



Volume 63 – Issue 04

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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. 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
TEMS ExCom Meeting	04 Apr 2023	12 noon
IEEE SEM Spring 2023 SECTION CONFERENCE Post Planning Meeting	04 Apr 2023	12 noon
ECE Dept. Seminar Series - Winter Semester	05 Apr 2023	12:30 pm
Unlocking the Potential of OpenAI's Lesser-Known APIs	06 Apr 2023	12 noon
Dream Big - Engineering Our World	07 Apr 2023	5:30 pm
Senior member Elevation event (virtual)	08 Apr 2023	9:00 am
Ch8: AdCom Teleconference	13 Apr 2023	11:00 am
Section ExCom monthly meeting (virtual)	13 Apr 2023	6:30 pm
ECE Department Seminar Series	19 Apr 2023	12:30 pm
EMC Society Monthly Tech Meeting	20 Apr 2023	5:30 pm
The Man Who Loved Numbers: A Documentary	25 Apr 2023	6:00 pm
Future Chips Roadmap: CPUs, GPUs, FPGAs and Beyond	27 Apr 2023	4:30 pm
EMC Fest 2023	25 May 2023	8:00 am

Chair's Column

Spring Conference:

The Spring Conference was held on Tuesday, March 28th. Quick summary – it was very successful with over 70 persons in attendance and a great deal of joy at meeting once again in-person. A lot more detailed report is included in this newsletter, plus pictures, etc.

Student Activities Committee Chair:

Our Also, we are featuring as we have traditionally done so many times in the past, profiles of new leaders – specifically the new Chair of the Section Student Activities Committee – Mike Anthony. Mike is no stranger to the work and in his new role, he is slowly becoming more intimately acquainted to the modern-day requirements of this *critical volunteer* role. All student branches and faculty counselors (I shall be emailing you personally) are requested to give him a hand in this endeavor, so we can look forward to a continued bright IEEE section future!

Upcoming Technical Events:

Not only do we do tons of technical events (*more than any section in the entire IEEE Region 4*), but we also boost the 'soft skills' of our community via PACE (Professional Activities Committee for Engineers) events. During the summer months, we have re-scheduled 3 useful topics. If there are other areas, you would like to see – let us know!

Training:

In January and February, we ran several officer training sessions, and the last one is on the IEEE Code of Ethics. As a serious engineer, student of engineering principles OR PE certified engineer, this should be of interest. A recording has been made of all the training sessions + slides, so do feel free to request for the links in case you are interested. Look for it on the website and on Collabratec as well. Many of you have often asked how to do fancy things with the vtools (volunteer tools) and/or search for IEEE resources. A special advanced IEEE features has been scheduled precisely for this purpose. We do listen and hear you!

The Section website is undergoing subtle changes, but chief amongst them are: restricted access to the roster (ask us for the password), refresh of the training materials, better organization, e.g. listing resources alphabetically, etc.

Engineering Milestone:

We have an anniversary of a major IRE (Institute of Radio Engineers – one of our founding parent organizations) International Technical Milestone right here in our Detroit area. See page 9 for more details.

Joint Chapter events:

Inter-chapter activities and participation is encouraged. Often there are technology or general interest overlaps for our members. Please feel free to invite non-IEEE members. It's a great recruiting opportunity and offers the ability to network with others outside of IEEE.

Student Branches:

Our Student Branches, are one of our most valuable future assets. Our student branch leaders will be graduating this spring and moving on with their lives. Please encourage them to remain active with our section and individual chapters, and/or also join the IEEE SEM Young Professionals Organization. Planning for the new leadership of these branches for the coming Fall should begin right now.

I look forward to hearing from you and seeing you at our events. As always, your ideas and suggestions are encouraged and welcome.

Thanks to Michael Anthony we have a website QR code – I plan to add it on ALL of our IEEE Collabratec and social media (Facebook, LinkedIn and Twitter) posts as well in my personal email signature.



Going forward, to ensure business continuity, we have created easy to remember email aliases for key Section ExCom contacts, so one need not try to remember or hunt for the contact information! They are:

- 📖 Chair is chair@ieee-sem.org
- 📖 Vice Chair is vicechair@ieee-sem.org
- 📖 Treasurer is treasurer@ieee-sem.org
- 📖 Secretary is secretary@ieee-sem.org

2023 Section awards:

I would also like to congratulate Prof Subra Ganesan and Prof CJ Chung, who were awarded the Robert Neff Memorial Section award for their contributions and work over the years. The Section profile has definitely been raised to high visibility, due to their activities. The awards were given to them at the recent 2023 ESD GOLD awards, at which 23 other professional technical societies were present and thusly they were recognized beyond the IEEE. See the citations on page 19



Sharan Kalwani

Via email: chair@ieee-sem.org

Section members are encouraged to engage using any of these online platforms:



Report: Section Conference

Spring 2023 Section Conference Report



Dear IEEE Section members:

What a wonderful event! We are excited to share the success story of our Spring 2023 section conference event at Lawrence Technological University, held on March 28, 2023, from 4:00 PM to 8:30 PM, which was an in-person event after 3 years of the COVID pandemic. Excitement and enthusiasm were unparalleled among close to 70 attendees. The event was highlighted by student research poster competitions, keynote speakers' technical presentations, Sponsors: Keysight, Our Next Energy (ONE) recruitment event, chapter collaboration, & social gatherings, award ceremonies, and amazing, delicious dinner & beverages.

In the first segment: there were 14 student research posters from 4 universities that participated in showcasing their challenging ideas for modern technical issues. All the entries were quite interesting. The winners were:

1st Place

Title: Compact Optical Sensor for Detecting Airborne Ultrafine Particles Inside Vehicle Cabins

Authors: Sophia Judge, Hao Jiang from Lawrence Technological University

2nd Place

Title: A Universal, Efficient Deep-Learning Approach to Various Cancer Detections from miRNA Expressions

Authors: Julia Huang, Justin Huang from Schoolcraft College

3rd place

Title: Reporting Drone System

Authors: Adrian Brooks, Jeremy Atkins, Michael Corcoran, Dr. George Pappas and Dr. Nabih Jaber from Lawrence Technological University

We would like to congratulate all winners for their achievements including their faculty advisors for guiding them.

