Wavelengths



Section Chair's Message

Volume 58 - Issue 3

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Volunteering:

Our Section, IEEE Southeastern Michigan, functions based on the work of our volunteers. You can volunteer by running for Chapter, Affinity Group or Section officer's positions. If that is your interest, it is time you start thinking about your 2019 term in office right now. See page # 11 for more information.

Another volunteering opportunity that is more immediate is to volunteer for one of our open positions for this year. The organization roster identifies these opening in yellow. You may find the Roster by going to the SEM web site (www.ieee-sem.org) and click on the "About SEM" tab. Please volunteer, you will find the experience interesting and rewarding.

Spring Conference:

The Spring Conference web site and registration site are open. The Conference is on Saturday, May 5. More details and links to the web pages are on page #2.

ESD Gold Awards:

IEEE SEM is a member of the Engineering Society of Detroit Affiliate Council. As part of our participation in ESD activities we have several members who we will honor at the annual ESD Gold Awards. (See page 16)

This year we have several SEM volunteers who will be acknowledged at this year's Gold Award ceremony for their contributions to our Section's successes. They are:

- David Mindham
- Javier Alcazar
- Nevrus Kaja
- Sharan Kalwani and
- Subramanian Ganesan

If you are able, plan to join us at the Gold Awards to honor these volunteers for their dedication to IEEE and Southeastern Michigan Section.

Policies and Procedures:

Most Policies and Procedures that we, IEEE SEM, follow are spelled out in the IEEE MGA manual. A few are unique to our Section. Our section polices are in the On-Line Community for referral by officers and members of our section. They are the Expense Reporting Procedure (how the Treasurer wants expense reports submitted) and the Financial Request Procedure (how requests for funding non-budgeted events and projects are requested and handled).

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

Robert Neff IEEE SEM Section Chair RLNeff1@gmail.com Spring Conference



2018 SPRING CONFERENCE

Saturday, May 5

GOVERNMENT REGULATION AND ENGINEERING

Location

Troy Community Center 3179 Livernois, Troy, Michigan 48083

Conference Agenda

09:30 AM 10:00 AM Registration / Networking (coffee, tea, and a light breakfast provided)

10:00 AM 12:00 PM Speakers 12:00 PM 01:00 PM Lunch

12:30 PM 01:00 PM IEEE Section Awards

01:00 PM 02:00 PM Keynote Speech 02:00 PM Closing Remarks



Registration

https://events.vtools.ieee.org/meeting_registration/register/160622

Early Online Registration ends April 20

Late Online Registration ends May 3 (deadline for meal orders)

Day-Of / In-Person Registration - Credit Cards Only (No Cash or Checks)

Conference Attendee Fees:	Early / Late
Students/Retired/Unemployed (Members)	\$25 / \$35
IEEE / ESD / SWE Members	\$45 / \$60
Non Members	\$60 / \$80
Technical Sessions Only	\$30
Primary Poster Authors	\$0
Additional Poster Author	\$25
Student Table Sponsor (8 students)	\$250
Silver Sponsorship Registration*	\$500
Gold Sponsorship Registration*	\$1000
Platinum Sponsorship Registration*	\$2000
Diamond Sponsorship Registration*	\$3000
*Please contact organizers at isullivan@ieee org for	further sponsorship details

intact organizers at <u>isullivan@ieee.org</u> for further sponsorship details.

Conference website: htttp://www.ieee-sem.org/spring

EIT 2018 Call For Papers

ANNOUNCEMENT and CALL FOR PAPERS

2018 IEEE INTERNATIONAL CONFERENCE on ELECTRO/INFORMATION TECHNOLOGY

May 3-5, 2018, Hosted by Oakland University Rochester, Michigan, USA

ORGANIZING COMMITTEE

R4 Conferences Administrator James Riess, j.riess@ieee.org

EIT Conferences Founding General Chair Hossein Mousavinezhad, Idaho State University hossein.mousavinezhad@ieee.org

2018 Conference General Chair Daniel Aloi, <u>aloi@oakland.edu</u> Subra Ganesan, <u>ganesan@oakland.edu</u>

Program Chair Osamah Rawashde

Finance Chair Keith Harvey

Professional Development Program Chairs Sharan Kalwani, <u>sharan.kalwani@ieee.org</u> Tarek Ladhiri, lahdhiri@hotmail.com

Exhibits/Industry/Sponsorship Chair S. Ramesh, rameshari1958@gmail.com

Publicity Chair Sharan Kalwani

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Peter Dittrich, <u>peter.dittrich@fh-jena.de</u>
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Chengying Xu, <u>cxu@fsu.edu</u>

EIT 2018 Webmaster Bob Evanich, b.evanich@ieee.org

Awards Co-chairs Sat Basu, <u>satbasu@ieee.org</u> Hossein Mousavinezhad

EIT 2018 Conference Web site: http://www.eit-conference.org/eit2018/

The 2018 International Electro/Information Technology Conference, sponsored by the IEEE Region 4 (R4), is focused on basic/applied research results in the fields of electrical and computer engineering as they relate to Electrical and Computer Engineering, Information Technology, and related applications. The purpose of the conference is to provide a **forum for researchers and industrial investigators** to exchange ideas and discuss developments in these growing fields. There will also be exhibits where the latest electro/information technology tools and products will be showcased. This is also an opportunity for professional activities development, workshops and tutorials.

Topics of interest include but are not limited to:

- Robotics and Mechatronics
- Intelligent Systems and Multi-agent Systems
- Control Systems and System Identification
- Reconfigurable and Embedded Systems
- Power Systems and Power Electronics
- Solid State, Consumer, Automotive Electronics
- ADAS-Advanced Driver Assist Systems
- Connected Vehicle V2V, V2I, V2X
- Biomedical Applications, Telemedicine
- Biometrics and Bioinformatics
- Nanotech, Micro Electromechanical Systems
- Wireless communications and Networking
- Ad Hoc and Sensor Networks, Cyber Security
- GPU Computing
- Computer Vision, Signal/Image Processing
- Distributed Data Fusion and Mining
- Cloud, Mobile, and Distributed Computing
- Software Engineering, Middleware Architecture
- Engineering Education, More topics on website

Important dates:

- Submission full papers: February 28, 2018
- Notification of acceptance: March 15, 2018
- Final manuscript (PDF) due: March 29, 2018
- Early registration: April 1, 2018

For more information, ideas for organizing /chairing sessions, industry participation, tutorials, professional activities sessions, please contact:

Dr. Ganesan, Dr. Aloi or Dr. Mousavinezhad

2018 Chapter 5 Officers

Secretary: Ramesh Sethu



Ramesh S, has been with General Motors Global R&D in Warren, MI, where he currently holds the position of Senior Technical Fellow and thrust area lead for model based embedded software. At General Motors, he is responsible for providing technical leadership for research and development in several areas related to Electronics, Control & Software processes, methods, and tools.

