Wavelengths

IEEE Southeastern Michigan
Electrical and Electronic Engineers Creating Our Future

Volume 63 – Issue 11

Contents

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. 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
RF Sniffer Probe Maker Event	02 Nov 2023	05:30 PM
2023 IEEE R4 WiE International Leadership Summit Detroit	03 Nov 2023	8:00 AM
Judging for Unknown Mission Robotics Challenge	04 Nov 2023	12:00 PM
Section 60th Anniversary Celebration	04 Nov 2023	03:00 PM
Ch8: AdCom Teleconference	09 Nov 2023	11:00 AM
Protection, Control, and Management of the Emerging Zero-Carbon Electric Grid	09 Nov 2023	03:00 PM
SEM Section ExCom Monthly Meeting (virtual) For NOVEMBER 2023	09 Nov 2023	06:30 PM
TEMS EXCOM meeting	15 Nov 2023	12:00 PM
Technical Presentation - Statistical Inference over Networks: Decentralized Optimization Meets High-dimensional Statistics	21 Nov 2023	04:00 PM
IEEE SEM Chapter 1 Technical Presentation	29 Nov 2023	07:30 PM

Chair's Column

The month of November

October is now past and boy, what a month it was! We had a ton of activity and now we can look forward to last minute flurry of social gatherings and year end celebrations. I expect to see as many of you as possible at the upcoming event: i.e., the Section's 60th Anniversary. (https://events.vtools.ieee.org/m/361569). Yes, it has been that long, but distinguished. The event will be held on November 4th and we have a very well laid program for *you and your family* members to join us. We have an Art Institute tour, a lively cocktail reception, a distinguished speaker – John Verboncoeur, Vice President of IEEE Technical Activities Board, and a sumptuous dinner – all planned in a single afternoon/evening PLUS several event delightful mementos (aka swag) for the occasion. You can still register at https://events.vtools.ieee.org/m/361569 as we have a few seats left.

Also in this issue, several openings at the University of Michigan-Dearborn. We are always happy to support our colleagues in academia and this is yet another example of how we are getting the word out to nearly 3000 IEEE members.

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.

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

Technical Activities REPORT

2023 IEEE SE Michigan Section Geo-unit Status (Till Oct 30th)

Ch's & AG's	Ave Tech Mtg. Attend	Ave Tech Mtg Guest	#L31 -Technical	#L31 -Admin	#L31 Professional	#L31 -Other	Geo-Unit Name	# Unreported	Total Mtgs
Cnslt	0	0	0	0	4	0	Consultants Network	0	4
LIFE	7	2	3	0	5	0	Life Members	0	8
WIE	25	15	1	9	3	0	Women In Engineering	0	13
YP	0	0	0	4	1	0	Young Professionals	0	5
1	6	1	1	2	0	0	Circuits & Systems, Signal Proc., Info Th.	0	3
2	22	6	8	0	0	0	Vehicular Technology	0	8
3	20	6	2	0	0	0	Aerospace & Elec. Sys., Communications	0	2
4	31	11	8	0	0	0	Trident (Ant, Elect Dev., uWave, Photo)	0	8
5	27	7	26	7	2	0	Computers	0	35
6	107	45	3	0	0	0	Geoscience & Remote Sensing	0	3
7	140	38	6	4	1	0	Power Engineering, Industrial App.	0	11
8	52	27	12	10	4	0	Electromagnetic Compatibility (EMC)	1	26
9	62	16	3	0	0	0	Power Electronics, Industrial Electronics	0	3
10	8	1	3	2	0	0	Engineering Management	1	5
11	0	0	0	1	0	0	Eng. in Medicine & Biology	0	1
12	18	2	4	1	0	0	Control Systems	0	5
13	19	2	39	8	0	0	Education	0	47
14	24	21	4	0	1	1	Robotics & Automation	0	6
15	28	12	7	0	0	0	Nuclear Plasma Science Society	0	7
16	0	0	0	1	0	0	Computational Intelligence / Sys.Man.Cyber.	0	1
17	24	3	2	0	0	0	Nano Technology Council	0	2
SEM	50	17	6	51	2	0	SEM (Section)	4	59
	667	230	138	100	23	1	NOTE: Highlight Green = Active	6	262
		34%					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 quickly coming to the end of another successful year within the Section where we have exceeded our projections for technical meetings hosted for our membership. There is still some room for improvement. I challenge those groups that are doing over and above your required level of meetings to reach out to those which are not. Let's all strive to lift every technical chapter and affinity group above the minimum level of activity.

Take care,

Jeff Mosley
Chair, Technical Activties Committee (TAcom)
jvmosley@ieee.org

This Month in November

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

NOVEMBER 2, 1947 - The first and only flight of Howard Hughes' "Spruce Goose" flying boat occurred in Long Beach Harbor, California. It flew about a mile at an altitude of 70 feet. Costing $25 million, the 200-ton plywood eight-engine Hercules was the world's largest airplane, designed, built and flown by Hughes. It later became a tourist attraction alongside the Queen Mary ship at Long Beach and has since been moved to Oregon.

NOVEMBER 3, 1957 - Soviet Russia launched the world's first inhabited space capsule, Sputnik II, which carried a dog named "Laika."

NOVEMBER 4, 1890 - The first electrified underground railway system was officially opened in London.

NOVEMBER 8, 1895 - X-rays (electromagnetic rays) were discovered by Wilhelm Roentgen at the University of Wurzburg in Germany.

NOVEMBER 8, 1656 - Birthday - Astronomer and mathematician Edmund Halley (1656-1742) was born in *London*. He sighted the Great Comet of 1682 (now named Halley's Comet) and foretold its reappearance in 1758. Halley's Comet appears once each generation with the average time between appearances being 76 years. It is expected to be visible again in 2061.

NOVEMBER 9, 1965 - At 5:16 p.m., the Great Blackout of the Northeast began as a tripped circuit breaker at a power plant on the Niagara River caused a chain reaction sending power surges knocking out interconnected power companies down the East Coast. The blackout affected over 30 million persons, one-sixth of the entire U.S. population. Electricity also failed in Ontario and Quebec.

NOVEMBER 9, 1790 - Birthday - German mathematician August Mobius (1790-1868) was born in *Schulpforte*, Germany. He worked in the area of analytic geometry and was a pioneer in topology, the study of geometric figures that remain constant even when twisted or distorted.

NOVEMBER 18, 1883 - A Connecticut school teacher, Charles F. Dowd, proposed a uniform time zone plan for the U.S. consisting of four zones.

NOVEMBER 18, 1789 - Birthday - Photography inventor Louis Daguerre (1789-1851) was born in *Cormeilles*, near Paris. In 1839, at a meeting of the French Academy of Sciences, he announced his daguerreotype process, the first practical photographic process that produced lasting pictures.

NOVEMBER 18, 1889 - Birthday - American astronomer Edwin Hubble (1889-1953) was born in *Marshfield*, Missouri. He pioneered the concept of an expanding universe. The Hubble Space Telescope was named in his honor. It was deployed from the Space Shuttle Discovery in 1990, allowing astronomers to see farther into space than they had ever seen from telescopes on Earth.