As we transitioned to the second segment, kicking off the inauguration presentation was Dr. Tarek Sobh, LTU President on the recent and upcoming future of robotics in multi-industry areas. The second technical presentation by Ms. Kelsey Peterson, Manager of Transportation Electrification from DTE Energy, shared with us how DTE is preparing for the upcoming demand for EVs. The third technical presentation by Mr. Santhosh Jogi, Vice President of Software from Our Next Energy, the shared success story of ONE's batteries installed in a Tesla EV which could achieve a range of 750 miles – that too in a Michigan winter!

In the last segment of the event, section awards were distributed while a delicious dinner is served. With the final closing ceremony, all of the contributors were acknowledged, and their support was recognized & appreciated. Throughout the event, we introduced and recognized many of the section volunteers, chapter chairs, student branches, committee chairs, etc. Please look out for posts on LTU: <https://www.techcentury.com/2023/03/29/ieee-spring-conference-gets-the-latest-on-robots-evs/> and https://www.linkedin.com/posts/ltu-bme_congratulations-to-our-biomedical-engineering-activity-7046896631249567744-2mxY/ for the non-IEEE social media posts. We will be also sharing our pictures on our website, Collabratec, LinkedIn, FaceBook and Twitter later this month.

It has been a truly amazing event and the success of this event goes to all of us, especially, our committee members (Sharan Kalwani, Robert Hipple, CJ Chung, Van Wagner, Faisal Mohd, Jerry Song, Kimball Williams, Mohamad Berri), sponsors (Keysight, ONE, LTU, OMS, UMD), and Student Poster Competition Universities (Lawrence Technological University, Wayne State University, University of Michigan-Dearborn, & Northville High School and Schoolcraft College), our venue host Lawrence Technological University, so let's keep spirits high and let's make each event more successful than the previous one.

If you haven't completed the survey, please let us know what we can do better. Here is the link:

<https://ieee.surveysparrow.com/s/IEEE-Southeastern-Michigan-Section-Spring-Conference-2023/tt-6DZDL35bZPekzXzYY26hon>

Please do not forget to look for the upcoming Fall 2023 Section Conference event. It is coming soon!

Thank you for your support.

Keyur Patel
Spring 2023 Section Conference Chair



Sharan Kalwani
Southeastern Michigan Section Chair



Technical Activities Report

2023 IEEE SE Michigan Section Geo-unit Status (Till March 31st)

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	1	4
LIFE	0	0	0	0	0	0	Life Members	2	0
WIE	0	0	0	3	0	0	Women In Engineering	0	3
YP	0	0	0	0	0	0	Young Professionals	0	0
1	0	0	0	0	0	0	Circuits & Systems, Signal Proc., Info Th.	1	0
2	26	12	2	0	0	0	Vehicular Technology	0	2
3	0	0	0	0	0	0	Aerospace & Elec. Sys., Communications	0	0
4	40	27	3	0	0	0	Trident (Ant, Elect Dev., uWave, Photo)	0	3
5	32	10	9	0	0	0	Computers	0	9
6	161	56	1	0	0	0	Geoscience & Remote Sensing	0	1
7	183	74	3	2	0	0	Power Engineering, Industrial App.	0	5
8	37	18	4	3	4	0	Electromagnetic Compatibility (EMC)	0	11
9	0	0	0	0	0	0	Power Electronics, Industrial Electronics	0	0
10	0	0	0	0	0	0	Engineering Management	0	0
11	0	0	0	0	0	0	Eng. in Medicine & Biology	0	0
12	24	0	1	0	0	0	Control Systems	0	1
13	18	0	9	3	0	0	Education	0	12
14	0	0	0	0	1	0	Robotics & Automation	0	1
15	40	27	3	0	0	0	Nuclear Plasma Science Society	0	3
16	0	0	0	1	0	0	Computational Intelligence / Sys.Man.Cyber.	0	1
17	27	0	1	0	0	0	Nano Technology Council	0	1
SEM	28	0	3	20	0	0	SEM (Section)	1	23
	618	225	39	32	9	0	NOTE: Highlight Green = Active	5	80
		36%					NOTE: Highlight clear = Concern		

Member News

We would like to congratulate Ayush Lal, who recently got elevated to Senior Member.



Ayush Lal is a Senior Mechanical Engineer at Aptiv in Michigan, USA. He received his Master's degree in Mechanical Engineering from Michigan Technological University, USA in 2017. His main skills and expertise cover the areas of power electronics, computational fluid dynamics and vehicle electrification. Mr. Lal has worked with automotive giants such as Delphi Technologies (now Borg Warner) and Eaton Corporation in e-mobility in the US. His work has been published in books such as Innovate Toronto.

Congratulations to Christopher Johnson, for completing 2 years at his venture Calm Clear Communications!



This Month in April**Or: Notable Events in History, which I Did Not Know! ☺**

April 1st, 1932 - Birth of **Norman Abramson**, American computer scientist who created ALOHANET, the first modern data network, which formed the basis of the protocols essential in Ethernet now in wide use. It opened in 1970, operating at 9600 bits per second, using radio to provide a wireless packet-switched data network between several Hawaii islands. Its innovations included the first packet radio sensors, the first packet radio repeaters, the first satellite packet network and the first radio access to the Internet. Abramson's U.S. patents include the first patent for CRC redundancy checks to provide data error control technique (No. 3,114,130), and the first patent issued for the design of burst errors in digital systems (No. 3,163,84)

April 4th 1826 - Birth of **Zénobe-Théophile Gramme**, *died 20 Jan 1901 at age 74*.

Belgian-born French electrical engineer and inventor (1869) of the Gramme dynamo, a continuous-current electrical generator that gave principal impetus to the development of electric power. In 1870 he invented a continuous-current dynamo with a ring armature (a ring of soft iron around which were placed insulated copper coils). This produced much higher voltages than other dynamos of the time and was the first high-voltage direct-current generator practical for mass production and distribution. Driven by steam-engines, they were immediately successful and were used for a variety of purposes, including factory lighting, electroplating, and lighthouses. With these dynamos, the era of large-scale electrical engineering began.

April 6th 1903 - Birth of **Harold E. Edgerton**, died 4 Jan 1990 at age 86.