Earlier he was in India Science Lab serving as the lab group manager for two research groups on Software and System Verification and Validation. During this time, he led several projects on next generation rigorous verification and testing methods for control software which resulted in proof of concept methods and tools that were piloted on several SW subsystems across different domains like BCM, HVAC and Active Safety.

His broad areas of interests are Rigorous Software Engineering, Embedded Systems and Real-Time Systems. He is the author of several patents and has published more than 100 papers in peer-reviewed International journals and conferences. He is on the editorial boards of the International Journal on Real-Time Systems and Eurasip Journal on Embedded Systems and earlier on IEEE Journal on Embedded System Letters.

Prior to joining GM R&D, he was on the faculty of the department of Computer Science & Engineering at IIT Bombay, for more than fifteen years. At IIT Bombay, he played a major role in setting up a National Centre for Formal Design and Verification of Software. As the founding head of this Centre, he carried out many projects on verification of embedded software, for several Government organizations. He is a fellow of the Indian National Academy of Engineering and was visiting/adjunct faculty of many institutions.

Ramesh earned his B.E. degree in Electronics and Communication Engineering from *Indian Institute of Science, Bangalore* and his PhD degree in Computer Science & Engineering from *Indian Institute of Technology, Bombay.*

Treasurer: Ashok Prajapati



Dr. Ashok Prajapati is a well-known researcher in industrial networks for more than 15 years in active service. He works as a Senior Researcher in the world's leading industrial robotics manufacturer in USA. He has introduced many demanding technologies to the industry as discussed in many international magazines.

He is also serving as a Vice-Chairman (3rd term) in IEEE Computer Society Michigan (USA). He published over 20 international conferences/journals/books and is internationally recognized for his contributions in technology. He is a reviewer of many internationally accredited journals/conferences and serving as an Associate Editor of International Journal of Forensic Software Engineering.

In addition, he has chaired various international conferences and served as a judge in many cutting-edge technologies and trade shows. He has several books and patents in his credit. His senior IEEE membership vouches for his technical and professional maturity in his field of expertise. He has been active in IEEE SEM Embedded Systems Workshop for the past 9 years. Ashok received his Doctorate from *Oakland University*.

Vice Chair: Sharan Kalwani



technical and computing A seasoned scientific, professional, Sharan has spent over 30+ years implementing many new and pioneering technologies from operating systems (UNIX, UNICOS, Linux), high performance computing (Cray, SGI, compute clusters), engineering applications (CAE simulations), optimization, networking (TCP/IP, Infiniband), programming languages (FORTRAN, C, Julia, Python, JavaScript), operations (ITIL, ITSM), scientific domain (BioInformatics, High Energy Physics) and project management. Sharan looks to increase the professional approach of every individual he interacts with. He enjoys teaching, contributing to STEM activities and publishing. He is a senior member of IEEE. ACM. SIGHPC. Emeritus member Michigan!/usr/group (aka mug.org) and recently elected President of **SEMCO** (one of the oldest pioneer computer user groups in Michigan). He has also been a member of several professional societies such as SAE, SCS (Society for Computer Simulation), SIAM, CMG (Computer Measurement Group) and EduCAUSE. He has also served on several advisory boards, including the Deep Computing Institute External Advisory Board, and HPC User Forum User Group. He is also currently the Chair of the IEEE SE Michigan Education Society Chapter for 2018. He is also a published author on the topic: "UNIX and TCP/IP network security" ISBN: 1581430213, (May 1999). Currently he is working hard on writing his next book and elevating his expertise in an emerging new parallel Software Defined storage system.

He has worked for diverse technology industries such as Cray Research, Silicon Graphics, International Universities (KAUST), Government Scientific Research (Fermilab) and not surprisingly several automotive companies as well. At General Motors, he helped grow their HPC footprint from a modest handful (112 cores in 1999) to several thousand (17,000 cores actually in 2009), besides making them #1 in this space during his tenure there. He then later on helped to establish research computing at KAUST (Saudi Arabia) from scratch.

Sharan is a much sought after speaker & has delivered numerous technical presentations and tutorials at over 30+ international conferences and technical meetings. He received his Bachelor's degree from the *Delhi College of Engineering* (now called *Delhi Institute of Technology*) – *University of Delhi*. He received his Master's degree in Computer Science from *Wayne State University* in Detroit, Michigan.

Technical Coordinator: Salvador Almanza



Salvador Almanza has been with Vector North America Inc. since 2011 in the roles of Senior Embedded Software Engineer and Field Application Engineer. Previously, he held different positions as an embedded software designer and architect at First Texas Products Corp. and Delphi Corp.

Almanza's professional experience is in the automotive and consumer electronics industries in Embedded Systems Design with focus on software design and implementation, software architecture and embedded frameworks development, AUTOSAR, device drivers design, component-based development, model-based architecture, power management, configuration management, software estimation, requirements engineering and training.

Almanza is an IEEE Senior Member and has been Chair of the IEEE Student Branch at *Tecnológico de Chihuahua* (1997), IEEE SEM GOLD vice-chair (2013), IEEE SEM Computer Chapter Secretary (2014), IEEE SEM Consultant Affinity Group Vice-chair (2016, 2017), and IEEE SEM Computer Chapter Technical Activities Coordinator (2016-present). He is currently conducting a series of Embedded Software Hands-On training classes through different Universities sponsored by the IEEE SEM Computer Chapter.

