

Wavelengths



Volume 61 – Issue 1

Contents

Upcoming Events	1
Chair's Message	2
2021 Officers	3
Advice at 90	5
2021 Planning	6
Amateur Radio	7
1 st Makers!	8
All about the IEEE	10
Profile: Section Chair	13
Science Fair Judging	14
ESD Gold Award 2021	15
EIT 2021 CFP	16
MCWT Scholarship	17
RoboFest 2021	18
Chapter 5 Annual Review	19
Machine Learning Course	21
ORG UNITS cheat sheet	22
Non-IEEE Events	23
Executive Committee	24
ExCom Meeting Schedule	25
Editor's Corner	26
Section Officers	28
Web & Social Sites	28
Advertising Rates	29
Leadership Meetings	29

Upcoming Events

We have a number of events coming up this month. Be sure to check out the Section Website: <https://r4.ieee.org/sem>

As well as vtools:

[IEEE Region 4 - SE Michigan Section Upcoming](#)

Listed below are some of the events, FYI.

Event	Date	Time
Preview of Chapter 5 events for 2021	05 Jan 2021	05:55 PM
EMC Basics+ Workshop	07 Jan 2021	05:30 PM
WIE Monthly Meeting	08 Jan 2021	10:00 AM
ExCom meeting for 2021	13 Jan 2021	05:00 PM
Ch8: AdCom Teleconference	14 Jan 2021	11:00 AM
Take a Tour Inside My Private Smart Home	19 Jan 2021	06:00 PM
Three Half-Day Online Tutorial: Introduction to Python programming	16 Jan 2021	09:00 AM

Chair's Message

Welcome to the first issue of Wavelengths for 2021! This month's issue of the wavelengths features a listing of all our newly elected officers. There is still plenty of room for additional volunteers. Please reach out to any of our officers if you are interested in getting involved in 2021. I'm excited to work with the new faces in 2021 and hope others will get involved.

It has been a very unique year for all of us. We had to quickly adjust to virtual meetings. It is anticipated that Section activities will largely be virtual through at least summer 2021. We are hoping that we can develop activities that can be appealing to members virtually in the first half of the year, and then transition to a mix of in person and virtual events later in the year. I'm confident that our members will find ways to engage whatever the circumstances facing us.

Also in 2021, several international conferences are coming to our Section. They are still being finalized and the dates are subject to change due to COVID. Look for exciting announcements in future issues of the Wavelengths.

Thank you for reading.

Stay safe everyone and I look forward to 2021.



David Mindham
[dmindham -At- ieee.org](mailto:dmindham-At-ieee.org)

2021 Officers

Section Officers:	Officers Name	e-mail
Southeastern Michigan [R4035] Executive Committee (ExCom):		
Chair	David Mindham	dmindham-AT-ieee.org
Chair-Elect	David Mindham	dmindham-AT-ieee.org
Secretary	Bhupinder Mavi	bmavi-AT-outlook.com
Secretary-Elect		x
Asst Secretary		x
V-Ch	Sharan Kalwani	sharan.kalwani-AT-ieee.org
V-Ch-Elect	Sharan Kalwani	sharan.kalwani-AT-ieee.org
Treasurer	Colleen Chmielewski	colleenchmielewski-AT-ieee.org
Treasurer-Elect		x
Asst Treasurer		x
Section Adviser	Don Bramlett	d.bramlett-AT-ieee.org
Past-Ch	Kimball Williams	k.williams-AT-ieee.org

Affinity Groups		
Consultants Network Affinity Group: [CN40035]		
Chair	Kimball Williams	k.williams-AT-ieee.org
V-Ch	Sharan Kalwani	sharan.kalwani-AT-ieee.org
Secretary		
Treasurer		
Past-Ch	Sharan Kalwani	sharan.kalwani-AT-ieee.org
Life Member Affinity Group: [LM40035]		
Chair	Harpreet Singh	hsingh-AT-eng.wayne.edu
V-Ch	Bhupinder Mavi	bmavi-AT-outlook.com
Secretary		
Secretary		
Treasurer		
Past-Ch		x
Women in Engineering Affinity Group: [WE40035]		
Chair	Chaitali Naik	cnaik-AT-mtu.edu
V-Ch	ashfiqua connie	ashfiqua.connie-AT-gmail.com
Secretary	Colleen Chmielewski	colleenchmielewski-AT-ieee.org
Webmaster	Colleen Chmielewski	colleenchmielewski-AT-ieee.org
Treasurer		
Past-Ch	Tia Twigg	te_reen-AT-yahoo.com
Young Professionals Affinity Group: [YP40035]		
Chair	Ian Hutt	ianhutt-AT-hotmail.com
V-Ch	Milad Moosavifar	moosavi-AT-umich.edu
Secretary	Behnoosh Rostami	behnoosh-AT-umich.edu
Treasurer	Menglou Rao	menglou-AT-umich.edu
Past-Ch		
Chapters		
Chapter 01 [CH04049] (SP01) Signal Processing Soc, (CAS04) Circuits and Systems Soc		
Chair	Jeffrey Dulzo	jeff.dulzo-AT-gmail.com
V-Ch	Kenji Aono	aonokenj-AT-egr.msu.edu
Director (SP Soc)		
Director (C&S Soc)	Kenji Aono	aonokenj-AT-egr.msu.edu
Director (IT Soc)	Jeffrey Dulzo	jeff.dulzo-AT-gmail.com
Secretary	Milad Moosavifar	moosavi-AT-umich.edu
Treasurer		
Past-Ch	Robert Adams	robert.adams.v-AT-ieee.org
Chapter 02 [CH04051] (VT06) Vehicular Technology Soc		
Chair	Jennifer Dukarski	dukarski-AT-butzel.com
V-Ch	Sharan Kalwani	sharan.kalwani-AT-ieee.org
Secretary	Eugene Saltzberg	gene.saltzberg-AT-ieee.org
Treasurer	Eugene Saltzberg	gene.saltzberg-AT-ieee.org
Past-Ch	Mohamad Berri	mberri-AT-ford.com
Chapter 03 [CH04053] (AES10) Aerospace and Electronic Systems Soc, and (CO)		
Chair	Patrick Seeling	pseeling-AT-ieee.org
V-Ch		
Director (AE Soc)		
Director (Com Soc)		
Secretary		
Treasurer	Jeffrey Dulzo	jeff.dulzo-AT-gmail.com
Past-Ch	Malcolm Lunn	lunnmalcolm-AT-me.com

