Wavelengths

Volume 61 – Issue 3

Contents

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
SEM Section ExCom Monthly Meeting (Teleconference)	04 Mar 2021	05:00 PM
NuScale Power SMR Design Overview and Licensing Status : Chapter, C16	05 Mar 2021	04:00 PM
Ch8: AdCom Teleconference : Chapter, EMC27	11 Mar 2021	11:00 AM
Career Path and Life Lessons from a Woman Engineer	11 Mar 2021	12:00 PM
Micro Tutorial: Internet Security Awareness : Chapter, E25	16 Mar 2021	05:30 PM
Chapter 8 (EMC): Monthly Technical Presentation by Joanna Hill McLellan	18 Mar 2021	05:30 PM
Thorium-based energy outlook	19 Mar 2021	04:00 PM

Note: All times are EDT/EDT unless otherwise marked. Accurate at the time of going to press. If any events are missed do kindly bring them to the attention of wavelengths@ieee-sem.org. Thank you! ☺

2021 Student Branches

Student Branch:		
University Of Detroit-Mercy: (STB00531)		
Chair		
V-Ch		
Secretary		
Treasurer		
Faculty Counselor	Michael Santora	santormj1-AT-udmercy.edu
Mentor	Jennifer Dukarski	dukarski-AT-butzel.com
Mentor	Don Bramlett	d.bramlett-AT-ieee.org
Michigan State University: (STB01111)		
Chair		
v-Ch		
Secretary		
Treasurer		
Graduate Advisor		
Faculty Counselor	Premjeet Chahal	chahal-AT-msu.edu
Mentor	Shiu Chan	michaelshiuchan-AT-gmail.com
Mentor	Philip Fanson	emcplf-AT-fnwusers.com
University Of Michigan-Ann Arbor: (STB01121)		
Chair		
V-Ch		
Secretary		
Treasurer		
Faculty Counselor	Laura Balzano	girasole-AT-umich.edu
Temp-Faculty Counselor	Nicole Hamilton	hamilton-AT-hamiltonlabs.com
Mentor	Michael Anthony	maanthon-AT-umich.edu
Wayne State University: (STB02251)		
Chair		
V-Ch		
Treasurer		
Secretary		
Student Advisor		
Faculty Counselor		
Faculty Mentor	Weisong Shi	weisong-AT-wayne.edu
Mentor		
Lawrence Technological University: (STB03921)		
Chair	Naim Shandi	nshandi-AT-ltu.edu
V-Ch	Dana Bigham	dbigham-AT-ltu.edu
Secretary	Amar Dabaja	adabaja-AT-ltu.edu
Treasurar	Daniel Piotrowski	*dpiotrows-AT-ltu.edu*
Faculty Counselor	Jaber Nabih	njaber-AT-ltu.edu
Mentor	Benjamin Sweet	bsweet-AT-ieee.org
Mentor	Sharan Kalwani	sharan.kalwani-AT-ieee.org
Mentor	Don Price	d_price-AT-ieee.org
Oakland University: (STB06741)		
Chair	Marwan Oro	marwanoro-AT-gmail.com
Secretary	Nada Alsaegh	nalsaegh-AT-oakland.edu
V-Ch	Neven Nizar	nshath-AT-oakland.edu
Treasurer	Fadi Jiddou	fadijiddou-AT-oakland.edu
Faculty Counselor	Amanpreet Kaur	kaur4-AT-oakland.edu
Mentor	Michelle Knight	knight-AT-youngbasile.com
Mentor	Sharan Kalwani	sharan.kalwani-AT-ieee.org
Mentor	Daniel Aloi	aloi-AT-oakland.edu
Mentor	OSAMAH RAWASHDEH	osamah.rawashdeh-AT-gmail.com
Eastern Michigan University: (STB11091)		
Chair	jourdan mallonee-cole	jmallone-AT-emich.edu
Secretary	Haylee Haik	hhaik-AT-emich.edu
V-Ch	David DeLisle	david.delisle11-AT-ieee.org
Treasurer	Ross Rhizal	ross-AT-rhizal.com
Webmaster	Rami Mustafa	rmustaf3-AT-emich.edu
Faculty Counselor	ALI EYDGAHI	aeydgahi-AT-emich.edu
Mentor	David Menard	davidpaulmenard-AT-yahoo.com
University Of Michigan-Dearborn: (STB94911)		
Chair	Aaron Ustes	aaronu-eit-AT-gmx.com
V-Ch		
Secretary	*Gunnar Libby*	glibby-AT-umich.edu
Treasurer	David Liang	davidia-AT-umich.edu
Webmaster		
Faculty Counselor		
Mentor		
Mentor	Kimball Williams	k.williams-AT-ieee.org

Student Branch Needs:

With the restrictions we have all had to face during the global pandemic lockdown, perhaps the most severely affected has been our educational systems. I know several university professors who are struggling with the need to transfer complex concepts and ideas to students that, in many cases, they have never met. The need to completely rebuild the traditional educational system on a virtual platform has resulted in enormous demands on the creativity and industry of our educators, and amazingly enough, most are managing to achieve success despite all the restrictions and handicaps.

The IEEE Student Branches are another matter entirely. Only if a few cases have the faculty and student leaders successfully reached out to the student body, elected officers, and began functioning. Lawrence Technological University and Oakland University are leading the rest of our section as can be seen in the listing of all the Sections Student Branches at the right.

Eastern Michigan University and the University Of Michigan-Dearborn have made at lease a start but all the others seem to have forgotten about IEEE entirely, or they have ceased to communicate their activities with the Section.

IEEE Student Branch Counselor's Appointments:
Some universities tend to make IEEE Branch Counselors the 'new guy' assignment in their departments, not the person with IEEE leadership experience or interest, One University in our past even appointed an ME as counselor who ignored the Branch complexly.

Some counselors only 'warm the chair' and do nothing else. Most Universities never ask their students who might be acceptable, At least one insisted on 'appointing' SB officers, and refused to allow elections,

It seems clear that our Student Branches can use our assistance, If we can find some of our members willing to reach out to the Faculty Advisers at the universities perhaps we can encourage them to use the university Faculty contact email accounts listed at the right to offer help.

kw

Small Modular Reactors

IEEE SE Michigan
Presents
"Small Modular Reactors (SMR)"

NUSCALE™
Power for all humankind

Senior Technical Advisor Steve Mirsky will present the history of NuScale Power with respect to the development and licensing of its unique SMR. This SMR design concept and safety case will then be described. Key innovative systems, structures, and components will be presented. Mr. Mirsky will discuss nontraditional applications of the NuScale SMR in comparison to the current operating fleet of commercial nuclear power plants. Finally, he will provide information on the U.S. nuclear power plant licensing of the NuScale SMR along with near term deployment plans and opportunities.

