



IEEE
Southeastern Michigan Section
March 2026

Sharan.Kalwani@ieee.org

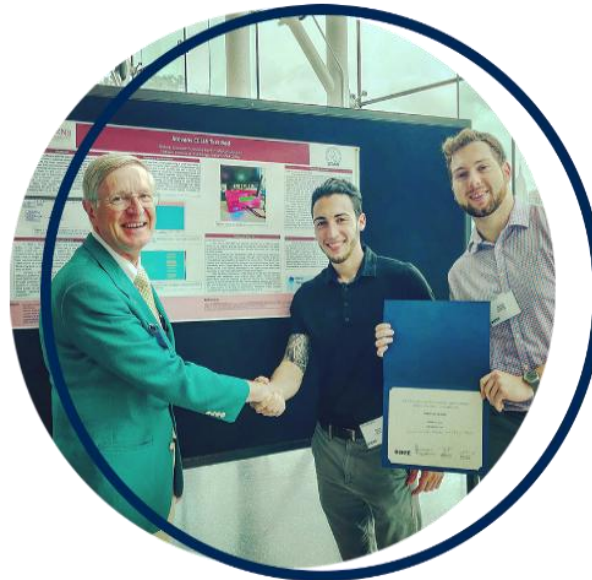
IEEE Southeastern Michigan Section, Chair 2022-2026

chair@ieee-sem.org



IEEE: Your Home for.....

- ▶ Students
- ▶ Industry and Professionals
- ▶ Academia



IEEE: Your Home for.....

▶ Students:

- *Pre-University*
- *Undergraduate*
- *Graduate*

YOUR PROFESSIONAL HOME

Students/
Young
Professionals



- ▶ *EPICS (Engineering Projects in Community Service)* <https://epics.ieee.org/>
- ▶ *IEEE Potentials Magazine*, <https://potentialsmagazine.ieee.org/home/>
- ▶ *IEEE Humanitarian Activities*, <https://hac.ieee.org/>
- ▶ *IEEE Extreme*, <https://ieeextreme.org/>
- ▶ *IEEE Mentoring Program*, <https://www.ieee.org/membership/mentoring.html>
- ▶ *IEEE Job Site*, <https://jobs.ieee.org/>

IEEE: Your Home for.....

▶ Industry:

- *Individual Contributor*
- *Industry Researcher*
- *Managerial Path*



- ▶ *IEEE Collabratec, <https://iee-collabratec.ieee.org/>*
- ▶ *IEEE Learning Network, <https://iln.ieee.org/public/trainingcatalog.aspx>*
- ▶ *IEEE Center for Leadership Excellence, <https://iee-elearning.org/CLE/>*
- ▶ *IEEE Resource Centers, <https://www.ieee.org/communities/iee-resource-centers.html>*
- ▶ *IEEE Standards Association, <https://standards.ieee.org/>*
- ▶ *IEEE Credentialing Program, <https://www.ieee.org/education/credentialing/index.html>*

IEEE: Your Home for.....

▶ Faculty:

- *Junior Faculty*
- *Established Faculty*
- *Retired Faculty*

▶ IEEE Xplore, <https://ieeexplore.ieee.org/Xplore/home.jsp>

▶ IEEE Standards Association, <https://standards.ieee.org/>

▶ IEEE Volunteering, <https://volunteer.ieee.org/>

▶ IEEE Awards, <https://corporate-awards.ieee.org/>

▶ IEEE Conferences, <https://www.ieee.org/conferences/>

▶ IEEE Societies, <https://www.ieee.org/communities/societies/index.html>



IEEE: Your Home

- ▶ The world is divided into 10 geographic areas called Regions. More than ~~451,000~~ 548,249 members in more than 192 countries; approximately ~~50~~ 67 % of whom are from outside the United States // *data as of January 2026* //

IEEE Regions



IEEE: Quick facts.....(2026-03-07)