Almanza received his BS in Electronics Engineering from *Instituto Tecnológico de Chihuahua* in Chihuahua Mex., in 1999, MSEE from New Mexico State University in Las Cruces NM, in 2009, and Embedded Systems Engineering Certificate from *University of California, Irvine* in 2016.

Chair: Subramaniam Ganesan



Subra has been working at Oakland University for the past 32 years. He has more than 40 years of work experience as a Scientist (in a National Lab) and as faculty in several Universities. He was the department chair of Computer Science & Engineering department, Oakland University from 1991-1998. Currently he is a Professor in the Electrical and Computer Engineering Department at Oakland University, USA.

The list of awards he has been graced with is long and distinguished. Most recently he was honored by the IEEE-USA at their annual joint regional meeting of R4-R6 held on February 3, 2018, in San Francisco where he received IEEE-USA's **Professional Achievement Award**. Just a few days ago he was nominated for the **Engineering Society of Detroit Gold Award**, which is scheduled to be held on March 21, 2018. Back in March 18, 2016, he was recognized by Oakland University's Teaching and Learning Committee and awarded the Certificate of Recognition for "**Teaching Excellence Award**". From outside of the domain, in 2012 April he received the **Lloyd L. Withrow Distinguished Speaker Award** from the SAE – Society of Automotive Engineers.

He has published in more than 72 journals, 218 conference publications, 2 book chapters, and 9 books as an author/editor. In addition he also has 4 patents in the last 5 years and recently applied for a new patent in April 2016.

He has also been a Keynote speaker for many conferences in 2009-2014. During that time, he delivered Keynote speeches in South Korea, India, Spain, and several regional IEEE EIT Conferences.

Under his supervision, he has graduated 12 doctoral candidates in Computer Engineering topics so far. He is currently guiding 8 Ph.D. students as a main advisor,

each of them are right now in various stages of completion.

He is also an external PhD/MS thesis evaluator for Universities at India, Australia, Jamaica, and Germany from 2005-present.

He is serving as the Editor-in-Chief, IJESCE, International Journal of Embedded Systems and Computer Engineering; Editor-in-chief, IJSA, International Journal of Sensors and Applications, South Korea. Member of Editorial board of Journal of Computer Science, JCS, ISSN 0973-292-6. He is the President of ISPE, International Society of Productivity Enhancement and Vice President of ISAM - International Society of agile manufacturing. He is the North American president for ASDF- Association of Scientists, Developers and Faculties international. He is very active in SAE- World Congress by organizing the System Engineering sessions for the past 20 years.

These days he is also the Associate Director, Center for Robotics, Unmanned and Intelligent Systems, at Oakland University.

He received his Bachelor's degree in Engineering from *Madras University, Madras* and his PhD from *the Indian Institute of Science, Bangalore.*

Curated & Formatted By Sharan Kalwani, Associate Editor, Wavelengths, 2017-2018

Member News



Continuing a new feature, introduced last year, little snippets celebrating news about all our members in the Section.

--Sharan Kalwani

This month we would like to welcome to the IEEE member community — Arpan Rughani — our latest, newest and youngest member! Arpan graduated recently (December 2017) from Oakland University with a Bachelor's in Computer Science from the School of Engineering and he is very proud of it too. (In fact he is often seen at his place of work — Intrepid Control Systems in Madison Heights — wearing his Alma Mater's "OU School of Engineering" grey T-shirt)!



Arpan Rughani

Arpan has always been very keen on both extra-curricular activities and academic work. He went initially to OCC after graduating from Rochester High School, where he was active in the Key Club, Videographers Society. He also ran a little business as well, doing professional work. While attend Oakland University he got an internship with Intrepid Control Systems, which is how he landed his formal job there (*Internships do matter*).

At Intrepid CS, he works in the capacity as a Technical Evangelist. He develops code for applications such as a Blue Tooth Low Energy device inside of an Android application, an Apple iOS application for In-Vehicle test and logging to record CAN (Car Automotive Network) data.

He also publishes a professional blog on current topics, check it out at:

- https://beyondstandards.ieee.org/connectedvehicles/need-active-tap-automotive-ethernet/
- https://beyondstandards.ieee.org/connectedvehicles/intrepid-rad-supermoon-first-1000base-t1media-converter-avbtsn-support/

We look forward to Arpan becoming more active in our chapter and grow his profile, besides contributing to the community.

Welcome aboard Arpan!

March 1, 2018

IEEE SOUTH EAST MICHIGAN – WAVELENGTHS

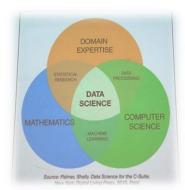
Introducing: New Chairs

Over the course of 2018 we will be featuring interviews with different Section officers.

Chapter 5 Tech Meeting

A Gentle Introduction to the World of Data Science

On February 22, 2018 the second technical meeting of the IEEE SE Michigan's Computer Society chapter was held. The event took place at the recently (2015-2016) constructed Engineering Center building of Oakland University, and was jointly sponsored by the IEEE Computer Society and the IEEE Education Society Chapter. In addition, the Center for Data Science, which was set up last year by the School of management, Engineering and Mathematics sponsored the event and generously provided the pizza and soda pop for over 45 people who registered and attended the session.





