined the term "broadcast."



**Walter Bruch, Died 5 May 1990 at age 82.**

Walter was a German electrical engineer who invented the Phase Alternating Line (PAL) color television system adopted in Europe. On a trip to America in 1953, he found inadequacies in the system as first developed there (NTSC, National Television Standards Committee). He returned to his German employer – Telefunken - and researched a way to improve color stability without need for tint and hue controls. By 1961, a preliminary patent was filed, but was superseded on 30 Dec 1962 with a definitive version of the PAL system. There followed a struggle for it to be recognized as the best coding method. Britain selected PAL as superior to NTSC and introduced it on 1 Jul 1967. Germany followed on 25 Aug 1967. Eventually most of the world, too.



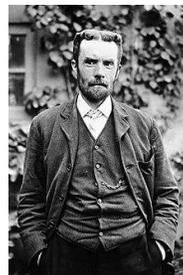
**Oskar von Miller, Born 7 May 1855, died at age 78;**

A German electrical engineer who fostered the electric-power industry in Germany and founded the Deutsches Museum of Science and Technology in Munich. He made fundamental initial experiments on long-distance energy transmission such as (in 1882) over 57 km from Miesbach to Munich with 1400 volts direct current. In 1891, he organized a 20,000-volt power transmission line over 175 km from Lauffen to Frankfurt, an important advance in the transmission of alternating current. From 1918-24, he was project manager building the power station on Lake Walchen, at that time the largest hydroelectric power station in the world. With an average of 300 million kWh a year, the Lake Walchen power plant is still one of Germany's largest peak load power stations.



**William Lear, Died 14 May 1978 at age 75.**

An American aeronautical engineer, electrical engineer and inventor who taught himself electrical engineering and is best known for the Lear Jet Corporation he founded, the world's first mass-producer of business jet aircraft. Beginning in 1930, over a 20-year period, he secured more than 100 patents for aircraft radios, communications and navigation equipment. Lear's other inventions include the miniature automatic pilot for aircraft, the first commercial automobile radio, and the eight-track stereo tape player.



**Oliver Heaviside, Born 18 May 1850, died at age 74.**

Oliver was an English mathematician, physicist and electrical engineer who predicted the existence of the ionosphere. In 1870, he became a telegrapher, but increasing deafness forced him to retire in 1874. He then devoted himself to investigations of electricity. In 1902, Heaviside and Arthur Kennelly predicted that there should be an ionized layer in the upper atmosphere that would reflect radio waves. They pointed out that it would be useful for long distance communication, allowing radio signals to travel to distant parts of the earth by bouncing off the underside of this layer. The existence of the layer, now known as the Heaviside layer or the ionosphere, was demonstrated in the 1920s, when radio pulses were transmitted vertically upward and the returning pulses from the reflecting layer were received. He invented a new technique for solving differential equations and independently developed vector calculus. He is also credited with rewriting Maxwell's equations in the form commonly used today. He formulated the telegrapher's equations and invented the Heaviside step function as well. In 1922, he received the Faraday Medal.

**Hideo Shima, Born 20 May 1901, died at age 96.**

Hideo was a Japanese engineer, who designed and supervised the construction of the world's first high-speed "bullet" train, linking Tokyo and Osaka. It began service at 138 mph in Oct 1964. The rail line opened a new era in land transport. (The current generation reaches 169 mph). Shima also led Japan's space development program until 1977 at Japan's National Space Development Agency. In his early career, Shima worked hard to further develop powerful steam locomotives, culminating in the wartime 2-8-2 D51 and D52 for freight and the post-war 4-6-4 C62 for passenger trains. He next developed electrical motive power distributed along the whole train length yielding higher power output on a multiple-unit train without damaging tracks and structures.

**Lillian Evelyn Gilbreth, Born 24 May 1878, died at age 93.**

Lillian (née Moller) was an American efficiency expert, who was the wife of Frank Bunker Gilbreth, contracting engineer, together developed the method of time and motion study. Upon her marriage, 19 Oct 1904, she became a partner in her husband's fledgling motion study business. As a contractor, he was already applying ideas to improve the speed of building. After a few years, they applied motion study to industry. Each step of work activity was to be studied in detail (employing motion pictures for analysis) to determine the optimal way to execute a given task. By choosing a method of least exertion, the employees would be healthier, more productive, and economically improve the business. She continued after her husband's death in 1924.

**Ernst Ruska, Died 27 May 1988 at age 81.**

Ernst August Friedrich Ruska was a German electrical engineer who invented the electron microscope. For "his fundamental work in electron optics and for the design of the first electron microscope" he was awarded a share of the Nobel Prize for Physics in 1986 (with Heinrich Rohrer and Gerd Binnig). In 1928, he found that a magnetic coil could act as a lens to focus an electron beam. Adding a second lens he produced the first primitive (x17 power) electron microscope. By 1933, his refinements increased the magnification to x7000, exceeding what was possible with visible light. The first commercial model was marketed in 1939. Since then, electron microscopes rapidly found applications in biology, medicine and many other areas of science.

**Rachel Carson, Born May 27, 1907, Died April 14, 1964 (aged 56)**

Rachel Louise Carson was an American marine biologist, writer, and conservationist whose book *Silent Spring* (1962) are credited with advancing marine conservation and the global environmental movement. Carson began her career as an aquatic biologist in the U.S. Bureau of Fisheries and became a full-time nature writer in the 1950s. Her widely praised 1951 bestseller *The Sea Around Us* won her a U.S. National Book Award. Her next book, *The Edge of the Sea*, and the post-war reissued version of her first book, *Under the Sea Wind*, were also bestsellers. This sea trilogy explores the whole of ocean life from the shores to the depths. Late in the 1950s, Carson turned her attention to conservation, especially some problems she believed were caused by synthetic pesticides. The result was the book *Silent Spring*, which brought environmental concerns to an unprecedented share of the American people. Although *Silent Spring* was met with fierce opposition by chemical companies, it spurred a reversal in national pesticide policy, which led to a nationwide ban on DDT and other pesticides. It also inspired a grassroots environmental movement that led to the creation of the U.S. Environmental Protection Agency. Carson was posthumously awarded the Presidential Medal of Freedom by President Jimmy Carter. See <https://events.vtools.ieee.org/m/413672>

**Frank Drake, Born May 28, 1930, Died September 2, 2022 (aged 92)**

Frank Donald Drake was an American astrophysicist and astrobiologist. He began his career as a radio astronomer, studying the planets of the Solar System and later pulsars. Drake expanded his interests to the search for extraterrestrial intelligence (SETI), beginning with Project Ozma in 1960, an attempt at extraterrestrial communications. He developed the Drake equation which attempts to quantify the number of intelligent lifeforms that could potentially be discovered. Working with Carl Sagan, Drake helped to design the Pioneer plaque, the first physical message flown beyond the Solar System, and was part of the team that developed the Voyager record. Drake designed and implemented the Arecibo message in 1974, an extraterrestrial radio transmission of astronomical and biological information about Earth. He is the father of Advanced SETI. Drake worked at the National Radio Astronomy Observatory, Jet Propulsion Laboratory, Cornell University, University of California at Santa Cruz and the SETI Institute. See <https://events.vtools.ieee.org/m/384610>





