



Section Chair's Message



Section Chair's Message:

IEEE at Hurricane Harvey

We have all seen, heard and read of the devastation in Texas caused by Hurricane Harvey. Did you know that IEEE USA is there with the MOVE Truck, a vehicle equipped to provide emergency communications, power and lighting. The truck is manned by volunteers and co-ordinates its activity with the American Red Cross. Because of the interest in this effort IEEE USA is considering building more MOVE trucks. You can learn more and follow their activity by Googling "IEEE Hurricane Harvey".

Sections Congress

I recently returned from Sections Congress in Sydney Australia. This event brings together Section and Region delegates from all over the world to learn more about IEEE, discuss what is going well and what can be done better. A report from our delegates is being prepared but let me leave you with a realization I came away with. "We", yes all of us, have one of the largest, most active, financially stable and best organized sections in the world.

That's huge! Thank you so much to all our volunteers that make this so. There is still room for improvement and we still need more volunteers but please realize by volunteering you are joining one of the top rated Sections.

Committee and Group Charters:

In that room for improvement category, a folder has been created in the On-Line Community called "Active Committee Charters". Please look at your Charter and make sure the wording is up to date and reflects the goals of your committee. If your Charter is missing or out of date, please contact your Chairman and ask him/her to review it. There is a Model Charter in the folder for reference.

Web Site:

The easiest to learn what's going on is at our web site. www.ieee-sem.org

e-Wavelengths:

The close second way to learn what is coming up (besides this newsletter you hold in your hands now) is in the e-Wavelengths. <http://www.e-wavelengths.org/>

Fall Conference:

Save the date and watch for more news. See page #12.

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

Volume 57 – Issue 9

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Welcome to September

The 4th Quarter of the year brings some significant changes, and not only in the weather, (*although, this coming winter season looks to be an especially 'interesting' one.*)

With the return of most students to school (at all levels) we see a surge in IEEE local activities. Many of our officers maintain a killing pace of working for a living, teaching, at least part time, and raising a family. A fair number also have extended families in other countries and they visit them during the summer. From an 'activity' standpoint, the summer is relatively quiet. With the coming of fall, that is about to change.

Meeting Information:

We publish a number of coming event notices in the Wavelengths but, your most up to date and current information may be found on the SEM Website:

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

and on the e-Wavelengths:

<http://www.ieee-sem.org/ewavelengths/>

Both need to be in our 'favorites' places in your internet browser.

Amateur Radio:

Michigan, and especially Southeast Michigan has always been a 'hot-bed' of Amateur Radio Activity, and this is evident from the listing of opportunities in this month's issue. There are 5 class announcements in September. Three are designed to help you get started with your first 'Ham' license. If this was always something you wanted to try, there are opportunities in Ann Arbor, Ferndale and Wyandotte to help get you started.

In addition, notice the flier for the Great Lakes HamCon in October

which will bring a major Amateur Radio convention back to Michigan.

Elections:

This is the time of year when we begin our annual election cycle as announced in our March issue.

September: – assembling the ballots

October: - Conducting the elections 'on line'.

November: Rationalizing the results.

December: Reporting results.

This is an important time to plan to stretch out your capabilities and begin to learn new skills. Within IEEE we consider officer positions to be training and growth opportunities. Each new position allows our members to gain and practice new skills.

See the details on page 5.

Senior Member Round UP:

This year will see our 2nd Senior Member elevation 'Round UP' at LTU. See the details below.

If you are 10 years into your career, it is time to consider making the step up to Senior member status.

This will be a great, and convenient, way to take that step. See the details on page 4.

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Election Volunteers

We are seeking Volunteers for the Section Nomination and Appointments Committee

The Nominations and Appointments Committee is looking for volunteers interested in participating at the Section level to gain experience in IEEE without the requirements of an elected position.

Nominations & Appointments Committee:

The Nominations & Appointments (N&A) Committee is in need of volunteer assistance as we cycle through the yearly election period, assist Affinity Groups and Chapters to fill elected and appointed position vacancies as they occur throughout the year, and help members find Committee positions to allow them grow among the many Section level standing committees.

There is one restriction on Nominations and Appointments Committee members.

No N&A Committee member may also hold an elected office.

This prevents any possible conflict of interest or even the perception of such conflict.

Rewards:

As an N&A committee member you will have an opportunity to interact with many members and all of the Standing Committees and the Executive Committee to gain an overview of the entire Section and its activities.

If you are interested in looking more closely at Section operations and getting a chance to 'lift the hood' and see what goes on in the machinery of governance of the Section, please contact us:

Kimball Williams
k.williams@ieee.org

ZF Opportunities:

A recruitment advertisement for ZF. The background is a photograph of a man in a light blue polo shirt working on a car's interior. Overlaid on the image is a large, stylized graphic of the text "WHAT'S NEXT?" in white, with "NEXT?" being significantly larger. Below this, the text "JOIN ZF" is written in white, with a white arrow pointing from the "N" in "NEXT?" down to the "Z" in "ZF". In the top center, there is a blue square logo with a white circle inside, containing the letters "ZF" in white. At the bottom, there is a white text box with the following text: "WORK AT THE FOREFRONT OF AUTOMOTIVE INNOVATION WITH ZF, ONE OF THE WORLD'S LEADING AUTOMOTIVE SUPPLIERS. ZF.COM/CAREERS". The entire advertisement is framed by a blue border.

**WHAT'S
NEXT?**

JOIN ZF

**WORK AT THE FOREFRONT OF AUTOMOTIVE INNOVATION WITH ZF,
ONE OF THE WORLD'S LEADING AUTOMOTIVE SUPPLIERS.
ZF.COM/CAREERS**

Senior Round UP:**IEEE SEM SENIOR MEMBER 'ROUNDUP' & NETWORKING AT LTU****Senior Member “Round Up”:**

IEEE Southeastern Michigan Section Membership Committee will reprise its Senior Member Round up event, at Lawrence Technical University (LTU) on September 23rd, 2017 between 9 AM and Noon in the University Technology and Learning Center (UTLC on the map) - Gallery.

**Elevation:**

Senior Member Reviewers will assist interested member candidates with at least 10 years of experience in their profession. At least ten years of significant experience with BS degree needs to be established to initiate the senior membership elevation. (A Ph.D. is considered to be 5 years of significant experience and a master degree is considered to be 2 years of significant experience. The remaining 5 (with PhD) to 8 (with MS degree) years of significant experience should be established from the member experience in his profession to initiate and submit applications for Senior Member Elevation.)