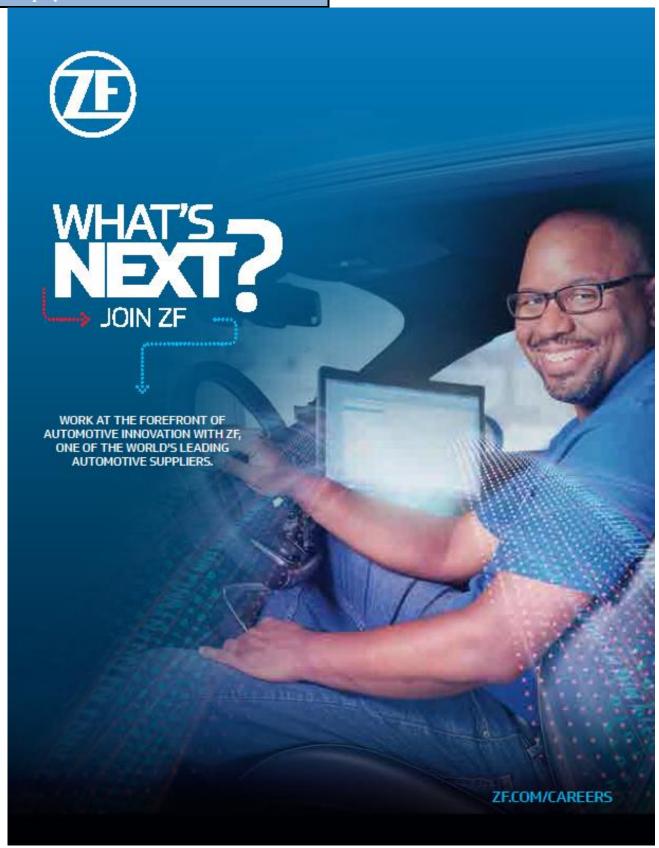


The topic of the technical talk was an introduction to data science and a presentation was made by Mr. Sharan Kalwani. The event started on time with a brief introduction and information announcement by Dr. Subra Ganesan, Chair of Computer Society Chapter. He mentioned that although 2017 was a very successful year, it appears that 2018 will be even more active and quite popular. For this he thanked Computer Society & Education Society chapter executive committees for organizing good technical presentations, occurring at a frequency of almost one and a half events every month! He encouraged non IEEE members, guests, students to consider joining the IEEE to reap the numerous membership benefits, add and improve knowledge, take advantage of the opportunity to network with peers and friends. Dr. Ganesan also talked about the Center for Data Science's vision and plans for the immediate future.

Mr. Sharan Kalwani gave a 75 minute presentation. He started with the basic premise behind data science, and then touched in varying degrees of detail about the underlying principles, algorithms, tools, examples, deep learning, modeling, mathematical and statistical approaches, which are employed in performing the various analytics. The talk was deemed by the attendees as very informative, judging from the post talk conversations, Q & A and surveys collected afterwards. Interestingly several of the audience were quite in rapture and asked many probing questions. Perhaps the engagement of the audience could also be attributed to the novel approach of a technology bingo game, where door prizes were given out each time an audience member scored a BINGO! On their cards. Sprinkled on the bingo cards were various technologies explained in the talk.

Even after the talk ended, many stayed around, expressed interest in joining IEEE, exchanging LinkedIn information, general networking and also gave good feedback for the future events they like to see or attend. What was also gratifying was the good level of attendance – event though it was spring break on campus!

ZF Employment Ad



2018 SEM Elections

Nomination for Election:

Now is the time when the MGA (Member Geographic Association) of IEEE requires us to let everyone know when we plan to begin the nomination for officers in August, and hold this year's elections in October.

(The MGA Policy Manual requires a 6 Month lead time).

Now that you have been 'notified', let me present the overall schedule as planned by the Nominations & Appointments Committee:

- March: Notification of Timing
- August: Call for officer ballot names
- September: Build this year's Ballot
- October: Elections (Electronic)
- November: Compile Results
- December: Report Results

That last 'Report Results' is to the Section Executive Committee so that they may 'validate' the results.

Nominations for election to posts at the Section and each Geo-unit (Chapter and Affinity Group) will be open in August. Watch for the e-notice and the article that will appear in the July Wavelengths Newsletter.

If you are interested in exploring your options for participation as an Elected Officer in the Section, contact the current officer in that position and discuss the duties and functions of the office with them. They will be the people in the Section with the most up-to-date knowledge of the requirements.

2018 SEM Vacancies:

Anyone who has downloaded the PDF IEEE SEM Organizational Roster and reviewed it will have noted the management office titles, with blank, yellow highlighted areas where a name should be. These are <u>vacancies</u> in the lineup of officers.

This happens when officers leave the Section, move up to other IEEE management positions, receive work

assignments that take them out of the Section for extended periods, or retire and move to Tahiti.

If you haven't looked at the roster lately, it is Located in the IEEE Southeastern Michigan website at: http://sites.ieee.org/sem/

Under the TAB titled "About SEM" use the button: "Organization Roster" to download the PDF version of the current Roster.

(Note: It is also a good idea to download the <u>Organization</u> <u>Org Chart</u> as well in order to get the complete 'big picture' of the Section.)

With a 'large' Section such as ours, it is not uncommon to find the officer corps in a constant state of 'churn' with officers moving around, and the need for new officers to take their place a constant factor. With 16 committees and sub-committees, 17 technical Chapters, 4 Affinity Groups and 8 Student Branches the total roster holds 247 identified officer positions.

That seems like a large organization, and it is, but it also presents our members with many volunteer opportunities to grow their capabilities through the experience of working with leaders who can guide and nurture engineering talent and widen the scope of volunteering through 'hands on' training in those 'soft skills' that can only be mastered by 'doing.'

We frequently sent out eNotices asking for volunteers to consider volunteering for specific positions. However, that is not the only way to become active and begin to train for management functions. Reviewing the roster and noting areas that interest you can present opportunities to begin your management training experience.

I often refer to learning the non-technical (management) side of an engineering career as similar to learning to play a musical instrument, or a sport, or how to dance. You can read all the books you want but, you only really learn by doing. Starting by volunteering to fill a vacant Treasurer's position, or a Secretary position can begin a training experience unmatched by any management course in a university.

If you notice a vacancy where you might be interested in contributing to fill that role, contact the relevant 'Chair' in that organization and discuss the duties of the office.

As with all others, the road to this learning begins with the first step. That step is inquiring and finding out what skills go with each position. That information is maintained in the IEEE Center for Leadership Excellence at: https://ieee-elearning.org/CLE/

Good luck!

Science-Fair Judges

IEEE-SEM MEMBERS NEEDED AS SCIENCE FAIR JUDGES

By Don C. Bramlett, PE, SMIEEE, 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 61st Annual Science and Engineering Fair of Metropolitan Detroit (SEFMD). This is the 23rd straight year that IEEE-SEM has provided judges and sponsored professional awards projects associated with electrical, electronics, computer engineering and IEEE related fields.