***John Bardeen, May 23, 1908 – January 30, 1991***

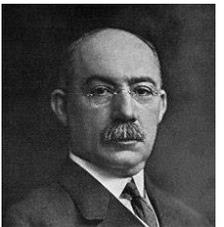
The only person to have won the Nobel Prize in Physics twice, John Bardeen was an American physicist and one of the co-inventors of the transistor. A qualified electrical engineer, he also propounded a fundamental theory of conventional superconductivity along with physicists Leon N Cooper and John Robert Schrieffer. His inventions in the field of physics led to a revolution in the electronics industry as it was the transistor that paved the way for further research and development in information and communication technology. His contributions to the scientific world are of immense significance and he was counted among LIFE Magazine's list of "100 Most Influential Americans of the Century" in 1990. Even as a young boy Bardeen was exceptionally intelligent and performed brilliantly at school. He went on to study engineering. It was while working at Bell Labs that he

invented the transistor along with some colleagues which led to his first Nobel Prize victory. A few years later he again won the Nobel Prize for his theory of superconductivity. He is among the only five people to win the coveted prize twice.



***Edsger W. Dijkstra, Born 11 May 1930 – 6 August 2002***

A pioneering computer scientist from the Netherlands, Edsger W. Dijkstra had initially studied theoretical physics, before focusing on computers. He developed the domain of structured programming and also won honors such as the Turing Award. He died at 72, after a long struggle with cancer.



***Henry Gantt, Born May 20, 1861 – November 23, 1919***

Best known for creating the Gantt Chart, a management tool used for scheduling tasks, mechanical engineer Henry Gantt had been a disciple and colleague of Frederick W. Taylor. He also prepared ground for the Human Relations School of management and spoke about the social responsibility of business.



***Martin Eberhard, Born May 15, 1960***

Martin Eberhard is an American inventor, engineer and entrepreneur who co-founded Tesla, Inc. (then Tesla Motors) with Marc Tarpenning in 2003, where Eberhard was its original Chairman and CEO, and served as CEO until late 2007. In 2015, he was inducted into the University of Illinois Engineering Hall of Fame. Eberhard grew up in Kensington, California, a community in the Berkeley Hills. He received a B.S. in computer engineering from the University of Illinois Urbana-Champaign in 1982 and an M.S. in electrical engineering from the same school in 1984.



***Robert Moog, Born May 23, 1934 – August 21, 2005***

Robert Moog was an engineering physicist widely regarded as the pioneer of electronic music. He launched the first commercial synthesizer, the Moog synthesizer, in 1964. A few years later, he launched the Minimoog, which went on to become the most famous and influential synthesizer in history. He taught at the University of North Carolina in his later years.



***Ellen Ochoa, Born May 10, 1958***

Ellen Ochoa is an American engineer, former astronaut and former director of the Johnson Space Center. In 1993, Ochoa became the first Hispanic woman to go to space when she served on a nine-day mission aboard the Space Shuttle Discovery. Ochoa became director of the center upon the retirement of the previous director, Michael Coats, on December 31, 2012. She was the first Hispanic director and the second female director of Johnson Space Center. Ochoa has won several prestigious awards including NASA's Distinguished Service Medal and Space Flight Medals. In 2017, she was inducted into the United States Astronaut Hall of Fame.

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

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, which 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 [link](#) which lists all of the documentaries featuring several of the folks mentioned in “*This month....*” series. Enjoy!

***Sharan Kalwani***

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

## 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: <https://r4.ieee.org/sem/aboutsem/volunteer-portal/>.

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](mailto: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: <https://r4.ieee.org/sem/aboutsem/training/>

**FREE Voice over Power Point Training:** 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](mailto:Virtual_Training_QA_Forum@googlegroups.com)

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

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.



ANNOUNCEMENT and CALL FOR PAPERS (version June, 2023)

2024 IEEE INTERNATIONAL CONFERENCE  
on ELECTRO/INFORMATION TECHNOLOGY

May 30, 31, June 1, 2024

University of Wisconsin-Eau Claire, Eau Claire, Wisconsin 54702-4004

<http://www.eit-conference.org/eit2024>

#### ORGANIZING COMMITTEE

**R4 EIT Conference Administrator**  
Tarek Lahdhiri, [lahdhiri@ieee.org](mailto:lahdhiri@ieee.org)

**EIT Conferences Founding General Chair**  
Hossein Mousavinezhad, [hossein.mousavinezhad@ieee.org](mailto:hossein.mousavinezhad@ieee.org)

**2024 Conference General Chair**  
Rahul Gomes, [gomesr@uwec.edu](mailto:gomesr@uwec.edu)

**Program Chairs**  
Constantin Apostoiaia, [apostoai@pmw.edu](mailto:apostoai@pmw.edu)  
Subra Ganesan, [ganesan@oakland.edu](mailto:ganesan@oakland.edu)  
Ibrahim Abdel-Motaleb, [ibrahim@niu.edu](mailto:ibrahim@niu.edu)  
Benjamin Fine, [finebt@uwec.edu](mailto:finebt@uwec.edu)

**Finance Chair**  
Steve Kerchberger, [s.kerchberger@ieee.org](mailto:s.kerchberger@ieee.org)

**Professional Development Program Chairs**  
Tarek Lahdhiri, [lahdhiri@yahoo.com](mailto:lahdhiri@yahoo.com)

**Exhibits/Industry/Sponsorship Chairs**  
Hamid Vakildadian, [hvakildadian@unl.edu](mailto:hvakildadian@unl.edu)  
Jim Riess, [jriess@ieee.org](mailto:jriess@ieee.org)

**Publicity Chairs**  
Ahmed Naumaan, [ahmed.naumaan@ieee.org](mailto:ahmed.naumaan@ieee.org)  
Alvin Chin, [alvin.chin@ieee.org](mailto:alvin.chin@ieee.org)  
Ying Ma, [yingma@uwec.edu](mailto:yingma@uwec.edu)  
Bokai Yang, [yangboka@uwec.edu](mailto:yangboka@uwec.edu)

**Local Arrangements Chair**  
Alex Smith, [smithaj@uwec.edu](mailto:smithaj@uwec.edu)

**Registration Chairs**  
Jim Seliya, [seliyana@uwec.edu](mailto:seliyana@uwec.edu), Emily Hastings, [hastinem@uwec.edu](mailto:hastinem@uwec.edu)

**Student Activities Chair**  
Sasidhar Tadanki, [stadanki@ieee.org](mailto:stadanki@ieee.org)

**Publication Chairs**  
Afshin Izadian, [izadian@iupui.edu](mailto:izadian@iupui.edu), IUPUI  
Mounika Vanamala, [vanamalm@uwec.edu](mailto:vanamalm@uwec.edu)

**International Liaisons**  
Chengying Xu, Peter Dittrich, Hongwei Zhang, Hsiao-Hwa Chen, Mounika Vanamala,  
Ying Ma

**eit 2024 Webmaster**  
Bob Evanich, [b.evanich@ieee.org](mailto:b.evanich@ieee.org), Duke Energy

**Awards Committee**  
Sat Basu, [satbasu@ieee.org](mailto:satbasu@ieee.org), Hossein Mousavinezhad, Subra Ganesan

The IEEE 2024 International Electro/Information Technology Conference, sponsored by the IEEE Region 4 (R4), in collaboration with University of Wisconsin-Eau Claire, is focused on basic/applied research results in the fields of electrical and computer engineering as they relate to Electrical and Computer Engineering, Information Technology, and related applications. The purpose of the conference is to provide a forum for **researchers and industrial investigators** to exchange ideas and discuss developments in these growing fields. There will also be exhibits where the latest electro/information technology tools and products will be showcased. This is also an opportunity for professional activities development, workshops and tutorials.