Harold Eugene Edgerton was an American engineer and ultra-high-speed photographer who, as a graduate at the Massachusetts Institute of Technology (1926), used a strobe light in his studies, which, by 1931, he applied the strobe to ultra-high-speed photography. He formed a company (1947) to specialize in electronic technology, which led to inventing the Rapatron camera, capable of photographing US nuclear bomb test explosions from a distance of 7 miles. Throughout his career he applied high-speed photography as a tool in various scientific applications. He also developed sonar to study the ocean floor. Using side-scan sonar, in 1973, he helped locate the sunken Civil War battleship USS Monitor, lost since 1862, off Cape Hatteras, NC.

April 9th 1919; Date of birth of **J. Presper Eckert Jr.** died 3 Jun 1995 at age 76.

American engineer and inventor of the first general-purpose electronic computer, a digital machine that was the prototype for most computers in use today. In 1946, Eckert with John W. Mauchly fulfilled a government contract to build a digital computer to be used by the U.S. Army for military calculations. They named it ENIAC for Electronic Numerical Integrator and Computer. By 1949, they had started a manufacturing company for their BINAC computer. This was followed by a business oriented computer, UNIVAC (1951), which was put to many uses and spurred the growth of the computer industry. By 1966 Eckert held 85 patents, mostly for electronic inventions.

April 14th 1898; Date of birth of **Harold Stephen Black**, died 11 Dec 1983 at age 85.

American electrical engineer who discovered and developed the negative-feedback principle, in which amplification output is fed back into the input, thus producing nearly distortion less and steady amplification. In 1921, Black joined the forerunner of Bell Labs, in New York City, working on elimination of distortion. After six years of persistence, Black conceived his negative feedback amplifier in a flash while commuting to work aboard a ferry. Basically, the concept involved feeding systems output back to the input as a method of system control. The principle has found widespread applications in electronics, including industrial, military, and consumer electronics, weaponry, analog computers, and such biomechanical devices as pacemakers.

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

*Just one of the Editors, Wavelengths,
2022-2023 Chair, Southeastern Michigan Section & PACE
Super Passionate Engineering History Buff/Aficionado*

Local EE Milestones

Milestones: One-Way Police Radio Communication, 1928
[Detroit, MI IEEE Historical Plaque - Dedicated May 1987](#)

“At this site on April 7, 1928 the Detroit Police Department commenced regular one-way radio communication with its patrol cars. Developed by personnel of the department's radio bureau, the system was the product of seven years of experimentation under the direction of police commissioner, William P. Rutledge. Their work proved the practicality of land-mobile radio for police work and led to its adoption throughout the country.”

The plaque can be viewed on Belle Island of Detroit, Michigan, U.S.A., at the front south-west corner near the main entrance door to the police building.

In the 1920s gangster era, bank robbers and bootleggers made clean getaways time after time, to the great consternation of police.

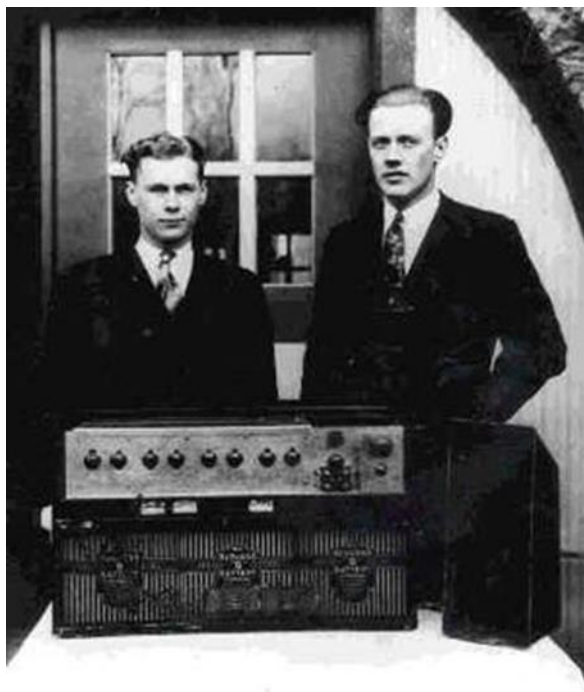
But in 1928, a dedicated Detroit patrolman and an electronics buff devised the first successful one-way radio link between police headquarters and cruisers. Critical news of crimes in progress could now be transmitted from the stationhouse to police cars as they drove.

Electronics was a fledgling science when Detroit Patrolman Kenneth Cox and Robert L. Batts, an engineering student, built a stable radio receiver and antenna system. Their successful one-way radio, coming after years of trial and error, was installed in April 1928. The Detroit Police Department made history as the first to dispatch patrol cars regularly by radio. Many city police departments shortly followed suit with their own systems.

Between 1921 and 1927, radio buffs Kenneth R. Cox, Walter Vogler and Bernard Fitzgerald, all Detroit police officers, experimented with radio sets they had installed in the back seat of a Model-T Ford police patrol car. The receivers picked up signals, but not very consistently. Frequently, broadcasts would fade out as the car passed large buildings or under railroad bridges. Also, police had no designated band on which to broadcast, so the system operated like any radio station. The station was appropriately called KOP and listed locally as an entertainment station.

To meet FRC (Federal Radio Commission, predecessor of the FCC) licensing requirements, police officers broadcast recorded music in between lists of stolen vehicles and descriptions of missing children. Persistent work by Cox and Robert Batts led to the development of an improved receiver in 1927. A broadcasting station, W8FS, was set up on Belle Isle and regular dispatches began in 1928.

(Source: Detroit Free Press).



Senior Elevation

**IEEE Southeastern Michigan Section
Presents
“Senior Membership Elevation: 2023 Kickoff”**



IEEE Southeastern Michigan Section will commence for the 2023 season, its Senior Member Round up event (virtual) on April 8th between 9 AM and 12 noon (EST/EDT). 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 elevation.
- If you have a PhD, that is equivalent to 5 years of significant experience, so you need 5 additional years beyond that.
- If you have a master’s, that is equivalent to 2 years of significant experience. So, you will need 8 additional years to qualify.

There is no cost to becoming a Senior Member, and this step is a necessary prelude to seeking the IEEE ‘Fellow’ level. For a complete description of the Senior Member process and its benefits, see the link: http://www.ieee.org/membership_services/membership/grade_elevation.html

Potential senior members, please register on this site for the event and be ready with digital copies of your resume, and relevant supporting materials, to share with reviewers.