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

To sign up for "Elevation" Time Slot, please [register on this site](https://events.vtools.ieee.org/m/46241) for the event and bring your resume,.... { <https://events.vtools.ieee.org/m/46241> }

Networking:

We will invite the LTU IEEE Student and IEEE KHN Branches to join us. Bringing Senior members of the Section and LTU Student members together should create a wonderful opportunity for cross-generation networking.

- * We recommend that attendees park in Lot A – off of Ten Mile Road.
- * UTLC is #9 on the printable campus map: (<http://www.ltu.edu/map/LTU-Campus-Map.pdf>)

IEEE Signs will direct you to the Gallery from the central entrance of the UTLC.

SEM Officer Elections

Officer Nominations are here for 2017 IEEE Southeastern Michigan Section!

The survey site used to nominate member for a place on the ballot 'open' on or about September 5, 2017 and close on or about September 30, 2017. Details of these processes and options are provided below. **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.

We are now in our 2nd 'Transition' year as we move from electing new officers for the Section Executive Committee each year to the election of 'Elect' positions for all the ExCom officers (Chair, Vice-Chair, Secretary and Treasurer). The 'Elect' position provides for the election of new officers one year ahead of their taking office and assuming their duties. This will accomplish 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 will allow 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. 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 will give 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. (See below:)

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 in which we elect our Section Chair and Vice-Chair is separate years from our Secretary and Treasurer, this year will be an 'interesting' variation on the election process as we introduce the new 'elect' position.

Elections in 2017. This year we will hold elections for the following Section level Officers:

Secretary & Treasurer. To begin serving two year terms in 2019.

Thereafter, each year we will select 'elect' officers alternating between Chair & V-Chair and Secretary & Treasurer, every other year. This will provide overlap with experienced and 'in training' officers to ensure greater continuity of operations and the fulfillment of long term programs and projects. *(Of course, we also look for the immediate 'past' officer to remain active and help 'coach' the entire team.)*

	2016	2017	2018	2019	2020	2021	2022	2023
chair	S0	S0	S1	S1	S2	S2	S3	S3
Ch-Elect	E1	Train	E2	Train	E3	Train	E4	Train
V-Chair	S0	S0	S1	S1	S2	S2	S3	S3
V-Ch-Elect	E1	Train	E2	Train	E3	Train	E4	Train
Secretary	S0	S0	S0	S1	S1	S2	S2	S3
Sec-Elect		E1	Train	E2	Train	E3	Train	E4
Treasurer	S0	S0	S0	S1	S1	S2	S2	S3
Treas-Elect		E1	Train	E2	Train	E3	Train	E4

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. *(They are probably wisely watching the ExCom to see how this experiment plays out.)*

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 plan for the election schedule for 2017 is as follows:

- August: Advise members of the election schedule and options.
- September: Open the option for candidates for nomination (self-nominated or 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. Also see the SEM Organization Roster posted in the SEM Website for details of each committee.

http://sites.ieee.org/sem/files/2017/08/Organization_Roster_1EEE_SEM_8.28.2017.pdf

Kimball Williams
k.williams@ieee.org
Chair: N&A Committee.

Chapter 2 Report:

The Vehicular Technology Society (IEEE SEM Chapter 2) has been undergoing a reset/restart year in 2017. We had two meetings for the membership with one being a technical meeting. We were also able to sponsor two presenters for the IEEE SEM Spring Conference as well as counting the Butzel Long Car Symposium as a technical meeting on June 2.

Our first meeting in February focused on determining our mission within the IEEE SEM Section. After a brainstorming session, our chapter membership concluded that our VTS Chapter 2 Mission is “To Investigate Technologies that facilitate future vehicles. The technologies include:

Autonomous
LIDAR
V2V
Hydrogen Fuel Cells
Infotainment
Cyber Security
Emissions
Clean Technologies
Computer Vision

Regulations and Laws
Designer Liabilities
User Interface to Vehicles
V2X

- User to Vehicle
- User to Stationary

Our next meeting is Sep 12 and we have been working to get a guest speaker for that meeting. Thus far we have not been able to complete that goal. In November, we expect to have a presentation from Dr. Yue-Yun Wang on “48V Mild Hybrid Vehicle Systems: Modeling, Control and Energy Management Strategy.”

Our Leadership Team:

Larry Baczkowski - Chair
Shashank Kamthan - Vice Chair
Jennifer Dukarski - Treasurer
Gene Saltzberg - Secretary

Maker Faire 2017

Each year, thousands of people descend on the Henry Ford museum for a weekend of DIY (do it yourself) awesomeness, taking over the whole interior of the museum plus all the outdoor areas behind it.

Detroit's Maker Faire has become one of the stand-out events of its kind nationwide. Celebrating its eighth year and sponsored by GE Digital, you could find anything from robotics to knitting in this annual celebration of the creative impulse. From their website:

"Maker Faire is a gathering of fascinating, curious people who enjoy learning and who love sharing what they can do. From engineers to artists to scientists to crafters, Maker Faire is a venue for these "makers" to show hobbies, experiments, projects.

We call it the Greatest Show (& Tell) on Earth - a family-friendly showcase of invention, creativity, and resourcefulness.

Glimpse the future and get inspired!"

Some people bring stand-alone robots, such as the "Artoo Deco" bot (made and operated by Kurt Zimmerman) and the dragon robot pictured here--these often attracted hordes of children following them around like artificial Pied Pipers of Hamlin. Other people bring costumes--from almost every Star Wars character imaginable (the 501st Legion was well represented) to homegrown flights of fancy. There were bicycles to ride that

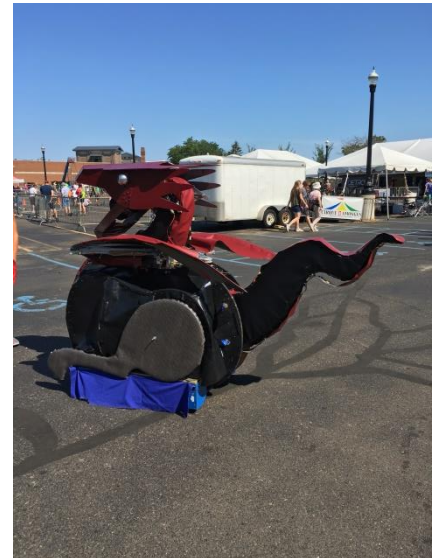
aren't like any you've ridden before--bicycles that steered like unicycles and tandem bikes less than two feet high, and then huge two wheeled contraptions where you sit in a seat swinging between the two wheels (a long line for those). And that doesn't even count the more artistic bicycles on display (not for riding).