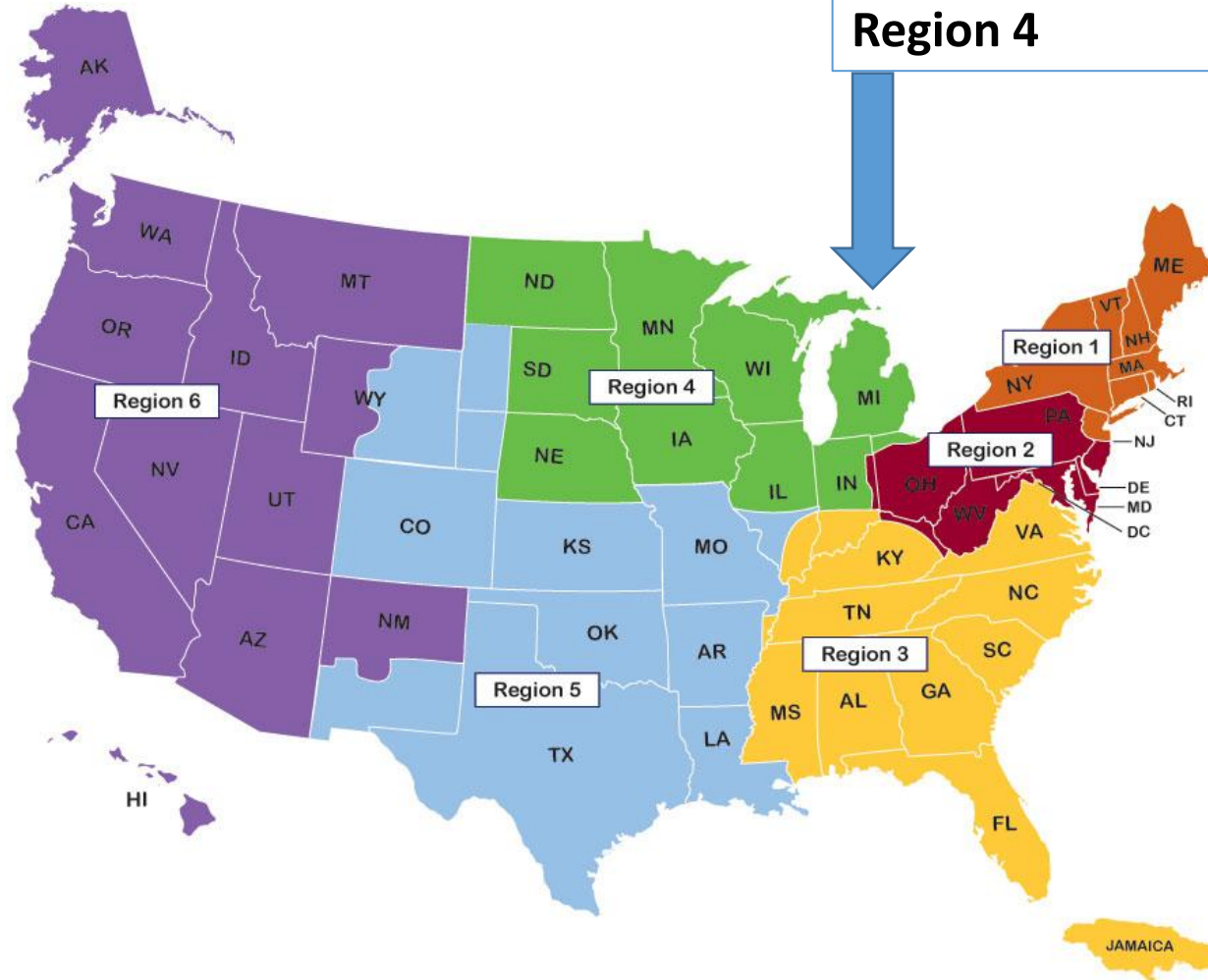
- ▶ Sponsors more than 2000 conferences & meetings world-wide each year (106 countries)
 - Society/Council Conferences, Workshops, etc
 - Regional Meetings
 - Local Section and Chapter Meetings
- ▶ More than 6 million documents in the IEEE *Xplore*[®] Electronic Library
- ▶ 4 million total conference papers in *Xplore*[®] since 1936, approx. 200,000 added annually
- ▶ Publishes 250 Transactions, Journals and Magazines/Newsletters
- ▶ More than 1079 active IEEE standards, with 1093 in development
- ▶ 39 Technical Societies
- ▶ IEEE publishes ***nearly a third*** of the world's technical literature in electrical engineering, computer science, and electronics

IEEE: Quick facts.....(2026-03-07)