Chapter 04 [CH04050] (AP03) AP03 Antennas and Propagation Soc, (ED15) Ele		
Chair	Rebecca Peterson	blpeters-AT-umich.edu
V-Ch	Anthony Grbic	agrbic-AT-umich.edu
Director (AP Soc)	Anthony Grbic	agrbic-AT-umich.edu
Director (ED Soc)	Fan-hsuan Meng	fanhsuan-AT-umich.edu
Director-Tech (MTT Soc)	Milad Moosavifar	moosavi-AT-umich.edu
Director (Photonics Soc)	Somin Eunice Lee	slee-AT-umich.edu
Secretary	Behnoosh Rostami	behnoosh-AT-umich.edu
Treasurer	Menglou Rao	menglou-AT-umich.edu
Past-Ch	Kimball Williams	k.williams-AT-ieee.org
Chapter 05 [CH04055] (C16) Computer Soc		
Chair	Subramanian Ganesan	ganesan-AT-oakland.edu
V-Ch	Sharan Kalwani	sharan.kalwani-AT-ieee.org
Secretary	S Ramesh	rameshari1958-AT-gmail.com
Treasurer	Ashok Prajapati	prajapati.ashok-AT-gmail.com
Co-Treasurer	S Ramesh	rameshari1958-AT-gmail.com
Director: Admin &	Nizar Alholou	alholou-AT-comcast.net
Director: Technical	Sharan Kalwani	sharan.kalwani-AT-ieee.org
Director: Software	Ashok Prajapati	prajapati.ashok-AT-gmail.com
Director: Auto relations	S Ramesh	rameshari1958-AT-gmail.com
Tech activities Co-	Jesus Salvador	salmanza-AT-ieee.org
Student & Education	Carla Gerst	carlagerst-AT-ieee.org
Industrial Liaison	S Ramesh	rameshari1958-AT-gmail.com
Webmaster	Sharan Kalwani	sharan.kalwani-AT-ieee.org
Past-Ch	Subramanian Ganesan	ganesan-AT-oakland.edu
Chapter 06 [CH04056] (GRS29) Geosciences and Remote Sensing Soc		
Chair	Leland Pierce	lep-AT-umich.edu
V-Ch	Adib Nashashibi	nuha-AT-umich.edu
Secretary	Mostafa Zaky	mzaky-AT-umich.edu
Treasurer	Michael Benson	michael-AT-mreal.com
Past-Ch	Adib Nashashibi	nuha-AT-umich.edu
Chapter 07 [CH04057] (PE31) Power Engineering Soc, (IA34) Industrial Applicat		
Chair	Looja Tuladhar	ltuladhar-AT-vikes.csuohio.edu
V-Ch	Chaitali Naik	cnaik-AT-mtu.edu
Director (Tech Activity)	Chaitali Naik	cnaik-AT-mtu.edu
Director (Pwr Eng)	Looja Tuladhar	ltuladhar-AT-vikes.csuohio.edu
Director (Ind Appl)	Binaya Joshi	binaya.joshi-AT-cai-engr.com
Secretary	Binaya Joshi	binaya.joshi-AT-cai-engr.com
Treasurer	Chris Nelson	chris.nelson-AT-cai-engr.com
Past-Ch	David Mindham	dmindham-AT-ieee.org
Chapter 08 [CH04088] (EMC27) Electromagnetic Compatibility Soc		
Chair	Scott Lytle	s.r.lytle-AT-ieee.org
V-Ch	Akio Fujimaki	akiofujimaki-AT-ieee.org
Director (Prof Activity)	Akio Fujimaki	akiofujimaki-AT-ieee.org
Director (Tech Activity)	Candace Suriano	csuriano254569-AT-comcast.net
Director (Awards)	James Woodyard	jrwwoodyard-AT-gmail.com
Director (Communications)	Scott Lytle	s.r.lytle-AT-ieee.org
Director (Marketing)	Steve Tomba	steve-AT-epictek-llc.com
Secretary	Steve Tomba	steve-AT-epictek-llc.com
Treasurer	Matthew Feusse	matt-AT-emcsociety.org
Past-Ch	Dennis Barberi	dibarberi_98-AT-yahoo.com
Chapter 09 [CH04087] (IE13) Industrial Electronics Soc, (PEL35) Power Electron		
Chair	Sridhar Nalla	nksridhar-AT-yahoo.com
V-Ch		
Director (IndElect)		
Director (Pwr Elect)		
Secretary		
Treasurer		
Past-Ch		x
Chapter 10 [CH0142] (TEM14) Technology and Engineering Management Soc		
Chair	Raymond Sasinowski	rays-AT-ieee.org
V-Ch	Mark Robinson	mark.robinson-AT-bw-ee.com
Secretary	David Mindham	dmindham-AT-ieee.org
Treasurer	Kellee Christensen	kelleechris-AT-sbcglobal.net
Past-Ch	Mark Robinson	mark.robinson-AT-bw-ee.com
Chapter 11 [CH04099] (EMB18) Engineering in Medicine and Biology Soc		
Chair	Patrick Rye	ryepatrick-AT-ieee.org
V-Ch		
Secretary	Yan Yan	yyan2-AT-wayne.edu
Treasurer		
Past-Ch	Maurice Snyder	mfsnyder-AT-me.com

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2021 Officers - Continued

Chapter 12 [CH04103] (CS23) Control Systems Soc		
Chair		
V-Ch		
Secretary		
Treasurer		
Past-Ch		
Chapter 13 [CH0413] (E25) Education Soc		
Chair	Sharan Kalwani	sharan.kalwani-AT-ieee.org
V-Ch	Kenji Aono	aonokeni-AT-egr.msu.edu
Secretary	Nizar Alholou	alholou-AT-comcast.net
Treasurer		
Past-Ch	Richard Johnston	rjohnston-AT-ltu.edu
Chapter 14 [CH04115] (RA24) Robotics And Automation Soc		
Chair	Chan-Jin Chung	cchung-AT-ltu.edu
V-Ch		
Secretary	Jonathan Berent	jon-AT-jonandangie.com
Treasurer		
Past-Ch		
Chapter 15 [CH04144] (NPS05) Nuclear Plasma Sciences Society		
Chair	Nicholas Jordan	jordann-AT-umich.edu
V-Ch		
Secretary		
Treasurer		
Past-Ch		
Chapter 16 [CH04125] (CIS11) Computational Intelligence Soc, (SMC28) System		
Chair	Jeffery Mosley	jvmosley-AT-gmail.com
V-Ch	Jeffrey Dulzo	jeff.dulzo-AT-gmail.com
Director(CI Soc)	Jeffery Mosley	jvmosley-AT-gmail.com
Director(SMC Soc)	Jeffrey Dulzo	jeff.dulzo-AT-gmail.com
Secretary	Jeffrey Dulzo	jeff.dulzo-AT-gmail.com
Treasurer	Jeffrey Dulzo	jeff.dulzo-AT-gmail.com
Past-Ch	Osman Ahmed	osahmed1-AT-emich.edu
Chapter 17 [CH0128] (NANO42) Nanotechnology Council		
Chair	Randy Boone	rboone1-AT-ford.com
V-Ch		
Secretary	Wen Li	wenli-AT-egr.msu.edu
Treasurer	Amar Basu	amar.basu-AT-wayne.edu
Past-Ch	Wen Li	wenli-AT-egr.msu.edu

(Note: Email @ replaced with –AT- for internet security.)

A Few Items of Interest:

Some of our more astute readers will have noticed that there is a new identification code, in 'square' brackets [] next to the name of our Geo-units (Affinity Groups and Technical Chapters), as well as the Section ExCom.

These new IDs are the codes that the programmers working with MGA (Member Geographic Association) are now using to identify all the Geo-units on this planet.

Southeastern Michigan [R40035] Section resides in Region 4, hence the 'R4' and we are #35 in the alphabetical listing of Sections in the region. (Of course, that may just be coincidental.)

Each Affinity Group carries the same Section ID but with a two letter prefix replacing the 'R' to distinguish it from the ExCom. For example, Consultants Network carries the CN prefix and becomes CN40035, Young Professionals becomes YP40035, and so forth.

The Technical Chapters carry a CH prefix with '04' for Region 4, and a unique number for each Chapter in the Section. How those numbers are selected is a complete mystery to me at this time. If anyone finds out, please let me know.

Missing Officer Names:

It should be obvious to most readers that there are many 'gaps' in our listed officer ranks. Obviously, there are many reasons for this but the two most usual are not at all related to the current global pandemic:

- Failed to renew IEEE membership,
- Accepted employment in another Section,

MGA rules insist that all Section officers be members and reside in the Section in which they serve.

We have seen another aspect of officer activity that may be attributed to a side effect of the current pandemic, and that is failure to respond to messages, either phone or email.

When an officer ceases to respond to messages and 'goes silent' and no longer performs any of the duties attributed to the office he or she holds, the Section leadership has no recourse but to seek a replacement from among the membership ranks of the Geo-unit (Affinity Group, or Technical Chapter).

Many of us had hoped that the most recent election would have resulted in 'write in' candidates for offices to help fill in some of the vacancies. This year the general malaise that accompanied the Covid-19 distractions brought with it a pronounced lack of participation. Not only with fewer candidates on the ballots, there were almost no 'write-in' candidates as well.

If an officer is not replaced by an election, they may continue to hold the office unless replaced by appointment. There are currently several Geo-units with officers who were not replaced by an election but who have ceased to function and communicate with the Section. Expect to see 'calls' for replacements of these among their Geo-unit membership in the near future.

kw ... k.williams@ieee.org

Advice at 90

(We published this in August of 2015 and it seems to be relevant as we start a new year, so here it is again.)

By Regina Brett,
90 years old, of the 'Plain Dealer',
Cleveland, Ohio.

"To celebrate growing older, I once wrote the 45 lessons life taught me. It is the most requested column I've ever written. My odometer rolled over to 90 in August, so here is the column once more:

1. Life isn't fair, but it's still good.
2. When in doubt, just take the next small step.
3. Life is too short, enjoy it.
4. Your job won't take care of you when you are sick. Your friends and family will.
5. Pay off your credit cards every month.
6. You don't have to win every argument. Stay true to yourself.
7. Cry with someone. It's more healing than crying alone.
8. It's OK to get angry with God. He can take it.
9. Save for retirement starting with your first paycheck.
10. When it comes to chocolate, resistance is futile.
11. Make peace with your past so it won't screw up the present.
12. It's OK to let your children see you cry.
13. Don't compare your life to others. You have no idea what their journey is all about.
14. If a relationship has to be a secret, you shouldn't be in it.
15. Everything can change in the blink of an eye, but don't worry, God never blinks.
16. Take a deep breath. It calms the mind.
17. Get rid of anything that isn't useful. Clutter weighs you down in many ways.
18. Whatever doesn't kill you really does make you stronger.
19. It's never too late to be happy. But it's all up to you and no one else.
20. When it comes to going after what you love in life, don't take no for an answer.
21. Burn the candles, use the nice sheets, and wear the fancy lingerie. Don't save it for a special occasion. Today is special.
22. Over prepare, then go with the flow.
23. Be eccentric now. Don't wait for old age to wear purple.
24. The most important sex organ is the brain.
25. No one is in charge of your happiness but you.
26. Frame every so-called disaster with these words 'In five years, will this matter?'
27. Always choose life.
28. Forgive
29. What other people think of you is none of your business.
30. Time heals almost everything. Give time time.
31. However good or bad a situation is, it will change.
32. Don't take yourself so seriously. No one else does.
33. Believe in miracles.
34. God loves you because of who God is, not because of anything you did or didn't do.
35. Don't audit life. Show up and make the most of it now.
36. Growing old beats the alternative of dying young.
37. Your children get only one childhood.
38. All that truly matters in the end is that you loved.
39. Get outside every day. Miracles are waiting everywhere.
40. If we all threw our problems in a pile and saw everyone else's, we'd grab ours back.
41. Envy is a waste of time. Accept what you already have, not what you need
42. The best is yet to come...
43. No matter how you feel, get up, dress up and show up.
44. Yield.
45. Life isn't tied with a bow, but it's still a gift."