Just looking around was enough to spark inspiration--from model trains to soccer-playing robots to robotic color-changing jellyfish to fire breathing metal dragons. If you wanted to learn the skills needed to transform ideas into reality, the Boy Scouts were there to teach soldering, carpenters on hand to show you how to make a bird house, the Tech Shop was there with their infinite variety, and others taught needlework, programming, and all other sorts of skills. Unlike a typical fair where booths exist for vendors to exhibit their wares, the majority of spaces at Maker Faire involved some kind of interactive component--learning to do or make some particular useful thing, or learning to operate or play with the



particular item on display.

Maker Faire is an event that brings engineers together with artists,



crafters, kids, and the general public. It's for people who want to know how and why things work, not just buy things that work, and who want to play with things themselves to come up with something new.

Next year the event will be on the weekend of July 28-29, 2018, still at the Henry Ford in Dearborn, MI.

Karen Burnham
Associate Editor

Chapter 5 Report:

IEEE South East Michigan Computer Society Chapter is one of the largest societies in SEM section. There is much activity happening in this society every month.

15th Annual Embedded Systems Workshop 2017

IEEE SEM Computer Society and Oakland University are offering one-day (free) workshop on Embedded Systems on Saturday, October 21st, 2017 from 8:30 AM till 4:30 PM EST. This workshop is open to all engineers and students. The aim is to disseminate knowledge, directly benefitting the IEEE members, at the same time improve the technology skills pool, indirectly boosting the Michigan economy. Speakers and experts from embedded systems industry will be making presentations, and will also be available for discussions and networking throughout the day. In addition to the technical presentations, there will be industry information display and professional recruitment tables. You can confirm your participation by registering on the IEEE events website at:

events.vtools.ieee.org/m/45108

A flyer is attached to in this newsletter regarding this embedded systems workshop. See Page #10

ESW 2017 Program & Organizing Committee consists of Subra Ganesan (Chair), Sharan Kalwani, Ashok Prajapati, Rama Gottumukkula, Dheeraj Patel, and Ben Sweet. For any questions regarding this workshop please contact Program Committee at: esw2017@ieee-sem.org

Upcoming Technical Meetings

Chapter 5 is holding another technical meeting on “Model

Predictive Control Using Physics-based Models for Advanced Battery Management“ on 19th September, 2017 from 6:30 PM to 8 PM EST at the main Auditorium, Altair Engineering, 1820 Big Beaver Road, Troy, MI 48128.

The speaker is Professor Scott Trimboli is an Assistant Professor of Electrical and Computer Engineering at the University of Colorado (UCCS) and is a former Director of the Center for Space Studies (CSS) in the National Institute of Space, Science and Security Centers (NISSSC). His research is conducted in collaboration with Professor Gregory Plett where the focus is on development of control strategies for the management of high capacity battery systems such as found in electric vehicles.

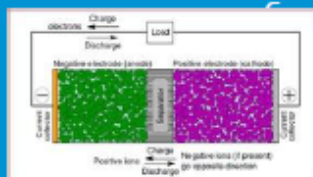
He is currently the UCCS Principal Investigator (PI) of a multi-year program with the Office of Naval research (ONR) headed by Utah State University. This event should be of interest to all of the local engineering community as it pertains to the modern day electric vehicle and related technologies. Checkout the flyer on page #8. Please register to this technical meeting at:

events.vtools.ieee.org/m/46290.

On October 10th (or 11th), we will be hosting Dr. Fawzi Behmann, who is a national expert on 5G and IOT. This talk will be held at Oakland University. Look for the eNotice and vtools announcement in the next edition of the Wavelengths newsletter. Also planned are technical talks on JavaScript, Python and Kotlin. We are already planning 2018 topics, so feel free to contact us with ideas & suggestions.

*Rama Gottumukkula,
Secretary, Chapter 5*

Battery Tech Talk:

IEEE Computer Society (SE Michigan Chapter)
Presents*Model Predictive Control using Physics-based Models
for Advanced Battery Management*

Date:
19th September 2017

Time:
6:30 PM to 8 PM (EDT)

Location:
Main Auditorium
Altair Engineering
1820 East Big Beaver Road,
Troy, MI 48083

Space is limited
To reserve your seat,
please RSVP at
events.vtools.ieee.org/m/46290

For clarifications contact:
Sharan Kalwani at
sharan.kalwani@ieee.org
Phone: (248) 980-UNIX

For details, please visit:
<http://sites.ieee.org/sem/>

We are grateful to Altair Engineering, for hosting this technical presentation and providing the space

Abstract

Physics-based models (PBM) of lithium-ion batteries can describe internal cell behavior with surprising accuracy. Recent advances in subspace-based model-order reduction enable these often highly complex, nonlinear electrochemical models to be rendered into forms no more demanding than familiar equivalent circuit models, and therefore make them candidates for embedded battery management schemes.

Model predictive control (MPC) has recently emerged as an effective real-time control strategy that employs a 'look-ahead' approach. This makes MPC particularly appealing for advanced battery management, where safety, lifetime and improved performance are key.

This presentation will review reduced-order modeling and illustrate the potential improvements in that may be achieved by combining reduced-order PBM's of lithium-ion cells with an MPC strategy.

Speaker Biography

Professor Trimboli is Assistant Professor of Electrical and Computer Engineering at the University of Colorado, Colorado Springs (UCCS) and is former Director of the Center for Space Studies (CSS) in the National Institute of Space, Science and Security Centers (NISSSC).

His research is conducted in collaboration with Prof.

Gregory Plett where the focus is on development of control strategies for the management of high-capacity battery systems such as found in electric vehicles. He is currently UCCS principal investigator (PI) of a multi-year program with the Office of Naval Research (ONR) headed by Utah State University.



ESW2017 Announcement

Embedded Systems Workshop 2017 Announcement

The 15th Annual IEEE Embedded System Workshop is planned on October 21, 2017, 8:30 AM to 4:30 PM (Saturday), at Hannah Hall – Room 190, Oakland University, Rochester, Michigan 48309

IEEE South East Michigan Computer Society (aka Chapter 5), and Oakland University are offering a one-day workshop on Embedded Systems from 8:30 am to 4:30 pm, Saturday October 21st, 2017. This is a **free** workshop open to all engineers, students and this is the 15th year of this annual workshop.