Topics of interest include but are not limited to:

- **Robotics and Mechatronics**
- **Intelligent Systems and Multi-agent Systems**
- **Control Systems and System Identification**
- **Reconfigurable and Embedded Systems**
- **Power Systems and Power Electronics**
- **Solid State, Consumer and Automotive Electronics**
- **Electronic Design Automation**
- **Biomedical Applications, Telemedicine**
- **Biometrics and Bioinformatics**
- **Nanotechnology**
- **Micro Electromechanical Systems**
- **Electric Vehicles**
- **Wireless communications and Networking**
- **Ad Hoc and Sensor Networks**
- **Internet of Things**
- **Artificial Intelligence and Machine Learning**
- **Cybersecurity**
- **Computer Vision**
- **Signal/Image and Video Processing**
- **Distributed Data Fusion and Mining**
- **Cloud, Mobile, and Distributed Computing**
- **Software Engineering and Middleware Architecture**
- **Engineering Education**

#### Important dates:

- Submission of full papers: February 16, 2024
- Notification of acceptance: March 15, 2024
- Final manuscript (PDF) due: April 26, 2024
- Early registration: May 10, 2024

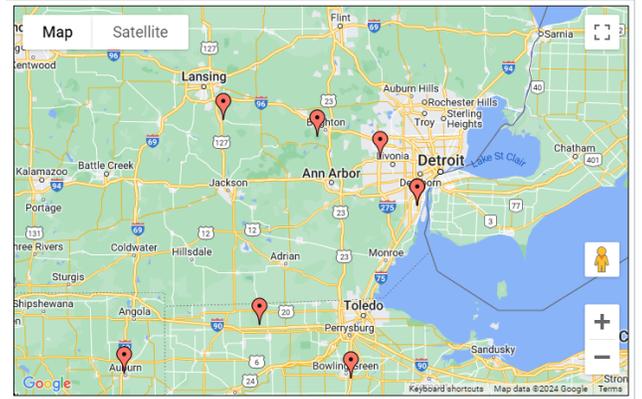
For more information, ideas for organizing/chairing sessions, industry participation, tutorials, professional activities sessions, please contact: **Dr. Gomes or Mousavinezhad.**

## Field Day 2024

During the weekend of June 22 & 23, 2024 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 around 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. <http://www.arrl.org/field-day-locator>

**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.

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.

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.

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 a keen awareness of its community support role in times of need.

73, N8FNC

## ICCM 2024



## 8th International Conference on Microwave Magnetism

We would like to invite you to attend the 8th International Conference on Microwave Magnetism, 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: <https://tinyurl.com/ICMM2024-template>  
The link to the submission form can be found here: [www.icmm2024.org/registrationsubmissions](http://www.icmm2024.org/registrationsubmissions)  
Further information can be found at the conference website: [www.icmm2024.org](http://www.icmm2024.org)

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 magnetism. 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](mailto: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:

**icmm2024.org**

## Senior Member News



*Congratulations to Dr Huirong Fu! Our latest member to get elevated to senior member level.*

Dr. Huirong Fu received her Ph.D. degree from Nanyang Technological University, Singapore, in 2000. She is currently a Distinguished Professor with the Department of Computer Science and Engineering, Oakland University (OU), Rochester, MI, USA, where she joined as an Assistant Professor in 2005. Previously, she was an Assistant Professor with North Dakota State University, Fargo, ND, USA, for three years, and she was a Postdoctoral Research Associate with Rice University, Houston, TX, USA, for two years.

Dr. Fu has extensive research experience in cybersecurity, applied cryptography, trust management, and privacy with over 100 peer-reviewed journal and conference papers. She has been the PI for more than a dozen of projects funded by the federal agencies. She served as the advisor for ACM-W student chapter for 5 years and is the founding advisor of the OU Cybersecurity club which was recognized as the Outstanding New Student Organization of the Year, SAFB's Best New Student Organization, and Outstanding Educational Program. As the Founding Director of the OU Center for Cybersecurity since 2016, she led to build up the OU cybersecurity capacity and ultimately qualified OU as the National Center of Academic Excellence in Cyber Defense (NCAE-C), designated by the National Security Agency (NSA) and the Department of Homeland Security (DHS) in 2018 and re-designated in 2024.

Do extend your congratulations to her.  
--Sharan Kalwani

**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 <https://events.vtools.ieee.org/m/416546> †] We have scheduled ours to be June 1 – giving us enough time to fix any gaps, etc. *We do both online and local!***
- 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 IEEE HQ Panel Meeting Dates**

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



†See our own Section organized event at: <https://events.vtools.ieee.org/m/416546> or check the Section web site or see page 28

## 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:  
“Organization Roster” to download the PDF version of the current Roster.

*(Note: It is also a good idea to download the Organization Org Chart 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 really learn 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: <https://iee-elearning.org/CLE/>

Good luck!

## Factory One Tour

An automotive archive, research center and event space in the heart of Flint's historic Carriage Town neighborhood. The birthplace of General Motors, Durant-Dort Factory One is where bold, innovative visionaries William "Billy" Crapo Durant and Josiah Dallas Dort helped put the world on wheels and the city of Flint on the map. GM's renovation of Factory One brings their story – and the building where it all began – full circle, preserving the shared heritage of GM and Flint as a learning tool and gathering space for generations to come.



Date: **13 May 2024**

Time: **12:00 PM to 02:30 PM**

<https://events.vtools.ieee.org/m/406523>

For more information about Factory One see link: <https://www.gmfactoryone.com/product/public/us/en/factory-one/contact.html>

Sponsored by Life Members Affinity Group & co-hosted by TEMS Chapter

## RoboFest REPORT

**ROBOFEST**  
LAWRENCE TECHNOLOGICAL UNIVERSITY

- [\(1\) Robofest World Championship Schedule Announced](#)
- [\(2\) 2024 Game Judge Training Video and Presentation Available](#)
- [\(3\) Team Registration is Still Open for Many Qualifiers](#)
- [\(4\) Video Qualifier and Video Screening for Exhibition Team Deadlines](#)
- [\(5\) In Search of 5-, 10-, 15- and 20-Year Coach Award Recipients](#)
- [\(6\) MCWT \\$750 Grants for All-Girl Robofest Teams in Michigan: LAST CALL](#)
- [\(7\) LTU Scholarship Opportunities](#)

Note: All times are listed in Eastern Time unless noted

[\(1\) Robofest World Championship Schedule Announced](#)

The 25<sup>th</sup> Robofest World Championship Game and Exhibition Finals and Open Categories will be hosted on Lawrence Technological University's campus on May 9 ~11, 2024 with the following schedule:

May 9: Unknown Mission Challenge and Jr BottleSumo (Group 1)

May 10: Jr BottleSumo (Group 2), RoboParade, RoboMed, Sr BottleSumo Classic and Unlimited

May 11: Jr BottleSumo Final Match, Vision Centric Challenge, RoboArts, Game Finals, Exhibition Finals

More details including practice times, event start times and campus locations can be found on the schedule:

<https://www.robofest.net/images/2324/WC2024Schedule022124.pdf>

Registration will open at 3:00pm Monday, March 18, 2024 for US Teams wishing to participate in the Open Category events. International teams who do not have a Robofest Director in their country may send an email to [robofest@ltu.edu](mailto:robofest@ltu.edu) requesting registration.