2021 Planning

In 2021 we have updated our Newsletter focus publishing plan. You will find a copy at the end of the newsletter always and in 2021, we will constantly update it as changes may happen in our section due to many reasons. But currently we will be contacting all the Society chapter chairs and their officers for updates, summaries and plans for 2021 as per the schedule below.

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

We will also do people profile features as per the schedule below.

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		

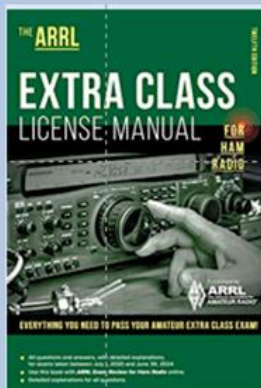
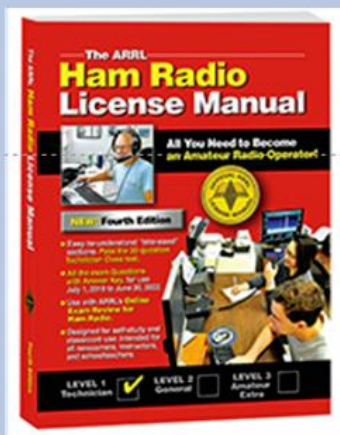
Amateur Radio

Hazel Park Amateur Radio Club

New Classes Begin January, 2021

Technician Class License

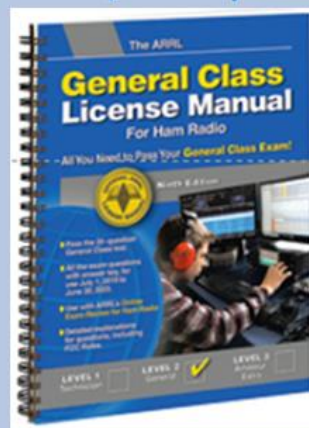
Thursdays, 7-9PM,
January 7-March 11



Extra Class License
Tuesdays, 6-9PM
January 12-April 20

General Class License

Mondays, 7-9PM
January 11-April 5



Contact W9NPI@comcast.net

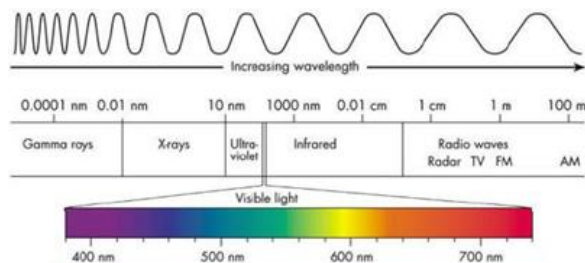


1st Makers!

Original Makers Movement:

In addition to the links to STEM, Makerspaces and D.I.Y. Amateur Radio can have a wide variety of tie-ins to K-12 curriculum. Here is a sample:

- Math- wavelength vs. frequency with inverse ratios, the angle of radiation, calculate electronics values with Ohm's Law, Decibels and logarithmic scales, sampling rate and DSP, etc.
- Science- atmosphere & solar activity in propagation, electronic components and circuits, conductivity, energy generation (including solar) and storage (including battery technology), Doppler Shift, etc.
- Language Arts- forms of communication, phonetic alphabet, acronyms, broadcast writing and production, oratory, technical writing, etc.
- Social Studies- Geography, maps and projections, cultures, international relations & regulations, history of communication, etc.
- Music- Morse Code with drums, Frequency and tones, Doppler Shift, DSP, recording, etc.
- Computer Science, Coding, Programming & App Creation
- PE- Wavelength and Frequency demo with jump ropes.
- World Languages



Ham Radio- The Original Maker Movement

How does the Amateur Radio service relate to the maker movement you might ask? In many ways, amateur radio is the grandfather of the maker movement. People have been tinkering and experimenting, building their own equipment and radio stations, all in the quest to communicate with each other for well over 120 years!



Today, the range of things within Amateur Radio to get involved in-- building, designing, inventing, experimenting with and operating is even broader, really only limited by your imagination!

Reprinted with permission of **Anthony Luscre** k8zt73@gmail.com
 See more at his websites: <http://www.k8zt.com/> or <http://www.ztlearn.com/>
 or <http://www.k8zt.com/hry>

Amateur Radio, also known as Ham Radio, involves two-way radio communication with other stations (local, regional, countrywide and worldwide). The ability to transmit requires an FCC license, but listening and experimenting with radio do not.

Although Hams still carry on many traditional forms of communication including Morse Code and voice, today's ham radio includes digital data, digital voice, images and video. Radio contacts can be made directly by line-of-site, propagated by ionized layers of the atmosphere, relayed by repeaters or even through Amateur Radio space satellites.



Beyond communicating with other stations, Hams enjoy building electronic devices, experimenting and tinkering. This tinkering includes metal cabinet fabrication, aluminum antenna construction, 3-D Printing, laser etching/cutting, soldering, etc.

Historically Hams have been at the forefront of experimentation in radio and electronic technology. Earlier adopters of computers, many Hams have been involved in a variety of hardware and software innovations. Recently many Hams have utilized microprocessors, like Arduino, in their projects and devices.

A number of Amateur Radio innovations have found their way into mainstream consumer products. Many of the technologies used in both Amateur Radio repeaters and Packet Radio are incorporating in making today's cellphones possible.

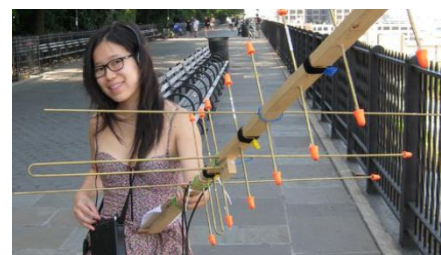
The word Amateur, derived from Latin for "lover of" is a person who engages in a pursuit on an unpaid basis for the enjoyment of an activity. A number of Amateur Radio licensees have been involved in inventions, technology advances and innovations:



- Astronauts- many astronauts have been Hams including Yuri Gagarin (UA1LO) the first man in space
- Nobel Prize Winners- including the very active Joe Taylor (K1JT)
- Apple Computer Co-Founder- Steve Wozniak (ex-WA6BND) was first licensed at 10 years' old
- Guillermo Marconi, considered the father of commercial radio, self-described as an Amateur Radio operator

Makerspaces and D.I.Y. Amateur Radio can have a wide variety of tie-ins:

- Electronics & Circuits
- Soldering
- Wi-Fi & Bluetooth
- Antenna construction
- Solar Energy & battery storage
- 3-D Printing & Laser Cutting
- Metalworking & Mechanics
- Gears and drive mechanisms
- Remote Control
- Remote Sensors
- LEDs and Lighting
- Satellite Tracking & Astronomy
- Shortwave Listening
- Video & Audio Production
- Digital Signal Processing
- Microprocessors- Arduino, Raspberry Pi, etc.
- Sensors- Temp, Pressure, Motion, GPS, pH, Sound, Light, etc.
- Computer Applications
- Direction Finding & Foxhunts
- Crystal Radios
- Circuit Simulators
- Printed Circuit Design & Production
- High Altitude Balloon Launches