The aim of this workshop is to disseminate knowledge, which will directly benefit the IEEE members and indirectly **improve the technology expertise and the Michigan economy**. Speakers and experts from the wide spectrum embedded systems industry will be making presentations, and also be available for discussions, networking throughout the day.

Please be sure to share as much as possible about this event in your organization for maximum participation in this workshop. In addition to the presentations, there will be vendor display tables and recruitment tables. We encourage all IEEE members to use this opportunity to interact & network with fellow professionals & engineers.

Please confirm your participation by **registering** on the IEEE vTools site, which will be available to all.

Lunch will be provided, courtesy of the various sponsors, supporters and conference well-wishers.

When responding, please indicate *your lunch preference: turkey, chicken or vegetarian sandwich*. Coffee/tea, snacks, water, juice and snacks will be provided during the breaks.

For Technical questions, feel free to contact:

Prof. Subra Ganesan at:
ganesan@oakland.edu; by
phone: (248) 370 2206

or
Sharan Kalwani at:
sharan.kalwani@ieee.org ; by
phone: (248) 980-UNIX

We have also set up a general email for questions that attendees or presenters may have:

esw2017@ieee-sem.org

The link for registering is located at

events.vtools.ieee.org/m/45108

Register and attend for a chance to win multiple door prizes (Books/Boards/T-shirts/gifts)

A Certificate of Attendance will be available for participants who preregistration and attend the full event.





Embedded Systems Workshop 2017

October 21, 2017, 8:30 a.m. to 4:30 p.m. (Saturday)

Room 190 - Hannah Hall, Oakland University
Rochester, Michigan 48309

IEEE South East Michigan Computer Chapter and Oakland University are offering a one-day (**free**) workshop on Embedded Systems on Saturday, October 21st, 2017. This workshop is open to all engineers and students. This is the 15th year that the event is being held.

The aim is to disseminate knowledge, directly benefitting the IEEE members, at the same time **improve the technology skills pool, indirectly boosting the Michigan economy**. Speakers and experts from the embedded systems industry will be making presentations, and will also be available for discussions and networking throughout the day. In addition to the technical presentations, there will be industry information display and professional recruitment tables. Use this opportunity for networking with other engineers, industry experts and embedded enthusiasts.

Please confirm your participation by registering on the IEEE events web site:

<https://events.vtools.ieee.org/m/45108>

Venue: Room 190, Hannah Hall, 244 Meadow Brook Rd, Oakland University, Rochester, MI 48309



Directions to Oakland University: Take Exit 79 East on the I-75 freeway. You will find the university within a mile. Parking is free. Look for Hannah Hall Room 190. Alternatively enter via Pioneer Blvd from Squirrel Road, just south of University Avenue.

Industry sponsors: Vector CANtech, ETAS, NVIDIA, Intrepid Control Systems, Xilinx and many others

Vendor tables with demos, technical booklets, and job recruiting opportunities will be available. There is no cost to attend. A complimentary lunch is provided. Random raffle and door prizes representing the embedded controllers & systems industry will take place. All are welcome. **Do post** this flyer in your workplaces, share/inform your peers & colleagues about this event. It is a great way learn not only what is going on, but network with other professionals as well.

Brought to you by the Computer Society. Do consider choosing to become a member, boost your technical skills, broaden your awareness of compute-based engineering in the region, support numerous similar initiatives & learn other benefits this brings.

Open to all, however Pre-registration is necessary prior to attending

When responding, please indicate your lunch preference: *turkey, chicken, tuna or vegetarian sandwich*

For Technical questions, contact the Program Committee at: esw2017@ieee-sem.org

A PDH Certificate will be made available for participants who Pre-register and attend the full event.

ESW 2017 Program & Organizing Committee: Subra Ganesan (Chair), Sharan Kalwani, Ashok Prajapati, Rama Gottumukkula, Dheeraj Patel and Ben Sweet

IEEE Southeastern Michigan Section 2017 Fall Conference

November 9, 2017



Ethics in Engineering, Science and Technology

SAVE THE DATE: Thursday, November 9, 2017. 4:30 – 9:30 PM

VENUE: Metro-Detroit Area - STAY TUNED.

THEME: *Ethics in Engineering, Science and Technology (ETHICS 2017).*

PROGRAM:

- Modern engineering ethics and ethical standards, and
- Their impact on our lives, careers, profession and society.

SPEAKERS: ETHICS 2017 will host an impressive range of topics and invited speakers, including a panel forum, and dinner reception which will facilitate an exchange of experience and perspectives on many levels.

FURTHER INFORMATION: For further information, please contact the Conference Chair, Philip Hall at philip.hall@ieee.org .

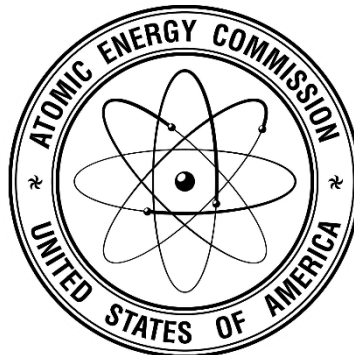
Fermilab @ 50**Fermilab is turning 50! A little history:**

Fermilab—originally called the National Accelerator Laboratory—began operations in Illinois on June 15, 1967. The lab was built on 6,800 acres of land near the town of Batavia, Illinois, on a site that included the buildings of a small housing development named Weston. Fermilab's first big machine, a particle accelerator about four miles in circumference called the Main Ring, paved the way to the construction of the world's most powerful particle collider, the Tevatron.



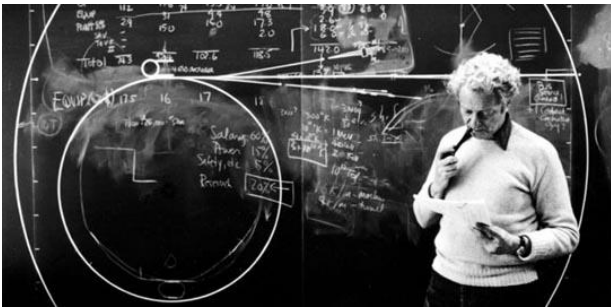
The Tevatron Accelerator Ring

Today Fermilab is one of 17 national laboratories of the U.S. Department of Energy. It is America's premier laboratory for particle physics research and houses seven particle accelerators that provide beam for numerous experiments and R&D projects. It is the future home of the Long-Baseline Neutrino Facility, which will power the world's biggest neutrino experiment, the Deep Underground Neutrino Experiment.



