



Wavelengths

Section Chair's Message



New Year's Message:

Arthur C. Clark, wrote "... let me remind you that information is not knowledge, knowledge is not wisdom, and wisdom is not foresight. Each grows out of the other, and we need them all."

I am embarking on my 3rd term as your Chair, thank you for re-electing me, and I am hopeful I am on the pathway toward foresight. In some areas we have done quite well such as our financial awareness, updated procedures and a more stable organization. In other areas we have much work to do.

Where are you in this learning curve? I would propose that volunteering at IEEE Southeastern Michigan can be of assistance. With 17 Chapters and 4 Affinity Groups the networking with experts in your field of interest will grow your information and knowledge.

Wisdom comes in many ways and one of them is growing your leadership skills.

Foresight comes with experience, knowledge and wisdom. Attending events and volunteering are starting points on this journey.

Elections:

Congratulations to all of our new officers, re-elected officers and appointed officers. An updated Organization Chart and Officers Roster is posted in the "Current Officers" area of the web site under the "About SEM" tab. An updated organization chart is shown in this newsletter and will be posted soon on the web site in the same area as the officer's roster. www.ieee-sem.org.

2016 Budget:

The ExCom approved the 2016 Budget in our December meeting. The budget is a management tool to help us run the Section business in a financially responsible way. Monthly status reports of expenses vs. budget will help us manage the business even better in the upcoming year.

Requests for funding both budgeted and non-budgeted events and conferences require the financial plan be submitted to the Financial Committee for approval. Monthly chapter and affinity group meetings have already been budgeted and do not require plan submittals provided the expenses are within the budgeted amount.

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Wavelengths Newsletter is produced by IEEE volunteers and published by Southeastern Michigan (SEM) Section for the members.
Newsletter Archive: <http://sites.ieee.org/sem/>

(Chair's Message – Continued)

Spring Conference:

Ravi Nigam, Chair of our Spring Conference, is building his organizing committee and planning is already underway. You can find his contact information in the SEM website www.ieee-sem.org. Select the "About SEM" then click on "Current Officers".

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

Officer Confirmation & Training

Election Verification

In order to 'close the loop' with all the elected and appointed officers in the Section, this year we are requiring all officers to 'Confirm' their positions using an IEEE Survey.

The survey asks the Officer to identify them self and specifically identify each office position they hold in the Section.

This process has already been a surprise to some officers who did not know that they had been nominated by their 'friends'!

At this time we have only just begun this process, and we expect a few more surprises as the process continues.

Without confirmation that you accept your elected or appointed position your Section will be forced to remove you from the Officer Roster and appoint a replacement volunteer. We need your response even if you are informing us of a problem.

Officer Training:

Officers, both old and new are encouraged to take time during the holidays to review and/or brush up on duties etc. by using on-line training available on the IEEE SEM website, <http://sites.ieee.org/sem/>.

Select the button labeled '**Training Material**' in the left hand panel of buttons under the header: '**SEM Tools/Links**'..

This will place you in the Training page. It is suggested Voice over Power Point module #46 shown as "**Virtual Training Plan**" be listened to first in order to get an idea of the scope of the training modules and their recommend sequence.

The groups of modules are about 20-30 minutes in length so that they can

be easily worked into a daily routine. Most officers who progressed through the entire sequence of modules indicated they can be easily completed in a 2 to 3 week-time frame. A reasonable goal is for all officers to review or complete the training modules considering the time remaining in in of November and December before the start of officer terms on January 1, 2016.

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Celebration for Maxwell

Celebrating Maxwell's Equations: 150 Years.

A special celebration took place on November 20, 2015 that brought over 100 attendees together to commemorate the anniversary of James Clerk Maxwell's foundational treatise on light and electromagnetism. Titled "Celebrating Maxwell's Equations: 150 Years," the event brought together students, researchers, and industry experts from around the nation to enjoy keynote talks, project demonstrations, and open discussion with a panel of experts.

This event was one of many around the world celebrating

IEEE Southeastern Michigan Chapter IV welcomes you to
Celebrating Maxwell's Equations: 150 Years

WHEN:
3:00 pm - 7:00 pm
Friday, November 20th, 2015

WHERE:
1200 EECS
1301 Beal Ave.
University of Michigan
Ann Arbor, MI

AGENDA:
3:00 pm: Lecture by Dr. Arthur Yaghjian
4:00 pm: Panel Session
5:00 pm: OSUM Student Demo Competition
6:00 pm: Lecture by Dr. Jim Rautio

Refreshments and Hors d'Oeuvres Provided

Please register no later than November 16th at:
<https://meetings.vtools.ieee.org/m/36129>
Registration is free, but required.

Sponsored By: IEEE, Photonics Society, SPIE, OSA, OSUM, Michigan Society of Optics Engineers, IEEE Michigan Section

Maxwell and other major contributions to the field of optics as part of the 2015 International Year of Light. Sponsored by the United Nations, the International Year of Light is a global initiative to highlight the importance of light and optical technologies. Scientific communities around the world are holding special events to honor the contributions of James Maxwell and his 1865 treatise to our understanding of light and electromagnetism.