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

At Glance

- **When:**
Date: April 8th, 2023
Time: 9 am to 12 noon
- **Where:**
Online using Webex breakout rooms
- **Audience:** All Eligible Members, Senior members, and *potential* Members

**Sponsored by
IEEE
Southeastern Michigan Section
Membership Development**

Pre-Registration Required!

<https://events.vtools.ieee.org/m/343961>

IEEE Southeastern Michigan Section



EIT 2023: Research CFP

CALL FOR PAPERS
2023 IEEE INTERNATIONAL CONFERENCE on
ELECTRO/INFORMATION TECHNOLOGY
May 18 - 20, 2023
Lewis University, Romeoville, IL

The IEEE 2023 International Electro/Information Technology Conference, sponsored by the [IEEE Region 4 \(R4\)](#), in collaboration with [Lewis University](#), and the [IEEE Chicago Section](#), 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 and Engineering Management**

Important dates:

- **Notification of acceptance: April 21, 2023**
- **Final manuscript (PDF) due: April 28, 2023**
- **Early registration: April 30, 2023**

For more information, ideas for organizing/chairing sessions, industry participation, tutorials, professional activities sessions, please contact: [Dr. Martinez](#), or [Dr. Mousavinezhad](#)

EIT 2023: Industry CFP

CALL FOR INDUSTRY APPLICATION PAPERS
2023 IEEE INTERNATIONAL CONFERENCE on
ELECTRO/INFORMATION TECHNOLOGY
May 18 - 20, 2023,
Lewis University, Romeoville, Illinois, USA
<https://eit-conference.org/eit2023>

Sponsored by [IEEE Region 4 \(R4\)](#), in cooperation with [Lewis University](#) and the [IEEE Chicago Section](#).

Submissions of quality industry papers/presentations describing ideas or implementations in all areas of information technology and engineering solutions relevant to industrial applications and of interest to practicing and professional engineers are requested.

Please provide a 300 word summary of your industrial application paper or presentation to [the website](#). **The Conference also encourages exhibits by the industry presenters and [Conference Sponsors](#) to promote their industry.** Please visit [the website](#) for more information on being a Conference Sponsor.

NOTE: The industry papers will be published in the conference proceedings but not in IEEE XPLORE unless they are submitted as regular conference papers. Identify your industry paper/presentation as "INDUSTRIAL" when submitting

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
- 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 and Engineering Management
- Electric Vehicles

Important dates:

- Notification of acceptance: April 15, 2023
- Early registration: April 15, 2023

For more information, please contact:

[Dr. Hamid Vakilzadian](#)
[Jim Riess](#)

EMCFest 2023

Save the date

EMC Fest 2023

May 25, 2023

A One-Day
EMI/EMC Tutorial
and Exhibition

Register at [emcfest.org](https://www.emcfest.org)

Speakers

Dr. Todd Hubing

Professor Emeritus of Electrical and Computer Engineering at Clemson University and President of LearnEMC, author/co-author of over 200 papers and presentations on electromagnetic modeling, electromagnetic compatibility and the design of reliable electronic systems

Dr. Eric Bogatin

Adjunct Professor at the University of Colorado Boulder in the ECEE dept, and technical editor of the *Signal Integrity Journal*, Signal Integrity Evangelist with Teledyne LeCroy and the Dean of the Teledyne LeCroy Signal Integrity Academy at Be The Signal

Meet with
vendors and
network with
colleagues

Embassy Suites
19525 Victor Parkway
Livonia, Michigan

<https://www.emcfest.org>

EMC SIPI2023

2023 IEEE INTERNATIONAL SYMPOSIUM ON ELECTROMAGNETIC COMPATIBILITY & SIGNAL/POWER INTEGRITY



BENEFITS OF ATTENDING

PARTICIPATE IN 200+ TECHNICAL SESSIONS

Workshops & Tutorials, Hands-on Experiments & Demonstrations, and Special Sessions with the world's leading engineers in EMC and SIPI.

ATTEND THE "ASK THE EXPERTS" PANELS

Bring your questions or simply listen and learn from the experts!

PARTICIPATE IN LIVE DEMONSTRATIONS

Presented by industry experts to learn how to solve real-world problems.

LEARN ABOUT THE LATEST GLOBAL STANDARDS

in EMC and SIPI, hear updates, ask questions, and attend Working Group Meetings as part of the "Standards Week" special track.

NETWORK WITH FRIENDS AND COLLEAGUES

During the Welcome Reception, the Gala Dinner, Young Professionals, and Women in Engineering events.

BRING THE FAMILY

And Experience this unique and vibrant city of Grand Rapids, Michigan. Companions are invited to join the Social Events and interesting area tours.

#IEEE_ESP23



www.emc2023.org



IEEE

EMC
SOCIETY.

Organizational Changes

The function of your Section Executive Committee is to guide and nurture your Section and to provide benefits and services that will aid and assist you in your professional career. The Section has as its goals, the list below:

Section Goals

- Increase member engagement,
- Improve relationships with and among members,
- Increase operational efficiency and effectiveness, within the section and its interfaces,
- Enhance collaboration – serve as the local face of IEEE to the community,
- Increase membership, and
- Ensure the collection of appropriate information necessary to assist the IEEE to become a data driven organization.

We address these goals through a multitude of activities that encompass our Chapter meetings, the Section web site, the activities of our Standing Committees, supporting our Affinity Groups and Student Branches, with our Conferences and technical-educational Workshops and Colloquia. Some activities are sponsored and directed 'officially' through the Section, and many more are independently sponsored and run by active Chapter and Affinity Group members who see a need and do what they can to provide it. Where we can, the Section encourages these activities and helps spread the word.

By far the greatest concentrations of these activities culminate in Conferences. I say Conferences (plural) because we foster, encourage, and participate in many more than "our own" Section Conference each year. By co-sponsorship on several levels, and actively speaking and lecturing all over the world, IEEE members extend our friendship and exchange knowledge with our international members, and with other engineers who may not be members of our individual Technical Societies, but still constitute elements of the larger technical community of which we are a part.

Changes:

In Ai Chung-liang Huang's book "Embrace Tiger, Return to Mountain" he speaks of an ex-pupil visiting his Dojo and complaining "...you have changed this...".

His reply was "Yes, of course; I move on and beyond..., how did you get stuck back then and there?"

Change is one of those facts of life that we, as humans, often wish would go away, and leave us alone. We get comfortable with how things have been done, and it is just human nature to want to stay in that comfortable position.