Additional information regarding travel, nearby hotels and other important announcements will be posted on the World Championship page on the Robofest.net website, so check back often.

[\(2\) 2024 Game Judge Training Video and Presentation Available](#)

A recording of the Game Judging Training presentation and a pdf of the Judge Training slides have been posted on the Game page on the website. All Game Qualifier Site Hosts and volunteer Game judges should review the training.

[\(3\) Team Registration is Still Open for Many Qualifiers](#)

Please be sure to register your team for Qualifying and Open Competitions at local sites. Teams who do not have a local competition can also compete through the US and International Video Qualifier options for a chance to advance to the Robofest World Championship at LTU in May.

[\(4\) Video Qualifier and Video Screening for Exhibition Team Deadlines](#)

Video\_Qualifier\_USA and Video\_Qualifier\_International Game and Exhibition teams must upload a link to a video to the Team Registration page to be screened and scored by April 15.

Exhibition trophy winners in all US competitions including Michigan must upload a link to a presentation video to the Team Registration page by April 15 to be screened before the World Championship. Teams that did not automatically advance may receive an invitation to the World Championship based on the video.

For more information, please see official rules on the 2024 Main page on the Robofest.net website.

[\(5\) In Search of 5-, 10-, 15- and 20-Year Coach Award Recipients](#)

We would like to acknowledge our coaches who have coached Robofest teams for 5, 10, and 15 and 20 years!

To submit your name, please send an email to [robofest@ltu.edu](mailto:robofest@ltu.edu) with the subject \*Coach Award\*. Please include the coach's name, coach ID (include all IDs used), and number of years coaching. We will recognize these dedicated coaches at the Robofest World Championship Awards Ceremony on May 11.

**(6) MCWT \$750 Grants for All-Girl Robofest Teams in Michigan: LAST CALL**

The Michigan Council of Women in Technology Foundation, a Gold Sponsor of Robofest, is once again providing \$750 grants for up to ten Michigan all-girl Robofest teams for the 2024 Robofest Game and Exhibition competitions. More information and the 2024 season application are now available on the MCWT webpage: <https://mcwt.org/programs/list/K-12-Initiatives/ROBOTICS-GRANTS>

**(7) LTU Robofest Scholarship Opportunities**

In order to truly recognize the effort and exceptional talent of the Robofest competitors, Lawrence Technological University has updated the Robofest Champion LTU Scholarship Award Offer for 2024. Each team member of the top 3 Senior Division Game, Exhibition, RoboArts, RoboMed, UMC and Vcc teams at the World Championship events will receive a scholarship certificate to attend LTU:

- 1st Place: \$20,000 annual scholarship (\$80,000 for 4 years)
- 2nd Place: \$16,000 annual scholarship (\$64,000 for 4 years)
- 3rd Place: \$14,000 annual scholarship (\$56,000 for 4 years)

Robofest participants who have competed at any time in any category may still apply for the annual \$3,000 LTU Robofest scholarship. More details will can be found on the Scholarship page: <https://www.robofest.net/index.php/about/scholarship>

---

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

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

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

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

Dr. CJ Chung, Robofest Founder, Executive Council Chair, [cchung@ltu.edu](mailto:cchung@ltu.edu)

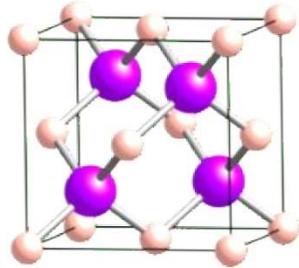
Dr. Chris Cartwright, Executive Council Member

Dr. Eric Martinson, Executive Council Member

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

## Cubic Boron Arsenide

IEEE Southeastern Michigan Presents:  
Distinguished Speaker Lecture on  
“Cubic Boron Arsenide: Next Generation Semiconductors”



Cubic boron arsenide (c-BAs) is an indirect bandgap (1.82 eV) semiconductor, it has a similar band structure as silicon, but its thermal conductivity is 10X higher and its carrier mobility is 3X larger at room temperature. This suitable bandgap, simultaneous high thermal conductivity and high carrier mobility have made c-BAs a promising material for next generation electronics, especially after recent experimental verifications of these excellent thermal and electronic properties. However, many challenges remain for c-BAs to realize its many promises. In this talk, I will first give a brief introduction to the history and basic properties of c-BAs, I will then explain its next-only-to-diamond high thermal conductivity. After that, I will show optical techniques that have been developed to measure thermal conductivity and carrier mobility. Finally, I will show photoluminescence and Raman spectra of c-BAs and discuss the challenges of using them to identify and characterize high quality c-BAs.

**Speaker Bio:**

Dr Jiming Bao is a Professor of ECE at the University of Houston, Texas. He graduated from the University of Michigan and is a Fellow of the Optical Society of America and American Physical Society.

**At A Glance**

- **When:**

Date: May 14<sup>th</sup>, 2024  
Time: 06:00 – 7:15 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**  
**Nanotechnology**  
**Technical**  
**Chapter**

**\*Pre-Registration Required!**

<https://events.vtools.ieee.org/m/417886>

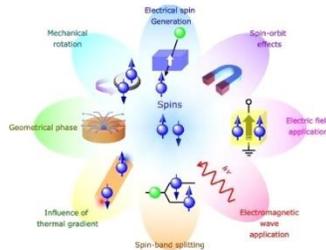


**IEEE Southeastern Michigan Section**

**140**  
**YEARS**

## Spintronics

IEEE Southeastern Michigan Presents:  
Distinguished Speaker Lecture on  
“Unconventional Computing using Spintronics”



## At A Glance

- **When:**

Date: May 21<sup>st</sup>, 2024Time: 06:00 – 7:15 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**  
**Nanotechnology**  
**Technical**  
**Chapter**

Quadratic Unconstrained Binary Optimizing (QUBO) is a combinatorial optimization problem that has become essential to machine learning, economics, and healthcare applications. Therefore, QUBO solvers have seen a significant boost in their demand. These problems are computationally expensive, complex to parallelize, and require MIMD approaches. In this talk, we will explore a magnetic QUBO-solver, which could solve the problems more quickly and cost-effectively at room temperature. Because the Hamiltonian of a system of coupled nanomagnets is quadratic, a wide class of quadratic energy minimization can be solved much more quickly by the relaxation of a grid of nanomagnets than by a conventional Boolean processor. Our research shows that magnet-based solutions are independent of problem size as the ground state of the magnets yield the optimization solution in parallel. This co-processor consists of a programmable grid of magnetic cells that can generate any magnetic layout in a 2D plane and will be integrated with peripheral control similar to STT-MRAM memory.