Attendees of the event were treated to two keynote talks by Drs. Arthur Yaghjian (titled "What did Maxwell Do and How Did He Do it: Overview of Maxwell's Treatise") and James Rautio (titled "Life of James Clerk Maxwell"). Each speaker is an expert on Maxwell and his work, and sought to illustrate the importance of the physicist's treatise as well as offer insight into his life and career.

Local optics professionals Sue Dean and Dr. Deanna McMillen joined the speakers for an open panel discussion, offering career advice for grad students in attendance and an inside look at the work of optics engineers.

The evening's reception was accompanied by a student demo competition. Students were challenged to create a demonstration of one of Maxwell's equations for middle or high schoolers, and were judged by professors, event organizers, and local teachers. The three winning teams each received a cash prize, presented by University of Michigan Optics Society (OSUM) president Heather Ferguson, and attendees could vote for the "People's Choice" winner.



Demos on display:
1st place, People's Choice Award:
Seeing Maxwell's Equations
by Brian Worthmann and TJ Flynn
2nd place:
Invisibility
by Nicholas Chiotellis

3rd place:
Dispersion of Light
by Anthony Aiello and Yongbum Park

Demos by Optical Society at the University of Michigan (OSUM) members:



Communication through Light
Total Internal Reflection
OSUM members involved:
Theresa Chick
Brandon Demory
Liz Dreyer
Heather Ferguson
Amanda Korant
Zhaorong Wang

Demos by Student Astronomical Society (SAS) members:
A Van de Graff Generator
Quantum Dots
SAS members involved:
Andreia Carrillo
Andrea Lin
Adam Rubinstein
Austin Thomas
William Waalkes
Sunny Zhou



(Celebrating Maxwell Continued)

Event Speakers and Panelists

Sue Dean is an engineering professional currently employed with L-3 Communications EOTech, where she is a key innovator for the manufacture of holographic weapon sights. Sue has developed a unique career path, working in areas from medical devices to special machine design and development, to military and commercial optics manufacturing. She is a U-M alum, earning both her Bachelor's and Master's here in Mechanical Engineering.

Dr. McMillen is a Senior Optical Engineer at EOTech, an L-3 Communications company. EOTech delivers cutting edge technology and products in the fields of holographic sighting systems, tactical lasers, illuminators and thermal imaging equipment.

Dr. James C. Rautio is CEO, President and Founder of Sonnet Software, Inc., a private company dedicated to the development of commercial high frequency electromagnetic software. He founded Sonnet in 1983 to develop solutions to

Maxwell's equations for analysis of planar microwave circuits. Today, it is the leading vendor of high accuracy three-dimensional planar high-frequency electromagnetic analysis software. Jim has published many papers about the life and career of Maxwell, and has given over 130 lectures about him worldwide.

Dr. Arthur Yaghjian is currently an independent consultant in electromagnetics. His research in electromagnetics has led to many important findings across the fields of metamaterials, antennas, particle physics, and more. He is the author of the invited paper, "Reflections on Maxwell's Treatise," in which he attempts to explain the fundamentals of exactly what Maxwell did in his Treatise and how he did it.

About James Clerk Maxwell

In 1865, James Clerk Maxwell (1831-1879) published A Dynamical Theory of the Electrodynamical Field, which featured the original set of what is now referred to as Maxwell's equations. Through these equations, Maxwell described scientifically the propagation of light and

electromagnetic waves travelling through space at the speed of light. His equations have been called the "second great unification in physics," following Isaac Newton's formulation of the laws of motion and gravity, and his contributions to science and impact on society have been likened to those of Albert Einstein. He is considered the founder of the field of electromagnetic theory.

This event was sponsored by: IEEE, Optical Society of America, International Society for Optics and Photonics, Electron Devices Society, Antennas and Propagation Society, Microwave Theory and Techniques Society, the National Science Foundation, IEEE Photonics Society, Optics Society at the University of Michigan, the Student Chapter of IEEE/Eta Kappa Nu, and ECE@Michigan.

This event was organized and coordinated by members of Southeastern Michigan's Chapter 04. The Chair of Chapter 04, Lora Schulwitz is shown below on the right.

Zachary Champion
championz@umich.edu



Future Cities Judging**IEEE-SEM SECTION
SPECIAL AWARD
JUDGES NEEDED FOR
JANUARY 2016 FUTURE
CITY COMPETITION.**

by
Don C. Bramlett,
PE, LSMIEEE –
IEEE/SEM Advisor

This is the sixteenth year that IEEE-SEM will provide a dedicated team of judges and a special professional organization award for the project having the most innovative application of electro-technology in the design of a city in the future.

Judging for the 2016 Michigan Regional Future City Competition will be on Monday, January 25, 2016 at the Suburban Collection Showplace in Novi, just off I-96 on Grand River between Novi Road and Beck Road.