Speaker Bio:

Mr. Mirsky has more than 44 years of experience in the nuclear industry. He has worked for SAIC and NUS Corporation consulting for U.S. and foreign nuclear power plants, DOE, and the NRC and Exelon, and Dominion Power supporting the safety analysis, design, operation, licensing, and analysis of the Surry, North Anna, and Calvert Cliffs nuclear power plants. He holds an M.S. in Nuclear Engineering from Pennsylvania State University, a Bachelor of Engineering in Mechanical Engineering from Cooper Union, and is a licensed PE in the State of Maryland.

At Glance

- **When:**
  Date: March 5, 2021
  Time: 4:00 – 6:30 PM EST/EDT
- **Where:**
  Online (requires a pre-confirmed registration)
- **Audience:** All eligible members and potential members (only if slots available)

*

Sponsored by IEEE SE Michigan EduSoc, CS, PES Chapters & SW Coast Florida Section

Pre-Registration Required!

https://events.vtools.ieee.org/m/256678

IEEE
Advancing Technology for Humanity

Profile: Section Secretary

Introducing our Section Secretary for 2021: Bhupinder Mavi

Bhupinder Mavi is an IEEE member and serving as the Secretary of the Southeastern Michigan Section, and Vice-Chair of the Life Members Affinity Group (LMAG). Mr. Mavi has an M.S degree in Computer Engineering from Wayne State University with 16+ years of experience and currently working as the Head of Engineering in the healthcare sector.

Mr. Mavi's strong background in software applications has allowed him to produce innovative solutions in healthcare that include Telemedicine, Remote Patient Monitoring, Tele-Stroke/Tele-Psych, Continuous Glucose Monitoring System, Kiosk Solution for Telemedicine, Medication Compliance App, Second Opinion application for Hospitals to name a few. His work involves the development of Patent applications in Telemedicine and Remote Patient Monitoring systems, which are deployed worldwide and in major US hospitals like the University of Michigan Hospital System, Urgent Care Clinics, Blue Cross/Blue Shield, etc. These applications help hospitals by keeping patients out of hospital and saving unnecessary hospital readmission.

In the past, the United Kingdom's Department for International Development (DfID) funded his work and used it in their Sub National Governance Program which uplifts basic health centers in Asia. Other research work includes 'Detecting Breast Cancer using AI and Imaging' and 'Predicting Heart Disease using Remote Patient Monitoring and AI'.

Recently he is one of the organizers of an international seminar on 'Role of Telemedicine & AI in Covid-19 Pandemic'. Speakers and audience from different parts of the world participated in this seminar. This was the first such joint effort between IEEE and IEI (The Institution of Engineers India). In the future, more such events are planned, as well as a world conference in 2021.

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

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 2021

www.eit-conference.org/eit2021

Call for Papers

Feb 08	Mar 15	Mar 29	Apr 15
Draft full paper due	Draft acceptance Extended abstract & Tutorials due	Final paper due	Early Registration

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 Apostoaia, 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
Ahmed Abdelgawad, CMU
Local Arrangements Chair
Prasanth Yanambaka, CMU
Registration Chair
Prasanth Yanambaka, CMU
Publications Chair
Afshin Izadian, Indiana University Purdue University Indianapolis
International Liaisons
Peter Dittrich, Hongwei Zhang, Hsiao-Hwa 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

Circuits Symposium 2021

IEEE MWSCAS 2021

2021 IEEE 64th International Midwest Symposium on Circuits and Systems, Lansing, Michigan, USA | Aug. 9-11, 2021. http://ww.mwscas2021.org

Honorary Chair
Anthony N. Michel, Notre Dame Univ.

General Chair
Fathi M Salem, Michigan State Univ.

Technical Program Chairs
Kenneth Jenkins, Penn State Univ.
Khurram Waheed, NXP Semiconductors
Zaid Albataineh, Yarmouk Univ.

Publication Chairs
Shantanu Chakrabartty, Washington Univ.
Chetan Thakur, Indian Institute of Science, Bengaluru.

Special Sessions Chair
Mohammed Ismail, Wayne State Univ.

Tutorials Chair
Faisal Abu-Nimeh, Apple, Inc.

Student Paper Contest Chairs
Randall Geiger, Iowa Stat Univ.
Robert Newcomb, Univ. of Maryland

Finance Chair
Yiming Deng, Michigan State Univ.

Registration Chair
Neeraj Mogotra, W. New England Univ.

WEB Page Coordinator
Michigan State Univ.

The **IEEE International Midwest Symposium on Circuits and Systems (MWSCAS)** is the oldest, and now the flagship, Circuits and Systems symposium. The 64th meeting of the MWSCAS is planned to be in Lansing, Michigan, USA, from Aug 8-11, 2021. The MWSCAS 2021 will be ready to pivot to virtual symposium if necessary. It will include oral and poster sessions, a student paper contest, keynote addresses, regular and special sessions, and tutorials presented by world experts in wide range of circuits and systems topics. *The 2021 Symposium theme is artificial intelligence (AI) and autonomous circuits and systems, and hopes to bring forward solutions to consequences of the COVID-19, from detection, testing to predictions.* Topics include, but are not limited to:

- COVID-19 detection, testing, prediction
- Autonomous & Intelligent Circuits/Systems
- Deep Neural Networks and Reinforcement Learning
- Machine Learning and Artificial Intelligence
- Neuromorphic Circuits and Systems
- Analog and Mixed Signal Integrated Circuits
- Digital Integrated Circuits, SOC, and NOC
- Digital Signal Processing
- IoTs and wearables
- Bioengineering Systems and Bio Chips
- Bio-inspired Green Technologies
- Trusted Electronics and Security
- Communication Circuits and Systems
- Wireless Sensors and Systems
- Cloud & System Architectures
- Embedded Electronics
- Image Processing and Multimedia Systems
- Nanoelectronics and Nanotechnology
- MEMS/NEMS
- RFICs, Microwave, and Optical Systems
- Power Management, Energy Harvesting, and Wireless Power
- Hardware/Software Co-design & Verification
- Power Systems and Power Electronics
- Novel Linear/Non-linear Circuits and Systems

Prospective authors are invited to submit a full paper (4 pages) describing original work through the on-line submission system for the conference through a link on the MWSCAS 2021 conference web-site. Papers should follow the formatting instructions given in the author's kit on the website. Papers will be accepted for either lecture or poster presentation. Review criteria for both lecture and poster presentation formats are identical; the presentation format will be chosen to facilitate topical session grouping and time constraints. Students are encouraged to participate in the Best Student Paper Award contest. Submissions of demos and proposals for tutorials and special sessions are also solicited. Accepted papers will be published in the MWSCAS 2021 Proceedings subject to advance registration of at least one of the authors at the author rate. All papers published in the MWSCAS 2021 Proceedings will be submitted for inclusion into **IEEEXplore**.