**Speaker Bio:**

Dr Sanjukta Bhanja is a Professor of EE at the University of South Florida, Tampa and is currently serving as the Associate Dean in the College of Engineering since 2021.

**\*Pre-Registration Required!**

<https://events.vtools.ieee.org/m/417892>



## May 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) **National Inventors Month**, 01 May 2024. *May is National Inventors Month, which celebrates human ingenuity and the positive image of inventors. The National Inventors Hall of Fame (NIHF) created the annual celebration to recognize the contributions inventors have made to the world.*



Official Link: <https://www.invent.org/>

National Inventors Month is celebrated every year in May in the United States of America. The month celebrates the ingenuity and creativity of American inventors. The first National Inventors Month was celebrated by the United Inventors Association of the USA (UIA-USA), the Academy of Applied Science, and "Inventors Digest." Celebrate this special event by reading a book by famous inventors such as Nikola Tesla or Claude Shannon!

- b) **National Space Day**, May 3<sup>rd</sup>, 2024. (First Friday in May) National Space Day is celebrated on the first Friday of May. It's an unofficial holiday that recognizes the wonders of space, and aims to promote education in math, science, technology, and engineering (STEM) to young people. The goal is to inspire them to pursue a career in science, especially in space-related jobs. The Lockheed Martin Corporation introduced National Space Day in 1997, and it was expanded to International Space Day in 2001 due to its popularity.



Useful link: <https://nationaltoday.com/national-space-day/>

- c) **International Astronomy Day**, 18<sup>th</sup> May 2024. This event was started in 1973 by Doug Berger, the president of the Astronomical Association of Northern California. His intent was to set up various telescopes in busy urban locations so that passersby could enjoy views of the heavens. Since then the event has expanded and is now sponsored by a number of organizations associated with astronomy. Originally, Astronomy Day occurred on a Saturday between mid-April and mid-May, and was scheduled so as to occur at or close to the first quarter Moon. In 2007, an autumn Astronomy Day was added. It was scheduled to occur on a Saturday between mid-September and mid-October so as to be on or close to the first quarter Moon.

- d) **Women in Mathematics Day**, 12<sup>th</sup> May 2024

May is a month to remind us of the achievements of women in Mathematics. It is also a time to reflect on the few female presence in the field. What can we do to overcome this gender imbalance among calculation scholars?

May 12 is the date of birth of the mathematician Maryam Mirzakhani. This date was chosen to celebrate the women mathematicians because she is still the only woman to have won the Fields Medal. This prestigious prize is annually awarded to four mathematicians under 40.

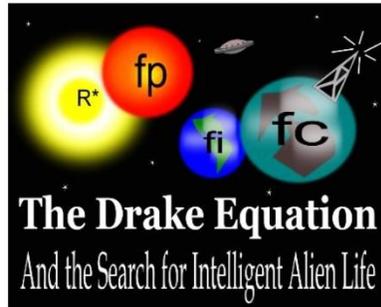
**Sharan Kalwani** is the current Chair of the IEEE Southeastern Michigan Section as well as the Chair of the Computer Society Technical Chapter. Besides working in the field of High-Performance Computing as his daytime job, he is also Adjunct Faculty and teaches a number of courses such as: Introductory 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](#).

## Drake Equation

IEEE Southeastern Michigan

Presents:

## The Drake Equation: A Documentary



## At Glance

- **When:**  
Date: May 24<sup>th</sup>, 2024  
Time: 1600 – 1730 Hrs  
(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  
Chapter

Recently, as part of an innovative and fresh approach, i.e., a non-traditional meeting event: we presented video documentaries. This was very warmly received. So, we decided to continue the good work. We proudly present the Documentary: *The Search for Life: The Drake Equation*

**Summary:** A look at the Drake equation, developed by Dr. Frank Drake as a way to think about the number of extraterrestrial civilizations in our galaxy that could exist and communicate with us

The Drake equation is:<sup>[1]</sup>

$$N = R_* \cdot f_p \cdot n_e \cdot f_i \cdot f_c \cdot L$$

where

- $N$  = the number of civilizations in the Milky Way galaxy with which communication might be possible (i.e. which are on the current past light cone);
- and
- $R_*$  = the average rate of star formation in our Galaxy.
- $f_p$  = the fraction of those stars that have planets.
- $n_e$  = the average number of planets that can potentially support life per star that has planets.
- $f_i$  = the fraction of planets that could support life that actually develop life at some point.
- $f_c$  = the fraction of planets with life that go on to develop intelligent life (civilizations).
- $f_c$  = the fraction of civilizations that develop a technology that releases detectable signs of their existence into space.
- $L$  = the length of time for which such civilizations release detectable signals into space.<sup>[6][7]</sup>

**\*Pre-Registration Required!**

<https://events.vtools.ieee.org/m/384610>



IEEE Southeastern Michigan Section



## Rachel Carson

IEEE Southeastern Michigan  
Presents:  
*Rachel Carson: A Documentary*



Rachel Louise Carson (May 27, 1907 – April 14, 1964) was an American marine biologist, writer, and conservationist whose *Sea Trilogy* (1941–1955) and book *Silent Spring* (1962) are credited with advancing marine conservation and the global environmental movement.

Late in the 1950s, Carson turned her attention to conservation, especially some problems she believed were caused by synthetic pesticides. The result was the book *Silent Spring* (1962), which brought environmental concerns to an unprecedented share of the American people. Although *Silent Spring* was met with fierce opposition by chemical companies, it spurred a reversal in national pesticide policy, which led to a nationwide ban on DDT and other pesticides. It also inspired a grassroots environmental movement that led to the creation of the U.S. Environmental Protection Agency. Carson was posthumously awarded the Presidential Medal of Freedom by President Jimmy Carter.

## At Glance

- **When:**  
Date: May 24<sup>th</sup>, 2024  
Time: 1830 – 1955 Hrs  
(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**  
**Chapter**

**\*Pre-Registration Required!**

<https://events.vtools.ieee.org/m/413672>



**IEEE Southeastern Michigan Section**



## EMC Fest

EMC Fest  
May 16, 2024  
www.emcfest.org

**2024 Speakers: Doug Smith and Ken Wyatt**



Doug Smith

**Topics:**

**Resonant Structures in PCBs and Systems (Smith)**

Resonances in electronic systems are responsible for both EMC related failures and system operation problems. We will cover resonances both at the system level, such as PCB to enclosure/chassis resonances, as well as cable, heat sink, enclosure, and unwanted resonances in antenna structures such as RFID antennas. We will then cover how to deal with resonant structures both at the last-minute during EMC testing and preemptively, such as adding loss to the structure to damp resonances. Finding and measuring these resonances will be discussed using some innovative techniques I have developed.