Fermilab's origin dates back to a 1963 report by a panel of U.S. scientists led by Norman Ramsey, who recommended the construction of a new, powerful proton accelerator, whose construction and operation would be managed by a group of universities. In 1965, Lawrence Radiation Laboratory in Berkeley, California, completed the design study for such an accelerator. That same year, a group of universities formed the Universities Research Association to run the new lab. When the design study neared completion, the Atomic Energy Commission (the predecessor of the U.S. Department of Energy) began a nationwide site competition to select a location for the new accelerator. The AEC chose Weston, Illinois, on Dec.

7, 1966. Robert Wilson, the energetic director of the Laboratory for Nuclear Studies at Cornell University, accepted the directorship of NAL on Feb. 28, 1967.



On June 15, 1967, Robert Wilson and 17 other employees of NAL, AEC and DUSAF (the architectural and engineering firm responsible for much of the early construction at Fermilab) began their work in Illinois. While the Weston houses were prepared for hosting offices and work space for the new lab, Wilson and his team rented offices on the 10th floor of the Oak Brook Executive Plaza tower in Oak Brook, Illinois. The building was selected for its convenient location between Weston and O'Hare International Airport and gave these pioneers an unobstructed view of the Illinois farmland west of Oak Brook. In January 1968, the NAL staff finished a new design report

partially based on the Berkeley design study that laid out the plan for the laboratory. They moved to the Weston site during September 1968, and the lab broke ground for the accelerator on Dec. 1, 1968.

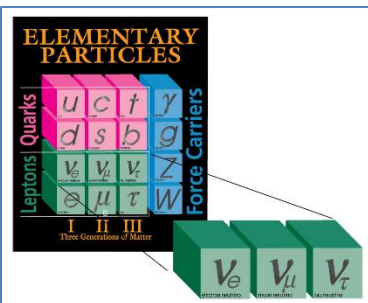
The Fermilab Computer Center



Today, Fermilab employs about 1,800 employees and hosts the second-largest particle accelerator laboratory in the world. Approximately 4,000 scientists from 44 countries use Fermilab and its particle accelerators, detectors and computers for their research. They contribute to the lab's numerous physics experiments, keeping the United States at the leading edge of the international field of particle physics.

1967 marked the birth of Fermilab. That year the lab hired its first employees and began operations in Illinois. To celebrate our 50th anniversary, we are offering numerous events for the public to enjoy, to find out more about our laboratory, and to learn about the research we do to advance humankind's understanding of energy, matter, space and time. Fermilab has an exciting

history of discovery and innovation and has made important contributions to the ultimate goal of understanding how the universe works. And we have ambitious plans for new research projects in the years ahead.



The highlight of 2017 will be the big, free Open House on Saturday, Sept. 23. This free event will be a rare opportunity to see parts of the laboratory that are usually closed to the public. Tours, science demos, and other activities will be available for all ages. See the accompanying flyer in this issue.

A) Standard Physics Model

B) The Big Bang

C) Control Room 1

Fermilab is a very welcoming place, they are happy to invite visitors to tour the laboratory, see the exhibits, take in a show, view their art gallery, enjoy the view from the 15th floor of Wilson Hall and ask a scientist about the universe. The site is open to the public every day of the year, and they also offer many education, arts and visitor programs for the public to enjoy.

Curated by Sharan Kalwani, Associate Editor, Wavelengths, September 2017

Fermilab Flyer

Fermilab Community Open House

September 23, 2017
10:00a.m.–4:00p.m.

- Behind-the-scenes tours!
- Science shows!
- Hands-on experiments!
- Bison!

Learn more and register:
50.fnal.gov/openhouse

FREE
FOR ALL
AGES

OUR BIGGEST
OPEN HOUSE IN
20
YEARS!!

DON'T
MISS!

Questions? Call 630-840-3351



Great Lakes HamCon:



The newest major hamfest in our region will debut **October 7/8, 2017** at Michigan International Speedway. The Great Lakes Ham Convention, GLHamCon for short. It aims to be one of the biggest and best Amateur Radio gatherings in the country.

<http://glhamcon.org/>

Our Mission Statement

Who are we?

Great Lakes HamCon is being organized by the Great Lakes Amateur Radio Association.

GLARA was formed to coordinate the activities of a consortium of local amateur radio clubs interested in supporting an event too large for one club. Proceeds from the Great Lakes HamCon will support amateur radio in the local area.

GLARA is a Michigan non-profit corporation exempt under section 501(c) (3) of the IRS code.

Great Lakes Amateur Radio Association (GLARA) Founding Members

Adrian Amateur Radio Club
 Arrow Communication Association
 Branch County Amateur Radio Club
 Central MI Amateur Radio Club
 Cascades Amateur Radio Society
 General Motors Amateur Radio Club
 Hazel Park Amateur Radio Club
 Hillsdale County Amateur Radio Club
 Livingston Amateur Radio Club
 L'Anse Creuse Amateur Radio Club
 Livonia Amateur Radio Club
 Michigan QRP Club
 Monroe County Radio Comm. Assn.
 Motor City Radio Club
 Oakland County Amateur Radio Soc.
 South Lyon Area Amateur Radio Club
 Southern MI Amateur Radio Society
 Utica Shelby Emergency Communications Association

St. Joseph County MI ARC
Lowell Amateur Radio Club

'Tech' Ham Class:

AMATEUR RADIO LICENSING COURSE



BECOME A HAM RADIO OPERATOR!

THE HAZEL PARK AMATEUR RADIO CLUB OFFERS A 10-WEEK COURSE
FOR

THE TECHNICIAN (ENTRY) AMATEUR RADIO LICENSE EXAMINATION
(NO MORSE CODE REQUIRED)

WHEN: Mondays, September 11, 2017 TO November 13, 2017—7PM TO 9PM
WHERE: FOP Lodge 130, 2233 Burdette St., Ferndale, MI

COST: *INSTRUCTION IS FREE; LICENSE MANUAL IS \$25, AVAILABLE FROM THE INSTRUCTORS AT THE FIRST SESSION.*

FCC License EXAM WILL TAKE PLACE AT THE LAST SESSION (Nov. 13) FEE:
\$15

*****PRE-REGISTRATION IS NECESSARY*****

AMATEUR RADIO IS ALIVE AND WELL! WE ARE AT THE CUTTING EDGE OF TECHNOLOGY! JOIN OVER 2.5 MILLION HOBBYISTS AROUND THE WORLD--and in Orbit-- WHO ARE INVOLVED IN EMERGENCY RESPONSE, INTERNATIONAL FRIEND-MAKING, RADIOSPORT CONTESTS, DIGITAL SIGNAL PROCESSING, SATELLITE DESIGN/BUILDING. A GREAT PLAYGROUND FOR HACKERS/MAKERS.