Orientation and breakfast for judges will start at 7:30 am. Judging will be from 9:00 AM to 11:00 AM, followed by lunch.

A complimentary continental breakfast and lunch are provided that day for the judges. This pleasurable and fulfilling task only takes half a day.

This is one of the premier pre-university programs for energized middle school students.

Please volunteer to be among those to comprise the team of IEEE-SEM Section special award judges. I encourage anyone who has an interest in the science and math education of our youth or an interest in pre-university education programs to consider being a judge at the Michigan Regional Future City Competition.

IEEE Student Branch members as well as regular IEEE members have found this to be a fulfilling experience in past years.

As a judge myself in previous years, I have found the experience of talking with the students, finding out their interests and observing their projects/presentations to be very rewarding. So come out and spend the morning with us as we meet with some of the potential engineers, scientists and city planners of the future.

If interested in more information concerning being a member of the team of judges for the IEEE-SEM professional award at the Michigan Regional Future City Competition, contact:

Don Bramlett at
(313) 235-7549 during normal weekday business hours, at my cell
(313) 608-6223, or at home at
(734) 591-1452 or by email at d.bramlett@ieee.org.

Election Results:

For most our members, the election happened in November has been over many weeks ago. From the viewpoint of the Nominations and Appointments Committee, we are still hard at work.

The Nominations and Appointments Committee is not only responsible for conducting elections but, verifying that each of the new officers is aware that they have been elected, that they accept the office and that they understand what that office requires.

Juggling and keeping track of 234 positions (Elected and Appointed) within the Section can be monumental task. But, it has been eased this year with improved vTools election software and a new SEM Survey form that asks each elected or appointed officer to 'confirm' his or her position.

(Many candidates were 'write-in' where the names were put forth by 'friends' of the candidate without their knowledge or consent.)

It is gratifying to have the added 'interest' and participation in the election but, that type of 'friendly' nomination actually complicates the process and makes much more work for the Committee. Each 'write-in' candidate must be contacted by mail, and some do not know or understand why they are being asked to confirm their interests for a position to which they were not aware they were elected!!!

We now are in the final stretch of ensuring that all the elected officers are 'confirmed' in their positions. When that is concluded, the work of finding volunteers to 'fill the holes' begins in earnest.

The Committee sends its "Thank You" to all the candidates and to all the members who voted in the election. The democratic process is a slow one at its best, and our committee is working to improve our 'time response' by bringing more computer assistance on line this year, and next.

If you find an error in the list below, please contact the committee chair at: k.williams@ieee.org

Executive Committee:

Executive Committee:	Officers
Section Chair *	Robert Neff
Section Secretary *	David Mindham
Asst Section Secretary *	Shannon Ridley
Section V-Ch*	Liang Xi Downey
Section Treasurer *	Basil Sherlund
Asst Section Treasurer *	Xinhua Xiao
Section Adviser*	Don Bramlett
Past Section Chair*	Imad Makki

Affinity Groups:

Consultants Network Affinity Group: (CN40035)	
Chalr	Jacob Beningo
V-Ch	Jesus Salvador
	Almanza Garcia
Secretary	
Treasurer	Harry Hill
Past Chalr	
Technical Coordinator	Kimball Williams
Life Member Affinity Group: (LIFE)	
Chalr	Harpreet Singh
V-Ch	Ramasamy Uthurusamy
Secretary	Arun Hundiwal
Treasurer	
Past Chalr	
Technical Coordinator	Kimball Williams
Women in Engineering Affinity Group: (WIE)	
Chalr	Joanna Hill
V-Ch	Peng Zhang
Secretary	
Treasurer	
Past Chalr	Lin Van Nieuwstadt
Technical Coordinator	Kimball Williams
Young Professionals Affinity Group: (YP)	
Chalr	Ian Hutt
V-Ch	SHASHANK KAMTHAN
Secretary	Xinhua Xiao
Treasurer	Zhongyang Zhao
Past Chalr	SHASHANK KAMTHAN
Technical Coordinator	Kimball Williams

You may find the complete list at: <http://sites.ieee.org/sem/about-sem/current-officers/>

Interested in contributing as one of the Chapter or Affinity group officers? Use the link below to indicate your interest, and the Nominations and Appointments Committee will contact you: <https://ieee.fluidsurveys.com/s/sem/>

NOTE: An officer position followed by a 'blank' area highlighted in Yellow indicates a vacant officer position waiting for an IEEE volunteer to fill the position.