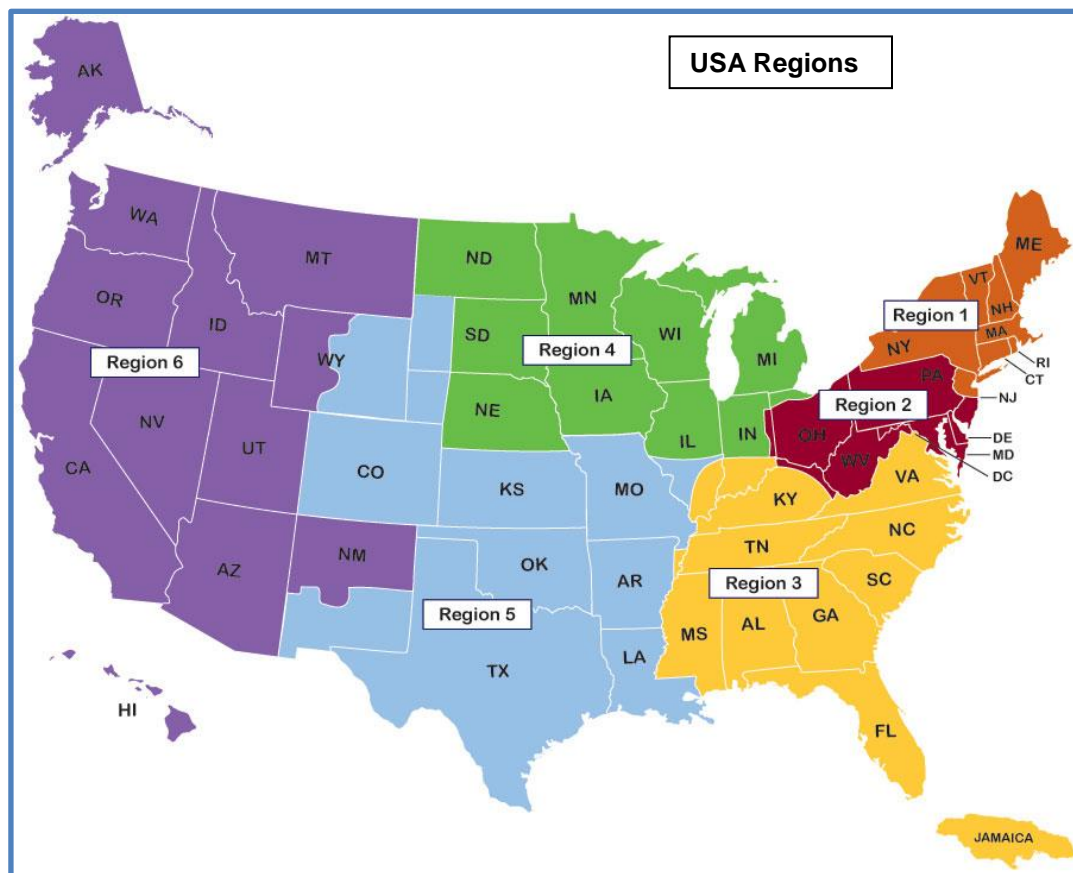
All about the IEEE

Two years back, I was visiting the University of Michigan at Dearborn and was surprised to learn that even professors there, who although members of the IEEE, had very little knowledge about the IEEE structure itself. For example, they were not aware of the architecture and organization of the IEEE, what is a region, what is a section, etc.

Adding to the layer of surprise, as a topping, what was even more astounding was when a student, upon being queried about the IEEE, thought it was a campus techie club! (Kimball Williams, our esteemed longtime friend, IEEE member and supporter, will most likely concur on this as well, since he too has experienced the same).

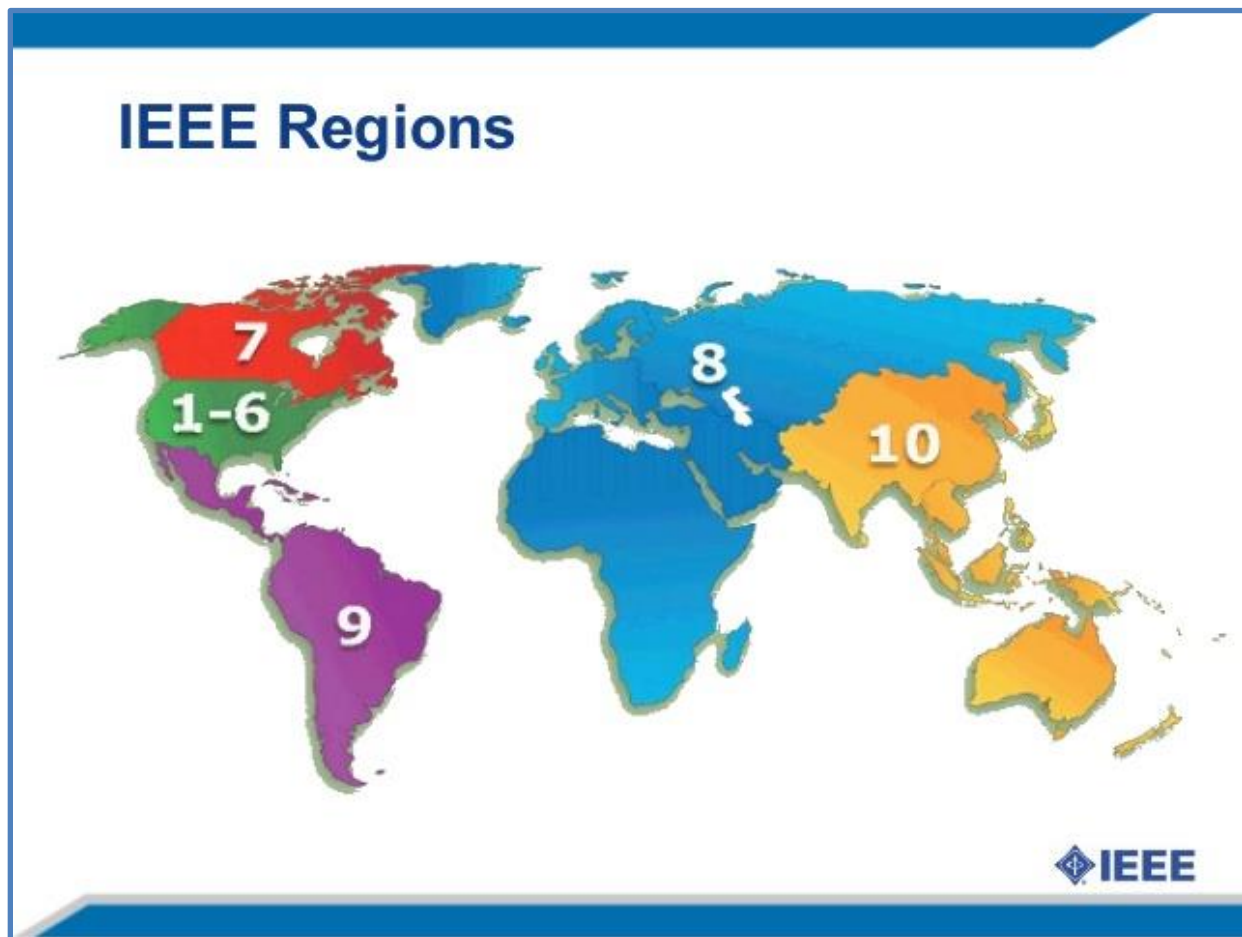
I therefore resolved to write a short article on the IEEE itself, at least to help clear up common misperceptions about this organization, which I view has been a solid instrument of my own technical, professional (and social) success in life.

- 1) First of all, the IEEE is clearly to me, one of the world's largest technical, professional association for technology – of course in the field of electrical and electronics engineering, which since the last 100+ years has grown to encompass many areas of our lives. It began its history way back in 1884, when for the first time electricity made a major impact in society's lives. Now prior to that, we did have the telegraph, so communications even preceded the energy application of the electrical engineer!
- 2) When communication and energy began to overlap, several academics, professionals, scientists, technical folks got together and formed the AIEE (American Institute of Electrical Engineers) – this was in 1884. Later in 1912 the wireless telegraph revolution (as radio may have been initially known) evolved and the Institute of Radio Engineers was formed. It was inspired by the AIEE!
- 3) In 1963 both societies merged to form the present day IEEE (“eye-Triple-E”).
- 4) Today the IEEE has 39 specific societies devoted to focused disciplines and areas. In order to fulfill its member's needs, the IEEE publishes like over 130 journals, magazines and runs like over 300 conferences worldwide. We have today over 420,000 members worldwide. I would be remiss to not strongly mention that the IEEE plays a super major role in helping to formulate industry standards, so that IEEE can ably serve the needs of society, without descending into chaos of thousands of competing implementations of technology.



So much for the history and work that IEEE does. I have a little cartoon somewhere which adds a little bit of humor to this. But the IEEE does not end there, in fact, for all of us practicing folks, the IEEE has organized the entire world into 10 Regions. These are:

- Region 1 (Northeastern USA)
- Region 2 (Eastern USA)
- Region 3 (Southern USA)
- Region 4 (Central USA)...*we are classified as being the center of the USA!*
- Region 5 (Southwestern USA)
- Region 6 (West Coast USA)
- Region 7 (Canada)...*our friends in nearby Windsor, belong to this region*
- Region 8 (Africa, Europe, Middle East)
- Region 9 (Latin America) and.....*finally*
- Region 10 (Asia Pacific)...*India, China, SE Asia, Japan, Korea, Australia & NZ*



Furthermore, all the regions have local Sections, usually clustered around major hubs/cities of IEEE related activity. So the Central region or R4 as it is more affectionately known, has sections in Chicago, Detroit, etc. Our particular section is called the South Eastern Michigan Section or IEEE SE Michigan Section. We do also have 2 other sections nearby – Western Michigan Section and Northern Michigan Section. Besides them we do maintain cordial relations with the Toledo Section (Ohio, part of R2) and of course the Windsor Section (they were once upon a time part of SE Michigan section!).