NOVEMBER 27, 1701 - Anders Celsius (1701-1744) was born in *Sweden*. He invented the centigrade (Celsius) temperature scale commonly used in Europe and most of the world follows the metric system.

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.

Sharan Kalwani
2022-2023 Chair, Southeastern Michigan Section, Passionate Engineering History Buff/Aficionado

Election News

By the time you read this the balloting for SEM officer positions will have been completed.

A number of members reported having difficulty with some 'glitches' in the system resulting in the 'Application Error' sign showing up instead of the ballot they were hoping to use to vote. I am still in the process of tracking down the source of this problem, but I have reports from other sections that 'we are not alone!'

I suspect that the servers handling the voting process became overloaded when many sections around the world scheduled their elections at roughly the same time, because the MGA Policy and Procedures manual specifies when elections are to take place.

Hopefully we will have some word from IEEE HQ soon to clear up the mystery.

With the conclusion of the election ballot process, we begin the task of sorting through the results to sort out not only the direct results but, also find all the 'write-in' candidate results. Often members put in the name of someone they know who they feel would be a good person to lead in one of the candidate positions.
Often, they do not know:
- Is the 'write in' a full member,
- Is the 'write in' a member of the Geo-unit,
- Has the name been spelled correctly,
- Is the 'write in' interested and willing to serve.

Often the name given does not match with the IEEE db records which causes no end of problems.

With the Executive (1), Affinity Groups (4) and Technical Chapters (18) and 4 officer positions for most, (The Executive only elects 2 officers each election), the total positions to sort and verify is (22 * 4) + 2 = 90 as a minimum. Often, we see multiple 'write-in' candidates for a single officer position, and all must be checked.

This entire process will be complete by the end of November and a report will be prepared for the Executive Committee at its meeting in December.

If you want to hear the news 'firsthand' I invite you to register for the December meeting and get to know the officers both new and old and watch the operation of the democratic process and Robert's Rules of Order with a ring side seat.

30

Section History

IEEE Section 60th Anniversary: A Historical Perspective
Original By Don Bramlett, IEEE Southeastern Michigan Section Advisor,
Updated by Sharan Kalwani, IEEE Southeastern Michigan Chair (2021-2023)
This article originally appeared in the January 1996 issue of Wavelengths newsletter and has been suitably updated for the November 2023 edition.

January 28, 2023 is the 112th anniversary of the founding of the Michigan section of AIEE, the forerunner of the Southeastern Michigan Section of IEEE (IEEE/SEM).

The section has roots stemming from several founding professional organizations. The chronology of the section follows from AB Initio, so that 2023 is **also** the:

- 139th anniversary of the founding of AIEE (the first organization in the chronology which led to IEEE),
- 112th anniversary of the founding of IRE,
- 97th anniversary of the founding of the Detroit section of IRE,
- 77th anniversary of the founding of the Vehicular Radio Group of IRE,
- **60th** anniversary of the merger of AIEE and IRE into IEEE, and
- **60th** anniversary of the formation of the IEEE/SEM Section

The Institute of Electrical and Electronics Engineers, Inc. (IEEE) origins began with the founding of the American Institute of Electrical Engineers (AIEE) in New York City in 1884 by a group of electrical inventors and entrepreneurs. At the time, telegraph lines were strung across the land and under the sea to link peoples and nations; the telephone, less than a decade old, was already revolutionizing the patters of communications. Thomas Edison's electric light invented only five years earlier, was being installed in just about every industrial, commercial, and residential application. Three students earned bachelor degrees in electrical engineering from the Physics Department at the University of Michigan in 1890. The degrees were the first such degrees awarded in the state of Michigan. By 1895, the number of students studying electrical engineering, primarily in the area of electrical machinery, had grown to the extent that the Department of Electrical Engineering was founded at the University of Michigan.

The Michigan Section of AIEE was founded on January 29, 1911. Electrical engineers in the section practiced in the power areas of generators, transformers, switchgear, cables, and transmission lines. Utility engineers, primarily from Detroit Edison , Consumers Power , and Michigan Bell Telephone were heavily represented in the membership and leadership.

The emergence of the dramatic new technology of radio, with its equally profound consequences for mankind, led to the founding of the Institute of Radio Engineers (IRE) in 1912. IRE became the lead organization for technology which evolved into electronics, with the resulting invention of television, radar, control systems, and computers.

The use of two-way radios was first demonstrated in Detroit police cars in 1925. The following year on May 22, 1926, the Detroit Section of IRE was founded. Radio and electronics engineers in the Detroit Section practiced in the areas of telegraphy, radio, electron theory, radio astronomy, and electron microscopy. There was also heavy representation by members of academia in the Detroit Section of IRE.

The diverse technical fields in both electrical engineering and electronics engineering resulted in both AIEE and IRE forming specialized technical groups. One of these technical groups was the Vehicular Radio Group, founded in 1946. This group is the predecessor of the IEEE Vehicular Technology Society .

The Detroit Sections of IRE and AIEE were recognized by the national organizations as being among the more active sections. Each section had hosted several national conventions and many smaller technical conferences in Detroit. Several local officers went on to leadership roles at the national levels in AIEE and IRE.

The field of electronics engineering grew, and by the end of World War II, equaled power and communication engineering in scope and membership. Increasingly, the common interests of electrical and electronics engineers drew them closer together. On the national level, as well as the local section level, AIEE and IRE co-sponsored more and more joint technical programs. Talks on a merger of the two organizations began and the merger of the two international

organizations was formulated and agreed to at the 1961 AIEE Fall General Meeting, held here in Detroit (about Detroit , city website). The AIEE and IRE national organizations merged in 1963 to form a new technical engineering society, the Institute of Electrical and Electronic Engineers (IEEE) .

Following the 1961 AIEE Fall General Meeting, the officers of the Detroit Sections of AIEE and IRE held several discussions to iron out many potential problems in order to make the new union a success. The two sections merged to form the Southeastern Michigan Section of the IEEE (IEEE/SEM) on June 1, 1963. The first year of the merger was a time of obvious change, and there was a great deal of concern about the manner in which the two sections would come together. Despite the somewhat diverse interests of the two sections, the transition was carried out in a spirit of cooperation, and concerns proved to be unfounded.

The technical groups in the two local sections were combined, resulting in eight technical groups within IEEE/SEM. Five of the groups came from the former IRE and three from the former AIEE. The technical groups were:

- Computer Group,
- Aerospace and Electronics Group,
- Power Group,
- Industry and General Applications Group,
- Communications Technology Group,
- Vehicular Technology Group,
- Automatic Control and Information Theory Group, and
- Trident (AP, ED, MTT) Group

The incoming AIEE section chair became the first IEEE/SEM chair. The incoming IRE section chair became the first IEEE/SEM vice chair and assumed the chair position the following year. An executive committee was formed which consisted of four officers, eight administrative members, and the junior past chair. An advisory committee was formed; it included the chair and vice chair of all the active committees and technical groups and the executive committee. There were sixty-eight members on the advisory committee. There were over 200 active committee members out of a section membership of 2,200 during the first year. A meeting was held in early 1963 to plan the year's activities. During the first year of the merger, six section meeting and forty-five technical group meetings were held. The IEEE/SEM Education Committee conducted several tutorial symposia in Detroit and Jackson that were successful and produced income for the section.