Chapters 1 – 7:

Chapter: 01 (SP01) Signal Processing Soc, (CAS04) Cir	
Chalr	Jeffrey Dulzo
V-Ch(SP Soc)	
V-Ch(C&S Soc)	Sekuc Talay
V-Ch(IT Soc)	
Secretary	Joseph Najor
Treasurer	
Past Chalr	Kimball Williams
Technical Coordinator	Jeffery Mosley
Chapter: 02 (VT06) Vehicular Technology Soc	
Chalr	Eugene Saltzberg
V-Ch	Mohamad Berri
Secretary	Malcolm Lunn
Treasurer	
Past Chalr	Mohamad Berri
Technical Coordinator	
Chapter: 03 (AES10) Aerospace and Electronic System	
Chalr	Philip Hall
V-Ch(AE Soc)	
V-Ch(Com Soc)	
Secretary	
Treasurer	
Past Chalr	Malcolm Lunn
Technical Coordinator	Joseph Giachino
Chapter: 04 "Trident" (AP03) AP03 Antennas and Pro	
Chalr	Lora Schulwitz
V-Ch-Tech (AP Soc)	Anthony Grbic
V-Ch-Tech (ED Soc)	Rebecca Peterson
V-Ch-Tech (MTT Soc)	Lin Van Nieuwstadt
V-Ch-Tech (Photonics Soc)	Somin Eunice Lee
V-Ch-Local Arrangements	Chung-Tse Wu
Secretary	Brian Tierney
Treasurer	Yang Liu
Webmaster	
Past Chalr	Tayfun Ozdemir
Technical Coordinator	
Chapter: 05 (C16) Computer Soc	
Chalr	Subramanian Ganesan
VP-Tutorial and workshop coordinator	Ashok Prajapati
VP-Technical presentations Coordinator	Nizar Alholou
Technical activities coordinator	Jesus Salvador
	Almanza Garcia
Secretary	S Ramesh
Treasurer	Basil Sherlund
Webmaster	Mark Ciechanowski
Past Chalr	
Technical Coordinator	Jeffery Mosley
Chapter: 06 (GRS29) Geosciences and Remote Sensing	
Chalr	Adib Nashashibi
V-Ch	Leland Pierce
Secretary	
Treasurer	Michael Benson
Past Chalr	
Technical Coordinator	Joseph Giachino
Chapter: 07 (PE31) Power Engineering Soc, (IA34) Inc	
Chalr	David Mindham
V-ChTech Activity	Binaya Joshi
V-Ch(Pwr Eng)	Looja Tuladhar
V-Ch(Ind Appl)	
Secretary	Koustubh Banerjee
Treasurer	Chris Nelson
Past Chalr	Ian Hutt
Technical Coordinator	

(Section Elections: Continued)

Chapters 8 – 14:

Chapter: 08 EMC (EMC27) Electromagnetic Compatibility	
<i>Chair</i>	Scott Lytle
<i>V-ChProf Activity</i>	Akio Fujimaki
<i>V-ChMeetings</i>	Candace Suriano
<i>V-ChTech Activity</i>	Candace Suriano
<i>V-Ch-Com</i>	Scott Lytle
<i>V-ChMarketing</i>	Steve Tomba
<i>V-ChMkt-EMCFest</i>	Robert Neff
<i>Secretary</i>	Steve Tomba
<i>Treasurer</i>	Matthew Feusse
<i>Past Chair</i>	
<i>Technical Coordinator</i>	Joseph Giachino
Chapter: 09 (IE13) Industrial Electronics Soc, (PEL35)	
<i>Chair</i>	Brian Peaslee
<i>V-Ch(IndElect)</i>	Alex Yi
<i>V-Ch(Pwr Elect)</i>	Sanjaka Wirasingha
<i>Secretary</i>	Rami Abouseiman
<i>Treasurer</i>	
<i>Past Chair</i>	Sergey Gladyshev
<i>Technical Coordinator</i>	
Chapter: 10 (TEM14) Technology and Engineering Man	
<i>Chair</i>	Raymond Sasinowski
<i>V-Ch</i>	
<i>Secretary</i>	
<i>Treasurer</i>	
<i>Past Chair</i>	Mark Robinson
<i>Technical Coordinator</i>	Kimball Williams
Chapter: 11 (EMB18) Engineering in Medicine and Biok	
<i>Chair</i>	Mohammad
	Mehrmohammadi
<i>V-Ch</i>	Maurice Snyder
<i>Secretary</i>	Vijaya Nagesh
<i>Treasurer</i>	Ling Zhuang
<i>Past Chair</i>	Maurice Snyder
<i>Technical Coordinator</i>	
Chapter: 12 (CS23) Control Systems Soc	
<i>Chair</i>	Rajeev Verma
<i>V-Ch</i>	
<i>Secretary</i>	
<i>Treasurer</i>	Mohamad Berri
<i>Past Chair</i>	Rajeev Verma
<i>Technical Coordinator</i>	Jeffery Mosley
Chapter: 13 (E25) Education Soc	
<i>Temp Chair</i>	ALI EYDGAHI
<i>V-Ch</i>	
<i>Secretary</i>	
<i>Treasurer</i>	
<i>Past Chair</i>	Kenji Aono
<i>Technical Coordinator</i>	Kimball Williams
Chapter: 14 (RA24) Robotics And Automation Soc	
<i>Chair</i>	Javier Alcazar
<i>V-Ch</i>	Jeffery Mosley
<i>Secretary</i>	Jonathan Berent
<i>Treasurer</i>	Chan-Jin Chung
<i>Past Chair</i>	ALI EYDGAHI
<i>Technical Coordinator</i>	Jeffery Mosley