- ▶ More than 486,000 professional members in more than 190 countries (67% non-USA)
- ▶ More than 189,000 student members
- ▶ 347 **Sections** and 38 Sub-Sections in **ten** geographic Regions worldwide (each section can have 1 or more technical chapters)
- ▶ 2,815 *Technical* Chapters that unite local members with similar *technical* interests
- ▶ 670 Affinity Groups { Consultants/WiE/Life Members (LM)/Young Professionals (YP) }
- ▶ 3,613 Student Branches in 100 countries
- ▶ 4,240 Student Branch Chapters (sub unit of IEEE technical societies, within a Student Branch)
- ▶ Grew *a lot* this year

IEEE Southeastern Michigan (SEM) Section

The IEEE SEM Section is part of Region 4



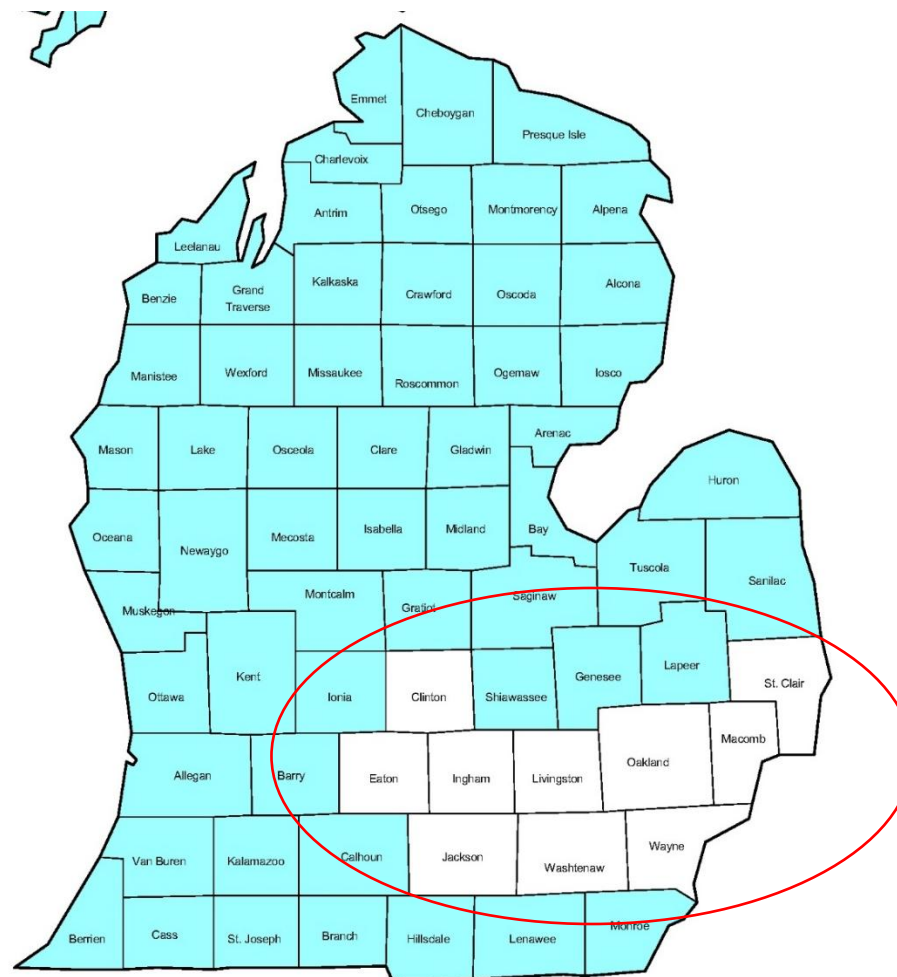
IEEE Southeastern Michigan (SEM) Section

The IEEE SEM Section is part of Region 4 and covers only the Southeastern portion of the state of Michigan.

The IEEE SE Michigan Section was founded on June 1, 1963.

Number of members \approx 2839 (Yr 2025)

Total Population of Michigan \approx 10.07 million



IEEE Southeastern Michigan (SEM) Section History

IEEE SEM section has a rich and storied history. It began life as an amalgamation of the Detroit Sections of AIEE (American Institute of Electrical Engineers) and IRE (Institute of Radio Engineers).

The Detroit Sections of IRE and AIEE were recognized by the national organizations as being among the more active sections. Each section had hosted several national conventions and many smaller technical conferences in Detroit. Several local officers went on to leadership roles at the national levels in AIEE and IRE.

Following the 1961 AIEE Fall General Meeting, the officers of the Detroit Sections of AIEE and IRE held several discussions to iron out many potential problems in order to make the new union a success. The two sections merged to form the Southeastern Michigan Section of the IEEE (IEEE/SEM) on June 1, 1963.