**ESD issues including, simulators, troubleshooting, and a new potential serious safety issue that can occur after months in the field (Smith)**

Have you ever had your product pass ESD in your facility only to have the commercial test lab record a failure? This outcome is very common and a result of the standards we use not specifying parameters of the test that have a large effect on the outcome. The second part of the presentation covers factors that cause unrepeatable test results. Waveform purity and E-field emissions to 5 GHz will be presented for a number of commercially available ESD simulators and similar data will be presented for real human ESD. You will be able to pick the simulator that will make your product pass or fail, or at least have a useful discussion with the test lab. We will also analyze the test standards to see where the problems in testing occur. Then we will move on to troubleshooting ESD issues using techniques I developed that work much faster than normal engineering troubleshooting methods. Then we will move on to unusual forms of ESD that are not covered in standards but have caused a lot of field problems. Finally, we will look at a new form of ESD, not previously described in the literature that is actually very common and can lead to system upset, AND damage to the to the power mains barrier in a system supply that can lead to a safety issue after a few months in the field, long after safety HIPOT testing was done. Hope to see you at my presentations!

**Doug Smith** held an FCC First Class Radiotelephone license by age 16 and a General Class amateur radio license at age 12. He received a B.E.E.E. degree from Vanderbilt University in 1969 and an M.S.E.E. degree from the California Institute of Technology in 1970. In 1970, he joined AT&T Bell Laboratories as a Member of Technical Staff. He retired in 1996 as a Distinguished Member of Technical Staff. From February 1996 to April 2000, he was Manager of EMC Development and Test at Auspex Systems in Santa Clara, CA. Mr. Smith currently is an independent consultant specializing in high frequency measurements, circuit/system design and verification, switching power supply noise and specifications, EMC, and immunity to transient noise. He is a Senior Member of the IEEE and a former member of the IEEE EMC Society Board of Directors.

His technical interests include high frequency effects in electronic circuits, including topics such as Electromagnetic Compatibility (EMC), Electrostatic Discharge (ESD), Electrical Fast Transients (EFT), and other forms of pulsed electromagnetic interference. He also has been involved with FCC Part 68 testing and design, telephone system analog and digital design, IC design, and computer simulation of circuits. He has been granted over 15 patents, several on measurement apparatus.

Mr. Smith holds the title of University of Oxford Tutor in the Department of Continuing Education at Oxford University in the UK. He has lectured at Oxford University, The University of California Santa Barbara, The University of California Berkeley, Vanderbilt University, AT&T Bell Labs, and internationally at many public and private seminars on high frequency measurements, circuit design, ESD, and EMC. He is author of the book [High Frequency Measurements and Noise in Electronic Circuits](#). His very popular website, <https://emcesd.com>, draws many thousands of visitors each month to see over 250 technical articles as well as other features.

He provides training and consulting services in general design, EMC, and transient immunity (such as ESD and EFT) and switching power supply noise. His specialty is solving difficult problems quickly, usually within a couple of days. His work has included digital and analog circuits in everything from large diesel-powered machinery to space craft to IC chip level circuits. His large client base includes many well-known large electronic and industrial companies as well as medium sized companies and start-up companies.



Kenneth Wyatt of Wyatt Technical Services LLC

### **Ten Tips for Characterizing & Troubleshooting Board-Level EMI for Products, Including Wireless (Wyatt)**

It is fairly common to find multiple on-board sources of energy causing radiated emissions on today's product designs, including board-level EMI for wireless portable, mobile, and IoT devices. The EMI from these energy sources can couple to cables creating radiated emissions, as well as interfere with the receiver performance of cellular, GPS and other wireless modules. This presentation describes methods for identifying, characterizing, and reducing the coupling from these energy sources.

### **Bench Top Troubleshooting ESD and Radiated Immunity Failures (Wyatt)**

Electrostatic discharge (ESD) has started to become very common, due to the lower noise margins for digital circuits. While the test is easy to set up in-house, it can become one of the most challenging EMC issues for manufacturers to overcome, because it's difficult to determine the path of ESD current and exactly what circuitry is being affected. In addition, radiated immunity issues have become very common and is nearly impossible to set up in-house without great expense and trained test operators. Often it involves endless cycles back and forth between adding random fixes in-house and then running back to the compliance test lab. The delay for both ESD and radiated immunity issues can negatively affect product introductions. This presentation will describe a simple method for troubleshooting and mitigating both issues right on the lab bench. Several case studies will be described.

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

## TALE 2024



## CALL FOR PAPERS

### 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 **Frontiers in Education** in North America (IEEE Regions 1-7), **EDUCON** in Europe/Middle East/Africa (IEEE Region 8), **EDUNINE** in Latin America (IEEE Region 9) and **LWMOOCS** 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
- » Engineering Education
- » STEM Education Technology-Enhanced Learning
- » Open, Flexible & Distance Learning
- » Work-Integrated Learning

- » Online Learning and Academic Integrity
- » Problem-based Learning
- » Ethical and Societal Considerations in Engineering Education
- » Student Engagement and Retention Strategies in engineering program

- » Cyber Physical Systems and AI in Engineering Education
- » Assessment and Evaluation in Engineering Education
- » Artificial Intelligence in Education

#### GENERAL CHAIRS

**Dr. R Venkata Siva Reddy**  
Professor, REVA University Bengaluru

**Dr. Jagannath Korody**  
Director, MIT Bengaluru

**Dr. Suresh H. Jangamshetti**  
Vice Chancellor, Haveri University,  
Karnataka

#### IMPORTANT DATES

Submission Opens  
for Full, WIP, Workshop  
Submissions:  
**February 1, 2024**

Submission Deadline  
**May 30, 2024**

Acceptance Notifications  
**1<sup>st</sup> September 2024**

Conference  
**9-12, December 2024**

<https://2024.tale-conference.org/>

## Senior Elevation

**IEEE Southeastern Michigan Section  
Presents  
“Senior Membership Elevation 3<sup>rd</sup> Round Up”**



IEEE Southeastern Michigan Section will reprise its Senior Member Round up event, on June 1<sup>st</sup>, 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](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 1<sup>st</sup>, 2024  
Time: 10 to 12 noon (EST/EDT)
- **Where:**  
Oakland University, EC 281
- **Audience:** All Eligible/Potential Members and Senior Members (references)

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

**Pre-Registration Required!**

<https://events.vtools.ieee.org/m/416546>

**IEEE Southeastern Michigan Section**



## ORG UNITS cheat sheet

**Section Unit Name or Affinity Group or Chapter Name (Organizational Unit code 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 SocietyChapter: 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 &amp; 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

Chapter: 18 (CH04162) (MAG33) Magnetics Society

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

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 Southeastern Michigan section website is located at <http://r4.ieee.org/sem/>.**

### Southeastern Michigan Wavelengths:

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

### Southeastern Michigan 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.

### Southeastern Michigan Collabratec Community (NEW):

<https://ieee-collabratec.ieee.org/app/section/R40035/IEEE-Southeastern-Michigan-Section>

An IEEE supported space for Section officers for online chat, discussions, connecting with other local section IEEE entities, basically where you can share files, upload meeting minutes, agendas, etc., for our local Michigan folks.

### Southeastern Michigan Collabratec Workspace:

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

An IEEE supported space for Section officers for online chat, discussions, connecting with other local section IEEE entities, basically where you can share files, upload meeting minutes, agendas, etc., for 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 April 2024 and found viable.