The Greater Lansing Area in Michigan includes the Michigan Capital (Lansing) and is home to Michigan State University and a host of diverse industries, from automotive, communication, medical small tech companies. Michigan has several international Universities. Michigan, the home to the three lakes, has numerous natural sights for touring including islands and the beautiful "upper" peninsula.

Important Dates (submission deadlines)

March 1, 2021	Special Session Proposals
March 8, 2021	Regular Papers
April 5, 2021	Tutorial Session Proposals
April 26, 2021	Notice of Paper Acceptance
May 17, 2021	Camera-Ready Paper Due

Introducing Chapter 3

Chapter 3 is the featured chapter for this month. The officers are:
Patrick Seeling (Chair), Jeff Dulzo (Treasurer) and Malcolm Lunn (Past Chair)

Who we are:
Chapter 3 – Joint Aerospace Electronic Systems Society and Communications Society

The AES Society is concerned with the organization, design, development, integration, and operation of complex systems for space, air, ocean or ground environments. The Communications Society is a community comprised of a diverse group of industry professionals with a common interest in advancing all electronic communications technologies.

Meet our Leadership:

Patrick Seeling (Chair)

Patrick Seeling is a Professor in the Department of Computer Science at Central Michigan University (Mount Pleasant, Michigan, USA). He received his Dipl.-Ing. Degree in Industrial Engineering and Management from the Technische Universität Berlin (Berlin Institute of Technology, Berlin, Germany) in 2002 and his Ph.D. in Electrical Engineering from Arizona State University (Tempe, Arizona, USA) in 2005. Patrick Seeling's research interests comprise communication networks (software-defined and beyond 5G), especially the Tactile Internet, and computer-mediated education.

Jeff Dulzo (Treasurer)

We are in urgent need of volunteers for officer positions (vice chairs for the societies, secretary) as well as for volunteers that can share their knowledge with us, from student to fellow.

What we did last year:

We were able to host a meeting ourselves and co-host several meetings together with other chapters in SE Michigan as well as several ones organized from our main societies.

What we plan for 2021:

We will begin regular chapter meetings once a month, starting in mid-March 2021 for our members to have a regular meeting spot and exchange ideas for future activities and topics of interest – watch your inbox for further details.

Thanks for your efforts!

R4 Industrial Engagement

IEEE Region 4 Industry Engagement Committee

What We Can Do for Sections & Industry Professionals in 2021

The Region 4 Industry Engagement Committee (R4IEC) has qualified and experienced members who can provide Region 4 Sections with the following:

- Make survey information available to Sections so they can develop programs useful to Industry Professionals.
- Provide assistance, if needed, in filtering existing membership databases to find IEEE Section, Industry and Professional members and their respective Industry employers.
- Provide a document listing future industry-themed events scheduled in vTools.
- Provide a working document which will allow Sections/Chapters to discover potential technical topics and speakers for future events.
- Assist in developing informational documentation for use when meeting with Industry Leaders.
- Assist Sections & Industry entities in planning "Section hosted" industry-themed events for Practicing Professionals.
- Assist Sections & Industry entities in planning "Industry hosted" industry-themed events for Practicing Professionals.
- Assist IEEE Sections/Chapters & Industry entities in planning networking events with Management and Practicing Professionals.
- Assist IEEE Sections/Chapters & Industry entities in planning & executing virtual events whether hosted by an Industry entity or an IEEE Section. Facilitate virtual events with Webex Events platform for their execution.
- Keep the Region and its Sections apprised of the progress being made by other IEEE entities.
- Assist Society Conferences in developing seminars/workshops for Industry Professionals during the Conference.

- Prepare documentation and/or webinars on how to develop Industry Engagement Infra-structure for Sections.
- Prepare information on existing educational classes for Industry Professionals by IEEE Societies, Universities and third parties.
- Provide Event Funding up to $200 for support of approved industry–themed events.

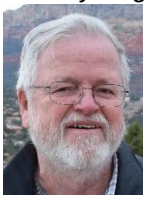
What We Can Do for Corporations/Companies in 2021

The Region 4 Industry Engagement Committee (R4IEC) can provide Corporations/Companies in Region 4 with the following:

- Request input from Corporations/Companies on what IEEE can do for them.
- Place Job Postings for Corporations/Companies on R4 website and R4 Newsletter – free during the Covid19 era.
- Develop partnerships between IEEE Sections and Corporations/Companies.
- Involve Corporations/Companies in Corporate Liaison Program (CLP) with the IEEE Region as well as Sections & Chapters.
- Assist in the Nomination and Elevation of IEEE members employed by Corporations/Companies to IEEE Senior members and IEEE Fellows.
- Assist each other (IEEE and Corporations/Companies) through marketing, recruiting.
- Assist in knowledge transfer from IEEE and Corporations/Companies and vice versa.
- Establish IEEE Ambassadors as liaisons to Corporations/Companies.
- Involve Corporations/Companies in IEEE Conferences.

If interested in the Industry Engagement Program or you want to become involved with the Program, please feel free to contact:

IEEE Industry Engagement Committee



James N. Riess (Jim),
Retired Professional Engineer, LSMIEEE
IEEE Region 4 Industry Engagement Committee chair
j.riess@ieee.org

Creating Trust

Amanda Mohan

How do you create trust? The first step in creating this holy grail of traits is by good, useful, and ultimately effective communication. So what's good communication and how can we make it useful to others? If we can do this, it will in turn be effective.