Judging will be on Wednesday March 14, 2018 at the Science Fair, located at Cobo Hall in downtown Detroit. The Science Fair will be in the Oakland Hall this year on the Concourse Level or Street Level. Please plan your arrival for between 7:45 and 8:30 AM at the Science Fair, to enjoy some free coffee and muffins. We will be near the Professional Awards Judging Desk (front of hall near the muffins and coffee); bypass the normal judge check-in as you enter the front of the Oakland Hall.

As last year, IEEE-SEM plans to provide judging for both the Junior (5th - 7th grade) Division and the Senior (High School) Division. It is anticipated that the IEEE-SEM awards judging will start at 8:30 AM and be completed by 11:30 AM. IEEE-SEM will tentatively make two Grand Awards, including framed certificates and cash prizes, and several Outstanding Achievement Awards, consisting of framed certificates.

There has been a major change in the categories of projects. There is no longer simple Engineering,

Computer Science, and Physics categories. 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: Energy: Chemical, Physical, Embedded Systems, etc. There are also a larger than normal number of team projects. Beside schools in Wayne, Oakland and Macomb counties, schools in Lenawee, Livingston, Monroe 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

be rather small. We will then form one team of judges to evaluate at a greater depth the selected 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, 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 mγ e-mail address d.bramlett@ieee.org.

We look forward to seeing you



2017 Main Exhibit Area.

The planned routine will be to separate into small groups at first and quickly roam assigned sections of the project displays to identify those projects related to electrical. electronics and computer engineering that are worthy of further review by the panel of IEEE-SEM judges. It is anticipated that the number of relevant projects will

Wednesday, March 14 at the Science Fair at Cobo Hall. Parking is available at the Cobo Hall Roof Parking site.

Free coffee and muffins are available in the morning.

Future Cities –Reprise

Future City Judging 2018

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

The annual, national Future City Competition is a STEM preuniversity program for 6th, 7th and 8th grade students. The national Future City Competition judging is held at the National Building Museum in Washington DC during National Engineers Week in late February. It is preceded by state/regional competitions, the winners of which compete in the national competition.





Judging for the Michigan Regional Future City Competition was conducted on Monday, January 22, 2018. This year there were 35 middle school projects submitted for judging in the competition held at the Suburban Collection Showplace in Novi.

The overall competition judging is based on how the student team addressed several project elements. The student team, composed of at least 3 members, is supported by a teacher and an engineer mentor. The "SimCity" computer program is used as a basis for the design of the city. One element for judging is an essay on a defined specific subject to be

addressed in the city design; this year the subject was providing accessibility and aids for the elderly and disabled. Another element for judging was a 3-D scale model of a section of the city built with excess materials having a value less than \$100. The final important element for judging is a less than 3 minute oral project presentation on the design merits of the city by three student team members to a group of adult judges.

For the 18th straight year the IEEE Southeastern Michigan (IEEE-SEM) Section has provided a team of volunteer professional award judges to evaluate the student projects and award the Electro-Technology Award to the project that best demonstrates features associated with IEEE related fields of interests. The Section would like to express its appreciation to the **IEEE-SEM** members who volunteered to be members of the IEEE professional organization judging team.

The team of judges included Charles Cohen, Ph.D; Laurence

Dishman; Bill Quinlan; Don Bramlett, PE; Kimball Williams and David Morris, Ph.D.

The IEEE-SEM team of judges awarded the Electro-Technology Award to a team of students from Trinity Lutheran School in Utica. The three student presenters were all sixth graders; Andrew Miller, Josh Byers and Merina Diaz. The student team was supported by their teacher, Loren Sheppard, and an engineering mentor, Chris Miller, who work for PMP Developers.

The name of the future city was Josea Island, which was 100 miles of the coast of California in the Cortes Bank. Josea Island had a population of 64,792 and was designed for the year 2164 AD.

The future city had a number of elements that were characteristic of the essay subject of accessibility and aids for the elderly and disabled. They provided J-bots, which were robots to help in providina transportation, vacuuming, communications, and pill dispensing. The city had a world renowned university hospital specializing in geriatric care, communal gardens and single level ranch type homes.



The future city had multiple sources of electric power, including solar panels, windmills, water turbines and high capacity storage on the island. For transportation the city J-bots for individual had autonobus transportation, an local system for mass transportation, and a high speed train system to go to the mainland.

The St. John Lutheran School team from Rochester won the local Michigan Regional Future City Competition and will represent Michigan in the national competition. The Trinity Lutheran School took third place in the local competition.

All involved students, parents, teachers, mentors, judges, and

staff had great time and look forward to next year.

Future Cities – 2018
Electro technology award from IEEE - Trinity Lutheran School, Team 2, Utica.

Competition

First Place - St. John Lutheran School, Rochester

Second Place - St. Valentine Catholic School, Redford

Third Place - Trinity Lutheran School, Team 2, Utica

Fourth Place - Geisler Middle School, Walled Lake

Fifth Place - Navigator Upper Elementary, Pinckney

This Month in March

Or: Notable Events in History, which I Did Not Know! ©

March 1st, 1880 – date of birth for <u>Sir Isaac Shoenberg</u>. Russian-Born British electrical engineer and principal inventor of the first high-definition television system, as used by the British Broadcasting Corporation (BBC) for the world's first public high-definition telecast (from London, 1936). He had installed the first radio stations in Russia before moving to England in 1914. He was head of a research group for Electrical and Musical Industries (EMI) that developed (1931-35) an advanced kind of camera tube (the Emitron) and a relatively efficient hard-vacuum cathode-ray tube for the television receiver. Until 1964 the BBC used his technical standard proposal - 405 scanning lines and 25 pictures a second. He was director of EMI from 1955. His youngest son, David Shoenberg, became a noted physicist.

March 7th, 1958 – <u>Alan Hale</u> is born. He is an American astronomer and writer who co-discovered the Comet Hale-Bopp (1995). After service in the navy, he worked at the Jet Propulsion Laboratory (1983-86) as an engineering contractor on several projects, including Voyager II. After earning a Ph.D. in astronomy, he founded the Southwest Institute for Space Research (now named the Earthrise Institute). His interests include near-Earth objects and their possible impact on Earth, and the search for planets outside our solar system. He advocates for improved science literacy in society, and better career opportunities for graduating scientists. Hale is also active in developing international collaboration for observational projects.