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 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-club-locator/>

### Astronomy

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

### Experimental Aircraft Association

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

### Robots

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

### Science Fiction Conventions

<https://2024.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 2024 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 **Christopher Johnson**, the section secretary at [secretary@ieee-sem.org](mailto:secretary@ieee-sem.org) and request to be placed on the distribution list for a monthly copy of the agenda and minutes. More meeting details are available on the next page of this newsletter.

### Other Meetings:

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

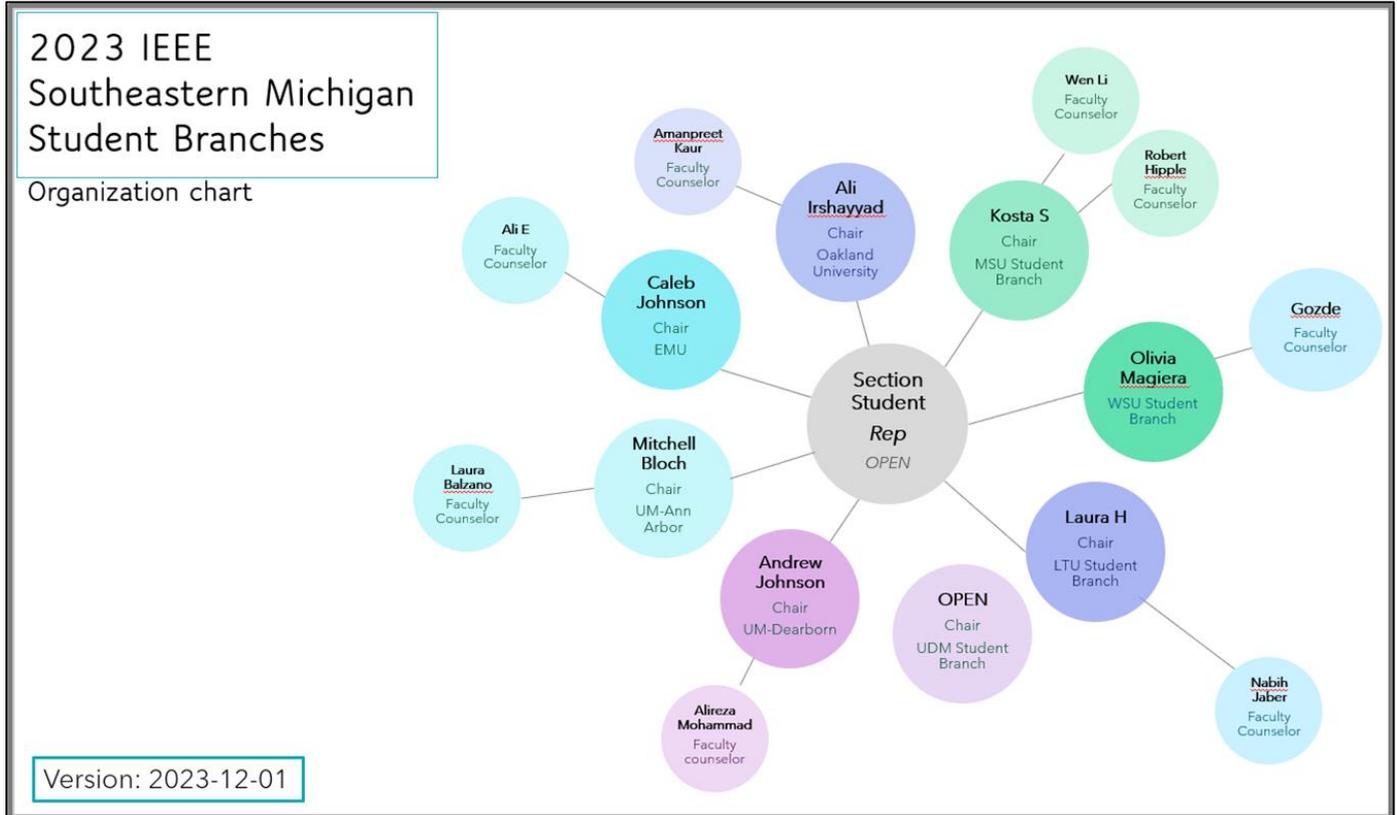
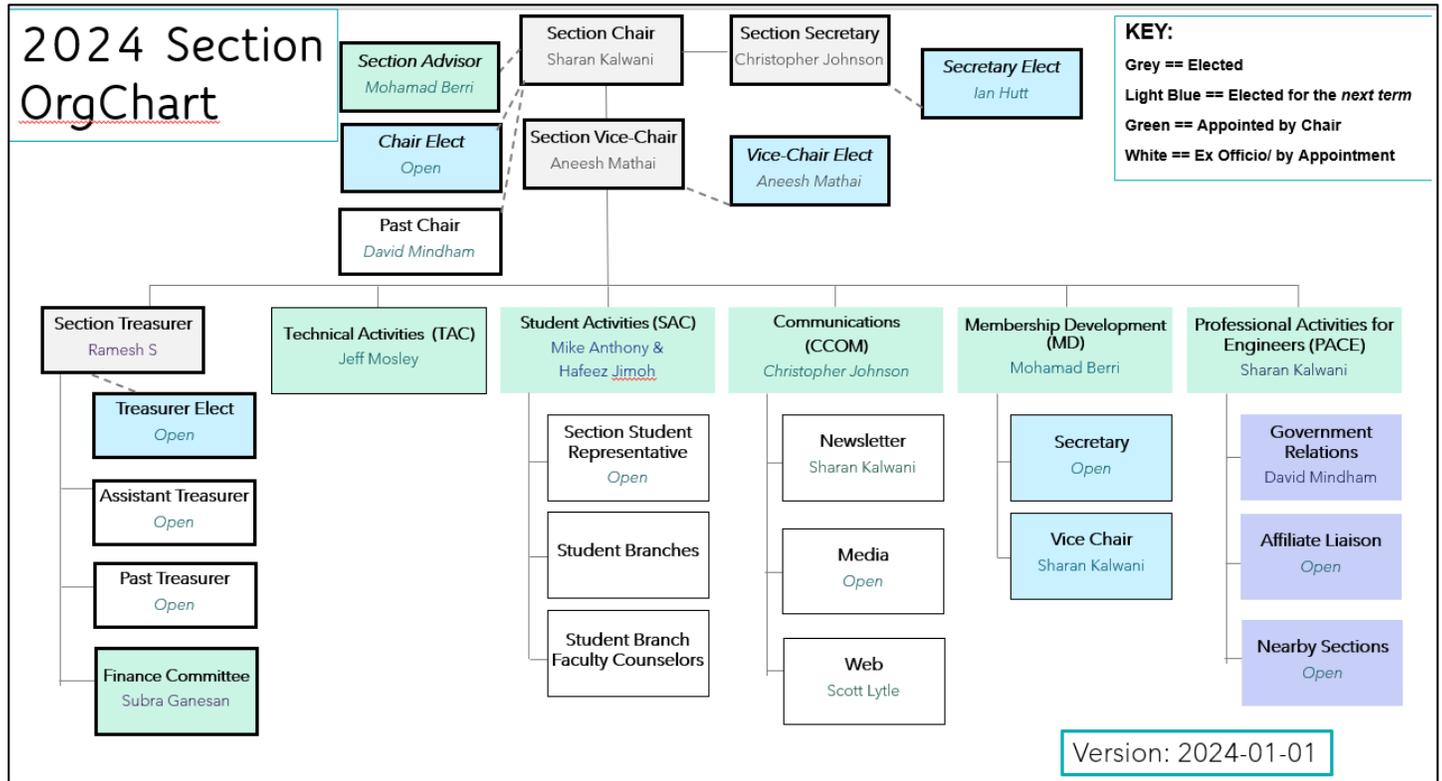
However, members of the section may have multiple technical interests and would like to have meeting information of other chapters. In order to communicate the meeting dates of all the chapters, affinity groups etc., to our members to facilitate their attendance, leaders of the groups are requested to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

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

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

*Christopher Johnson (Secretary)*  
Email: [secretary@ieee-sem.org](mailto:secretary@ieee-sem.org)

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 (recently refreshed!)