IRE published Crosstalk, a monthly newsletter at the time of the merger. The newsletter was in the form of a magazine. AIEE published a monthly announcement called the Michigan Section Newsletter. It was felt that a professional looking publication was desirable, and a magazine type publication called the Michigan Section IEEE News was initiated. The cost of the newsletter was subsidized by the income from symposia conducted by the IEEE/SEM Education Committee and income from advertisers listed in the business directory of the publication. Some of the original advertisers were Engel-Klaes Co., Osborne Transformer Corporation, George R. Peters Associates , George R. Peters Associates , Myron Zucker Inc. , and The Satullo Company. IEEE/SEM held a contest in 1970 for the purpose of renaming the newsletter. Wavelengths was selected as the winning entry and the January 1971 issue was the first issue published under the new name.

The history of the IEEE/SEM since 1963 has been one of demonstrated activism and volunteerism on both the national and local levels of IEEE. Numerous technical conferences have been hosted and co-sponsored, including:

- 1966 First National Conference on Automobile Electrical and Electronic Equipment
- 1968 International Power Generation Conference
- 1969 Industry and General Applications Group Annual Meeting
- 1970 Annual Vehicular Technology Conference
- 1974 The World Energy Conference
- 1974 Convergence (also held every two years in Detroit following the original conference)
- 1991 Industry Applications Society Annual Meeting
- 1991 VNIS Conference

The activism of IEEE/SEM has extended to involvement in the broader engineering, professional and scientific community. Past issues of Wavelengths illustrate the involvement of IEEE/SEM and its members in programs with the Engineering Society of Detroit (ESD) , and especially the ESD Affiliate Council , the Michigan Society of Professional Engineers , National Engineers Week , and the Science and Engineering Fair of Metropolitan Detroit .IEEE/SEM has also been creative in trying to service the needs of its members at various times throughout its history. With the amending of the IEEE Constitution in 1972 to add matters of professional concern, IEEE/SEM created the position of Director of Professional Activities to concentrate on the professional as well as technical needs of its members. The section has reorganized its structure of directors to be more responsive to the needs of the technical society chapters, student branches, and individual members.

IEEE/SEM presented a half-hour program in 1974 on WTVS/Channel 56 . It was a panel discussion on "Nuclear, Solar, and Windmill Energy Sources as a Solution to the Energy Crunch." In 1983 and 1984, IEEE/SEM co-sponsored with the IEEE Columbus, Ohio Section a new regional, high-technology electronics show and convention called OHMCON. During the 1981-82 section business year, IEEE/SEM operated a telephone news line and job posting system. An electronic bulletin board was operated during 1987-99 using a computer system purchased with funds from IEEE Region 4.

The section revitalized the format of Wavelengths in 1988-89 under an active new editor. The section adopted a new format for the IEEE/SEM Fall 1990 Meeting that included parallel technical society meetings that preceded a general section meeting; the new format stimulated the interest and attendance of section members and guests. In 1992, under the leadership of the Director of Professional Activities, the section jointly co-sponsored several technical job fairs in Southeastern Michigan with job-fair producers in order to advance the employment needs of the members.

Section Geography

The boundaries of IEEE/SEM encompass the counties of Clinton, Eaton, Ingham, Jackson, Livingston, Macomb, Oakland, St. Clair, Washtenaw, and Wayne in Michigan. IEEE/SEM has grown from 2,200 members in 1963 to approximately 2,500 members in 1973 and over 4,000 members in 1996. The section has student branches at eight (8) universities in Southeastern Michigan. There are used to nine chapters, and now we are eighteen (18) chapters that represent twenty-five (25) IEEE technical societies. IEEE/SEM has over forty section officers, directors, and chapter officers.
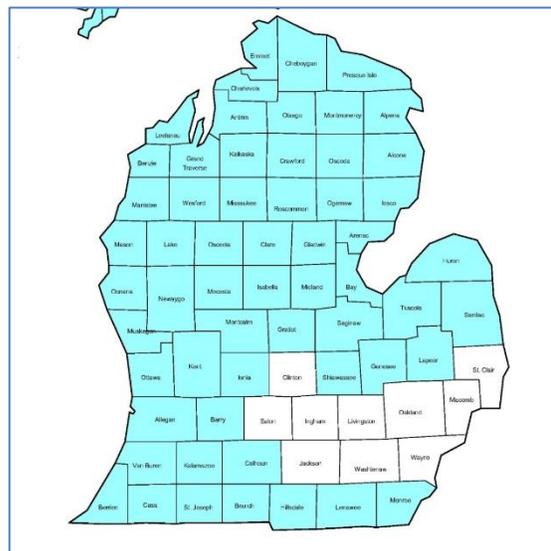
Section Volunteers Today

IEEE/SEM has a great deal to offer its members, both technically and professionally. Members through service with IEEE/SEM can contribute to fellow members and play a role in the development of the section. Members may volunteer to work with a committee, attend technical meetings, assist with program activities, serve as an editor with Wavelengths, solicit funds for various programs, and seek election to an office. The section sponsors technical and professional programs that provide each member with the opportunity to participate and learn about the new technologies and network with peers in the electrical, electronics, and computer engineering profession. Members interested in volunteering should

contact the chapter chair or one of the executive committee members. I wish to acknowledge the contributions of Mr. Frank Klaes to the content of this article. Frank was the first chair of IEEE/SEM when AIEE and IRE merged in 1963. Frank's firm, Engel-Klaes Co. has been an advertiser in Wavelengths from the beginning. Thanks, Frank, for your support and assistance!

Past Chairs of the Michigan Section of IEEE

1963-1964	F.F. Klaes	1980-1981	L.F. Kazda	1998-1999	George Peters
1964-1965	R.O. Sather	1981-1982	J.J. Kolb	1999-2000	Sandy Hunter
1965-1966	K.E. Jamison	1982-1983	J.F. Firlit	2000-2001	J. Woodyard
1966-1967	D.C. Achtenberg	1983-1984	J.B.Kreer	2001-2002	J. Miller
1967-1968	B.S. Quell	1984-1985	D.E. Solomon	2002-2003	M. Snyder
1968-1969	W. Kerwick	1985-1986	L.A. Murray	2004-2005	S. Barada
1969-1970	M.P. Ristenbatt	1986-1987	J.R. Grady	2006-2007	Mark Ciechanowski
1970-1971	J.H. Bryant	1987-1988	R. Wieszczyzk	2008-2009	Chris Mi
1971-1972	J.H. Bryant	1988-1989	N.M. Boustany	2009	David Laurent
1972-1973	N. Alimpich	1990	M.A. Shanblatt	2010	R. Stevenson
1973-1974	E. Longman	1990-1991	V.V. Liepa	2011	Kimball Williams
1974-1975	H.G. Hedges	1991-1992	D.C. Bramlett	2012-2013	Imad Makki
1975-1976	E.M. Aupperle	1992-1993	S.N. Basu	2014-2019	Robert Neff
1977	P.A.E. Rusche	1993-1994	M.K. Krage	2020	David Mindham
1977-1978	M.W. Davis	1994-1995	S. Bajpayee	2021-2023	Sharan Kalwani
1978-1979	W.D. Becher	1995-1996	D.G. McKendry		
1979-1980	D.H. Winner	1996-1997	Dave Horvath		

Sharan Kalwani, email: chair@ieee-sem.org
Chair, IEEE Southeastern Michigan Section
Enthusiastic IEEE Section & Chapter & Committee Volunteer since 2011

Section 60th

Once in a lifetime
Section 60th Anniversary

**Saturday Afternoon Guided Tour,
Cocktail Reception, Section Awards,
Talk by IEEE Vice President
with an evening dinner: 3 to 8 pm
November 4, 2023**

Flint Institute of Art
Flint, Michigan

https://events.vtools.ieee.org/m/361569

IEEE
Southeastern
Michigan

Electrical and Electronic Engineers Creating Our Future

Burn Out

THE WAY OUT OF BURN OUT.