March 11^h, 1890 – <u>Vannevar Bush</u> is born. American electrical engineer who oversaw the massive government mobilization of scientific research during World War II. At the age of 35, in 1925, he developed the differential analyzer, the world's first analog computer. It was capable of solving differential equations. The modern day NSF was direct result of the lineage established by him. During the war, numerous history changing projects were championed and guided by him such as the proximity fuse and the Manhattan project.

March 25th, 1883 – (Henry Charles) later Fleeming Jenkin is born. He was a British engineer noted for his work in establishing units of electrical measurement. After earning an M.A. (1851), he worked for the next 10 years with engineering firms engaged in the design and manufacture of submarine telegraph cables and equipment for laying them. In 1861 his friend William Thomson (later Lord Kelvin) procured Jenkin's appointment as reporter for the Committee of Electrical Standards of the British Association for the Advancement of Science. He helped compile and publish reports that established the ohm as the absolute unit of electrical resistance and described methods for precise resistance measurements.

March 27th, 1855 – <u>Sir Alfred Ewing</u>'s official date of birth. He was a Scottish physicist who discovered and named hysteresis (1881), the resistance of magnetic materials to change in magnetic force. Ewing was born and educated in Dundee and studied engineering on a scholarship at Edinburgh University. He helped Sir William Thomson, later Lord Kelvin in a cable laying project. In 1878 he became professor of Mechanical Engineering and Physics at Tokyo University, where he devised instruments for measuring earthquakes. In 1903 he moved to the Admiralty as head of education and training, where during WW I, he and his staff took on the task of deciphering coded messages.

March 29th, 1853 – <u>Elihu Thomson</u>, an English-American engineer and inventor whose discoveries in the field of alternating current phenomena led to the development of successful alternating current motors. Thomson invented electric welding and other important inventions in electric lighting and power among his lifetime total of about 700 patents. Thomson was also a cofounder of the General Electric Company (in 1892, in a merger with the Edison Company) industry.

Readers are invited to share any *major engineering* event or milestones that they are aware of that occurred in January, next issue. Submissions can be made using direct email to the editors at: wavelengths@ieee-sem.org

Sharan Kalwani

Associate Editor, Wavelengths, Vice-Chair, Chapter 5 (Computer Society), Chair, Chapter 13 (Education Society), PACE Engineering History Buff/Aficionado

ESD Gold Awards



AWARD RECEPTION & RECOGNITION 2018

Join the ESD Affiliated Technical
Societies as we come together to
honor and recognize our leaders –
engineers, scientists and technical
professionals who have distinguished
themselves through outstanding
achievement and service within their
respective Societies.

Hosted by The Engineering Society of Detroit and its Affiliate Council, the event will feature this year's Gold Award winner. This award is given to an individual who is collectively upheld by the council for his or her outstanding contributions to the fields of science and engineering.

PROGRAM ·

Wednesday, March 21, 2018

American Polish Cultural Center

2975 E. Maple Road, Troy, MI 48083

6:00 PM

Reception

7:15 PM

Awards Program

O COST COST

\$50 per person if registered by February 15, 2018;

\$65 if registering February 16 - March 9, 2018.

Five reservations or more: **\$45** per person through February 15, 2018.

Please register by March 9, 2018; late registrations will only be accepted if space is available.

Cost includes:

A variety of hors d'oeuvre stations, beer and wine.









Register online at www.esd.org or by phone at 248.353.0735

ORG UNITS cheat sheet

Consultants Network Affinity Group: (CN40035) Life Members: Young Professionals: Women in Engineering: Chapter: 01 (SP01) Signal Processing Society,	Section Unit Name or Affin	ity Group	or Chapter Name (Organizational Unit is in parentheses)				
Young Professionals: Women in Engineering: Chapter: 01 (SP01) Signal Processing Society,	Consultants Network A	Affinity	Group: (CN40035)				
Women in Engineering: Chapter: 01 (SP01) Signal Processing Society,	Life Members:						
Chapter: 01 (SP01) Signal Processing Society,	Young Professionals:						
(CAS04) Circuits and Systems Society and (IT12) Information Theory Society Chapter: 02 (VT06) Vehicular Technology Society Chapter: 03 (ABS10) Aerospace and Electronic Systems Society and (COM19) Communications Society Chapter: 04 "Trident" (AP03) Antennas and Propagation Society, (ED15) Electron Devices Society, (MTT17) Microwave Theory and Techniques Society, (MTT17) Microwave Theory and Techniques Society, (Chapter: 05 (C16) Computer Society Chapter: 06 (GRS29) Geosciences and Remote Sensing Society Chapter: 07 (PB31) Power Engineering Society, (IA34) Industrial Applications Society Chapter: 08 "EMC" (EMC27) Electromagnetic Compatibility Society Chapter: 09 (IE13) Industrial Electronics Society, (PEL35) Power Electronics Society Chapter: 10 (TEM14) Technology and Engineering Management Society Chapter: 11 (EMB18) Engineering in Medicine & Biology Chapter: 12 (CS23) Control Systems Society Chapter: 13 (E25) Education Society Chapter: 14 (RA24) Robotics And Automation Society Chapter: 15 (NPS05) Nuclear Plasma Sciences Society Chapter: 16 (CIS11) Computational Intelligence Society Chapter: 17 (NAN042) Nanotechnology Council Section Unit Name or Affinity Group or Chapter Name (Organizational Unit is in parentheses) University of Detroit-Mercy: (STB01311) Wayne State University: (STB01121) Wayne State University: (STB01251) Lawrence Technological University: (STB0741) Eastern Michigan University: (STB06741) Eastern Michigan University: (STB06741)	Women in Engineering:						
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Curated & Formatted By Sharan Kalwani, Associate Editor, Wavelengths, 2017-2018

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.

SEM e-Wavelengths:

www.e-wavelengths.org

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://sites.ieee.org/sem/

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

SEM Web Meetings:

http://sites.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/

Other Happenings

However, since IEEE members tend to have eclectic interests, we want to give everyone a heads up for some of the non-IEEE events that may be of interest.