When joining a new team or working with a new person, you should never jump in with showing off your skills or new ideas. Start slow, inquiring to your team or team mate about their thoughts and ideas, genuinely trying to learn from them and about them.

Being genuine is of highest priority.

Think about it, how would it feel if someone new were to join your team and only appeared to want to work with you or only appeared to want to learn from and about you when in fact they didn't care? It would make you trust them less and likely not want to cooperate with them in the future. If someone is genuine in their interest, it helps begin a sound foundation for a good relationship and thus trust begins.

I am confident that you cannot have trust without a relationship, even if the relationship is of the utmost professional one.

Normally trust takes time and rightfully so, a strong house foundation also takes time but you can get it started in the right way. You don't have to be technically more brilliant than your colleagues, but you have to be able to communicate in a way that indicates you trust them and want to learn from them. Communicating in a way that is just hierarchical will never work and can harm whatever relationship had been started.

It's partially psychology, understanding your "audience" and their needs. An audience can be your coworkers, colleagues, friends, bosses, mother, father, sister, brother…basically anyone!

Continuously learning about your surroundings and its contents, especially the people is key.

Managing a team is hard and it never gets easier but there are always moments that make it all worthwhile even through the most difficult of times. Managing technically brilliant people can be even harder at times, making you feel inadequate and possibly even just dumb. And pending personality it's usually not intended in that way, but it can still be difficult to interpret. But don't be discouraged! All you need is trust and good effective communication.

So get out there and try! It never hurt anyone to try.

How do you create trust within your team and surroundings? This is something I continue to ponder and attempt to continuously improve on. Let me know your thoughts (you can me on LinkedIn.com)

Amanda Mohan is a Senior Engineering Manager at ZF & President, Detroit chapter at Society of Women Engineers

[Sharan Kalwani: This was first appeared on LinkedIn.com (Published on February 3, 2021). Reprinted here with permission.]

Officer Nominations 2021

Time to begin considering Officer Nominations begins now for the 2021 elections in the IEEE Southeastern Michigan Section!

The survey site used to nominate member for a place on the ballot will be 'opened' on or about the first of September and close on or about the end of the month. Details of these processes and options will be sent to all eligible members in August.

An 'eNotice' will be sent to all SEM Members when the survey site opens with the 'link' to the site.

"Executive Committee" 'officer 'elect' positions.
The process we adopted first in 2016 for electing new officers as "Elect-" to the Section Executive Committee each year for all the ExCom officers (Chair, Vice-Chair, Secretary and Treasurer) has proved successful for the most part, and we will continue it in 2021.

The 'Elect' position provides for the selection of new officers one year ahead of their actually assuming the duties of their office. This has been successful in accomplishing several beneficial factors for both the Section and the Officer. Most obvious and important is that the 'elect' position officer will know, one year in advance of taking office which position she or he is to prepare to hold. This allows a full year in which the newly elected officer is able to 'shadow' the current officer holding the position for which they have been elected and 'learn the ropes' for that office. During this training year, it is the responsibility of the current officer holder to 'train' his or her replacement.

This will mean that the transition to the new officers should be 'seamless' and the new officer should be fully up to speed as their term starts.

In addition, the expansion to two year terms enacted for SEM with the 2015 election gives our elected 'ExCom' officers sufficient time to plan and execute more 'long term' projects and plans than was feasible with only a single year term and virtually no knowledge as to whether they would have the opportunity to plan and carry out large scale tasks.

Note: The full ExCom officer terms require a 5 year commitment of each officer candidate.
One year as the 'elect' position. /
Two years filling the actual post for which they are elected. /
Two years as the 'Past' position officer during which they serve as advisers and assistants to the current officer holding the position.

Staggered Election Terms:
Because of the 'staggered terms' that were enacted with the 2015 elections we elect our Section Chair and Vice-Chair are in separate years from our Secretary and Treasurer.
Elections in 2021. This year we will hold elections for the following Section Level Officers:
Secretary & Treasurer. To begin serving two year terms in 2022.
(*Of course, we also look for the immediate 'past' officer to remain active and help 'coach' the entire team.*)

Affinity Groups and Chapters:
Elections for the Section's four Affinity Groups and seventeen Technical Chapters will continue without changes. We know that several of the Affinity Groups and Chapters have looked on the current ExCom election process with interest. However, at this time, none have come forward to the Nominations and Appointments Committee with a recommendation for consideration to modify their own electrical process.

Election Schedule:
As noted in our announcement of the election process early in the year, we are now notifying all "voting members" of the opportunity to 'run' for election to any elected governing position within the Section, Affinity Groups or Technical Chapters. Our general plan for the election schedule for 2021 is as follows:

- August: Advise members of the election schedule and options.
- September: Open the option for candidates for nomination (Either self-nominated or nominated by another member.).

- October: Open the ballot election system for two weeks
- November: Compile election results, resolve alternatives, fill vacancies.
- December: Deliver results report to the Section Executive Committee.

Voting Members:
All members above Student Member grade are eligible to vote and hold Chapter, Affinity Group and Section office. Yes, Graduate Student Members do qualify for election to officer positions. Please consider what positions you might wish to both serve the IEEE as well as learn new leadership and organization governance skills.

Be prepared to submit a self-nomination for an officer position when we open the balloting process. If you are new to this process, it makes good sense to begin your involvement in any of the governance areas by initially gathering experience in 'volunteer' roles. You are encouraged to have involvement at the committee volunteer level as stepping stones to prepare for elected offices.

Note: All **standing committee** positions are 'appointed' and not 'elected'.

Contact the current Committee Chair to discuss volunteer options. Committee Chairs are appointed by the Section Chair. Each Committee Chair has the authority to appoint all the members of his/her committee directly.

See the SEM Officer Roster posted in the SEM Website for details of each committee.
https://r4.ieee.org/sem/wp-content/uploads/sites/6/2021/02/Organization_Roster_2.26.2021.pdf

K.williams@ieee.org
Chair: N&A Committee.

MetroCAD 2021

The Fourth International Conference on Connected and Autonomous Driving (MetroCAD 2021)

Detroit USA, April 28-29, 2021

HOME Committees Call for Papers

With the burgeoning of Edge Computing and 5G technologies, we envision future vehicles will serve as a computing platform for a variety of services such as autonomous driving, remote real-time diagnostics, on-board entertainment, and a variety of third-party services, such as public safety. To realize the vision of connected and autonomous driving, researchers and practitioners in the community have to address several challenges, such as communication systems, data analytics platforms, novel algorithms and applications, security, to name a few.