CONTACT: W9NPI@ARRL.NET

**SPONSORED BY
THE HAZEL PARK AMATEUR RADIO CLUB, HPARC.ORG**

General Ham Class:

GENERAL CLASS LICENSING COURSE



TAKE THE NEXT STEP!

THE HAZEL PARK AMATEUR RADIO CLUB OFFERS A 12-WEEK COURSE
FOR

THE AMATEUR GENERAL CLASS LICENSE EXAMINATION

WHEN: MONDAYS, SEPTEMBER 11, 2017 TO DECEMBER 4, 2017—7PM TO 9PM

WHERE: I-3 DETROIT DIY SPACE, 1481-A Wordsworth, Ferndale, MI

**COST: INSTRUCTION IS FREE; LICENSE MANUAL IS \$25, AVAILABLE FROM
THE INSTRUCTORS AT THE FIRST SESSION.**

**FCC License EXAM WILL TAKE PLACE AT THE LAST SESSION (DEC. 4) FEE:
\$15**

*****PRE-REGISTRATION IS NECESSARY*****

**YOU'VE THOUGHT ABOUT IT--NOW, YOU CAN FINALLY GET AROUND TO IT! THERE'S
NOTHING LIKE SEEING YOUR HARD WORK PAY OFF—HF PRIVILEGES WILL OPEN A
NEW WORLD OF DXING TO YOU!**

REGISTER: W9NPI@ARRL.NET

**SPONSORED BY
THE HAZEL PARK AMATEUR RADIO CLUB, HPARC.ORG**

Extra Ham Class:

AMATEUR EXTRA LICENSING COURSE



BECOME THE BEST YOU CAN BE!

**THE HAZEL PARK AMATEUR RADIO CLUB OFFERS A 14-WEEK COURSE
FOR**

THE AMATEUR EXTRA CLASS LICENSE EXAMINATION

**WHEN: Wednesdays, SEPTEMBER 6, 2017 TO DECEMBER 6, 2017—6PM TO
9PM**

WHERE: FOP Lodge 130, 2233 Burdette St., Ferndale, MI

**COST: INSTRUCTION IS FREE; LICENSE MANUAL IS \$25, AVAILABLE FROM
THE INSTRUCTORS AT THE FIRST SESSION.**

**FCC License EXAM WILL TAKE PLACE AT THE LAST SESSION (DEC. 6) FEE:
\$15**

*****PRE-REGISTRATION IS NECESSARY*****

**NOW, YOU CAN FINALLY GET AROUND TO IT! THERE'S NOTHING LIKE SEEING YOUR
HARD WORK PAY OFF—OUR INSTRUCTOR IS INNOVATIVE AND THOROUGH, AND
THERE'S AN EXTREMELY HIGH PASS RATE, IF YOU DO YOUR HOMEWORK.**

REGISTER: W9NPI@ARRL.NET

**SPONSORED BY
THE HAZEL PARK AMATEUR RADIO CLUB, HPARC.ORG**

Wyandotte Ham Class:**Amateur Radio Demonstrations & Classes @ Bacon Library in Wyandotte**

The Wyandotte Bacon Memorial District Library [Baconlibrary.org](http://www.baconlibrary.org) and the Motor City Radio Club <http://www.w8mrm.net/> will present 'Amateur Radio' demonstrations in preparation for **FREE classes** to help you to obtain your Amateur Radio (Ham) license.

Please register early for the classes at the reference desk, or by phone

734-246-8357 or at the library. NOTE: The class size is limited.

Patrons may also register online from the library's website at Baconlibrary.org. Use the Event button then select September 30 and the Amateur Radio Class.

Demonstrations: Saturdays: 10 AM through Noon,

Date: Team Lead: Call Sign: Demo:

- September 9th Bob Lawrence K8HV Low Cost Radio Kits
- September 16th Rick Hardy KE8BPZ Very High Frequency
- September 23rd Mike Antio W8MRA Setting up a Station

Demonstrations will be conducted by members of the Motor City Radio Club to introduce Amateur Radio, its enjoyment as a hobby and as a community emergency backup system.

Classes: Saturdays: 10 AM through 11:30 AM,

Class	Date	Chapters	To. Page	#Pages	Topics
1	9/30/2017	0,1	9	9	What is Amateur Radio / Electrical Principles
2	10/7/2017	2,3	18	9	Radio and electromagnetic wave properties
3	10/14/2017	4,5,6	21	3	Antennas, Radio Signals, Safety
xxx	10/21/2017	xxx	Xxx	x	No class on this Date.
4	10/28/2017	7	26	5	Station Setup and Operation
5	11/4/2017	8	31	5	Operating Procedures
6	11/11/2017	9	37	6	Rules and Regulations
7	11/18/2017	Exam			

Note: No class on October 21, 2017. Students will be invited to join **Motor City Radio Club** members on a Radio Direction Finding "**Fox Hunt**". An explanation and details will be presented by the class instructors.

We will be using The "**No-Nonsense Technician Class License Study Guide**" by **Dan Romanchick, KB6NU**. This is a free down load of 58 pages in PDF format available at

www.kb6nu.com/study-guides/. Or ... printed copies can be ordered at Amazon.com.

Register now for the classes.

Join us and open your doorway to the world.



Ham License – One Day!**KB6NU's One Day Tech Class**

KB6NU's One-Day Tech class covers all the material you need to know to pass your Technician License amateur radio license exam. And, you'll be given the exam right after the class, so you don't forget anything!

Details**WHEN:**

Saturday, September 30, 2017 at 9 am

WHERE:

Room 1200 in the Electrical Engineering and Computer Science (EECS) Building on the University of Michigan's North Campus in Ann Arbor.

HOW MUCH:

There is a \$15.00 fee to take the class and a \$15 exam fee.

TEXT:

The No-Nonsense Technician Class License Study Guide by Dan Romanchik, KB6NU. A PDF version is available for free at www.kb6nu.com/study-guides/. Kindle, Nook and printed copies are also available for a small charge.