Chapters 15 – 17:

Chapter: 15 (NPS05) Nuclear Plasma Sciences Society	
<i>Chair</i>	David Trescott
<i>V-Ch</i>	Aram Markosyan
<i>Secretary</i>	
<i>Treasurer</i>	Juliusz Kruszelnicki
<i>Past Chair</i>	David Trescott
<i>Technical Coordinator</i>	
Chapter: 16 (CIS11) Computational Intelligence Soc. (
<i>Chair</i>	Chaomin Luo
<i>V-Ch(CI Soc)</i>	Ling Zhuang
<i>V-Ch(SMC Soc)</i>	
<i>Secretary</i>	Robert Adams
<i>Treasurer</i>	Xiangdong Che
<i>Past Chair</i>	Yi Lu Murphey
<i>Technical Coordinator</i>	Jeffery Mosley
Chapter: 17 (NANO42) Nanotechnology Council	
<i>Chair</i>	Randy Boone
<i>V-Ch</i>	Junghoon Yeom
<i>Secretary</i>	Wen Li
<i>Treasurer</i>	Amar Basu
<i>Past Chair</i>	Wen Li
<i>Technical Coordinator</i>	Joseph Giachino

University Student Branches:

Each of our University Student Branches conducts its own officer elections at a time of its own choosing. Each is listed here for the convenience of any member who wishes to 'engage' with a Branch.

University Of Detroit-Mercy: (STB00531)		
<i>Chair</i>		
<i>Faculty Counselor</i>	Chaomin Luo	<i>Member</i>
<i>Mentor</i>	Jennifer Dukarski	<i>Member</i>
<i>Mentor</i>	Brian Peaslee	<i>Member</i>
<i>Mentor</i>	Don Bramlett	<i>Life Senior</i>
Michigan State University: (STB01111)		
<i>Chair</i>		
<i>Faculty Counselor</i>	Prerajest Chahal	<i>Member</i>
<i>Mentor</i>	Shiu Chan	<i>Member</i>
<i>Mentor</i>	Philip Fanson	<i>Life Member</i>
University Of Michigan-Ann Arbor: (STB01121)		
<i>Chair</i>		
<i>V-Ch</i>		
<i>Secretary</i>		
<i>Treasurer</i>		
<i>Faculty Counselor</i>	Ian Hiskens	<i>Fellow</i>
<i>Mentor</i>	Haotian Wu	<i>Affiliate</i>
<i>Mentor</i>	Marcus Mojica	<i>Member</i>
Wayne State University: (STB02251)		
<i>Chair</i>	Khaled Nusair	<i>Student Member</i>
<i>V-Ch</i>	Christopher Lopez	<i>Student Member</i>
<i>Treasurer</i>	Shradhdha Shah	<i>Student Member</i>
<i>Secretary</i>	Roopa Mysore	<i>aduate Student Member</i>
	Jaysprakash	
<i>ESFB Rep</i>	Akarsihan Gulhane	<i>aduate Student Member</i>
<i>Seminar Coordinator</i>	Christopher gregory	<i>Student Member</i>
<i>Computer-Admin</i>	Nurra Jumani	<i>Student Member</i>
<i>Web-Admin</i>	Halimah Rosanally	<i>Student Member</i>
<i>Faculty Counselor</i>	Matthew Nackleby	<i>Member</i>
<i>Faculty Mentor</i>	Weisong Shi	<i>Senior Member</i>
<i>Mentor</i>	Ntresh Kumar	<i>Member</i>
<i>Mentor (On leave)</i>	Randall Safier	<i>Member</i>

(Student Branches Continued)