The Fourth International Conference on Connected and Autonomous Driving aims to bring together the researchers and practitioners on connected cars, autonomous driving, transportation systems and ride-sharing platforms to address core challenges with vehicle connectivity and autonomous driving. The conference will include invited speakers, panels, paper presentations, tutorials, and real-vehicle demos. The goal is to discuss and exchange ideas in this area and stimulate the collaboration between academia and industry partners. The topics include, but are not limited to:

- Perception, localization, mapping, planning and control, action prediction for autonomous driving.
- Consumer services, include Internet- and cloud-based digital services that add to the driving experience.
- Connected Vehicle packages, using advanced features to improve or help manage the car's operation and autonomous driving.
- Connected vehicle data operations of various data sources and latency requirements.
- Artificial Intelligence approaches for control and coordination of traffic leveraging V2V and V2X infrastructures.
- Security, privacy, ethics, human interaction related with autonomous driving
- Enabling technologies for Autonomous Driving.
- Social and human impact of CAVs.

Previous Events
MetroCAD 2020
MetroCAD 2019
MetroCAD 2018

Important Dates
Paper Submission: Jan. 24, 2021
Acceptance Notifications: **Feb. 26, 2021**
Camera-ready Papers Deadline: **Mar. 12, 2021**
Conference: **Apr. 28-29, 2021**
Contact Email:
Metrocad@groups.wayne.edu

Join us on

In Cooperation

IEEE computer society

IEEE COMPUTER SOCIETY AUTONOMOUS DRIVING TECHNOLOGIES Special Technical Community

Conference Sponsorship

WAYNE STATE College of Engineering

CAR

Amateur Radio

Personal thoughts about teaching Morse code to Kids:

My wife, Suzanne, always says, “Listen to that little voice in your head.” So when I woke up early one mid-March morning with the idea to run Morse Code classes for kids through the Long Island CW Club, I had no idea what I was getting into.

COVID-19 has changed a lot of things for people, as we all know. From wearing masks to working from home, to social distancing, our world changed drastically in March. For children across the globe, that was even more true now, as they find themselves quarantined at home. Many of their parents were tasked to become their teacher for part of the day. Some schools responded immediately with structure, and others have yet to deploy stay-at-home learning ultimately. Regardless of the school response…kids are home, with a lot of time on their hands.

We wanted to do something about that, so I reached out to Long Island CW Club founders Howard WB2UZE and Rich K2UPS and asked for permission to offer a class for kids that were homebound due to the school closings. I hoped they would say no as I was busy working from home, but I am so happy they told me to “go for it.”

I had just begun teaching some CW club classes for adults in January 2020, but I also have 30 years of experience working with youths through my work and volunteering in the community. I sent an email to all the club members and posted the kids class idea on Facebook and Twitter and expected that we would start with 10-12 kids and run it until they lost interest. Almost immediately, the post and email were shared and parents signed their kids up. People said, “I saw it on QRZ,” “I saw it on the ARRL home page.” I was getting nervous, and within two weeks, we had 57 kids from 31 states and four countries. What was planned to be one class was now three classes by grade level.

We began with a class schedule for K-3 grades (12-12:30), 4-5 grades (12:30-1:15), and 6-12 grades (1:15-2:00). We meet on ZOOM every day, and the kids have quickly progressed. We use a combined Farnsworth and Koch method of teaching the kids in the two older classes and the Candler System to teach the younger children. Three weeks into our classes, we had another 15 children interested in learning, and we started the fourth class in the evenings! Within a month and a half, all the children had learned all 40 CW characters, learned how to send and receive a CQ, and using their made-up call signs learned how to send through the first stage of the CW QSO protocol.

Their minds are like sponges, and it reminded me of the many CW operators who told me they learned CW when they were children, and that led to a 30, 40 or 50-year ham radio experience! That is my hope for these kids too! It’s been fantastic to watch.

• We have 5-year old’s that are just learning to read that can copy and send to their classmates: ’73 FB HPE to CUAGN AR SK….’ In perfect spacing and character formation.

• We have 15, 16, and 17 year old girls meeting in ZOOM rooms to practice on their own.

• We’ve had kids make keys out of legos, others build oscillators kits, and use their computer spacebar as a straight key.

• In our recent Long Island CW Club Sprint contest, we had two students, an 11-year-old boy and a 12-year-old gir,l make their first contacts on air!

• We have one child that graduated from our beginner class in late April that posts a CW Joke of the Day on our class Facebook page…. every day!

• We have had experienced CW operators donate build kits for kids

• One hero donated 20 plus straight keys to children that didn’t have one of their own.

The classes require a parent to be within earshot of the class for assistance and technical issues. Many parents have told me they too are now learning CW, some through our Club, so that they can share this incredible hobby with their child.

One parent commented, “My child is so shy and to see her face light up when she gets a letter correct and then to have her send it back in dits and dashes…well, thank you so much for what you are doing for these kids.” One of the most important outcomes during this time of isolation is watching kids from across the world become friends and connecting outside of class!

We have a new set of classes starting in mid-May and already have 30 kids at the intermediate level (our first round graduates) and 12 new children starting beginners classes. This summer, we plan to offer a Technician exam prep class for kids too!

I am amazed and thankful that we have had 75 kids (60% girls) enrolled to date and are so happy for this experience teaching children CW that we are planning to offer classes on a year-round basis.

At Long Island CW Club, we want to see CW be taught and used by all Amateur radio operators. We also believe we need to make sure the younger generations are being introduced, encouraged, and inspired to learn about Amateur Radio and hopefully want to learn CW too! The energy and passion that these inexperienced CW operators will bring to the hobby will be measurable.

I said to a friend when he asked me why I spend so much time doing these classes; “I want to have someone to QSO with when I’m old and grey.”

I was only half-joking.

73,

Robb Zarges K2MZ May 3, 2020

Robert S Zarges, Jr (K2MZ) lives in Worcester, Massachusetts (MA).