**INSTRUCTOR:**

Dan Romanchik, KB6NU. Dan is the author of the "No Nonsense" amateur radio license study guides and the *CW Geek's Guide to Having Fun with Morse Code*. He has been teaching ham radio classes for more than ten years and has helped thousands get their first license and upgrade to General Class and Extra Class

FOR MORE INFORMATION AND**REGISTRATION:**

For more information and to register for the class, go to <http://www.kb6nu.com/next-one-day-tech-class/>.

Robotics Humanitarian Day



The poster features a central graphic with a blue gear, a circuit board, and a hexagonal grid pattern. To the left and right are green and white gears. Below the central graphic is the text "1st IEEE RAS Humanitarian Technology Day" in blue, followed by the tagline "The world needs more humanitarian engineers!" in green. Below this, the date and location "SAVE THE DATE October 14th, 2017 at MSU Union" are displayed in blue. At the bottom, there are logos for IEEE, IEEE Robotics & Automation Society, Michigan State University, and University Outreach and Engagement. Green stick figures holding hands are positioned on either side of the date information.

011010
01001100
110110
0101

1st IEEE RAS Humanitarian Technology Day

The world needs more humanitarian engineers!

SAVE THE DATE
October 14th, 2017
at MSU Union

 **IEEE**
Advancing Technology
for Humanity

 **IEEE**
**Robotics &
Automation**
Society

MICHIGAN STATE
UNIVERSITY

University Outreach
and Engagement

Ballot Preparation:

As we mentioned in the July Wavelengths newsletter, August is not only time for everyone to take a work break (we call them 'vacations') but, also to consider how, and how much involvement in our IEEE activities we want, and how that involvement can benefit not only the IEEE but, us as well.

Officer 'Churn':

You may have noticed the tendency for officers in a Chapter, or Affinity Group, or Branch to rotate from year to year, taking on one position for a year or two, then moving to another position and rarely staying in a single position for a long period of time. This is something that is encouraged by the MGA when it suggests that a 'Chair' of a Chapter should not hold the position for more than 3 contiguous years.

There are three factors of concern here:

1st: By working as an officer, in any position, we learn and develop a unique set of skills. By changing office positions from time to time to another position, we develop and sharpen other skills, and can continue to grow. If we were to remain in only one office for an extended time, we limit the scope of those skills we can develop.

2nd: By moving from position to position, and especially when we advance from positions within a Chapter or Branch to those at the Section, and then on to positions at the Region or Society levels, we expand the possible set of tools we can learn, while also expanding our personal and professional contacts within the areas where we volunteer.

3rd: By making 'room' for new officers to step into positions we have left, we give younger volunteers the opportunity to gain those skills we have already acquired.

What's Next for you?

This continual development of skills, talents and contacts is one of the primary reasons for the existence of an organization like IEEE, to give our members the setting and opportunity needed to develop and grow as individuals, and successful engineers.

However, some of us are aware of our IEEE affiliations only within the context of the technical Society to which we have focused our career goals. We may not even be aware



of the local activities which occur around us in our Section all through the year. To help sort out the mixture of Societies and local Chapters, Sharan Kalwani, one of our Wavelengths Editors, has created the 'cheat sheet' on the following page which gives a condensed overview of the Geo-units in our Section and their associated technical 'parent' organizations.



Let me encourage you to review that overview page, and consider what involvement in the local organization for your technical discipline could do to enhance your personal skill set and foster the development of skills that can promote a more successful engineering career.

Next month we will be calling for ballot nominations to the elected offices, and you may find that a position within the Administrative Committee (AdCom) of a Geo-unit may be just the thing to help you on the next step of your career. Alternatively, simply volunteering with the Geo-unit to help out with its normal functions can give you a more subtle entry into local activities. This often leads to more responsibility and an elected position in the future.

Section level Standing Committees also can provide a more general and diverse set of skills. These are all appointed positions and do not require election to an office to begin active involvement with the Section. Contact any one of your Section officers to discuss your abilities, background, and where you might both 'fit in' and benefit from becoming a more active volunteer.

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:		
Young Professionals:		
Women in Engineering:		
Chapter: 01	(SP01)	Signal Processing Society,
	(CAS04)	Circuits and Systems Society and
	(IT12)	Information Theory Society
Chapter: 02	(VT06)	Vehicular Technology Society
Chapter: 03	(AES10)	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,
Chapter: 05	(C16)	Computer Society
Chapter: 06	(GRS29)	Geosciences and Remote Sensing Society
Chapter: 07	(PE31)	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,
	(SMC28)	Systems, Man and Cybernetics Society
Chapter: 17	(NANO42)	Nanotechnology Council

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

University Of Detroit-Mercy:		(STB00531)
Michigan State University:		(STB01111)
University Of Michigan-Ann Arbor:		(STB01121)
Wayne State University:		(STB02251)
Lawrence Technological University:		(STB03921)
Oakland University:		(STB06741)
Eastern Michigan University:		(STB11091)
University of Michigan-Dearborn:		(STB94911)

Curated & Formatted

By

Sharan Kalwani,

Associate Editor

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@gmail.com

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 year:

<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.

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

Experimental Aircraft Association

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

Robots

<http://therobotgarage.com/about-us.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

Makers 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 David Mindham, the section secretary at: dmindham@ieee.org and request to be placed on the distribution list for a monthly copy of the agenda and minutes.

More meeting details are available on the next page of this newsletter.

Other Meetings:

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

However, members of the section may have multiple technical interests and would like to have meeting information of other