But, change is also one of the characteristics that typifies any organism that is growing. The IEEE, and our Section are finding that change is vital if we are to survive in the current economic and technical climate and continue to prosper in the coming years. However, change, without purpose or direction, can be counterproductive. Your Executive Committee is charged with providing guidance to help move the Section forward toward meaningful goals. It is in this context that I want to call your attention to the listing of our Standing Committees and their functions on the SEM Website. Link at:

[2023 Detailed Roster.](#)

(You will need to contact sharan.kalwani@ieee.org or s.r.lytle@ieee.org from your ieee email account for the password.)

Embrace Tiger:

In the near future, your Executive Committee will be discussing the functions, purposes, directions and levels of interaction and cooperation among all of the current, and possible new Standing Committees. As we go through this process, we will need understanding and input from all our concerned members if the process at its end will allow us to 'Return to Mountain' with a renewed organization that can function in a productive and cooperative manner.

To that end, please note that **all Executive Committee meetings are open to all members** to attend. One of the benefits of the global pandemic is the widespread use of virtual meetings which allow participation by anyone who wishes to join the discussions. Each month your Executive Committee meets 'online' and all IEEE members at all grades and levels are invited to attend and participate.

The link to allow anyone to register and receive the 'virtual link' to the meeting appears on the first page of every Wavelengths newsletter in the Upcoming Events table. *{Please note that it is necessary to register for **each** meeting.}* The registration process is quick and easy once you have been through it the first time.

If you recall, the first item in the list of Section Goals is 'Increase member engagement.' As you take this step to become more involved in the Section, its functions and responsibilities, you will also be helping us all move forward toward that goal.

Regards to all.

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Amateur Radio?

Amateur Radio in the USA is defined in the “Code of Federal Regulations” (Part 97) as a service. Not a hobby. Specifically, Part 97 states:

§ 97.1 Basis and purpose.

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

- (a) Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.
- (b) Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art.
- (c) Encouragement and improvement of the amateur service through rules which provide for advancing skills in both the communication and technical phases of the art.
- (d) Expansion of the existing reservoir within the amateur radio service of trained operators, technicians, and electronics experts.
- (e) Continuation and extension of the amateur's unique ability to enhance international goodwill.”

So, what is the reason we call these federally licensed radio operators “**Amateur**”? Especially when we see how many are devoting much of their personal time to the (ARES) Amateur Radio Emergency Service, or check in regularly to local and regional ‘nets’ of the (NTS) National Traffic System which maintains the ‘on air’ infrastructure designed to rapidly and accurately transmit messages to and from disaster sites, or (MARS) the Military Auxiliary Radio System, a DoD program that uses FCC licensed amateur radio operators, specially trained in military communication procedures to support DoD HF communication requirements. Or ‘Sky Watch’ which is a “liaison net” activated during severe weather operations, to relay reports and information to the National Weather Service. To name only a few of the public service programs that utilize the time and talents of the Amateur Radio community.

The distinction is defined in the § 97.3 Definition, #4:

“Amateur service. A radiocommunication service for the purpose of self-training, intercommunication and technical investigations carried out by amateurs, that is, duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest.”.

The **Amateur Radio Service** is ‘amateur’ only in the fact that ‘amateur radio operators’ are specifically forbidden to accept any payment or financial reimbursement for their time and efforts. This is what the phrase ‘...without pecuniary interest’ means. It in no way indicates any lesser community status, or lack of respect.

I find it somewhat ironic when someone notices me wearing my ‘USAF Retired’ pin and says, “Thank you for your service”, but never notices my ARRL pin, or what it signifies.

I only devoted 4 years of my life to the military.
I have been an amateur radio operator since 1958.

You can do the math.

Chat-GPT webinar

IEEE Southeastern Michigan
Presents

Potential of Chat-GPT OpenAI's Lesser-Known APIs: Embeddings & Whisper



There has been quite a buzz about Chat-GPT. In this engaging talk, Yiğit Konur will shed light on two lesser-known but highly significant APIs offered by OpenAI: Embeddings and Whisper. He will provide an overview of these technologies, discussing their importance and potential applications in the context of artificial intelligence. Designed with engineers, students, and professionals in mind, the presentation will be delivered in a clear and accessible language to ensure that everyone in the audience can grasp the key concepts and appreciate their relevance to the AI field.

Bio:

Yiğit Konur is a 32-year-old digital marketing strategist who previously co-founded Zeo, the largest SEO agency in Eastern Europe. Currently, he is developing Wope, an SEO analytics solution. Yiğit has been exploring generative AI models for about 2 years, working on creating AI-powered products and sharing his knowledge on Twitter.

Quick Summary

- **When:**
Date: April 6th, 2023
Time: 12:00 ~ 1:30 PM (EST/EDT)
- **Where:**
Online via Zoom/Webex (to be shared only after you have a confirmed registration)
- **Audience: OPEN to ALL***

Sponsored by
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Society
Technical Chapters

***Pre-Registration Required!**

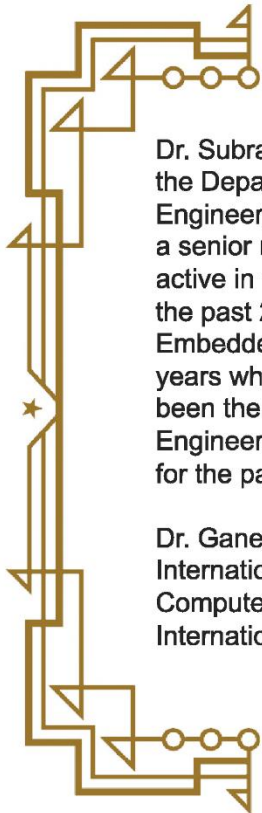
<https://events.vtools.ieee.org/m/353337>



IEEE Southeastern Michigan Section



ESD GOLD Award '23



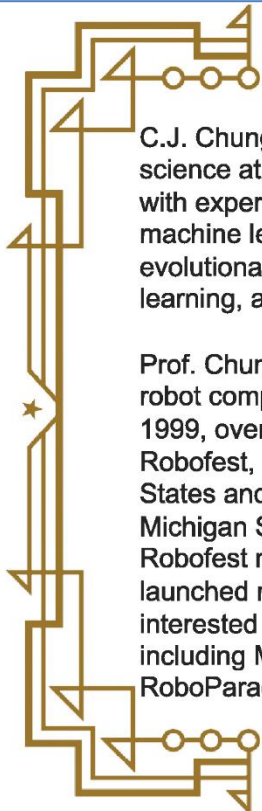
Dr. Subramaniam Ganesan, is a Professor in the Department of Electrical & Computer Engineering (ECE) at Oakland University. He is a senior member of IEEE and has been an active in the IEEE SEM Computer Chapter for the past 25 years. He has organized an annual Embedded Systems workshop for the past 20 years which is free to all attendees. He has also been the session organizer on the "Systems Engineering" panel at the SAE World Congress for the past 15 years.