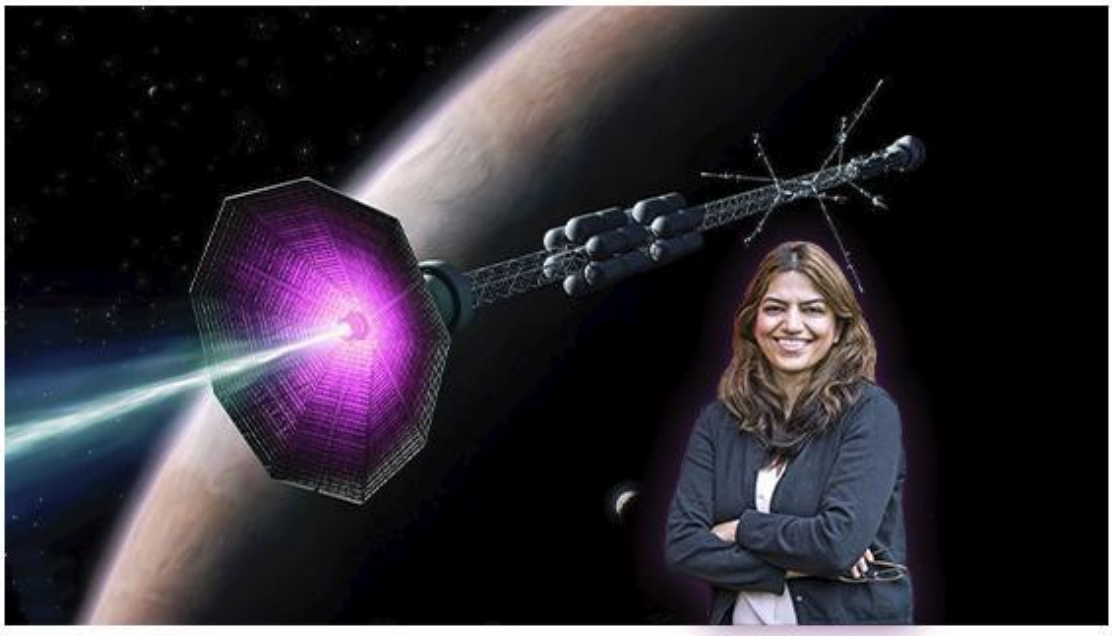
“I have been in nonprofit management for 31 years and am currently the Executive Director of a local CASA (Court Appointed Special Advocates) program (www.thecasaproject.org) and am a professor at Clark University in Worcester, MA.”

“Fairly new HAM, was licensed October 9th, 2019 and took to CW right away with the awesome help of Long Island CW Club **www.longislandcwclub.org.** I can't imagine not being able to do CW. It has brought great joy to my life.

I recently became the ARES Emergency Coordinator for the City or Worcester, MA and am working to help rebuild ARES in WMA.”

Plasmoid Thrusters

New concept for rocket thruster exploits the mechanism behind solar flares
By Raphael Rosen, January 27, 2021



PPPL physicist **Fatima Ebrahimi** in front of an artist's conception of a fusion rocket
(Photo by Elle Starkman, PPPL Office of Communications, and ITER)

A new type of rocket thruster that could take humankind to Mars and beyond has been proposed by a physicist at the U.S. Department of Energy's (DOE) Princeton Plasma Physics Laboratory (PPPL).

The device would apply magnetic fields to cause particles of plasma, electrically charged gas also known as the fourth state of matter, to shoot out the back of a rocket and, because of the conservation of momentum, propel the craft forward. Current space-proven plasma thrusters use electric fields to propel the particles.

The new concept would accelerate the particles using magnetic reconnection, a process found throughout the universe, including the surface of the sun, in which magnetic field lines converge, suddenly separate, and then join together again, producing lots of energy. Reconnection also occurs inside doughnut-shaped fusion devices known as tokamaks.

"I've been cooking this concept for a while," said PPPL Principal Research Physicist Fatima Ebrahimi, the concept's inventor and author of a paper (link is external) detailing the idea in the Journal of Plasma Physics. "I had the idea in 2017 while sitting on a deck and thinking about the similarities between a car's exhaust and the high-velocity exhaust particles created by PPPL's National Spherical Torus Experiment (NSTX)," the forerunner of the laboratory's present flagship fusion facility. "During its operation, this tokamak produces magnetic bubbles called plasmoids that move at around 20 kilometers per second, which seemed to me a lot like thrust."

Fusion, the power that drives the sun and stars, combines light elements in the form of plasma — the hot, charged state of matter composed of free electrons and atomic nuclei that represents 99% of the visible universe — to generate massive amounts of energy. Scientists are seeking to replicate fusion on Earth for a virtually inexhaustible supply of power to generate electricity.

Current plasma thrusters that use electric fields to propel the particles can only produce low specific impulse, or speed. But computer simulations performed on PPPL computers and the National Energy Research Scientific Computing Center, a DOE Office of Science User Facility at Lawrence Berkeley National Laboratory in Berkeley, California, showed that the new plasma thruster concept can generate exhaust with velocities of hundreds of kilometers per second, 10 times faster than those of other thrusters.

That faster velocity at the beginning of a spacecraft's journey could bring the outer planets within reach of astronauts, Ebrahimi said. "Long-distance travel takes months or years because the specific impulse of chemical rocket engines is very low, so the craft takes a while to get up to speed," she said. "But if we make thrusters based on magnetic reconnection, then we could conceivably complete long-distance missions in a shorter period of time."

There are three main differences between Ebrahimi's thruster concept and other devices. The first is that changing the strength of the magnetic fields can increase or decrease the amount of thrust. "By using more electromagnets and more magnetic fields, you can in effect turn a knob to fine-tune the velocity," Ebrahimi said.

Second, the new thruster produces movement by ejecting both plasma particles and magnetic bubbles known as plasmoids. The plasmoids add power to the propulsion and no other thruster concept incorporates them.

Third, unlike current thruster concepts that rely on electric fields, the magnetic fields in Ebrahimi's concept allow the plasma inside the thruster to consist of either heavy or light atoms. This flexibility enables scientists to tailor the amount of thrust for a particular mission. "While other thrusters require heavy gas, made of atoms like xenon, in this concept you can use any type of gas you want," Ebrahimi said. Scientists might prefer light gas in some cases because the smaller atoms can get moving more quickly.

This concept broadens PPPL's portfolio of space propulsion research. Other projects include the Hall Thruster Experiment which was started in 1999 by PPPL physicists Yevgeny Raitses and Nathaniel Fisch to investigate the use of plasma particles for moving spacecraft. Raitses and students are also investigating the use of tiny Hall thrusters to give small satellites called CubeSats greater maneuverability as they orbit the Earth.