## ExCom Meeting Schedule

**NOTE: All SEM members are invited to attend ALL ExCom (Executive Committee) meetings:**

Below is the 2024 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 2024 meetings. Or link your personal calendar to the SEM Web calendar.

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

**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 (all clickable links)</i>	<i>Date &amp; Start Time, Duration</i>
<a href="#"><b>Section ExCom Monthly Meeting (virtual) For MAY</b></a>	<b>09 May 6:30 PM, 1 hour</b>
<a href="#">Section ExCom Monthly Meeting (Hybrid) For JUNE</a>	13 Jun 6:30 PM, 2 hours
<a href="#">Section ExCom Monthly Meeting (virtual) For JULY</a>	11 Jul 6:30 PM, 1 hour
<a href="#">Section ExCom Monthly Meeting (virtual) For AUGUST</a>	08 Aug 6:30 PM, 1 hour
<a href="#">Section ExCom Monthly Meeting (Hybrid) For SEPTEMBER</a>	12 Sep 6:30 PM, 2 hours
<a href="#">Section ExCom Monthly Meeting (virtual) For OCTOBER</a>	10 Oct 6:30 PM, 1 hour
<a href="#">Section ExCom Monthly Meeting (virtual) For NOVEMBER</a>	14 Nov 6:30 PM, 1 hour
<a href="#">Section ExCom Monthly Meeting (In Person) For DECEMBER</a>	12 Dec 6:30 PM, 2 hours

**Christopher Johnson (Secretary)**

Email: [secretary@ieee-sem.org](mailto:secretary@ieee-sem.org)

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

**EVENTS**

VTOLS ▾
SEARCH
MY EVENTS
MANAGE EVENTS
API
ABOUT
CONTACT

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## SEARCH EVENTS

[Learn how to integrate Event notices with your website](#)  
[Hey! I want the old Search page.](#)

Search Options
Advanced Search
Clear Search

Search Term ?

Organizational Unit ?

Date Range ?

Showing 12 of 12 upcoming events, based on search criteria.

Title	Date	Host	Location	Options
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (virtual) For JANUARY 2024	11 Jan 2024 06:30 PM	R40035		<a href="#">View</a>
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (virtual) For FEBRUARY 2024	08 Feb 2024 06:30 PM	R40035		<a href="#">View</a>
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (Hybrid) For MARCH 2024	14 Mar 2024 06:30 PM	R40035	Southfield, Michigan	<a href="#">View</a>
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (virtual) For APRIL 2024	11 Apr 2024 06:30 PM	R40035		<a href="#">View</a>
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (virtual) For MAY 2024	09 May 2024 06:30 PM	R40035		<a href="#">View</a>
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (Hybrid) For JUNE 2024	13 Jun 2024 06:30 PM	R40035	Southfield, Michigan	<a href="#">View</a>
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (virtual) For JULY 2024	11 Jul 2024 06:30 PM	R40035		<a href="#">View</a>
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (virtual) For AUGUST 2024	08 Aug 2024 06:30 PM	R40035		<a href="#">View</a>
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (In Person) For SEPTEMBER 2024	12 Sep 2024 06:30 PM	R40035	Southfield, Michigan	<a href="#">View</a>
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (virtual) For OCTOBER 2024	10 Oct 2024 06:30 PM	R40035		<a href="#">View</a>
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (virtual) For NOVEMBER 2024	14 Nov 2024 06:30 PM	R40035		<a href="#">View</a>
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (In Person) For DECEMBER 2024	12 Dec 2024 06:30 PM	R40035	Southfield, Michigan	<a href="#">View</a>

**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

[sharan.kalwani@ieee.org](mailto:sharan.kalwani@ieee.org)

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

[lunnmalcolm@me.com](mailto:lunnmalcolm@me.com)

[akio@emcsociety.org](mailto: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 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,**  
**2018~2019~2020~2021~2022-2023-2024**

*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

### 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 “

<https://www.facebook.com/groups/ieeesemich>

#### SEM LinkedIn Page

(Select the “

<https://www.linkedin.com/groups/1766687/>

#### SEM Twitter Account (new)

(Select the “

<https://www.twitter.com/ieeesemich>

#### SEM Collabratec Community Page (NEW)

<https://iee-collabratec.ieee.org/app/section/R40035/IEEE-Southeastern-Michigan-Section>

#### SEM Collabratec Workspace Page

<https://iee-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 Officers, see the SEM 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

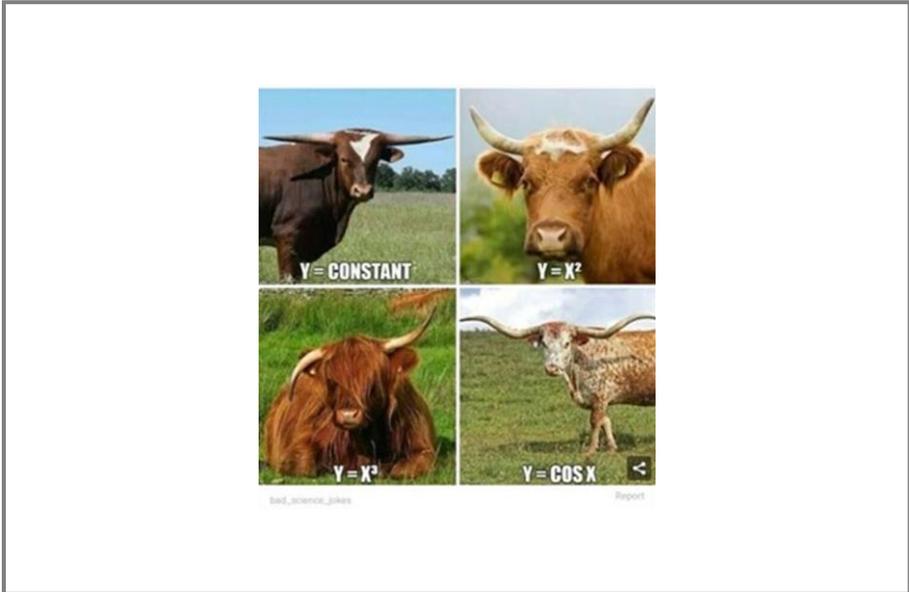
Jeffrey Mosley

##### Information Management



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:**

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

OR

**SEM Executive Committee Meetings:**

- 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>