Dr. Ganesan is the editor-in-chief of the International Journal of Embedded Systems & Computer Engineering, as well as the International Journal of Sensors & Applications.



Robert Neff Memorial Award
Subramaniam Ganesan, PhD

Fellow, ISPE
 Distinguished Visiting Speaker, IEEE Computer Society
 Lifetime Achievement Award, ISAM
 Lloyd L. Withrow Distinguished Speaker Awardee, SAE
 Best Teacher award, ASEE
 IEEE Region 4 Technical Activities Member



C.J. Chung, PhD, is a professor of computer science at Lawrence Technological University with expertise in autonomous mobile robotics, machine learning, evolutionary computation, evolutionary-neuro-fuzzy algorithms, deep learning, and deep reinforcement learning.

Prof. Chung founded a world-wide autonomous robot competition called Robofest. Since 1999, over 31,000 students have competed in Robofest, including teams from 18 United States and 30+ countries. The Southeast Michigan Section has sponsored IEEE Robofest medals to contestants. He also launched numerous programs to get students interested in engineering and computer science including MathDance, Vision Centric Challenge, RoboParade, RoboMed, and RoboArts."



Robert Neff Memorial Award
C.J. Tung

Senior Member, IEEE
 Chair, IEEE SEM Robotics and Automation Chapter
 IEEE SEM Educational Committee member

RoboFest News



- [\(1\) Robofest Summer Camp Survey](#)
- [\(2\) Robofest World Championship Registration and Schedule](#)
- [\(3\) Michigan Invitational Events are scheduled to open Monday April 3](#)
- [\(4\) 2023 Sponsor Form Available](#)
- [\(5\) In Search of 5-, 10-, 15- and 20-Year Coach Award Recipients](#)

Note: All times are listed in EST unless noted otherwise

[\(1\) Robofest Summer Camp Survey](#)

We are gearing up for the 2023 Robofest Summer Day Camps and would like to schedule sessions based on interest. We will be hosting up to 4 sessions. If you are a Michigan Coach, Parent, Prospective Coach or Former Coach, and have students interested in attending Summer Day Camp session(s), please complete the survey: <https://forms.gle/zgpHE4p6B62VPFB48>. Watch for the results in the next eNews and on the Summer Camp page.

[\(2\) Robofest World Championship Registration and Schedule](#)

The Robofest World Championship Game and Exhibition Finals and Open Categories will be hosted on Lawrence Technological University's campus on May 11~13, 2023 with the following schedule.

- ~ May 11: Jr BottleSumo (Group 1)
- ~ May 12: Jr BottleSumo (Group 2), RoboParade, RoboMed, Unknown Mission Challenge, Sr BottleSumo Classic and Sr BottleSumo Unlimited
- ~ May 13: Jr BottleSumo Final Match, RoboArts, Game Finals, Exhibition Finals

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

<https://www.robofest.net/images/2223/WC2023Schedule012723.pdf>

The Open Category Events registration is open for US Teams. Space is limited for some categories. International teams who do not have a Robofest Director in their country may send an email to robofest@ltu.edu requesting registration.

Volunteer registration for all events will be open on Wednesday, April 5.

[\(3\) Michigan Invitational Events are scheduled to open Monday April 3](#)

These events, hosted in the LTU Robofest Lab, offers Game teams who do not advance from a Michigan Qualifier a second chance to compete. (new registration and another registration fee). The 2023 Michigan Invitational Schedule is as follows:

- Junior Game: April 22, 9:00am ~ 1:00pm
- Senior Game: April 22, 4pm ~ 8:00pm

Video_Submission_USA is another opportunity for a second chance to qualify.

[\(4\) 2023 Sponsor Form Available](#)

Robofest would not be possible without the support from our generous sponsors. Thank you to all of our sponsors, past and present! If you would like to sponsor Robofest and have your name/organization included on all the Robofest marketing materials, please submit the Sponsorship Form: <https://www.robofest.net/images/SponsorshipForm2023.pdf>

[\(5\) 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 with the subject *Coach Award*. Please include the coach 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 13.

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

Dr. Christopher Cartwright, Director, ccartwig@ltu.edu

Elmer Santos, Assistant Director, esantos@ltu.edu

Shannan Palonis, Coordinator, spalonis@ltu.edu

Pam Sparks, Coordinator, psparks@ltu.edu

Dr. CJ Chung, Advisory Board Chairperson (Volunteer), cchung@ltu.edu

Processor Chips Roadmap

**IEEE Southeastern Michigan
Presents**
Future Chips Roadmaps: CPUs, GPUs, FPGAs and Beyond



Standards and reference designs have helped establish many large scale compute installations and competition to maintain Moore's Law has become fierce. Now that we have seen Exascale capable system installed at Oak Ridge National Labs using these "commodity" designs, what is next for the mass computing market? This session will focus on how the technology that supercomputers and cloud use today will drive the next challenges for OEMs and also in the datacenters. Mechanical, thermal and electrical issues are being exacerbated by the intense focus to increase performance in every component of a system from CPUs to GPUs to Networking and beyond. You'll hear the strategy of how we will harness emerging technology for next-generation systems.

Bio:

Matthew Ziegler is the Director of HPC Architecture and Performance at Lenovo and responsible for defining Lenovo's systems and solutions strategy HPC and AI Deep Learning. Matthew joined IBM in 2001 where he worked as a HPC architect. Matthew later progressed to the role of Executive Architect in the System x-Product Marketing team at IBM before transitioning to Lenovo in 2014.