Global Membership Counts (as of November 2020)

Region 1	25,691	6.7%
Region 2	22,552	5.9%
Region 3	24,576	6.4%
Region 4	17,337	4.6%
Region 5	22,775	5.9%
Region 6	44,978	11.8%
Region 7	14,880	3.9%
Region 8	68,303	17.9%
Region 9	15,791	4.1%
Region 10	124,405	32.6%
USA	157,909	41.4%
non-USA	223,339	58.6%
Worldwide	381,248	100.0%

So to summarize, the IEEE is organized into:

- ✓ Local sections within geographic regions
- ✓ Chapters are local members with technical interests (Society) in a section
- ✓ Student branches at colleges/universities and finally.....
- ✓ Affinity groups (Young Professionals, Life Members, etc.)

I hope this helps paint a clear visual picture of how we are organized. Comments, suggestion are welcome. I do hope readers of this piece will share this with new members or even veterans, who may not have been aware of the vast spread of the IEEE!

To learn more you can check out:

- 1) https://www.ieee.org/content/dam/ieee-org/ieee/web/org/about/organization_summary.pdf
- 2) <https://www.ieee.org/about/today/at-a-glance.html>
- 3) <https://www.ieee.org/membership/benefits/index.html>
- 4) <https://www.ieee.org/communities/geographic-activities.html#find-a-section.chapter.-or-affinity-group>

Sharan Kalwani,
Editor, Wavelengths,
2017-2018-2019-2020-2021
Email: Sharan.Kalwani@ieee.org

Profile: Section Chair**Re-introducing our Section Chair for 2021: David Mindham**

Hello! I'm David Mindham, the 2021 Chair of the Southeastern Michigan Section. I've been active in the Section since moving to Michigan in 2012. My background is in power systems, focusing on energy policy and regional energy markets. I remember when I joined IEEE in college. I was wandering down a hallway, and I saw a sign that said free pizza. I didn't know what to expect, but at that time, I would wander into any room with a free pizza sign. What I found was a great community of students. I spent the next few years as an IEEE member, but I didn't really know what that meant and how that tied into IEEE.

When I moved to Michigan, I reached out to get involved with IEEE. I again found a great community of engineers willing to help. (And there is still free pizza!) One of those individuals was Bob Neff. If you didn't know Bob, he had been the chair of our Section for the last several years, and he was active for many years before that. Bob sadly passed away after a battle with cancer. Before that, he proved to be an excellent mentor, great leader and prepared me for the job of chair. I will miss Bob.

I want to thank everyone for the opportunity to continue as Section Chair. No matter how you like to interact with IEEE, 2020 has been an interesting year. But despite all that, folks have proved resilient. The Section has 17 focused chapters that brought significant events all held virtually/online to our members.

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

Science Fair Judging

IEEE-SEM MEMBERS NEEDED AS 2021 SCIENCE FAIR JUDGES

By Don C. Bramlett, PE, LSMIEEE, FMSPE, FESD

Please volunteer to serve on the elite panel of judges for the **professional awards** sponsored by the Southeastern Michigan Section of the Institute of Electrical and Electronics Engineer, Inc. (IEEE-SEM) at the 64th Annual Science and Engineering Fair of Metropolitan Detroit (SEFMD). This is the 26th straight year that the IEEE-SEM Section has provided judges and sponsored **professional awards** for projects associated with electrical, electronics, computer engineering and IEEE related fields.

The Science Fair and judging will be conducted in a virtual manner. Students will provide a project presentation (up to 12 pages in a pdf format) and a short video link. There will be no interviews for the **professional awards**. The Science Fair and I will communicate further details to those that will be IEEE judges. Session 1 judging, which includes **professional awards** judging, will be from 8 am March 4 to 5 PM March 8.

It is necessary that if you are already registered as a Science Fair judge or a new judge, to go to the Science Fair website,

<http://www.sefmd.org>

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

As last year, IEEE-SEM plans to provide judging for both the Junior (6th – 8th grade) Division and the Senior (High School) Division. IEEE-SEM will tentatively make three Grand Awards, including personalized certificates and cash prizes, and several Outstanding Achievement Awards, consisting of personalized certificates.

This year, like last year, some projects in the IEEE related fields may be found in the categories of Systems Software, Robotics & Intelligent Machines, Physics & Astronomy, Environmental Engineering, Engineering Mechanics, Energy: Physical, Energy: Chemical, Embedded Systems, etc. Students in Wayne, Oakland, Macomb, Lenawee, Livingston, Monroe and Washtenaw counties will participate in the Science Fair. So this year again will be a real interesting experience judging the Junior Division and Senior Division projects.

Based on the number and quality of the selected project displays, the judges may choose to use the supplied Project Evaluation and Judging Forms to grade the projects in each Division or to use a less formalized process, as deemed appropriate.

Please direct any questions you may have to me at home (734) 591-1452, or on my cell phone at 313-608-6223; or you may contact me at my e-mail address d.bramlett@ieee.org .

Looking forward to working with you on this event.

ESD Gold Award 2021



THE ENGINEERING SOCIETY of Detroit

ABOUT ▾ JOIN ▾ PROGRAMS ▾ AWARDS ▾ MEMBERS ▾

Gold Award Reception

ESD Gold Award Reception & Recognition

March 17, 2021

6:00 p.m. Welcome and Awards Program
Online via the Zoom Platform.

Join The Engineering Society of Detroit (ESD) and its Affiliate Council for a unique event as professionals representing 100+ ESD Affiliated Technical Societies come together to honor and recognize its leaders – engineers, scientists and technical professionals who have distinguished themselves through outstanding achievement and service within their respective Societies.

In its 49th year, The Gold Award has honored presidents of companies and leaders of industry, professors and engineers, entrepreneurs and innovators for their dedication and commitment to their professions.

COST:
Complimentary to ESD members and the Affiliate Society community.

TO REGISTER: For more information or to register, contact Elana Shelef at 248-353-0735, ext. 119, or eshelef@esd.org.

ZOOM RECORDING

PAST AWARDEES

DOWNLOAD GOLD AWARD NOMINATION FORM

SPONSORS


visit**detroit**.com


HARTLAND INSURANCE GROUP, INC.


Citizens Insurance™

To view a streaming video of last year's event (approximately 1.5 hours long), click this zoom link [here](#).

To see a list of past ESD Gold Award recipients, use this [web link](#).

To nominate a person for the 2021 ESD Gold Award, download the Word document form, which can be found at this [link](#) location. Email the completed form to Elana Shelef at eshelef@esd.org.

Sharan Kalwani,
Wavelengths,
2017 ~ 2021

EIT 2021 CFP



IEEE

**2021 IEEE INTERNATIONAL CONFERENCE
on ELECTRO/INFORMATION TECHNOLOGY**

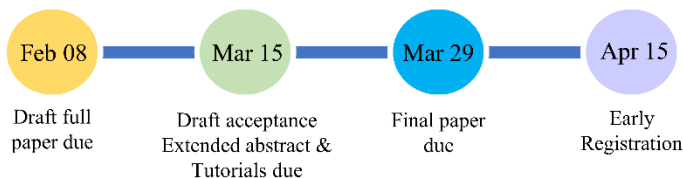
May 13 – 15, 2021, Central Michigan University, Mount Pleasant, MI



Format: Hy-Flex (in-person and remote)

eit 2021www.eit-conference.org/eit2021

Call for Papers



The 2021 IEEE International Electro/Information Technology Conference, sponsored by the IEEE Region 4 (R4), in collaboration with Central Michigan University (CMU) is focused on basic/applied research results as they relate to Electrical and Computer Engineering, Information Technology, and related applications.

Contribution Categories:

Full paper
Extended abstracts
Tutorials/Workshops
12-hour Hackathon

Topics of interest:

- Ad Hoc and Sensor Networks
- Artificial Intelligence & Deep Learning
- Big Data Processing
- Biomedical Applications, Telemedicine
- Biometrics and Bioinformatics
- Cloud, Mobile, and Distributed Computing
- Computer Vision
- Control Systems and System Identification
- Cyber Physical Systems & Security
- Distributed Data Fusion and Mining
- Diversity, Equity, and Inclusion in Engineering
- Embedded Systems
- Engineering Education
- Intelligent Systems and Multi-agent Systems
- Internet of Things
- Machine Learning
- Micro Electromechanical Systems
- Nanotechnology
- Optics & Photonics
- Power Systems and Power Electronics
- Reconfigurable and Embedded Systems
- Robotics and Mechatronics
- Signal/Image and Video Processing
- Software Engineering and Middleware Architecture
- Smart Grid
- Sustainable Computing and Systems
- Wireless communications and Networking
- 5G and Multi-Gigabit Communications

Organizing Committee:
R4 Conference Committee Rep to EIT

James Riess

EIT Conferences Founding General Chair

Hossein Mousavinezhad, Idaho State University

2021 Conference General Chair

Kumar Yelamarthi, CMU

Program Chairs

Ahmed Abdelgawad, CMU

Constantin Apostoia, Purdue University Northwest

Hackathon Chairs

Subra Ganesan, Oakland University

Prasanth Yanambaka, CMU

Finance Chair

Steve Kerchberger, IBM

Professional Development Program Chair

Tarek Lahdhiri, General Motors

Exhibits/Industry/Sponsorship Chair

Hamid Vakilzadian, University of Nebraska Lincoln

Publicity Chair

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Prasanth Yanambaka, CMU

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University Indianapolis

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Chen, Deepak Puthal

Webmaster

Bob Evanich, Duke Energy

Awards co-Chairs

Sat Basu

Hossein Mousavinezhad, Idaho State University

All accepted papers will be published in the conference proceedings, and full papers will be published in IEEE Xplore

www.eit-conference.org/eit2021

MCWT Scholarship



[Get Involved](#) | [Partners](#) | [Programs](#) | [Events](#) | [Media Room](#) | [Facebook](#) | [LinkedIn](#) | [Twitter](#)

REFLECTING ON 2020 AND EMBARKING ON 2021

Even in this pandemic year, more than 4,500 girls and women have been impacted by MCWT's programs, events and mission in 2020. We are truly making an impact as we continue our work toward our vision of making Michigan the No. 1 state for women in technology.