Lawrence Technological University: (STB03921)	
<i>Chair</i>	Saud Alhargi
<i>V-Ch</i>	Suvro Sudip
<i>Excutive Coordinator</i>	Irfan Syed
<i>Treasurer</i>	Tahmina Gouhar
<i>Operation Manager</i>	Hashim Alshammari
<i>Faculty Counselor</i>	Kun Hua
<i>Industrial Mentor</i>	Benjamin Sweet
<i>Industrial Mentor</i>	Donald Price
Oakland University: (STB06741)	
<i>Chair</i>	asma elj
<i>Secretary</i>	apurva kadam
<i>Treasurer</i>	
<i>VC - Tech Activities</i>	Amar Sahib
<i>VC- Social Activities</i>	Britni Reese
<i>Faculty Counselor</i>	Hoda Abdel-Aty-Zohdy
<i>Industrial Mentor</i>	David Mindham
<i>Industrial Mentor</i>	Michelle Knight
<i>Faculty Mentor</i>	Daniel Aloj
<i>Faculty Mentor</i>	OSAMAH RA WASHDEH
Eastern Michigan University: (STB11091)	
<i>Chair</i>	Ivan Soepriatna
<i>Secretary</i>	Megan Pelzel
<i>V-Ch</i>	Tim Robinson
<i>Treasurer</i>	Eugene Lowe
<i>Faculty Counselor</i>	ALI EYDGAHI
<i>Mentor</i>	eliada ziraj
ITT Technical Institute-Troy: (STB37522)	
<i>Chair</i>	
<i>Faculty Counselor</i>	
<i>Mentor</i>	
University Of Michigan-Dearborn: (STB94911)	
<i>Chair</i>	xiaohui zhao
<i>V-Ch</i>	Nevrus Kaja
<i>V-Ch</i>	Hussein Berry
<i>Public Relations</i>	Ahmad Hamdoun
<i>Communications</i>	Abhilash Reddy Lingala
<i>Treasurer</i>	
<i>Secretary</i>	
<i>Webmaster</i>	Jordan Rathwell
<i>Activltes Coordinator</i>	
<i>Faculty Counselor</i>	Stanley Baek
<i>Mentor</i>	Pramita Mitra
<i>Mentor</i>	kishore Appala
<i>Mentor</i>	Robert Severinghaus
<i>Mentor</i>	Kimball Williams

Amateur Radio Training

Amateur Radio & EE's:

For a surprising number of Electrical Engineers, Amateur Radio (Ham Radio) has been the introduction to 'hands on' working with electrical phenomenon, practical applications of electricity and developing a 'gut feel' understanding of the real world applications of electrical and RF theory.

Those of us who are already "Hams" living in Southeastern Michigan is living in a 'hot bed' of amateur radio activity. Part of that activity is a number of opportunities for non-hams interested in exploring the hobby to receive training in the fundamentals of the craft. Two of these are listed on this page.

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Hazel Park Amateur Radio Club

will host a Technician Class Amateur License Course on Tuesdays, from January 12, 2016 to March 22, 2016 at 7 PM to 9 PM.

Classes will be held at
Lawrence Technological University
 21000 West Ten Mile Road
 Southfield, MI 48075

Maps to the classroom will be supplied when you register.

INSTRUCTORS:
Gerry Treas, K8GT and
David Koch, AA8IK
 Class Instruction is free.

If you wish to purchase a License Manual (\$25--cash), they will be available from instructors at the first session.

At the end of the training, there will be an opportunity to take the FCC License Exam at the last class session, Tuesday, March 22, 2015 (\$15 fee)

Pre-registration is Necessary

Registration/Information:
 Use e-mail to contact
W9NPI@arri.net

One Day Technician Class:

The next one-day Tech Class from Dan Romanchik will take place on Saturday, January 30, 2016 in the EECS Building on the University of Michigan's North Campus. The class will start at 9 am and run until 3:30 pm, at which time the license exam will be given.

The class is open and free to all high school and college students with a valid student I.D. card. Registration fee for everyone else is \$10. I use this money to help pay for expenses at our station, WA2HOM, at the Ann Arbor Hands-On Museum.

To register for the Saturday, January 30 class, send \$10 to cwgeek@kb6nu.com via PayPal or send a check for \$10 to:

Dan Romanchik
 1325 Orkney Dr.
 Ann Arbor, MI 48103
<http://www.kb6nu.com/next-one-day-tech-class/>.

ESD Events

IEEE Southeastern Michigan Section maintains a supporting membership as an Affiliate with the Engineering Society of Detroit (ESD), and supports many of its activities.

We try to publish ESD events that we feel our members may want to attend. Below is a listing of some of the ESD events planned for 2016:

The Engineering Society of Detroit's (ESD) Professional Engineer Licensing Review Courses

Since 1941, The Engineering Society of Detroit has successfully prepared thousands of candidates for the State licensing exam in a variety of disciplines ranging from civil and environmental to mechanical and electrical engineering. You'll learn in a small classroom-like setting from instructors who have first-hand knowledge of the course material. Let ESD's 70-plus years of experience help prepare you to pass the exam on your first try.

FE (Part I) Review Course February 3 – April 9, 2015

The Fundamentals of Engineering (FE) Part I Review Course provides 84 hours of instruction in engineering fundamentals for candidates planning to take Part I of the Professional Engineers Exam.

The classes are held Tuesdays and Thursdays from 6-9 p.m. and on Saturdays (morning or afternoon depending on discipline) at ESD headquarters in Southfield. The Saturday sessions start on February 14, 2015.

PE (Part II) Review Course February 14 – March 28, 2015

The Principles & Practice of Engineering (PE) Part II Review Courses consists of 28 hours of

instruction, on seven half-day Saturday sessions, focusing on problem solving techniques needed for the Professional Engineers (Part II) exam.

All classes are held on Saturdays at ESD headquarters in Southfield. The civil engineering course meets 8:30 a.m. – 12:30 p.m. Mechanical, environmental and electrical courses are 1 – 5 p.m. The state exam will be held on April 17, 2015.