Someone asks if you can (fill in the blank). You look at your calendar. That hour is open. You say, "yes." You forgot that hour was designed for something you've been meaning to do, for yourself. You're angry (with yourself) for forgetting. You promise to do better tomorrow.

The next day… repeat.

The only way I know out of tired-induced-people-pleasing is to set boundaries and stick to them.

And this is hard for me.

Examples of boundaries: Putting an hour in your calendar during the day to exercise; blocking 30-minutes between meetings to work; limiting one day each weekend to kids' sports. Boundaries are parameters that guide our behavior. Putting a boundary in place doesn't mean saying no. Boundaries create the conditions that tell us, without struggle, when to say yes.

Before I had my son, I traveled for work constantly. Some weeks I was on the road for six consecutive days, in three different states. And I loved every second of it. Audience + microphone = happiness. When I had a child, I knew that schedule wasn't going to work. So, I set boundaries. I decided how many nights per week I would travel, the time I needed to be home from each trip, and how many hours I was willing to fly. And I didn't violate those boundaries for 8 years. If a piece of work would require me to violate my travel boundaries, I said no without struggle, no matter how much I wanted to do that piece of work. The boundaries made the decisions easy. There was no deliberating or debating.

I'll admit, I'm not as effective as setting boundaries in other areas of my life. Last week, I had a yoga class on my calendar. When I learned a repair person was able to be at my house during that hour, the yoga class was quickly deleted from my calendar. Yesterday, I asked my son what he wanted for breakfast, before flag football. He wanted scrambled eggs and a smoothie. I made both, knowing there wasn't time. We were late for flag football. What was missing in both situations? Boundaries.

How does this apply to work? The key to preventing tired, burnt-out employees is to make it safe to speak up. As I wrote earlier in the year, burnout is a systemic issue, not a personal one. Burnout at work comes from too much to do, over time. One way out – make it safe to tell the truth at work.

For the most part, no one wants to admit to their boss that they are overextended or overwhelmed. Doing so feels like failure, and who wants to admit failure? If you want employees who are energized versus exhausted, focus on making it safe to tell the truth at work.

Five ways to make it safe to tell the truth at work:

- Leaders and managers share their own truth. Find out what your managers share.
- Ask employees meaningful questions. "How's it going?" is not a meaningful question. Try: "What are your preferred working hours? What times a day would you prefer not to be contacted?"
- Show appreciation when employees take risks and say hard things.
- Reward the truth. Make employees who are willing to say hard things a positive example.
- Help employees problem solve to manage their time and priorities. Be 'in it' with them.

The good news about violating boundaries is you will get another chance to do it differently tomorrow. You can always reset a boundary. This time, tell the other people in your life about your boundaries. Tell your coworkers if you don't do happy hours after meetings, 7:00 am Zoom calls, and back-to-back meetings, and tell them why. Then offer an alternative.

Everything in life is a negotiation.

About Shari Harley

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

UM-D Open Position 1

COLLEGE OF ENGINEERING & COMPUTER SCIENCE
UNIVERSITY OF MICHIGAN-DEARBORN

Post-Doc Position: Control of Digital Additive Manufacturing Systems

Position Description

The Sustainability Research Group at the University of Michigan-Dearborn invites applications for multiple postdoc research fellow and Ph.D. positions. The postdoc/Ph.D. student will work with a multi-disciplinary research team within the College of Engineering and Computer Science on projects related to digital engineering in additive manufacturing.

For the postdoc position on **control of additive manufacturing systems**, the initial appointment is 12 months and is immediately available. The position may be renewable based on performance. We offer a competitive salary plus benefits, and the salary will be commensurate with the prior research experience of the applicant.

Qualifications

Applicants should have a Ph.D. in a closely related engineering discipline (e.g. mechanical, electrical, manufacturing, robotics, controls, systems engineering, or computer science), and a strong programming and analytical background. Permanent resident or citizen of the United States is preferred, but not required. Prior research experience in one of the following areas is preferred:

- Experience operating CNC manufacturing systems
- Modeling and simulation of dynamical systems
- Internet of Things sensor integration
- Computational fluid dynamics and heat transfer modeling
- Experience designing additive manufacturing systems

Responsibilities

The postdoc research fellow will work on the digital twinning of additive manufacturing processes through in-situ sensing. The research will involve primarily modeling, simulation, and analysis with experimental implementation. The postdoc will publish their research findings in premier journals, present their research in high-impact conferences, and mentor graduate students.

To Apply

Interested applicants should submit their CV, cover letter, and names of three references to Prof. Christopher Pannier (pannier@umich.edu) and Prof. Pravansu Mohanty (pmohanty@umich.edu). Applications will be reviewed on a rolling basis until the position is filled.

RoboFest REPORT

Robofest eNewsletter 10-26-23

(1) Fall UMC Scholarship Competition for High School Students
(2) Vision Centric Challenge Returns for 2024 Season
(3) MCWT Grants for All-Girl Robofest Teams
(4) 2024 Season Rules Released
(5) Pre-season Workshop Schedule Announced
(6) State of Michigan 99h Robotics Competition Grant now includes Robofest
(7) Seeking Site Hosts for 2024 Competitions

Note: All times are listed in Eastern Time unless noted

(1) Fall UMC Scholarship Competition for High School Students
Robofest is hosting a very special Unknown Mission Challenge this fall for High School students to compete to win a $17,000 Annual LTU Scholarship. Individual students will be challenged to build and program a robot kit to solve a task in a limited amount of time. The registration fee is $25. Rules and registration link can be found on the UMC page: https://www.robofest.net/index.php/current-competitions/unknown-mission-challenge

> **Sat, Nov 4, 2023,** 1:00 PM ~ 5:00 PM
> At Lawrence Technological University, Robofest Lab, J234
> 21000 West 10 Mile Road, Southfield Michigan 48075
> Building No. 8 on the LTU campus map: https://www.ltu.edu/about/map Use parking lot E.

This event is open to the public.

(2) Vision Centric Challenge Returns for 2024 Season
The 2024 Vcc rules *Vision Based Measurement System* will be posted to the Robofest website on November 2, 2023. The objective of this challenge is to use vision-based robots to complete a series of inspections. This challenge will introduce teams to real-world manufacturing inspection processes. The event will be hosted during the Robofest World Championship on May 9-11 (exact date TBD). Pre-registration is open for Senior Division teams. Winners of the Vcc will receive a $17,000 annual LTU Scholarship certificate.