Ebrahimi stressed that her thruster concept stems directly from her research into fusion energy. "This work was inspired by past fusion work and this is the first time that plasmoids and reconnection have been proposed for space propulsion," Ebrahimi said. "The next step is building a prototype!"

Support for this research came from the DOE Office of Science (Fusion Energy Sciences) and Laboratory Directed Research and Development (LDRD) funds made available through the Office of Science.

PPPL, on Princeton University's Forrestal Campus in Plainsboro, N.J., is devoted to creating new knowledge about the physics of plasmas — ultra-hot, charged gases — and to developing practical solutions for the creation of fusion energy. The Laboratory is managed by the University for the U.S. Department of Energy's Office of Science, which is the single largest supporter of basic research in the physical sciences in the United States and is working to address some of the most pressing challenges of our time. For more information, visit https://energy.gov/science

IEEE PES DAY 2021

About the IEEE PES DAY
On April 22, 2008, the 'Power Engineering Society' changed its name to the 'Power & Energy Society' to help the environment and society in terms of the Electric Power Industry. This day has been officially commemorated as “PES Day” since 2018 and a group of Volunteers from the energy industry come together to host various events based on the theme during the month of April. The theme for 2021 PES DAY is “Clean Energy Revolution”.

Our IMPACT
We released a ‘Call for Ambassadors’ on February 1 2021, and this generated a tremendous response of over a 1000+ ambassadors from 52 countries.

Who are PES Day 2021 Ambassadors?
Ambassadors are passionate IEEE volunteers who are interested in organizing a webinar, panel discussion or quiz events on PES Day theme.

Their Goals:
- ✓ Organize events based on the theme: “Clean Energy Revolution”
- ✓ Submit the report for events

Ambassadors category:
- ✓ IEEE Section
- ✓ IEEE Student Branch chapter
- ✓ IEEE YP Affinity Group
- ✓ IEEE WIE Affinity Group
- ✓ PES chapter
- ✓ PES Student Branch chapter

Benefits:
- ✓ Leadership Opportunities
- ✓ Networking/Mentoring and building global connections
- ✓ Industry knowledge and Technical Expertise
- ✓ Scholarship Opportunities

Peak into GLOBAL EVENTS
• Green Industry Guidance track (Panel Discussions – 1 hour 20 min presentation, 15 minutes Q&A)
Solar Energy – Future Investment opportunities
Wind Energy – Impacts and Future of Wind Shore
Battery Storage & Hybrid RES – Economics of Hybrid RES and Future Opportunities
EVs – Impact of Electric Vehicles and its future outlook
Clean Energy Policy – Current and Future policies driving Clean Energy Investments
Alternate Fuels

• Humanitarian Technology Project Design Competition
IEEE PES Humanitarian Activity Committee will be conducting a PES Humanitarian Technology Project Design Competition along with training. Any project related to the broad areas of power and energy, which involves humanitarian technology can be chosen for this competition. Projects related to the theme of the PES Day 2021 “Clean Energy Revolution” and that can help to fight against COVID-19 pandemic (during or/and after) are appreciated.

• Humanitarian Activities (Panel Discussions – 1-hour presentation, 15 minutes Q&A)
Humanitarian opportunities in Power and Energy in Africa, an African women leadership perspective
Face of Energy Poverty in the US, Canada and Europe
Humanitarian activities within IEEE PES

• ***Educational Activities (Webinars, earns 1 PDH credit)***
The importance of Solar Resource Assessment and Monitoring in PV Power Plan Performance by Ajith Gopi
Nuclear Energy: The Need, The perception and the reality by Shri A.V. Sathish
Clean Energy: Using Supercomputing Simulations to advance our understanding by Sharan Kalwani
Green Electronics

• ***Women in Power Activities (Workshop/Panel discussion)***
Entrepreneurship in Power Industry workshop
Career Guidance Workshop

• ***Young Professional Activities***
Young Professional webinars and PES quiz for students and YPs

More events are being planned.
Check out the website for more information: https://site.ieee.org/pes-day/
Contact us at: ieeepesday@gmail.com

Chaitali Naik
IEEE PES Day Chair 2021

WiE presentation

Career Path and Life Lessons from a Woman Engineer

ABSTRACT:
This presentation is intended to inspire and encourage young women and others to pursue their career path, to be successful and to make a difference in this world, no matter what challenges they may encounter. Attendees will hear Kristi's story—from choosing a career in engineering to becoming a Director at Commonwealth Associates. The presentation will also focus how a woman has to earn respect in the industry and prove their value. Advice she would like to give to a younger self will also be shared by her in this webinar.

SPEAKER: Kristi Vilminot, PE, Director of Engineering – Power Generation & Energy

Ms. Vilminot has over 29 years of experience in power engineering with an emphasis on critical system piping design across all fuel types. Project types have included coal plants, combined and simple cycle plant, biomass plants, battery energy storage, institutional power generation, and battery energy storage. She is currently the Director of Engineering – Power Generation & Energy group at Commonwealth Associates. Her major responsibilities have included director of engineering and director of project managers, design of critical systems, manpower budgeting, estimating, and proposal development. She has performed detailed static and dynamic analysis of both new and existing critical piping systems, system design of multiple systems, and contract administration for large procurement contracts. She has also performed as Project Director, Project Mechanical Lead Engineer, Proposal Mechanical Lead Engineer and Assistant Engineering Manager.

AGENDA:

1. Introduction
2. Presentation
3. Q&A

PRICE: Free
WHEN: Thursday, March 11th , 12:00 P.M – 1:00 P.M. EST
WHERE: Online
REGISTER: https://events.vtools.ieee.org/m/263650

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"	(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 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 & Maintained By

Sharan Kalwani,
Wavelengths,
2017 ~ 2021

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 has changed 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 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 2018-2021 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/eaa/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.