For more information or to register:

Visit www.esd.org or contact Fran Mahoney at 248-353-0735, ext. 116, or fmahoney@esd.org.

Engineering SMARt Michigan Program

ESD's Engineering SMARt Michigan program is a rigorous, hands-on science, math, architecture and technology (SMARt) project in which high school students design energy-efficient homes.

Through a series of learning modules, students will be introduced to the basics of energy, alternative energies, and the energy grid, in an atmosphere of fun activities and team building. They will apply these concepts to create real-life solutions by working in teams to design a house. The culmination of the program is a presentation of their team-designed house at a competition between all participating schools where they will vie for scholarships and other prizes.

What role do mentors play?

Volunteer mentors are a critical element to the success of the program and are needed to help teach and coach in the classroom. There are two groups of mentors - Energy Module and Presentation Module.

What is the time commitment for a mentor?

The 15 week program gets underway in late January and finishes up in late May at the competition. Energy Module mentors are asked to teach a minimum of one class period per week for two weeks. Presentation Module mentors are assigned to a school and asked to teach a minimum of one class period per week for eight weeks. Efforts will be made to schedule multiple Presentation Module mentors at each school in order to ensure at least one mentor is in the classroom each week. Mentors can volunteer for one or more schools.

Interested in mentoring?

For more information on mentoring or to volunteer, contact Jasmine Sisson, PE, at sisson@pbworld.com.

Other Coming 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 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 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

k.williams@ieee.org

An announcement may be placed in the newsletter.

Links:

Michigan Institute for Plasma Science and Engineering:

Seminars for the 2015-2016 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 t 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/eaa/ea-chapters/find-an-eaa-chapter>

Robots

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

Science Fiction Conventions

<http://www.conclavesf.net/>

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 2015 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

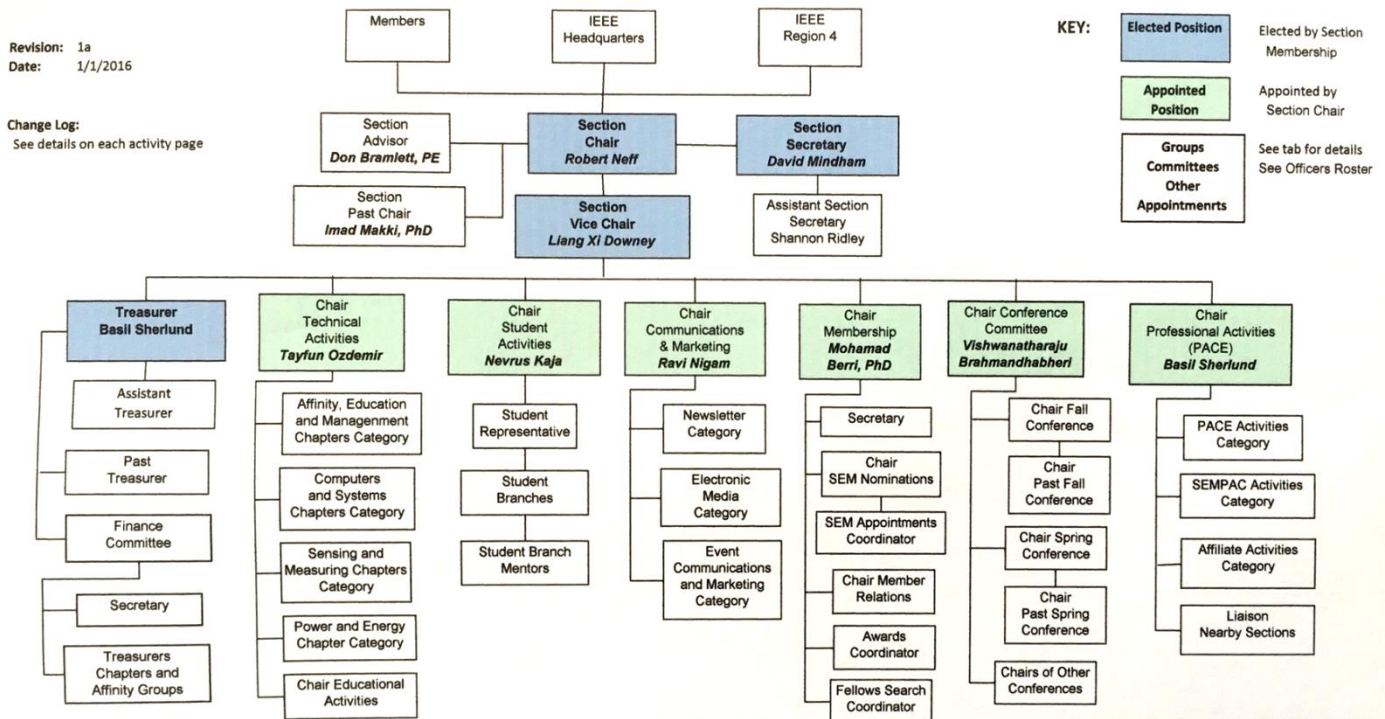
other chapters. In order to communicate the meeting dates of all the chapters, affinity groups etc., to our members to facilitate their attendance, leaders of the groups are requested to send meeting information to our webmasters for posting on section's calendar.