(3) MCWT Grants for All-Girl Robofest Teams
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

(4) 2024 Season Rules Released
The Robofest 2024 initial season rules have been released. Join us for an upcoming kickoff meeting to review the rules for clarification prior to the final release.

The kickoff meetings will be held:
> **Thursday, November 2, 2023** 7:00pm ~ 8:30pm (In person Room E201 and Zoom)
> **Saturday, January 13, 2024** 10:00am ~ 11:30 am (In person and Zoom)

The Zoom links are posted on the robofest.net home page.

(5) Pre-season Workshop Schedule Announced
Workshops are available at no cost to registered 2024 Teams. They are held in the Computer Science Robotics Lab on LTU Campus, robots and laptops are provided. workshop materials will be made available on the eAcademy/Workshops page.

> **VEX IQ with VEXcode** for Game
>> Saturday, 1/20/24: 9:00 am ~ 12:00 noon
> **LEGO EV3 with Scratch** for Game
>> Saturday, 1/20/24: 1:00 pm ~ 4:00 pm
>> Saturday, 1/27/24: 9:00 am ~ 12:00 noon
> **LEGO SPIKE Prime/Robot Inventor with Scratch** for Game
>> Saturday, 1/27/24: 1:00 pm ~ 4:00 pm
> **LEGO SPIKE Prime/Robot Inventor with Python** for Game
>> Saturday, 2/3/24: 1:00 pm ~ 4:00 pm
> **NEW for 2024! Intro to Exhibition using LEGO EV3 with Scratch**
>> Saturday, 2/3/24: 1:00 pm ~ 4:00 pm

(6) State of Michigan 99h Robotics Competition Grant now includes Robofest
Robofest is an official program provider for the Michigan Department of Education 99h Robotics Competition Grant which provides funding to Public School Districts, Intermediate School Districts, and Nonpublic Schools to participate in Robofest. Grants for 2023/2024 teams (between $500 and $1,200) and Coach Stipends (between $1,000 and $1,500) will be available for Robofest teams that are pre-registered in the Robofest Registration system by December 31, 2023. (Pre-registration is open for all categories). More information and detailed instructions are available on the Michigan Department of Education website. https://www.techplan.org/edtech-initiatives/rdi/competitive-99h-robotics-competition-grant/

Introduction to Robofest Coaching Workshops for new coaches will be scheduled soon to introduce the 99h grant Robofest opportunity and offer coaching strategies for a successful team experience.

(7) Seeking Site Hosts for Competitions
Robofest is seeking site hosts for the 2023-2024 Competition Season for Robofest Game and Exhibition Qualifiers as well as Open events. We hope to have all sites registered and ready for team registration in early November 2023. Interested individuals, organizations, or schools should contact the Robofest office at robofest@ltu.edu or visit https://robofest.net/index.php/for-site-hosts for more information or to download the application.

Lawrence Technological University / Robofest / J-233 / 21000 W. Ten Mile Rd, Southfield, MI 48075
Prof Elmer Santos, Director, esantos@ltu.edu
Shannan Palonis, Assistant Director, spalonis@ltu.edu
Pam Sparks, Coordinator, psparks@ltu.edu
Dr. CJ Chung, Founder, Executive Council Chair, cchung@ltu.edu
http://www.robofest.net
http://facebook.com/robofest
https://www.linkedin.com/company/robofest-official

Embedded Systems Workshop 2023

21st IEEE ESW Embedded System Workshop

The 21st IEEE ESW (Embedded System Workshop) was held on Saturday, 28th October as in-person event at Oakland University. It was sponsored by IEEE Computer chapter and Education chapter of Southeastern Michigan Section. The event was held from 8:30 am to 2 pm. There were seven speakers from industry and academia. Nearly 70 people attended the event.

The ESW was actually held on three half-day Saturdays. On 14th October, the first event was a tutorial on Embedded Systems by Mr. Sharan Kalwani. There were 15 student attendees.

The 2nd ESW event was a hands-on workshop on 21st October on brushless DC motor control using the TLE781 Infineon board. There were 14 attendees. It was held at Infineon office in Livonia, MI.

On 28th October we held the 3rd event, with in-person talks by seven speakers. There were nearly 70 attendees. The three events were well organized, and the attendees liked them. All the attendees received certificate of attendance.

(A more detailed report will be forthcoming in the next edition of Wavelengths)
Professor Subra Ganesan and Sharan Kalwani.

IROS Report

IROS 2023

The 2023 IEEE International Conference on Intelligent Robots and Systems (IROS 2023) was held October 1 – 5, 2023 at Huntington Place in Detroit. IROS is a large and impactful forum for the international robotics research community to explore the frontier of science and technology in intelligent robots and smart machines, emphasizing future directions and the latest approaches, designs, and outcomes. The theme of IROS 2023 was "The Next Generation of Robotics". The conference brought over 4,000 robotics experts and enthusiasts from around the world to Detroit. This year the conference received 2,760 contributed paper submissions from around the world. From the very large number of high-quality papers, they selected 1,196 for publication and presentation, which represents an acceptance rate of 43.3%. Plenaries & Keynotes included:

- Robots that teach and learn with a human touch by Marcie O'Malley, Rice University
- Challenge to Develop Space Robots for Building a Moonbase by Yuto Nakanishi, GITAI, Japan
- Merging Paths: The Shared History and Convergent Future of AI and Robotics by Matt Johnson-Roberson, Carnegie Mellon University
- From Intuitive Immersive Telepresence Systems to Conscious Service Robots
  by Sven Behnke, University of Bonne, Germany
- Towards more inclusive rehabilitation robots by Michelle Johnson, University of Pennsylvania
- Shape-shifting soft robots that adapt to changing tasks and environments by Rebecca Kramer-Bottiglio, Yale University
- Resilient Robotic Autonomy: Experiences from the DARPA Subterranean Challenge, Kostas Alexis, Norwegian University of Science and Technology, Norway
- From humanoids to exoskeletons: assisting and collaborating with humans, Serena Ivaldi, Inria, France
- Manufacturing Automation: A Look Towards the Future, Mario Santillo, Ford Motor Co.
- Design and Control of Expressive Robotic Characters, Moritz Bächer (Switzerland) and Morgan Pope (USA), Disney Research
- Deep Predictive Learning in Robotics: Optimizing Models for Adaptive Perception and Action, Tetsuya Ogata, Waseda University/AIST, Japan
- Empowering Robots with Continuous Space and Time Representations, Teresa Vidal-Calleja, University of Technology Sydney, Australia

The conference had interesting competitions. "Functional Fashion" invited teams to design and demonstrate robotic clothing that not only performs well but looks good whilst doing so. The aim of the competition is to both demonstrate the possibilities enabled by this new and exciting field and to encourage teams to go beyond the state-of-the-art in terms of comfort, ease of use, performance and fabulousness. The following photo shows the finalists on the stage.

Another competition was 13th F1TENTH Grand Prix. Teams build a 1:10 scaled autonomous race car. The objectives are "don't crash and minimize laptime."