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.

Send the particulars to wavelengths@ieee-sem.org

OR

anyone of the following....

k.williams@ieee.org karen.burnham@ieee.org sharan.kalwani@ieee.org

An announcement may be placed in the newsletter.

Links:

Michigan Institute for Plasma Science and Engineering:

Seminars for the 2017-2018 academic vear:

http://mipse.umich.edu/about/seminars.htm.

Below are links to local SEM Clubs engaged in technical hobbies as well as links to sites that may be useful for locating clubs in the area.

XXXXXXXXXXXXXXXXXXXXX

Amateur Radio Clubs in Southeastern Michigan

(This is a fairly comprehensive listing of all the 'Ham' clubs in SEM.) http://www.wa2hom.org/ham-radio-

clubs-in-se-michigan/

Model RC Aircraft

http://www.skymasters.org/

Model Rocketry

http://team1.org/

Astronomy

http://www.go-

<u>astronomy.com/astro-clubs-</u> state.php?State=MI

Experimental Aircraft Association

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

Robots

http://therobotgarage.com/aboutus.aspx

Science Fiction Conventions

http://www.conclavesf.net/

https://2018.penguicon.org/

http://2018.confusionsf.org/

Mad Science

http://www.madscience.org/

ESD PE Review Class

www.esd.org

Maker Faire:

http://www.thehenryford.org/events/makerFaire.aspx

Executive Committee

The SEM Executive Committee is the primary coordination unit for Southeastern Michigan (SEM) IEEE operations. The basic organization chart below shows the 2017 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://sites.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 Eric George, the section secretary at:

<u>eric.george.us@ieee.org</u> 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:

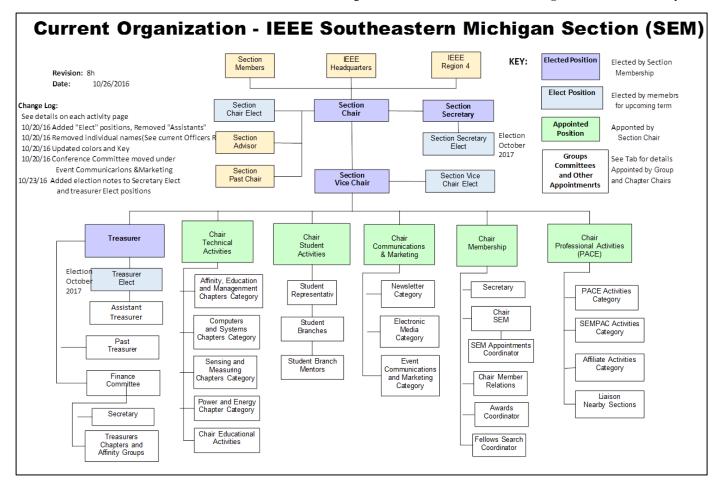
About half of our members maintain memberships in one or more of the IEEE technical societies, which automatically makes them members of the local chapter which is affiliated with that society. As a result, they should receive notices of the local chapter meetings each month.

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 by using the IEEE meetings site. This may be found through the IEEE SEM Website: http://sites.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.

Eric George - SEM Ast. Secretary



Download the <u>complete SEM Organization Chart</u>, in PDF format, from the SEM Website at: <u>www.ieee-sem.com</u> Then, click on "<u>About SEM</u>" Tab, followed by, click on "<u>Current Officers</u>" (NOTE: this is now password protected)

ExCom Meeting Schedule:

Below is the 2018 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 the meetings. Information on each Face to Face Meeting will be sent out once the venue is confirmed.

Please mark your calendars for the 2018 meetings. Or, link your personal calendar to the SEM Web calendar.

March 7, Wednesday, Teleconference (online only), 12:00 – 1:00 PM, https://meetings.vtools.ieee.org/m/49030

April 5, Thursday, F2F (In person meeting), 5:30 – 7:00 P.M., https://meetings.vtools.ieee.org/m/49031

May 2, Wednesday, Teleconference (online only), 12:00 – 1:00 PM, https://meetings.vtools.ieee.org/m/49032

June 7, Thursday, Teleconference (online only), 12:00 – 1:00 PM, https://meetings.vtools.ieee.org/m/49033

July 11, Wednesday, F2F (In person meeting), 5:30 – 7:00 P.M., https://meetings.vtools.ieee.org/m/49034

August 2, Thursday, Teleconference (online only), 12:00 – 1:00 PM, https://meetings.vtools.ieee.org/m/49035

September 5, Wednesday, Teleconference (online only), 12:00 – 1:00 PM, https://meetings.vtools.ieee.org/m/49036

October 4, Thursday, F2F (In person meeting), 5:30 – 7:00 P.M., https://meetings.vtools.ieee.org/m/49037

November 7, Wednesday, Teleconference (online only), 12:00 – 1:00 PM, https://meetings.vtools.ieee.org/m/49038

December 6, Thursday, Teleconference (online only), 12:00 – 1:00 PM, https://meetings.vtools.ieee.org/m/49039

Eric George SEM Assistant Secretary

<u>Note</u>: <u>All IEEE Members</u> are welcome at any IEEE meeting, at any time but, please register so we can be sure to accommodate you.

Eric George SEM Assistant Secretary

Section Focus:

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

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

Section Mission

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

For the purpose of:

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

Section Goals

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

It is now the task of the section leadership to guide and coach all section officers and elements to focus their activities on achieving those goals.

SEM Monthly Meetings

Scheduled Meetings:

The regular meetings of the SEM Leadership (Executive Committee) are scheduled well in advance to allow everyone to place them in their personal planning calendars, and then defend those dates against encroachment. (*Not always possible*.)

Two types of Monthly meetings are normally scheduled:

Monthly Teleconference / WebEx as well as:

Quarterly Face-to-Face (F2F). See schedule on the page above:

Note: <u>All</u> IEEE meetings are 'Open' for all members to attend.

The only caveat is that you please register using the specific meeting form on the vTools site at:

https://meetings.vtools.ieee.org/main_

Registering will ensure there is sufficient space, refreshments and support for attendees.