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"

Section Mission & Goals**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 with 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 below.

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.):

Wednesday	February	3rd
Thursday	March	3rd
Thursday	May	5th
Wednesday	June	1st
Wednesday	August	3rd
Thursday	September	1st
Thursday	November	3rd
Wednesday	December	7th

F2F Meeting Schedule:

Wednesday	January	6th
Wednesday	April	6th
Thursday	July	7th
Wednesday	October	5th
Wednesday	January(2017)	4th

More information for F2F meetings will be emailed in a timely manner before the meeting dates.

Contact **David Mindham** the SEM Section Secretary at: dmindham@ieee.org for more information.

Also consider checking for additional information as the meeting dates approach at the SEM website (<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

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

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 editor at k.williams@ieee.org. We also recommend a cc to the chair of the Communications and Marketing Committee, Ravi Nigam at: nigam154934mi@comcast.net.

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.

Review:

Each month Jim Woodyard takes time to review the current issue and try to keep us from too many errors of both English and content. Jim likes to work in the background but, a special thank you is deserved for his continuous efforts and dedication to the quality of the publication. Thank you Jim!

Join the Team:

If you feel you might like to join the team, or would like to train with us, 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	GOLD Award
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!		Humanatarian	
Dec		12		U/D-M	IEEE-Com Apmts.	Fall Conference	Happy Holidays	

Wavelengths Annual Publication Plan for Personal Profiles

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	



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

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

Section Officers

Section Chair

Robert Neff

Section Secretary

David Mindham

Section Vice-Chair

Liang Xi Downey

Section Treasurer

Basil Sherlund

Standing Committees:

Section Adviser

Don Bramlett

Chair Communications & Marketing

Ravi Nigam

Chair Conferences

Raju Brahmandhabheri

Chair Educational Activities

Chaomin Luo

Chair Finance

Nevrus Kaja

Chair Membership

Mohamad Berri

Chair Nominations

Kimball Williams

Chair Professional Activities

Basil Sherlund

Chair Student Activities

Nevrus Kaja

Student Representative

Maoxu Liu

Chair Technical Activities

Tayfun Ozdemir

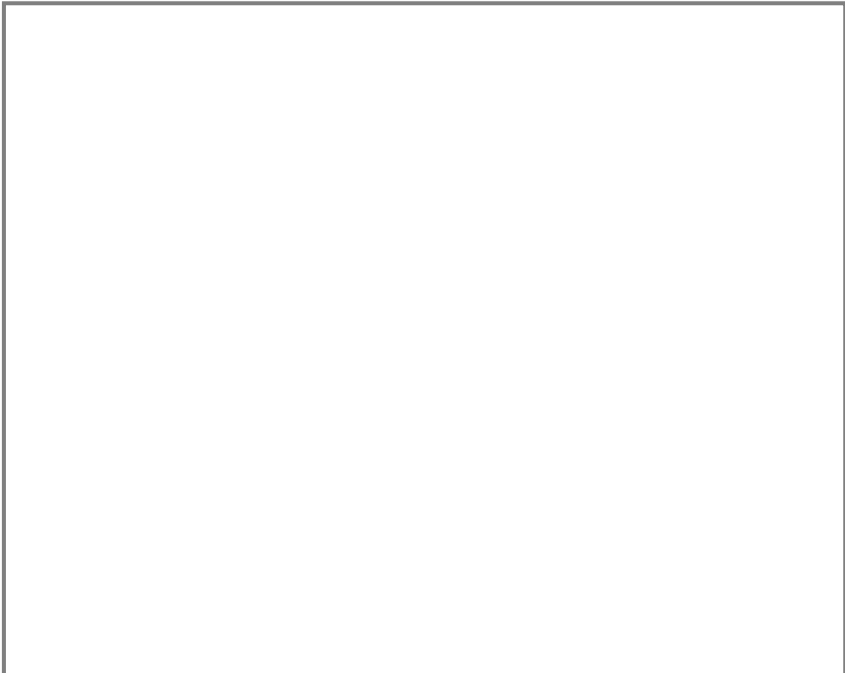
Past Section Chair

Imad Makki



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 Rates / Month:
Our readers specify & purchase a wide range of electronic components, equipment and services.
Our sponsors come from industry, education, and nonprofit organizations.

Full page \$500,
Half page \$250
Quarter page \$125,
Eighth page \$65.

SEM Executive Committee Monthly Teleconferences:

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

SEM Executive Committee Face-to-Face Meetings:

1/Qtr. Usually held at U/M-D Fairlane Center
Registration at:
<https://meetings.vtools.ieee.org/main>

SEM Standing Committee Meetings:

SEM Affinity Group Meetings:

SEM Technical 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>