IROS included University of Michigan Ford Robotics Building Tour and Ford Rouge Factory Tour. Muliple pictures and videos of the event can be found on https://www.facebook.com/ieeeiros
IROS 2023 Organizing committee included the following Michigan IEEE members:
- Bobby Gregg, Program Chair, University of Michigan
- Talia Moore, Local Arrangements Chair, University of Michigan
- Wing-Yue Geoffrey Louie, Local Arrangements Chair, Oakland University
- Damen Provost, Volunteers Chair, University of Michigan
- Alireza Mohammadi, Outreach Chair, University of Michigan-Dearborn

IROS 2024 will occur in Abu Dhabi from October 14-18, 2024.

Report by IEEE SEM R&A Chair CJ Chung who participated as a volunteer for the event.

UM-D Open Positon 2

COLLEGE OF ENGINEERING & COMPUTER SCIENCE
UNIVERSITY OF MICHIGAN-DEARBORN

Post-Doc Position: Artificial Intelligence (AI) and Digital Engineering Transformation of IoT-Enabled Additive Manufacturing

Position Description

The Sustainability Research Group at the University of Michigan-Dearborn invites applications for multiple postdoc research fellow and Ph.D. positions. The postdoc/Ph.D. student will work with a multi-disciplinary research team within the College of Engineering and Computer Science on projects related to digital engineering in additive manufacturing.

For the postdoc position on **AI and Digital Engineering Transformation of IoT-Enabled Additive Manufacturing**, the initial appointment is 12 months and is immediately available. The position may be renewable based on performance. We offer a competitive salary plus benefits, and the salary will be commensurate with the prior research experience.

Qualifications

Applicants should have a Ph.D. in a closely related engineering discipline (e.g. industrial engineering, data science, electrical engineering, or computer science), and a strong programming and analytical background. Permanent resident or citizen of the United States is preferred, but not required. Prior research experience in one of the following areas is preferred:

- Demonstrable expertise in IoT, machine learning, and data-driven models
- Knowledge of cloud-based computing and digital twin concepts
- Application of AI/ML in manufacturing or control
- AI/ML in process monitoring, control, and optimization

Responsibilities

The postdoc research fellow will work on establishing a robust sensor framework that seamlessly integrates with our digital twin setup, providing accurate real-time data and insights. Familiarity with IoT, cloud computing, and multi-physics is a must. The research will leverage AI/ML methodologies to ensure rapid detection and mitigation of uncertainties/errors, thus accelerating the convergence from design to manufacturing. The postdoc will publish their research findings in premier journals, present their research in high-impact conferences, and mentor graduate students.

To Apply

Interested applicants should submit their CV, cover letter, and names of three references to Prof. Abdallah Chehade (achehade@umich.edu) and Prof. Zhen Hu (zhennhu@umich.edu). Applications will be reviewed on a rolling basis until the position is filled.

WiE Summit

Join us **November 3, 2023** at the IEEE Women in Engineering Leadership Summit in Detroit to explore battery innovations, microgrids, nuclear energy, clean water, and cutting-edge AI. Learn innovation management best practices, gain inspiration from real stories about navigating big-tech layoffs, and get a behind-the-scenes look at OpenAI, ChatGPT, and LLMs. Reaffirm the importance of STEM education supercharge your career, refresh your engineering leadership skills, and contribute to advancing technology for the benefit of humanity. See our all-star lineup of speakers below:

Adrienne Pierce
CEO, New Sun Road, P.B.C

Muge Wood
Co-founder,
Refirement.life

Hala Ballouz
CEO of Electric Power
engineers; CEO of ENER-
i.AI Energy Intelligence

Ed Palacio
IEEE USA President 2023
President, P&L Technical
Management Solutions

Dr.Sibrina Collins
Executive Director of STEM
Education, Lawrence
Technological University

Gina Aquilano
Fellow, Sr. Director
Advanced Technology,
Analog Devices Inc.

Carlene Bills
President & CEO of Ford
Component Sales

Dr. Shu-Guang Li
Founder, Magnet4Water,
Professor MSU Environmental
Engineering

Alexandra Enders
Student,
Computer Engineering
University of Michigan

Susan Baier
Director of Engineering
Westinghouse Energy
Services

Kim Getgen
Founder and CEO,
Innovation Force

Steve Annear
CEO - Director –
Keynote Speaker

Cecelia Sharpe
Radio Host WRCJ 90.0FM
Narrator Detroit Symphony
Orchestra

Jennifer Marsman
Principal Engineer in AI, The
CTO Office, Microsoft Corp.

Amy Courter
Major general,
National Commander,
CEO of the civil air patrol

Cecilia Fung
Principal at The Holistyx Group,
Ex-Google, Microsoft, and PwC,
Innovation Leader

Register Here

We look forward to seeing you on **November 3**, at the Detroit Microsoft Technology Center!

Visit wie.ieee.org/join

UM-D Open Position 3

COLLEGE OF
ENGINEERING & COMPUTER SCIENCE
DEARBORN | UNIVERSITY OF MICHIGAN-DEARBORN

Ph.D. student Positions: Multiphysics, Machine Learning, and Advanced Finite Element Modeling (FEM)

Position Description

The Sustainability Research Group at the University of Michigan-Dearborn invites applications for multiple postdoc research fellow and Ph.D. positions. The postdoc/Ph.D. student will work with a multi-disciplinary research team within the College of Engineering and Computer Science on projects related to digital engineering in additive manufacturing.

For the Ph.D. student positions on **multiphysics, machine learning, and advanced Finite Element Modeling (FEM)**, we offer a full financial assistantship. The start date is August 25, 2024. The application deadline is February 01, 2024. The students will be funded by the National Science Foundation and will be actively involved in an extensive experimental campaign.

Qualifications

Applicants must have earned a Master's degree in Mechanical Engineering or a closely related discipline by July 30, 2024. Excellent mathematics, and coding skills are essential for consideration. The following are the specific requirements:

- Minimum cumulative GPA of 3.2 (B.S. degree) or 3.5 (master's degree) on a 4-point scale.
- Foreign applicants must provide TOEFL (minimum score of 84 on IBT) or IELTS (minimum score of 6.5) for English language proficiency.
- Three letters of recommendation, with at least one from former faculty.
- Academic statement of purpose indicating intended fields of research.
- Curriculum vitae or resume, and personal statement detailing background, life experiences, and motivation to pursue a Ph.D. degree at UM-Dearborn.

Responsibilities

The Ph.D. student will focus on polymer materials, environmental aging, multi-physics modeling, machine learning, and mechanics modeling. The project is funded by the National Science Foundation, and the selected Ph.D. student will be actively involved in an extensive experimental campaign. Additionally, the student will be responsible for developing a cutting-edge numerical tool that combines multiphysics, machine learning, and advanced Finite Element Modeling (FEM). More precisely, the research will focus on studying the degradation of polymers, and recycling of thermoplastics and thermosets. The purpose of the study is to design modeling tools to guide engineers in recycling polymers by design.

To Apply

Interested applicants should submit their CV to Prof. Georges Ayoub (gayoub@umich.edu). Formal applications should be submitted through an online Ph.D. application system.