Quick Summary

- **When:**
Date: April 27th, 2023
Time: 04:30 – 5:30 PM
(EST/EDT)
- **Where:**
Online via Zoom/Webex
(to be shared only after
you have a confirmed
registration)
- **Audience: OPEN to ALL***

Sponsored by
IEEE
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Society
Technical Chapters

***Pre-Registration Required!**

<https://events.vtools.ieee.org/m/353514>

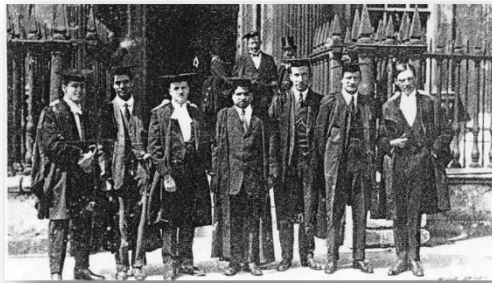


IEEE Southeastern Michigan Section



The Man Who Loved Numbers

**IEEE Southeastern Michigan
Presents a Video Documentary on
Srinivas Ramanujan: His Life & Legacy**



Quick Summary

- **When:**
Date: April 25th, 2023
Time: 05:30 – 7:30 PM
(EST/EDT)
- **Where:**
Online via Webex (to be shared only after you have a confirmed registration)
- **Audience: OPEN to ALL***

Sponsored by
IEEE
Southeastern
Michigan
Education Society
Technical Chapter

Srinivasa Ramanujan FRS (22 December 1887 – 26 April 1920) was an Indian mathematician. Though he had almost no formal training in pure mathematics, he made substantial contributions to mathematical analysis, number theory, infinite series, and continued fractions, including solutions to mathematical problems then considered unsolvable. During his short life, Ramanujan independently compiled nearly 3,900 results (mostly identities and equations). Many were completely novel; his original and highly unconventional results, such as the Ramanujan prime, the Ramanujan theta function, partition formulae and mock theta functions, have opened entire new areas of work and inspired a vast amount of further research.

He died in 1920 at the age of 32. His "lost notebook", containing discoveries from the last year of his life, caused great excitement among mathematicians when it was rediscovered in 1976.

Running time: 55 minutes ()

***Pre-Registration Required!**

<https://events.vtools.ieee.org/m/339738>



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

Section Unit Name or Affinity Group or Chapter Name (Organizational Unit 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 (2022-2023)

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.

Our Mission & Goals

The IEEE Southeastern Michigan Section Officers have reaffirmed the Mission and Goals of the section with the guidance of the Region 4 leadership. The Mission and Goals conform to those of IEEE worldwide.

You have probably seen the Mission and Goals before. However, it is important to keep these clearly in mind and remind ourselves often that this is what we are about and what we are trying to accomplish.

Section Mission

Inspire – Enable – Empower and Engage Members of IEEE at the local level.

For the purpose of:

- Fulfilling the mission of IEEE (...**foster technological innovation and excellence for the benefit of humanity.**),
- Enhancing the members' growth and development throughout their life cycle, and
- Providing a professional home,

Section Goals

- Increase member engagement,
- Improve relationships with and among members,
- Increase operational efficiency and effectiveness, within the section and its interfaces,
- Enhance collaboration – serve as the local face of IEEE to the community,
- Increase membership, and
- Ensure the collection of appropriate information necessary to assist the IEEE to become a data driven organization.

It is now the task of the leadership of each chapter, affinity group, student branch, committee to guide and coach all in order to focus their activities on achieving those goals.

NASA calling All Hams!

Ham Radio Operators, We Need Your Help During Solar Eclipses!



August 21, 2017 Solar Eclipse as seen from the Great Smoky Mountain National Park, near Maryville, TN. (Credit: W.D. Engelke AB4EJ)

Ham Radio operators, we're calling you! Members of the Ham Radio Science Citizen Investigation (HamSCI) will be making radio contacts during the 2023 and 2024 North American eclipses, probing the Earth's ionosphere. It will be a fun, friendly event with a competitive element—and you're invited to participate.

Both amateur and professional broadcasters have been sending and receiving radio signals around the Earth for over a century. Such communication is possible due to interactions between our Sun and the ionosphere, the ionized region of the Earth's atmosphere located roughly 80 to 1000 km overhead. The upcoming eclipses (October 14, 2023, and April 8, 2024) provide unique opportunities to study these interactions. As you and other HamSCI members transmit, receive, and record signals across the radio spectrum during the eclipse, you will create valuable data to test computer models of the ionosphere.

For more information, go to <https://hamsci.org/festivals-eclipse-ionospheric-science>

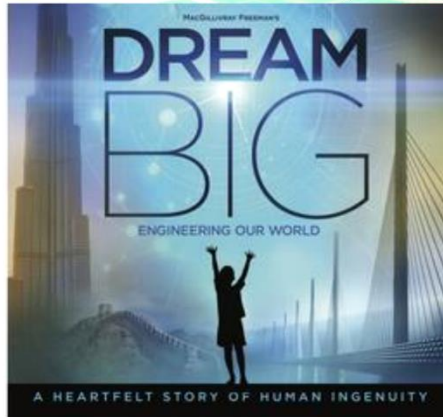
More about solar eclipses:

<https://solarsystem.nasa.gov/eclipses/home/>

<https://science.nasa.gov/science-news/citizenscience/ham-radio-operators-we-need-your-help-during-solar-eclipses>

Dream Big: Documentary

IEEE Southeastern Michigan
Presents
Dream Big – Engineering Our World



Quick Summary

• **When:**Date: April 7th, 2023Time: 05:30 PM ~ 6:30 PM
(EST/EDT)• **Where:**Online via Zoom/Webex
(to be shared only after
you have a confirmed
registration)• **Audience: OPEN to ALL***

Dream Big: Engineering Our World is a 2017 American documentary short about modern engineering and its significance. The film was shown at the California Science Center on February 17, 2017.

Narrated by Academy Award winner Jeff Bridges, DREAM BIG: Engineering Our World is a film that will transform how we think about engineering. From the Great Wall of China and the world's tallest buildings to underwater robots, solar cars and smart, sustainable cities, DREAM BIG celebrates the human ingenuity behind engineering marvels big and small, and shows how engineers push the limits of innovation in unexpected and amazing ways. With its inspiring stories of human grit and aspiration, and extraordinary visuals for the world's largest screens, DREAM BIG reveals the compassion and creativity that drive engineers to create better lives for people and a more sustainable future for us all. DREAM BIG is a MacGillivray Freeman film produced in partnership with American Society of Civil Engineers and presented by Bechtel Corporation.