Read the fascinating narrative at <https://r4.ieee.org/sem/about-sem/section-history/>

IEEE Southeastern Michigan (SEM) Section History

The activism of IEEE SEM Section has extended to involvement in the broader engineering, professional and scientific community. We publish every month a Newsletter called Wavelengths (more on that later).

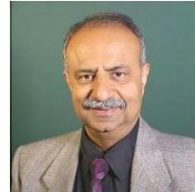
Past issues of Wavelengths* illustrate the involvement of IEEE/SEM and its members in programs with the **Engineering Society of Detroit (ESD)** , and especially the ESD Affiliate Council , the **Michigan Society of Professional Engineers** , National Engineers Week, Future City and the Science and Engineering Fair of Metropolitan Detroit

** Read the fascinating narratives at*

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

IEEE Southeastern Michigan (SEM) Current 2026 Leadership

Chair: Sharan Kalwani



Vice-Chair: Aneesh Mathai



Secretary: Christopher Johnson



Treasurer: Ramesh Sethu



Advisor: Mohamad Berri



How can I contact the Executive Committee/Admin members of the Section?

Use any of the following:

Chair:

chair@ieee-sem.org

Vice Chair:

vicechair@ieee-sem.org

Treasurer:

treasurer@ieee-sem.org

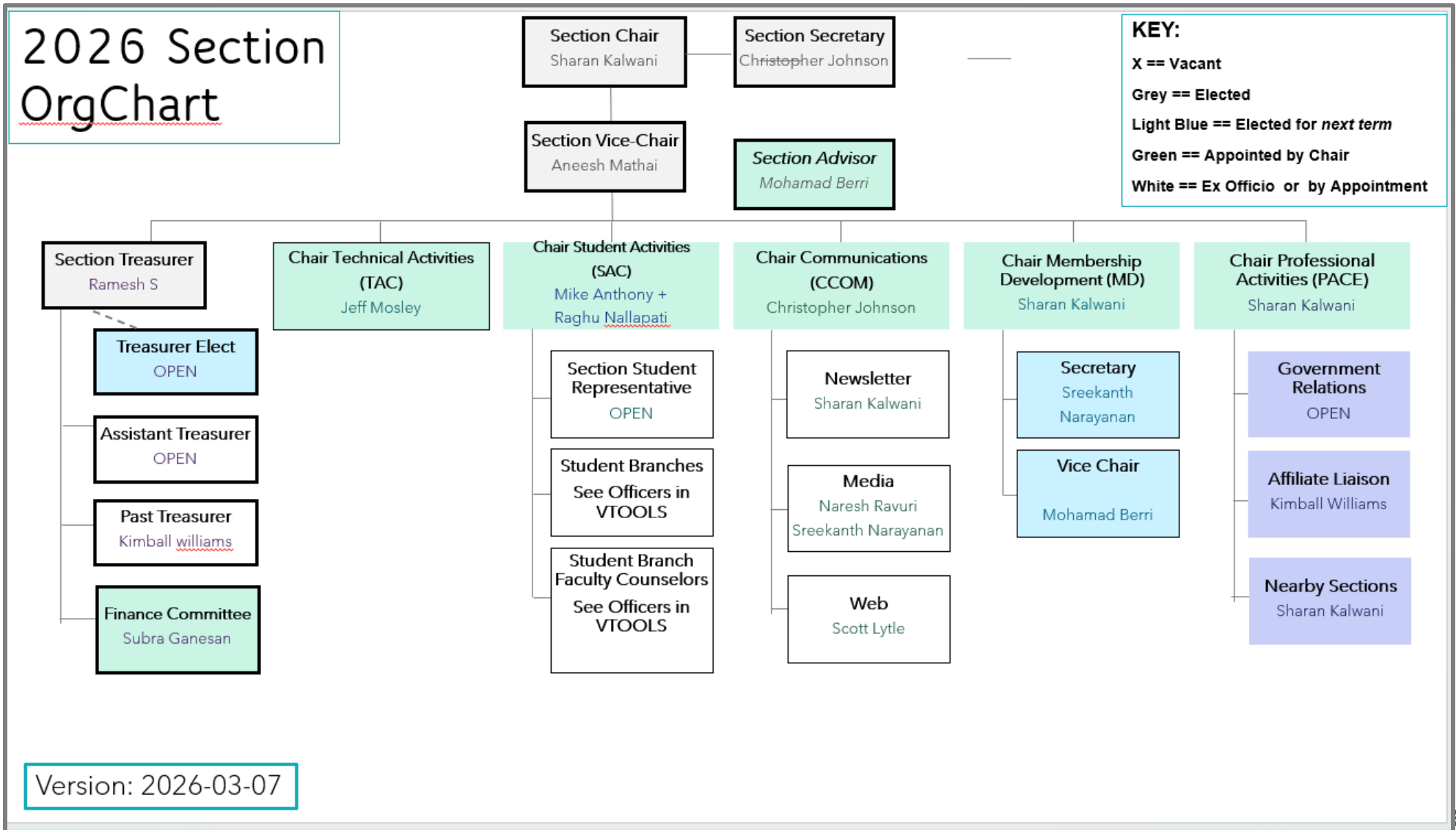
Secretary:

secretary@ieee-sem.org

Advisor:

advisor@ieee-sem.org

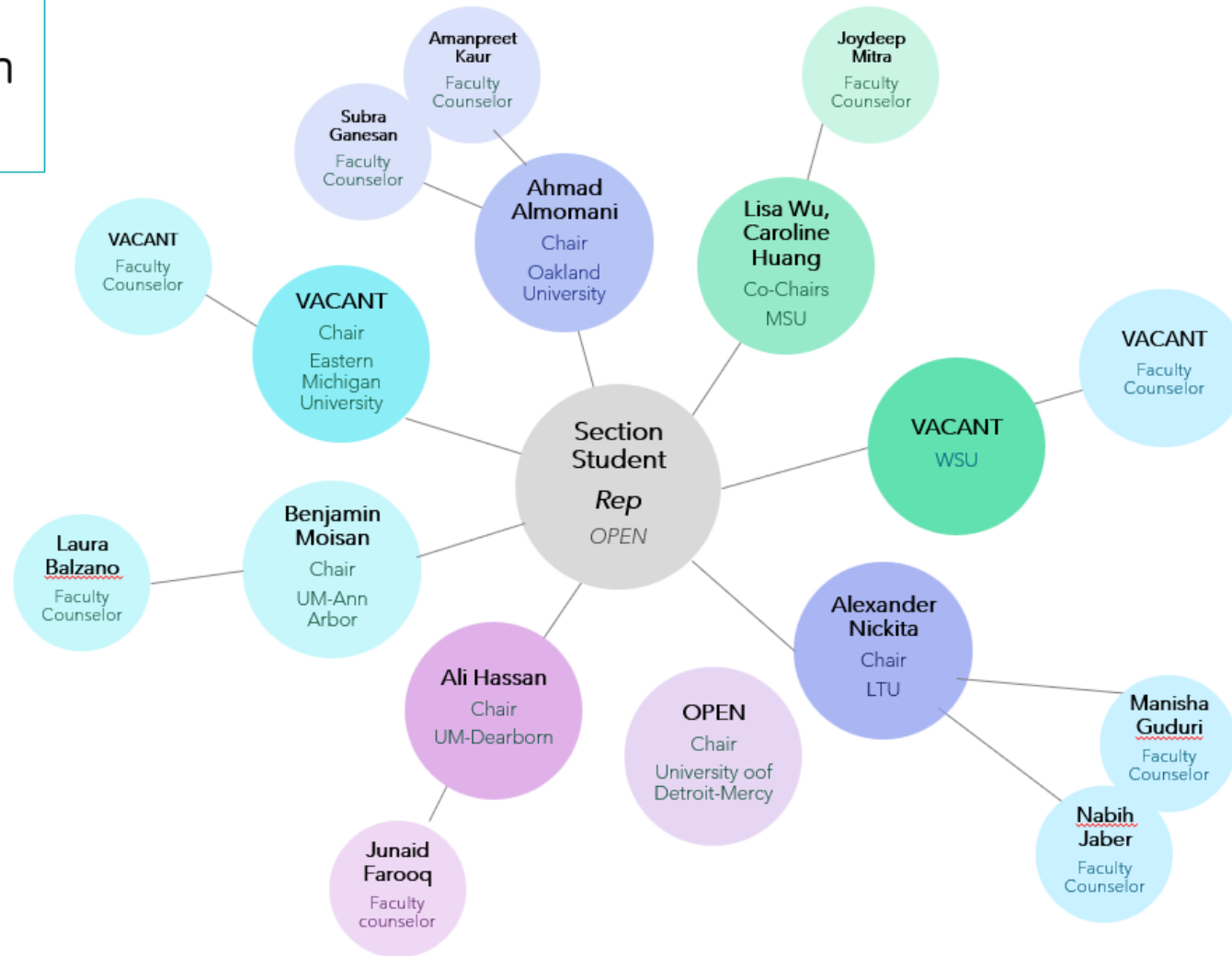
IEEE Southeastern Michigan Section OrgChart