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 Society
Chapter: 04 (CH04050)(AP03)   Antennas and Propagation Society, (ED15) Electron Devices Society, (MTT17) Microwave Theory and Techniques Society,
Chapter: 05 (CH04055)(C16)   Computer Society
Chapter: 06 (CH04056)(GRS29) Geosciences and Remote Sensing Society
Chapter: 07 (CH04057)(PE31)   Power Engineering Society, (IA34) Industrial Applications Society
Chapter: 08 (CH04088)(EMC27) Electromagnetic Compatibility Society
Chapter: 09 (CH04087)(IE13)   Industrial Electronics Society, (PEL35) Power Electronics Society
Chapter: 10 (CH04142)(TEM14) Technology and Engineering Management Society
Chapter: 11 (CH04099)(EMB18) Engineering in Medicine & Biology
Chapter: 12 (CH04103)(CS23)   Control Systems Society
Chapter: 13 (CH04113)(E25)   Education Society
Chapter: 14 (CH04115)(RA24)   Robotics And Automation Society
Chapter: 15 (CH04144)(NPS05) Nuclear Plasma Sciences Society
Chapter: 16 (CH04125)(CIS11) Computational Intelligence Society, (SMC28) Systems, Man and Cybernetics Society
Chapter: 17 (CH04128)(NANO42)Nanotechnology Council
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!

/*
NOTE: we have updated this part with the newly formed Magnetic Society Chapter
*/

Curated & Maintained By
Sharan Kalwani,
Chair, IEEE Southeastern Michigan Section (2022-2023)
Editor, Wavelengths (Serving you as an active newsletter contributor since 2018*)*
Enthusiastic IEEE volunteer since 2011

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

Activities & Events

We try to publish IEEE events in several places to ensure that everyone who may want to attend has all the available relevant information. **NOTE: The IEEE SE Michigan section website is located at http://r4.ieee.org/sem/**

SEM Wavelengths:
https://r4.ieee.org/sem/about-sem/sem-history/wavelengths-magazine-archive/

SEM Calendar of events:
https://r4.ieee.org/sem/sem-calendar/
Select "SEM Calendar" button in the top row of the website. This is our 'Active' event listing site where everyone should look first to see what events are scheduled for our Section in the near future.

SEM Collabratec Workspace:
https://ieee-collabratec.ieee.org/app/workspaces/5979/IEEE-Southeastern-Michigan-Section/activities
An IEEE supported space for online chat, discussions, connecting with other global IEEE entities, besides our local Michigan folks.

vTools Meetings:
http://sites.ieee.org/vtools/
Select "Schedule a Meeting" button in the left-hand column of buttons.

Other Happenings

Here are some of the non-IEEE functions that may be of interest to you or someone you know. Let us know if you have a special interest in a field that encourages technical study and learning, and wish to share opportunities for participation with members of the section. NOTE: Copy the URL and paste it into your browser address bar.
These websites were checked in June 2022 and found viable.
Send details to: wavelengths@ieee-sem.org OR letters@ieee-sem.org
- -

Michigan Institute for Plasma Science and Engineering: Seminars for the academic year:
https://mipse.umich.edu/seminars.php

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

Model Rocketry
https://www.nar.org/find-a-local-club/nar-club-locator/

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

Experimental Aircraft Association
https://www.eaa.org/en/eaa/eaa-chapters/find-an-eaa-chapter

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

Science Fiction Conventions
https://2022.penguicon.org/

http://www.confusionsf.org/

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

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

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

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

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

Executive Committee

The Executive Committee is the primary coordination unit for Southeastern Michigan (SEM) IEEE operations. The basic organization chart below shows the 2023 arrangement of communications links designed to provide inter-unit coordination and collaboration.