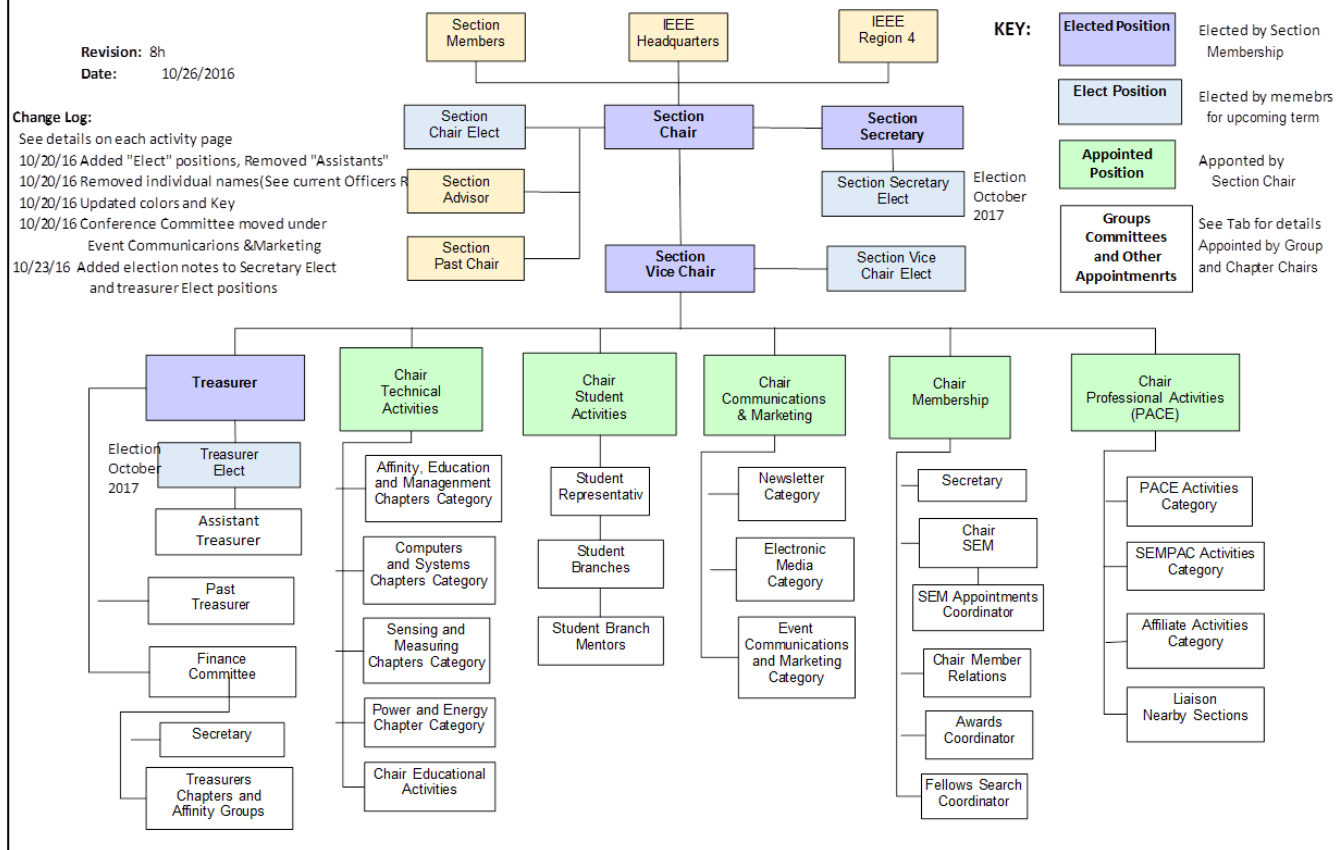
chapters. In order to communicate the meeting dates of all the chapters, affinity groups etc., to our members to facilitate their attendance, leaders of the groups are requested to send meeting information to our webmasters for posting on section’s calendar.

More detailed information on meetings may be found 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.

David Mindham - SEM Secretary

Current Organization - IEEE Southeastern Michigan Section (SEM)



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

ExCom Meeting Schedule:

Below is the 2017 remainder 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 meeting.

September 6, Wednesday, Teleconference, 12:00 – 1:00 PM. https://meetings.vtools.ieee.org/feed/meeting_ical/42555

October 5, Thursday, Face to Face, 5:30 – 8:00 P.M. https://meetings.vtools.ieee.org/feed/meeting_ical/42559

November 1, Wednesday, Teleconference, 12:00 – 1:00 P.M. https://meetings.vtools.ieee.org/feed/meeting_ical/42556

December 7, Thursday, Teleconference, 12:00 – 1:00 P.M. https://meetings.vtools.ieee.org/feed/meeting_ical/42557

**David Mindham
SEM Secretary**

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

**David Mindham
SEM 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.

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: All 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 **David Mindham** the SEM Section Secretary at:
dmindham@ieee.org
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.

David Mindham
SEM Section Secretary.
dmindham@ieee.org

SEM Monthly Meetings**Scheduled Meetings:**

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
jrwoodyard@gmail.com
karen.burnham@gmail.com

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 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.

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

anyone of the following:
karen.burnham@gmail.com
sharan.kalwani@ieee.org
jrwoodyard@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	Awards
Jan		1		OU	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			IEEE-USA Apmts.	ESD Banquett	Leadership Skills	SEM Awards
Jul		7	15		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	YP	11	17	WSU	ELECTIONS!		Humanitarian	
Dec		12		U/D-M	IEEE-Com Apmts.	Fall Conference	Happy Holidays	

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

← 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 “” button under the top row.)

SEM LinkedIn Page

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

SEM Officers:

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

SEM On Line Community Section Officers

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

Section Officers

Section Chair

Robert Neff

Section Secretary

David Mindham

Section Vice-Chair

Nevrus Kaja

Section Treasurer

Xinhua Xiao

Standing Committees:

Section Adviser

Don Bramlett

Chair Communications & Marketing

Ravi Nigam

Chair Educational Activities

Aaron Romain

Chair Finance

Nevrus Kaja

Chair Membership

Aisha Yousuf

Chair Nominations & Appointments

Kimball Williams

Chair Professional Activities (PACE)

Sharan Kalwani

Chair Student Activities

Hashim Abdul

Student Representative

Mehdi Mohammadi

Chair Technical Activities

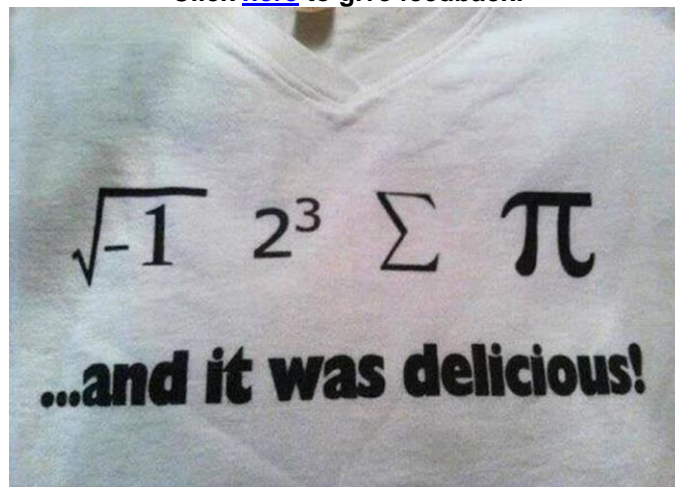
Kimball Williams



IEEE Southeastern Michigan

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

Click [here](#) to give feedback!



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.ieee-sem.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>