IEEE Southeastern Michigan Section OrgChart

2026 IEEE
Southeastern Michigan
Student Branches

Organization chart



Version: 2026-03-07

IEEE Southeastern Michigan Section Organization

- ▶ Section engages in a lot of outreach
- ▶ Holds regular STEM sessions on a variety of EE/CS/IT/Physics/Science topics
- ▶ Focus is on building value for members via:
 - Technical Development/Educational Sessions
 - Professional Development thru complimentary skills (Proj Mgmt, etc)
 - Soft Skills/Leadership/Time Mgmt seminars
- ▶ Section Technical Meetings:
 - ❖ Variety of topics and subjects, both online & in person

A current list of activities can always be found at <http://bit.ly/sem-upcoming>

IEEE Southeastern Michigan Section Activity Tracking

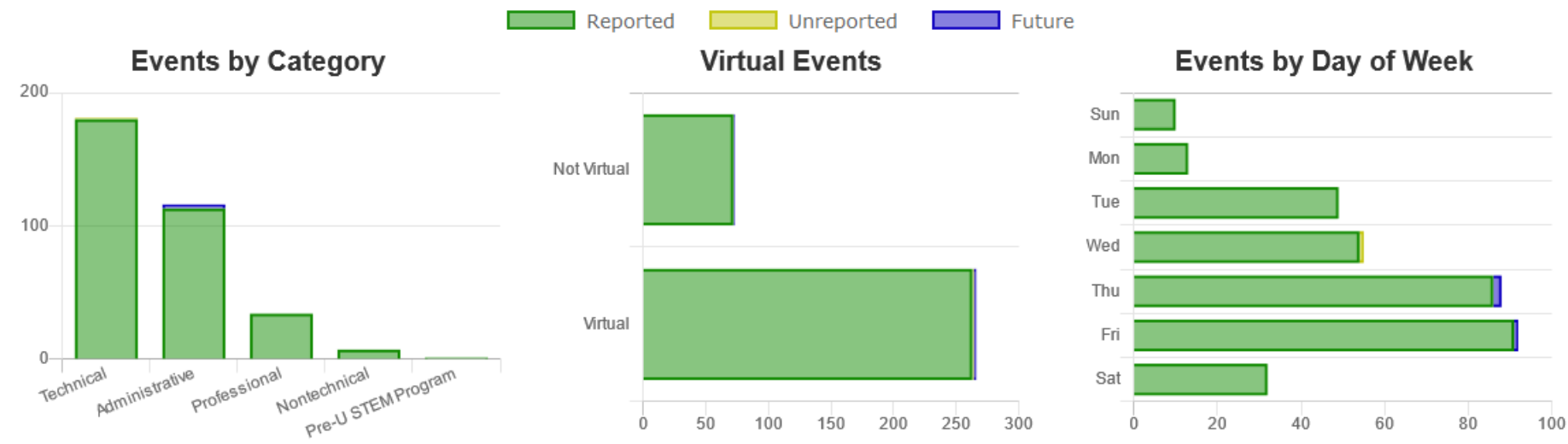
EVENTS ACTIVITY

Year [?]
 Organizational Unit [?]

R40035 - Southeastern Michigan Section Charts [?]

These data counts and charts include the selected OU and all related organizational units. See below for individual OU numbers and charts.

Name	Prof	Tech	Non-Tech	Admin	Hum	Pre-U	Total
Southeastern Michigan Section	34	181	7	116	0	1	339