The SEM Executive Committee meets in a teleconference each month on usually on a Thursday at 6:30 pm. The specific meeting days, times, phone or WebEx numbers and log in codes are published on the IEEE SEM Website calendar: **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 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.
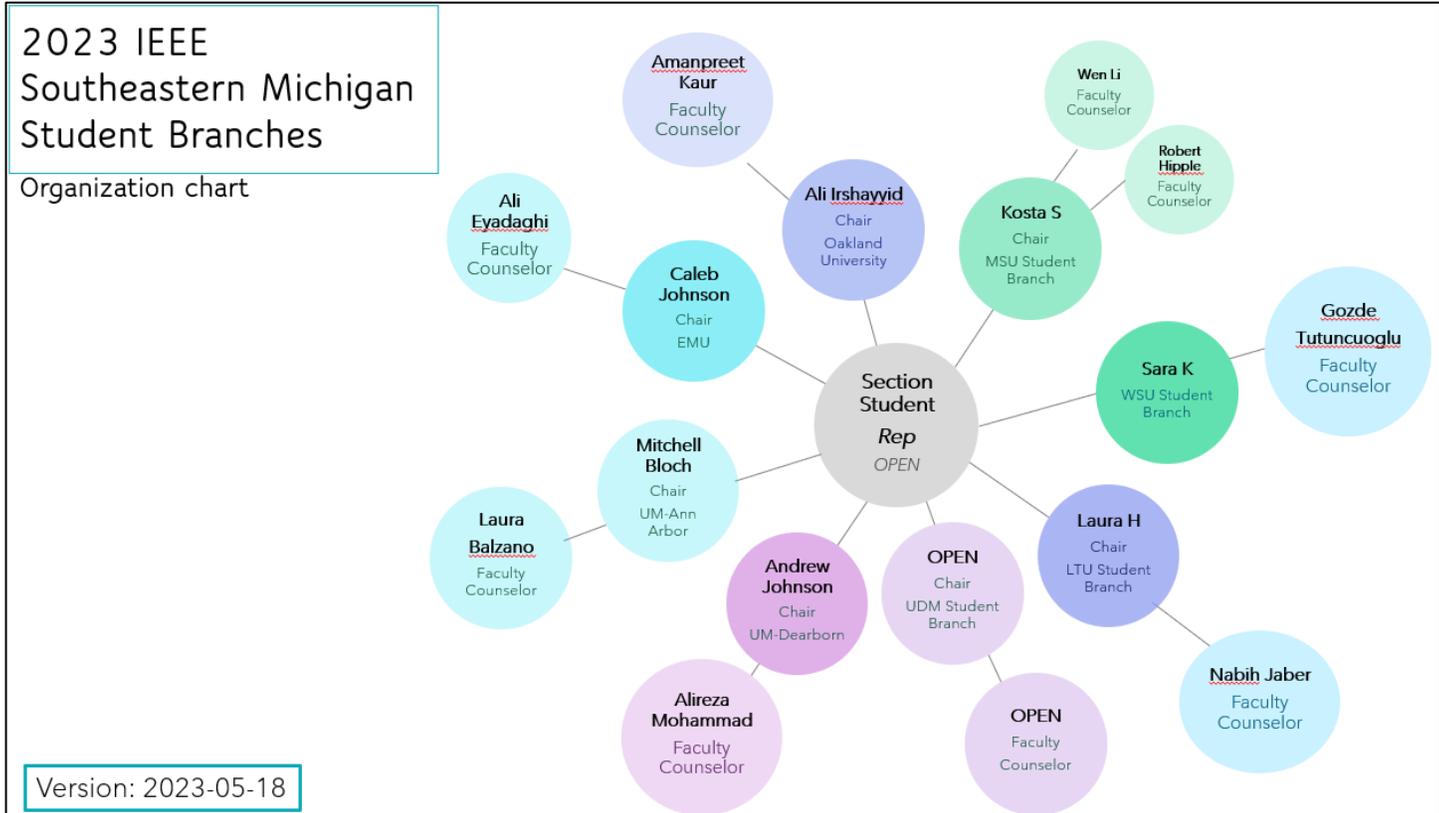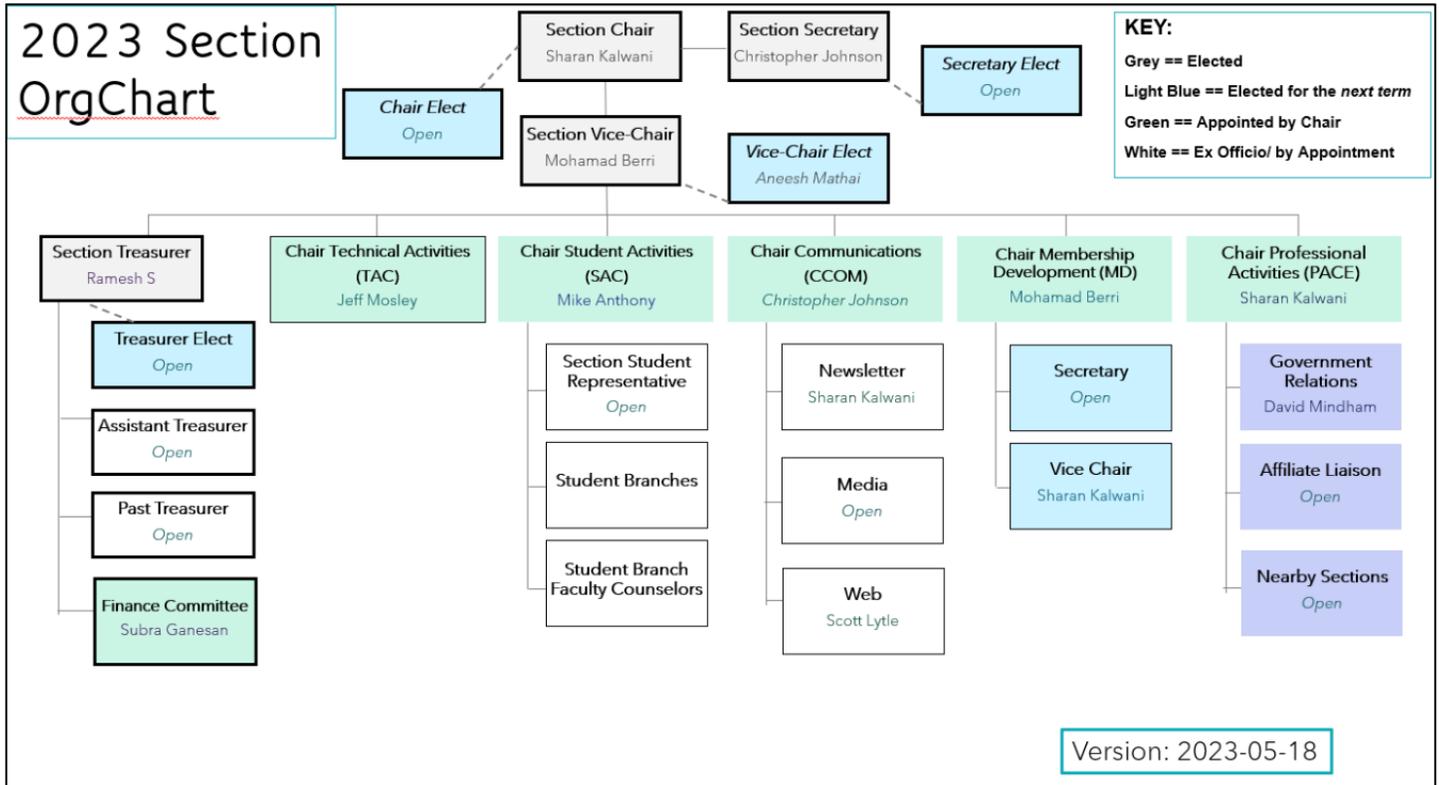
More detailed information on meetings may be found through the IEEE SEM Website: **http://r4.ieee.org/sem/** and clicking on the **SEM meetings list** button near the bottom of the left-hand banner.

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

If you wish to download the <u>complete SEM Organization Chart</u>, 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!)

2023 Section OrgChart

KEY:
Grey == Elected
Light Blue == Elected for the *next term*
Green == Appointed by Chair
White == Ex Officio/ by Appointment

Version: 2023-05-18

2023 IEEE Southeastern Michigan Student Branches
Organization chart

Version: 2023-05-18

ExCom Meeting Schedule

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

Below is the 2023 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 2023 meetings. Or, link your personal calendar to the SEM Web calendar.

Section Administrative Committee (ExCom) Meeting Schedule for 2023: (clickable links)

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

ExCom Meeting (all clickable links)	Date & Time
SEM Section ExCom Monthly Meeting (virtual) For NOVEMBER 2023	9 Nov 6:30 PM
SEM Section ExCom Monthly Meeting (virtual) For DECEMBER 2023	14 Dec 6:30 PM

Christopher Johnson (Secretary)
Email: secretary@ieee-sem.org

Section Administrative Committee (ExCom) Meeting Schedule for 2023: (screen snapshot)

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
OR
sharan.kalwani@ieee.org
d.romanchik@ieee.org
nilesh.dudhaia@ieee.org
k.williams@ieee.org
cgjohnson@ieee.org
lunnmalcolm@me.com
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

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

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 " " button under the top row)
https://www.facebook.com/groups/ieeesemich
SEM LinkedIn Page
(Select the " " button under the top row)
https://www.linkedin.com/groups/1766687/
SEM Twitter Account (new)
(Select the " " button under the top row)
https://www.twitter.com/ieeesemich

SEM Collabratec Workspace (new)
https://ieee-collabratec.ieee.org/app/workspaces/5979/IEEE-Southeastern-Michigan-Section/activities

SEM Instagram (new)
https://www.instagram.com/ieeesemich/

SEM Officers:
For a complete listing of all - Section - Standing Committee - Affinity Group - Chapter and Student Branch Officers, see the SEM Officers Roster on the web page (top banner)

Section Officers

Section Chair
Sharan Kalwani

Section Vice-Chair
Mohammad Berri

Section Secretary
Christopher Johnson

Section Treasurer
Ramesh Sethu

Standing Committees:

Section Adviser
Don Bramlett

Wavelengths Editor
Sharan Kalwani

Chair Educational
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

Chair Mentors
Don Price

SECTION Student Rep
OPEN

Chair Technical Activities
Jeffery Mosley

Information Management
Kimball Williams

IEEE Southeastern Michigan

Electrical and Electronic Engineers Creating Our Future

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

Advertising Rates

SEM Website & Newsletter

Leadership Meetings

SEM Executive Committee Monthly Teleconferences:
- 2nd Thursday of Each Month @ 6:30 PM
- Check the Section Web Calendar at:
    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