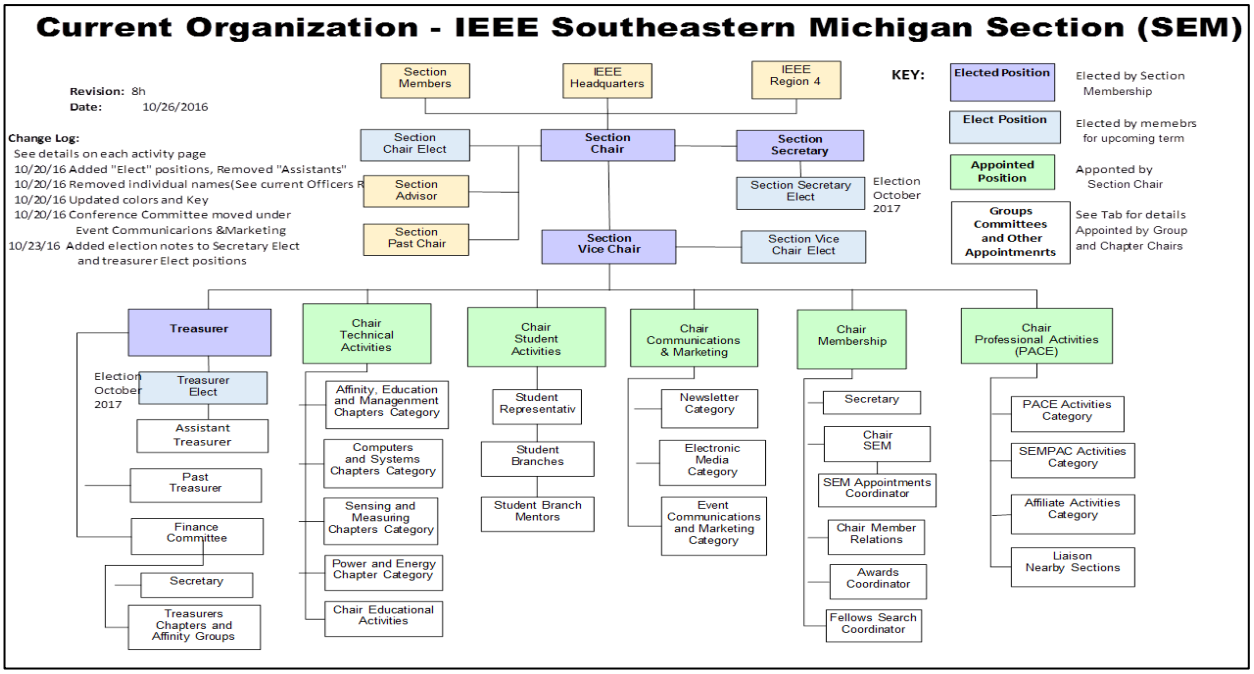
However, members of the section may have multiple technical interests and would like to have meeting information of other chapters. In order to communicate the meeting dates of all the chapters, affinity groups etc., to our members to facilitate their attendance, leaders of the groups are requested to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

ExCom Meeting	*Date & Time*
SEM Section ExCom Monthly Meeting (Teleconference) for March 2021	**3/4/2021 18:30**
SEM Section ExCom Monthly Meeting (Teleconference) for April 2021	4/7/2021 18:30
SEM Section ExCom Monthly Meeting (Teleconference) for May 2021	5/6/2021 18:30
SEM Section ExCom Monthly Meeting (Teleconference) for June 2021	6/2/2021 18:30
SEM Section ExCom Monthly Meeting (Face-Face) for July 2021	7/14/2021 18:30
SEM Section ExCom Monthly Meeting (Teleconference) for August 2021	8/5/2021 18:30
SEM Section ExCom Monthly Meeting (Teleconference) for September 2021	9/1/2021 18:30
SEM Section ExCom Monthly Meeting (Face-Face) for October 2021	10/7/2021 18:30
SEM Section ExCom Monthly Meeting (Teleconference) for November 2021	11/4/2021 18:30
SEM Section ExCom Monthly Meeting (Teleconference) for December 2021	12/1/2021 18:30

Bhupinder Mavi
SEM Secretary 2021
bmavi@outlook.com

Letters to the Editor

As promised, we are now starting a "Letters to the Editor" column soon. Feel free to email away to help us get that started! Letters, bouquets, brickbats, suggestions, advice, feedback, opinions may be sent to:
letters@ieee-sem.org

To the Editors of Wavelengths:

During the pandemic we have seen a significant disruption in what had become the 'norm' for American society. Many changes were needed to keep from losing large segments of our population, and I suspect that we will continue to see a lot of those changes persist as the 'new normal' when (and if) we actually manage to get Covid-19 and it's variants under control. (At this time, it is not clear that we will succeed in that effort.)

One that I hope we will not see continue as an American 'norm' is our proven ability to ignore the advice of forward thinking members of our society who look ahead and point out those things we need to do, or prepare for, in order to move society forward. The prime example with respect to the pandemic has to be the ted talk by Bill Gates on the threat of infectious disease he gave on April 3, 2015. If you have not seen this, it is worth a look: https://www.youtube.com/watch?v=6Af6b_wyiwI

This talk gave us 5 years of warning before the Covid-19 struck but we ignored it. Now we have had a 'slap in the face' of the actual virus and its effects. Will we learn from this, or go back to our TV game shows, and our political in-fighting where each 'party' tries to convince us that we must re-elect them, or their will be dire consequences (never fully specified, of course). If we refuse to learn from our 'history', then we will once again prove the old adage that we will be doomed to repeat our 'history'.

Blunder Loudmouth

Dear Blunder Loudmouth:

You are correct, but there is hope that the current generation has learned this lesson well and hopefully we will not witness a repetition.

I for one, remain optimistic that we will get thru this and find a more sanguine world at the end.

--Sharan Kalwani,
Editor Wavelengths (2019 ~ 2021)

Previous editions in this series may be found on the IEEE SEM website at: http://r4.ieee.org/sem/. Click on the "Wavelengths" button in the top row of selections.

Comments and suggestions may be sent to the editorial team at wavelengths@ieee-sem.org
OR
sharan.kalwani@ieee.org
d.romanchik@ieee.org
nilesh.dudhaia@ieee.org
k.williams@ieee.org
cgjohnson@ieee.org
lunnmalcolm@me.com
akio@emcsociety.org

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

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

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

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

"If a tree falls in a forest and no one heard 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.

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
k.williams@ieee.org
cgjohnson@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		

IEEE Southeastern Michigan
Electrical and Electronic Engineers Creating Our Future

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 "f" button under the top row.)

SEM LinkedIn Page
(Select the "in" button under the top row.)

SEM Twitter Account (new)
@ieeesemich

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

Wavelengths Editor
Sharan Kalwani

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
Mel Chi

Student Communications Coordinator
Michael Anthony

Student Representative

Chair Technical Activities
Jeffery Mosley

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

Advertising Rates

SEM Website & Newsletter

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