IEEE Southeastern Michigan Section Activity Tracking

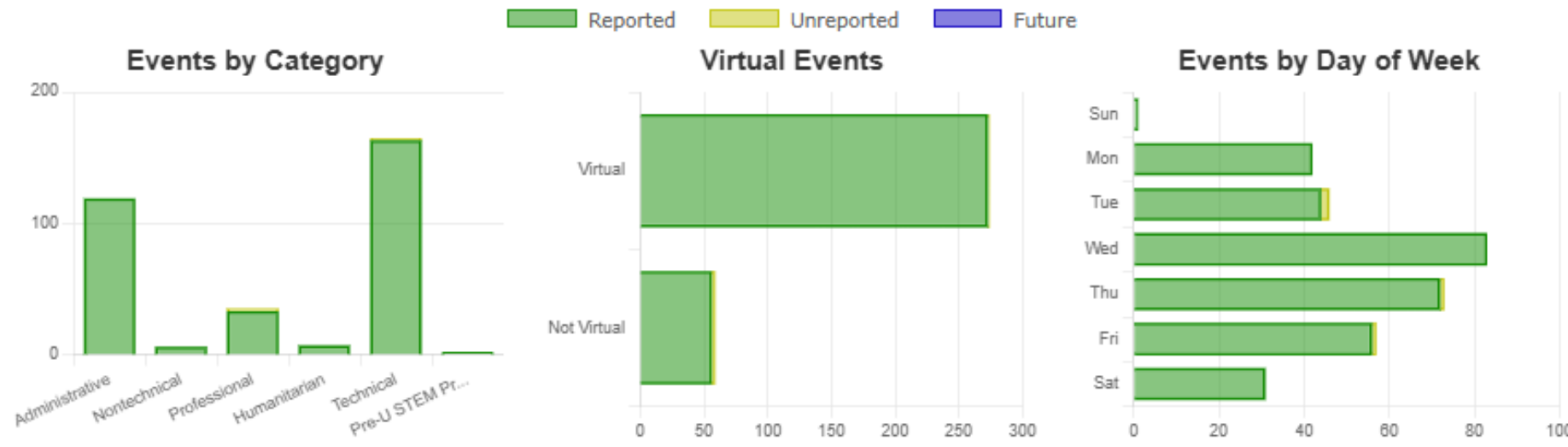
EVENTS ACTIVITY

Year [?]
 Organizational Unit [?]
 Child OUs [?]

R40035 - Southeastern Michigan Section Charts [?]

These data counts and charts include the selected OU and all related organizational units. See below for individual OU numbers and charts.

Name	Prof	Tech	Non-Tech	Admin	Hum	Pre-U	Total
Southeastern Michigan Section	35	165	6	119	7	1	333



IEEE Southeastern Michigan Section Activity Tracking

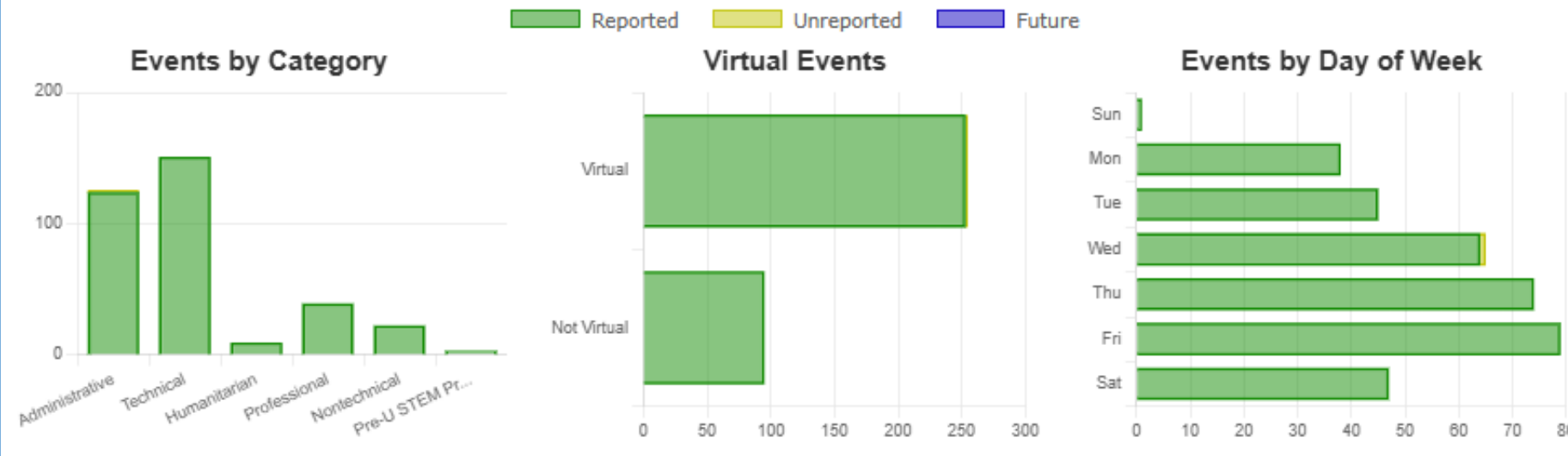
EVENTS ACTIVITY

Year [?]
 Organizational Unit [?]
 Child OUs [?]