MCWT continued to build momentum in 2020. Did you know...?

- Over 270 girls participated in our Virtual Summer Learning Series over this summer, which was delivered virtually in lieu of our in-person summer camps.
- MCWT provided \$134,000 in college scholarships to 43 deserving young ladies.
- More than 2,100 career individuals participated in our Lunch and Learn and Virtual ConnectNet series to learn best practices and share insights.
- We were able to flip to a virtual Gala with over 500 participants and meet our goal of \$350,000 raised for MCWT programming.

Yet there is still so much more to do. To continue our momentum, we ask you to make a special year-end donation to help us continue our work and make an even greater impact in 2021. Your support will make a real, lasting impact for girls and women in Michigan.

[Please click here to make your donation now. Thank you for your continued support and friendship.](#)

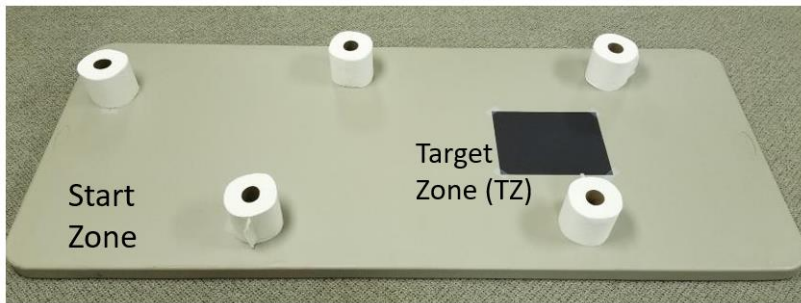
REMINDER: MCWT Scholarship Application Process Open Until Jan. 31, 2021

The program is available for women who are currently, or will be enrolled, full time in college-level, IT-related programs at a Michigan college or university. Since 2006, MCWT has provided 204 women with scholarships totaling more than \$1.3 million.

[MORE INFO HERE](#)

RoboFest 2021

Robofest 2021 - Wanted: Online coding tutors



The 2021 Robofest Game, StackRolls, has been announced on the Robofest home page at www.robofest.net. The objective of StackRolls Game is to design and program a fully autonomous robot to move toilet paper rolls to the Target Zone (TZ). Highest points will be given if all the rolls are arranged in a stable stack.

Teams compete in the junior (grades 5-8), senior (grades 9-12) divisions. The Game category is considered the main event of Robofest as it attracts the most competitors. "Unknown factors" are revealed at the competition, and competitors have a maximum of 30 minutes to make programming changes to deal with these new elements. In Robofest unlike other popular robot competitions, team are allowed to use any robotics kits in the construction of robots. Robots can be programmed with any programming language.

Demonstration video can be accessed at <https://youtu.be/ZpRWPyli2w>

In addition to the Game, Robofest offers other competition categories such as: Exhibition, RoboMed (Medical applications using robots), Vision Centric Challenge, BottleSumo, RoboArts, and UMC (Unknown Mission Challenge).

Qualifying online competitions will be held from February to July. The World Championship will be in August in person on LTU campus when FIRST may have World Championship in Detroit. If in person competition is not possible due the continued Corona situation, similar online format world championship will be planned as this year starting in August and ends in October.

Robofest is looking for IEEE volunteers to conduct online technical workshops in Jan ~ March and assist teams during the upcoming season. Please complete the Google Form if you are interested:

<https://forms.gle/NPZSCbEQEqJkwbBJ6>

CJ Chung

Robofest Founder

Professor of Computer Science at Lawrence Technological University.

Email: cchung@ltu.edu

Chapter 5 Annual Review

History:

The Computer Society Chapter was the fifth technical chapter formed in Southeastern Michigan, and has been popularly known as “**Chapter V**” since then. The Chapter in its present form was officially created along with the local section in 1963.

Chapter 2020 & 2021 Officers:

- ❖ **Chair:** Subramanian Ganesan
- ❖ **Vice-Chair:** Sharan Kalwani
- ❖ **Secretary:** Ramesh Sethu
- ❖ **Treasurer:** Ashok Prajapati
- ❖ **University Liaison:** Carla Gerst

Overall Chapter V Activities 2020:

The chapter has achieved an extraordinary amount of technical meetings in 2020 **despite** the pandemic, which as we all know, ruled out in person meetings. During March and April, no meetings were held, due to a great deal of confusion and lack of clear guidelines. But once virtual meetings were established, the chapter took the lead and out-performed all the other chapters not only in the Section, but across the Region as well! After that intermediate lull, almost every two weeks, a technical meeting was held, and covered a huge variety of topics. All events were scrupulously entered into the vtools reporting (L31) for record keeping purposes. So in 2020 we ended up doing **25** technical events (in 2019 this figure was **17**). These are listed below in chronological sequence:

1)	Industry 4.0 - what is this all about?	02/05/2020
2)	What technologies will grow in the immediate future (post 2020)	05/14/2020
3)	Technology response to the COVID crisis	05/19/2020
4)	Linux in your everyday tech life	06/02/2020
5)	Basic TCP/UDP/IP network protocols for future engineers	06/11/2020
6)	Microcontroller Debug Training Workshop 2020 - part 1	06/16/2020
7)	Microcontroller Debug Training Workshop 2020 - part 2	06/23/2020
8)	Impact of COVID-19 on the Internet ecosystem	06/25/2020
9)	Innovative & futuristic Applications of IoT	07/07/2020
10)	Cloud of Things and Wearable Technologies 2020	07/10/2020
11)	A Quality Assessment of Cloud-hosted Services	07/16/2020
12)	Report from ISC 2020	07/21/2020
13)	AUTOSAR: the ubiquitous Automotive standard	08/18/2020
14)	Smart Ecosystem: Trends, Opportunities, and the Future Ahead	09/29/2020
15)	The Rise of Computing in Automotive DNA	10/01/2020
16)	Introduction to Embedded Systems (part 1)	10/03/2020
17)	Introduction to Embedded Systems (part 2)	10/10/2020
18)	Automotive Software Cyber-Security challenges and methods	10/13/2020
19)	Embedded Systems Workshop 2020 - Day 1	10/17/2020
20)	Embedded Systems Workshop 2020 - Day 2	10/24/2020
21)	All about Open Source Hardware	10/27/2020
22)	Energy Sources (part 1)	10/30/2020
23)	A comprehensive technical history of Video Conferencing	11/05/2020
24)	Energy Sources (part 2)	11/06/2020
25)	Recent Advances from Supercomputing 2020	10/24/2020

□ The major highlights:

- The 18th annual Embedded Systems Workshop, which was first pioneered in 2002, by the current chair, Subra Ganesan, has now grown from a small audience of 25 persons to over 150 persons. It has become a yearly fixture, looked forward to by both industry, academia and students. Due to the pandemic, it was quickly decided to make this virtual. Also, since we learned early in April 2020, that it is easy to develop ‘zoom fatigue’, we also resolved to split it into two sessions, to keep the interest and prevent loss of attention. We would like to point out that all of this was volunteer driven. It featured a total of
 - 8 speakers, all experienced practitioners from industry.
 - 140 attendees total for both sessions,