Teleconference Schedule (Held from 12-1 p.m.):

F2F Meeting Schedule:

More information for F2F meetings will be emailed to all officers, (and any members requesting the schedule), in a timely manner before the meeting dates.

Contact <u>Eric George</u> the SEM Section Secretary.at: <u>eric.george.us@ieee.org</u> for more information.

Additional information may be found at (http://sites.ieee.org/sem/).

The links to the SEM Facebook or LinkedIn pages on the SEM website may also be checked for updates.

All the normally scheduled meetings of each of the other section chapters, affinity groups etc. are listed each month in the vTools area of our SEM website at:

http://ewh.ieee.org/r4/se_michigan/calendar1.php

The information is for:

Standing Committee Meetings
Affinity Group Meetings
Technical Chapter Meetings
University Student Branch
Meetings
University HKN Chapter Meetings

Calendar Schedule:

Meetings are also announced on the SEM Calendar web page

http://sites.ieee.org/sem/ (Select the "SEM Calendar" button in the top row.)

Note: Often meetings of the Executive Committees of Chapters and Affinity Groups (and standing committees, of course) are listed only in the SEM Calendar page, since it is felt that most members would not wish to sit through administrative meetings.

However, if this type of meeting is just your 'cup of tea', then contact the officers of the unit that is conducting the meeting, and ask to be 'linked' into their teleconference, SKYPE, Google Hangout, or WebEx meeting. They will be happy to have you as a participant.

Many volunteers become interested in section activities when they get a chance to attend a monthly meeting and 'peek under the hood' to find out how the machinery of the section actually runs. It can be a rewarding experience.

Eric George

SEM Section Assistant Secretary. eric.george.us@ieee.org

Editors Corner

Previous editions in this series may be found on the IEEE SEM website at: http://sites.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

k.williams@ieee.org sharan.kalwani@ieee.org jrwwoodyard@gmail.com karen.burnham@ieee.org

We also recommend a cc to the chair of the Communications and Marketing Committee, Ravi Nigam at: ravi.nigam@ieee.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

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 <u>do not be shy</u>. If you have something that should be shared with the rest of the section, we want to give you that opportunity.

Editors:

We are always looking for members interested in helping to edit the newsletter. The process is always more fun with more members to share the duties, and help keep the

newsletter alive and lively by providing alternative points of view.

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

wavelengths@ieee-sem.org anyone of the following:

karen.burnham@ieee.org sharan.kalwani@ieee.org jrwwoodyard@gmail.com k.williams@ieee.org

Wavelengths Annual Publication Plan for Articles

Month	AG's	Ch's	Ch's	SB's	Special Notice	Reporting Events	Monthly Focus	<u>Awards</u>
jan		1		OÜ	Future Cities Judges	Election Results	Resolutions	
Feb	Cons	2		MSU	Science Fair Judges	Officer's Welcome	Surviving Winter	Future Cities
Mar		3	13	EMU	Spring Conf. Flyer	Spring Conference	Spring Conference	Science Fair
Apr		4		U/M-D	National Engrs Wk.	Future Cities	Chapter Focus	ESD - GOLD
May	Life	5	14	>><	Outstanding Eng Awd	Science Fair	Elections - Prep	New Fellows
Jun		6		<u> </u>	IEEE-USA Apmts.	ESD Banquett	Leadership Skills	SEM Awards
Jul		7	15	<u> </u>	Nominations Call	MD-Webcasts	Students Issues	Region 4
Aug	WIE	8		>>< (MGA - Apmts.	Tech-Webinars	Womens Issues	
Sep		9	16	LTU	Region 4 Apmts.	Engineers Day	Professional Skills	
Oct		10		U/M-AA	Fall Conf. Flyer		Fall Conference	
Nov	ΥP	11	17	WSU	ELECTIONS!		Humanitarian	
Dec		12		U/D-M	IEEE-Com Apmts.	Fall Conference	Happy Holidays	

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

← Wavelengths Annual Publication Plan for Personal Profiles



Web & Social Sites

SEM Website

http://sites.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 "I" 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 OfficerSection Officers

Community Section Officers http://sem.oc.ieee.org

Section Officers

Section Chair Robert Neff

Section Secretary Eric George

Section Vice-Chair Nevrus Kaja

Section Treasurer Xinhua Xiao

Standing Committees:

Section Adviser Don Bramlett

Chair Communications & Marketing Ravi Nigam

Chair Educational Activities

Chair Finance Nevrus Kaja

Chair Membership Aisha Yousuf

Chair Nominations & Appointments Kimball Williams

Chair Professional Activities (PACE) Sharan Kalwani

Chair Student Activities Mel Chi

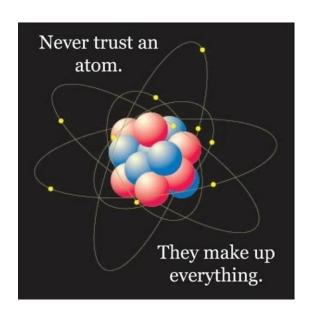
Student Representative

Chair Technical Activities Kimball Williams



IEEE Southeastern Michigan

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



Leadership Meetings

All IEEE members are welcome to join us at any regularly scheduled meeting:

Advertising Rates

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

http://www.ieeesem.org/ewavelengths/?page_id=181.

Please see the information listed on the site, and contact our web editor of e-Wavelengths, Ben Doerr for arrangements.

SEM Executive Committee Monthly Teleconferences:

- 1st Wednesday or Thursday of Each Month @ Noon
- Check the Section Web Calendar at:

http://sites.ieee.org/sem/sem-calendar/
(Select the "SEM Calendar" button in the top row.)

SEM Executive Committee Face-to-Face Meetings:

 1/Qtr. Find the location, and Registration at: https://meetings.vtools.ieee.org/main

SEM Standing Committee Meetings:

SEM Affinity Group Meetings:

SEM Technical Society/Chapter Meetings:

SEM University Student Branch Meetings:

 Meeting schedules are announced on SEM Web Calendar http://sites.ieee.org/sem/

(Select the "SEM Calendar" button in the top row.)

Registration for all at:

https://meetings.vtools.ieee.org/main