Review: "It's the sort of majestic educational film that every adult will want their child to see—and, in all likelihood, will want to see themselves." —VARIETY

*Pre-Registration Required!

<https://events.vtools.ieee.org/m/350900>



IEEE Southeastern Michigan Section

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/ea/ea-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 **SEM Executive Committee** is the primary coordination unit for Southeastern Michigan (SEM) IEEE operations. The basic organization chart below shows the 2019/2020/2021/2022 arrangement of communications links designed to provide inter-unit coordination and collaboration.

The SEM Executive Committee meets in a teleconference each month on usually on a Thursday at 6:30 pm. The specific meeting days, times, phone or WebEx numbers and log in codes are published on the IEEE SEM Website calendar: <http://r4.ieee.org/sem/> Click on the “Calendar” button in the top banner on the first page of the web site.

If you wish to attend, or just monitor the discussions, please contact **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.

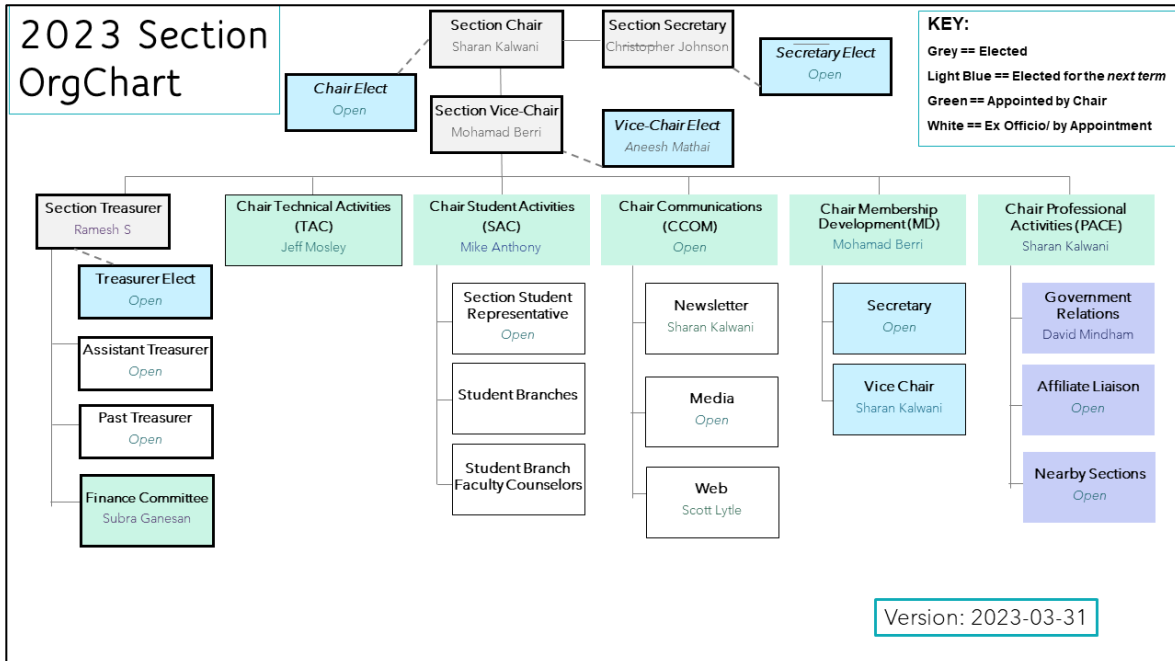
However, members of the section may have multiple technical interests and would like to have meeting information of other chapters. In order to communicate the meeting dates of all the chapters, affinity groups etc., to our members to facilitate their attendance, leaders of the groups are requested to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



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:

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 & Time</i>
SEM Section ExCom Monthly Meeting (virtual) For APRIL 2023	13 Apr 6:30 PM
SEM Section ExCom Monthly Meeting (virtual) For MAY 2023	11 May 6:30 PM
SEM Section ExCom Monthly Meeting (virtual) For JUNE 2023	8 Jun 6:30 PM
SEM Section ExCom Monthly Meeting (virtual) For JULY 2023	13 Jul 6:30 PM
SEM Section ExCom Monthly Meeting (virtual) For AUGUST 2023	10 Aug 6:30 PM
SEM Section ExCom Monthly Meeting (virtual) For SEPTEMBER 2023	14 Sep 6:30 PM
SEM Section ExCom Monthly Meeting (virtual) For OCTOBER 2023	12 Oct 6:30 PM
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

Title	Date
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (virtual) For APRIL 2023	13 Apr 2023 06:30 PM
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (virtual) For MAY 2023	11 May 2023 06:30 PM
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (virtual) For JUNE 2023	08 Jun 2023 06:30 PM
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (virtual) For JULY 2023	13 Jul 2023 06:30 PM
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (virtual) For AUGUST 2023	10 Aug 2023 06:30 PM
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (virtual) For SEPTEMBER 2023	14 Sep 2023 06:30 PM
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (virtual) For OCTOBER 2023	12 Oct 2023 06:30 PM
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (virtual) For NOVEMBER 2023	09 Nov 2023 06:30 PM
<input checked="" type="checkbox"/> SEM Section ExCom Monthly Meeting (virtual) For DECEMBER 2023	14 Dec 2023 06:30 PM

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

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

SEM Officers:

For a complete listing of all - Section - Standing Committee - Affinity Group - Chapter and Student Branch Officers, see the SEM Officers Roster on the 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

Jerry Song

Chair PACE

Sharan Kalwani

Chair Student Activities

Michael Anthony

Student Representative

Open

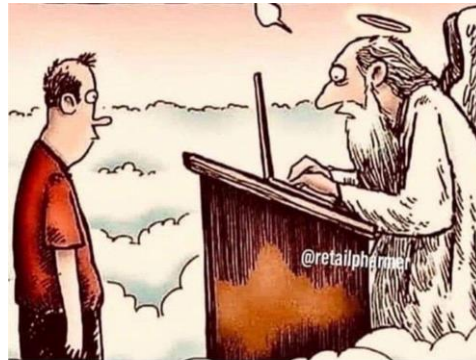
Chair Technical Activities

Jeffery Mosley



IEEE Southeastern Michigan

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



Says here you should go to hell but since you have a PhD we'll count that as time served

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>