- 10 industry sponsors (last year we had 4!),
 - Service awards to volunteers, and
 - Appreciation certificates to speakers and many raffle drawing prizes for attendees
 - Raffle prizes were controller boards, books and credits for free courses (send via US Postal service)
- ✓ Service to members in a non-societal context
- In previous years we have held popular workshops on: Project Management skills, etc. The inspiration remains to boost non-technical skills of the members, in order to help them advance career wise, by giving them an edge in extra talent/skills. These occurred before the pandemic, so we now have online-based plans to do the following topics in 2021:
- i. Business Writing Skills
 - ii. How to write a research paper
 - iii. Software Engineering 101 for engineering managers/supervisors
 - iv. Software Quality improvement methods
 - v. Software Testing 101 for group leaders
 - vi. Introduction to Python for engineers (3-day event)
- ✓ The chapter also celebrated National Engineers Week, doing outreach to students with informational literature and live Q&A. (February 19th 2020)
- ✓ We partnered with several other societies, Affinity Groups across the Section and across Regions to hold joint meetings, and help cross pollinate different discipline practitioners to each other's area of expertise. We plan to continue and expand this tradition in 2021 as well.
- ✓ Member Advancement, Nominations and Awards
- i) The local chapter always endeavors to distribute/share Membership literature and recruitment forms at all of the technical and non-technical events. This year it was done electronically by sending email links or PDFs of member recruitment files. However, this is not a very good method in the opinion of this chapter, as many people shared that they get too much e-mail and this tends to get buried too deep or ignored. Also due to the pandemic, we noticed many members of IEEE and outside of IEEE (we were trying to recruit) lost their jobs and so overall memberships have fallen all across Regions 1-6! Despite this *and* the pandemic, we managed to retain many members – close to the original number of members. The total # of members (as per the OU Analytics) in 2020 is 325 and in 2019 was 345. In the year 2018 it was 319. So clear evidence that we are doing well on **retaining** existing folks.
 - ii) Direct encouragement provided to student branches at
 - a. Oakland University (Rochester/Auburn Hills) and
 - b. Lawrence Tech University (Southfield)
 - c. Wayne State University (Detroit)
 - d. University of Michigan (Dearborn)

We hope to encourage the other 4 student branches and get them rejuvenated in 2021.

The chapter is also nominating 1 student for a Region 4 best student award (due Dec 31st 2020)

- iii) Planning for 2021 has already been kicked off. We intend to mark the occasion of the 75th anniversary of the Computer society, so a bonanza of many events are being scheduled. Some of them are:
 - ❖ Several new hands on tutorial courses to be offered on weekends in 2021
 - **Intro to Data Science, Machine Learning, JavaScript, Julia** and others
 - ❖ The 19th edition of the Embedded Systems Workshop in October, 2021, expected theme will be “**New technology choices for Embedded Systems**”
 - ❖ Dr. Kathy Giori on “**IoT**”
 - ❖ Dr. Shekhar Borkar on “**Beyond Moore’s Law**”
 - ❖ Dr. Narine Hall on **InSpace** (A better replacement for zoom?)
 - ❖ Wi-Fi Standards such as Wi-Fi 6 and Wi-Fi 7
 - ❖ 5G and many more....too numerous to list here! ☺

Officers of IEEE SE Michigan Computer Society Chapter

Machine Learning Course

University of Michigan-Ann Arbor offers a course on Computational Machine Learning for Scientists and Engineers

About this course

The Continuum Jumpstart Course *Computational Machine Learning (ML) for Scientists and Engineers* is designed to equip you with the knowledge you need to understand, train, design and machine learning algorithms, particularly deep neural networks, and even deploy them on the cloud.

You'll learn by programming machine learning algorithms from scratch in a hands-on manner using a [one-of-a-kind cloud-based interactive computational textbook](#) that will guide you, and check your progress, step-by-step. Using real-world datasets and datasets of your choosing, you will understand, and we will discuss, via computational discovery and critical reasoning, the strengths and limitations of the algorithms and how they can or cannot be overcome. You will understand how machine learning algorithms do what they claim to do so you can reproduce these while being able to reason about and spot wild, unsupported claims of their efficacy.

By the end of the course, you will be ready to harness the power of machine learning in your daily job and prototype, we hope, innovative new ML applications for your company with datasets you alone have access to.

Since you'll learn by doing (via coding), you'll spend quite a bit of time coding and debugging not-working code. So a basic facility with (language agnostic) programming syntax and computational reasoning is invaluable. The rest you will learn in the course itself, *i.e.*, you don't have to be a Java whiz but you do need to have used Python, MATLAB or R.

[Course website](#) || [Apply now!](#) || [Testimonials and Advice](#)

Important dates

The course will run from **February 15 – May 15, 2021**

- Application deadline: January 8, 2021
- Acceptance and waitlist notification: January 15, 2021
- Deadline for submitting coding module: January 22, 2021
- Payment and registration deadline: January 29, 2021

Cost

The cost to participate in the program is \$895 per person.

Course expectations

The course will run for 13 weeks and will require 5-6 hours of coding work from you each week.

More details at: <https://continuum.engin.umich.edu/programs/jumpstart-ml/>

ORG UNITS cheat sheet**Section Unit Name or Affinity Group or Chapter Name (Organizational Unit is in parentheses)**

Consultants Network Affinity Group: (CN40035)

Life Members: (LM40035)

Young Professionals: (YP40035)

Women in Engineering: (WE40035)

Chapter: 01 (CH04049) (SP01) Signal Processing Society,
 (CAS04) Circuits and Systems Society and
 (IT12) Information Theory Society

Chapter: 02 (CH04051) (VT06) Vehicular Technology Society

Chapter: 03 (CH04053) (AES10) Aerospace and Electronic Systems Society and
 (COM19) Communications Society

Chapter: 04 "Trident" (AP03) Antennas and Propagation Society,
 (CH04050) (ED15) Electron Devices Society,
 (MTT17) Microwave Theory and Techniques Society,

Chapter: 05 (CH04055) (C16) Computer Society

Chapter: 06 (CH04056) (GRS29) Geosciences and Remote Sensing Society

Chapter: 07 (CH04057) (PE31) Power Engineering Society,
 (IA34) Industrial Applications Society

Chapter: 08 (CH04088) (EMC27) Electromagnetic Compatibility Society

Chapter: 09 (CH04087) (IE13) Industrial Electronics Society,
 (PEL35) Power Electronics Society

Chapter: 10 (CH04142) (TEM14) Technology and Engineering Management Society

Chapter: 11 (CH04099) (EMB18) Engineering in Medicine & Biology

Chapter: 12 (CH04103) (CS23) Control Systems Society

Chapter: 13 (CH04113) (E25) Education Society

Chapter: 14 (CH04115) (RA24) Robotics And Automation Society

Chapter: 15 (CH04144) (NPS05) Nuclear Plasma Sciences Society

Chapter: 16 (CH04125) (CIS11) Computational Intelligence Society,
 (SMC28) Systems, Man and Cybernetics Society

Chapter: 17 (CH04128) (NANO42) Nanotechnology Council

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

University Of Detroit-Mercy: (STB00531)

Michigan State University: (STB01111)

University Of Michigan-Ann Arbor: (STB01121)

Wayne State University: (STB02251)

Lawrence Technological University: (STB03921)

Oakland University: (STB06741)

Eastern Michigan University: (STB11091)

University of Michigan-Dearborn: (STB94911)

Curated & Formatted By

Sharan Kalwani,
Wavelengths,
2017 ~ 2021

Non-IEEE 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 changing to its new home, kindly make a note of it! The new home is located at <http://r4.ieee.org/sem/>.** The old links will continue to work for some time, but will be changing permanently in the near future.

SEM Wavelengths:

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

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 Web Calendar:

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

Select "SEM Calendar" button in the top row of the website.

SEM Web Meetings:

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

Select "SEM Meeting List" button in the left-hand column.

vTools Meetings:

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

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

Other IEEE Local Meetings:

<http://www.e-wavelengths.org/>

SEM e-Wavelengths:

www.e-wavelengths.org

This was our 'Active' event listing site where everyone used to be able to look first to see what events are scheduled for our Section in the near future.

Other Happenings

Here are some of the non-IEEE functions that may be of interest to you or someone you know. Let us know if you have a special interest in a field that encourages technical study and learning, and wish to share opportunities for participation with members of the section. **NOTE: You may need to copy the URL and paste it into your browser address bar.**

Send details to: wavelengths@ieee-sem.org

Michigan Institute for Plasma Science and Engineering: Seminars for the 2018-2020 academic year:

<http://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/eaa-chapters/find-an-eaa-chapter>

Robots

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

Science Fiction Conventions

<https://2021.penguicon.org/>

<http://www.confusionsf.org/>

Mad Science

<http://www.madscience.org/>

ESD PE Review Class

<https://www.esd.org/programs/pe/>

Maker Faire:

<https://swm.makerfaire.com/>

Executive Committee

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

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

If you wish to attend, or just monitor the discussions, please contact **Bhupinder Mavi**, the section secretary at: bmavi@outlook.com, and request to be placed on the distribution list for a monthly copy of the agenda and minutes. More meeting details are available on the next page of this newsletter.

Other Meetings:

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

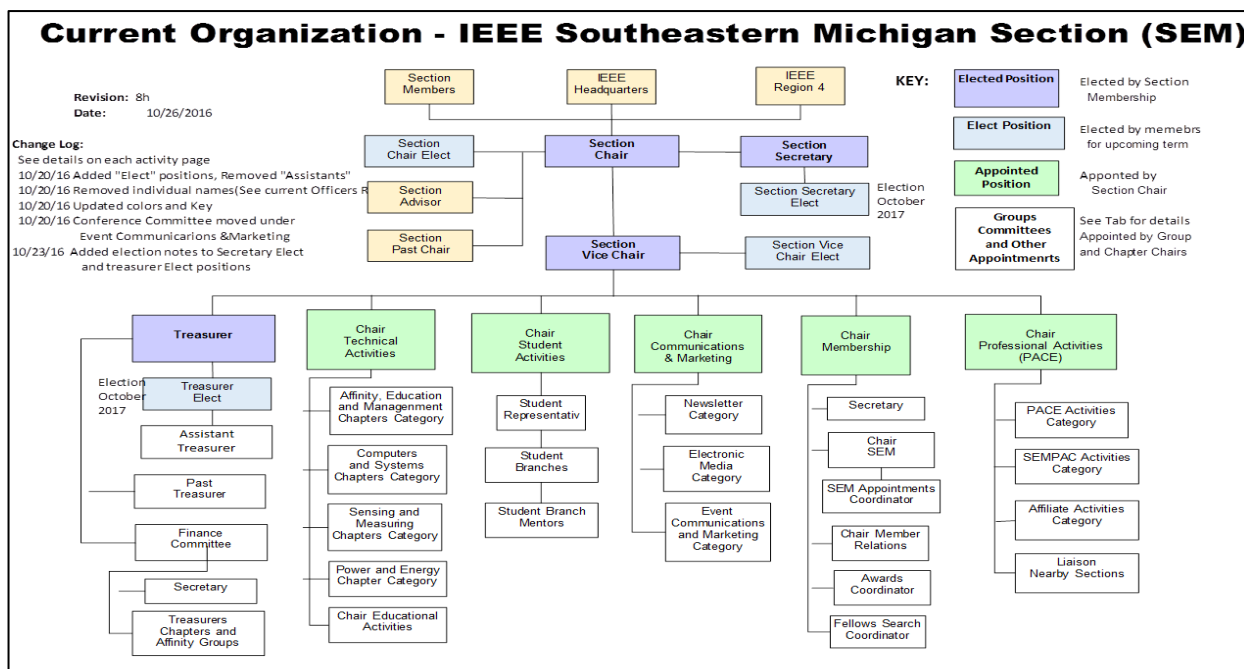
However, members of the section may have multiple technical interests and would like to have meeting information of other chapters. In order to communicate the meeting dates of all the chapters, affinity groups etc., to our members to facilitate their attendance, leaders of the groups are requested to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

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

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

Bhupinder Mavi - SEM Secretary 2021

Download the **complete SEM Organization Chart**, in PDF format, from our Website at: <http://r4.ieee.org/sem/> Click on “**About SEM**” Tab and “**Current Officers**” (*NOTE: this is now password protected*)



ExCom Meeting Schedule

NOTE: All SEM members are invited to attend ALL ExCom meetings:

Below is the 2021 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. Information on each Face-to-Face (in-person) Meeting will be sent out once the venue is confirmed.

Please mark your calendars for the 2021 meetings. Or, link your personal calendar to the SEM Web calendar.

Section Administrative Committee (ExCom) Meeting Schedule for 2021:

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**.

2021 Meeting Schedule:

<i>ExCom Meeting</i>	<i>Date & Time</i>
<u>New Office Meet and Greet for 2021 meeting</u>	1/13/2021 18:00
<u>SEM Section ExCom Monthly Meeting (Teleconference) for February 2021</u>	2/3/2021 17:00
<u>SEM Section ExCom Monthly Meeting (Teleconference) for March 2021</u>	3/4/2021 17:00
<u>SEM Section ExCom Monthly Meeting (Teleconference) for April 2021</u>	4/7/2021 17:00
<u>SEM Section ExCom Monthly Meeting (Teleconference) for May 2021</u>	5/6/2021 17:00
<u>SEM Section ExCom Monthly Meeting (Teleconference) for June 2021</u>	6/2/2021 17:00
<u>SEM Section ExCom Monthly Meeting (Face-Face) for July 2021</u>	7/14/2021 17:30
<u>SEM Section ExCom Monthly Meeting (Teleconference) for August 2021</u>	8/5/2021 17:00
<u>SEM Section ExCom Monthly Meeting (Teleconference) for September 2021</u>	9/1/2021 17:00
<u>SEM Section ExCom Monthly Meeting (Face-Face) for October 2021</u>	10/7/2021 17:30
<u>SEM Section ExCom Monthly Meeting (Teleconference) for November 2021</u>	11/4/2021 17:00
<u>SEM Section ExCom Monthly Meeting (Teleconference) for December 2021</u>	12/1/2021 17:00

Bhupinder Mavi
SEM Secretary 2021
bmavi@outlook.com

Editor's 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

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We rely on our officers and members to provide the 'copy' that we finally present to readers of the newsletter. The **Wavelengths Focus Plan and Personal Profiles** plan shown in the matrix below is presented to ensure coverage of section activities and events.

We try to complete the newsletter layout a week before the first of the month to allow time for review and corrections. If you have an article or notice, please submit it two weeks before the first of the month or earlier if possible.

The plan below relies on the contributions of our members and officers, so please do not be shy. If you have something that should be shared with the rest of the section, we want to give you that opportunity.

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

"If a tree falls in a forest and no one heard it, how do you know it actually fell?"

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

We also plan on starting a "Letters to the Editor" column soon. Feel free to email away to help us get that started!

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.

Heads Up

We are contemplating making the submissions of articles and events for the Wavelengths, a little easier and a little more inviting. Ideas are of course welcome and to this end, we are toying with setting up a little "newsletter portal". Stay tuned for some news on that end!

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

OR

any one of the following:

sharan.kalwani@ieee.org

d.romanchik@ieee.org

nilesh.dudhaia@ieee.org

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Wavelengths Annual Publication Plan for Articles

Month	AG's	Ch's	Ch's	SB's	Special Notice	Reporting Events	Monthly Focus	Awards
Jan		1		OU	New Year Officers	Officer's Welcome	The Year Ahead	
Feb	Cons	2		MSU	Science Fair Judges	National Engrs Wk	Surviving Winter	
Mar		3	13	EMU	Elections - Prep			
Apr		4		U/M-D		ESD Gold Awards	Chapter Focus	
May	Life	5	14			Science Fair		
Jun		6					Leadership Skills	
Jul		7	15				Students Issues	
Aug	WIE	8			Nominations Call		Womens Issues	
Sep		9	16	LTU	Ballots	Engineers Day?	Professional Skills	
Oct		10		U/M-AA	Elections!	IEEE Day		
Nov	YP	11	17	WSU	Election Results	New Fellows		
Dec		12		U/D-M	IEEE-Com Apmts.		Happy Holidays	R4 Nom

Wavelengths Annual Publication Plan for Personal Profiles

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



Web & Social Sites

SEM Website

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

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

Section Website Event Calendar

(Select the “SEM Calendar” button - top row.)

SEM Facebook Page

(Select the “” button under the top row.)

SEM LinkedIn Page

(Select the “” button under the top row.)

SEM Officers:

For a complete listing of all - Section - Standing Committee - Affinity Group - Chapter and Student Branch Officers, see the SEM Officers Roster on the SEM web page under the “About SEM” button and select “Current Officers.”

Section Officers

Section Chair

David Mindham

Section Vice-Chair

Sharan Kalwani

Section Secretary

Bhupinder Mavi

Section Treasurer

Colleen Chmielewski

Standing Committees:

Section Adviser

Don Bramlett

Chair Communications & Marketing

Chair Educational Activities

Christopher Guirlanda

Chair Finance

Nevrus Kaja

Chair Membership Development

Sharan Kalwani

Chair Nominations & Appointments

Kimball Williams

Chair Professional Activities (PACE)

Sharan Kalwani

Chair Student Activities

Michael Anthony

Student Representative

Chair Technical Activities

Jeffery Mosley

Wavelengths Editor

Sharan Kalwani



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



Advertising Rates

SEM Website & Newsletter
Advertising is coordinated through
our e-Wavelengths website at:

http://www.ieee-sem.org/ewavelengths/?page_id=181.

Please see the information listed on
the site, and contact our web editor
of e-Wavelengths, Nevrus Kaja, for
further details.

Leadership Meetings

SEM Executive Committee Monthly Teleconferences:

- 1st Wednesday or Thursday of Each Month @ Noon
- Check the Section Web Calendar at:
<http://r4.ieee.org/sem/sem-calendar/>
(Select the "SEM Calendar" button in the top row.)

SEM Executive Committee Face-to-Face Meetings:

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

SEM Standing Committee Meetings:

SEM Affinity Group Meetings:

SEM Technical Society/Chapter Meetings:

SEM University Student Branch Meetings:

- Meeting schedules are announced on SEM Calendar
<http://r4.ieee.org/sem/>
(Select the "SEM Calendar" button in the top row.)
- Registration for all at:
<http://bit.ly/sem-upcoming>