R40035 - Southeastern Michigan Section Charts [?]

These data counts and charts include the selected OU and all related organizational units. See below for individual OU numbers and charts.

Name	Prof	Tech	Non-Tech	Admin	Hum	Pre-U	Total
Southeastern Michigan Section	39	151	22	125	9	3	349



IEEE Southeastern Michigan Section Activity Tracking

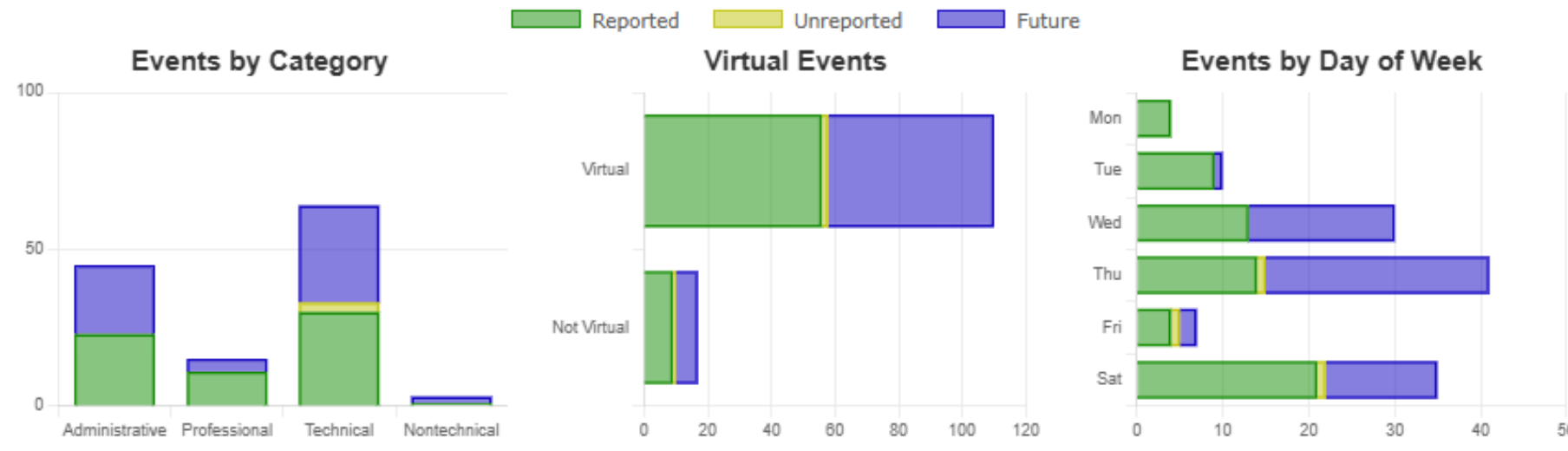
EVENTS ACTIVITY

Year [?]
 Organizational Unit [?]
 Child OUs [?]

R40035 - Southeastern Michigan Section Charts [?]

These data counts and charts include the selected OU and all related organizational units. See below for individual OU numbers and charts.

Name	Prof	Tech	Non-Tech	Admin	Hum	Pre-U	Total
Southeastern Michigan Section	15	64	3	45	0	0	127



IEEE Southeastern Michigan Section Past Laurels

► Innovations:

- Police Radio (Belle Isle)

April 2, 2018

IEEE SOUTH EAST MICHIGAN – WAVELENGTHS

Police Radio

Milestones: One-Way Police Radio Communication, 1928

Detroit, MI IEEE Historical Plaque - Dedicated May 1987

"At this site on April 7, 1928 the Detroit Police Department commenced regular one-way radio communication with its patrol cars. Developed by personnel of the department's radio bureau, the system was the product of seven years of experimentation under the direction of police commissioner, William P. Rutledge. Their work proved the practicality of land-mobile radio for police work and led to its adoption throughout the country."

The plaque can be viewed on Belle Island of Detroit, Michigan, U.S.A., at the front south-west corner near the main entrance door to the police building.

In the 1920s gangster era, bank robbers and bootleggers made clean getaways time after time, to the great consternation of police.

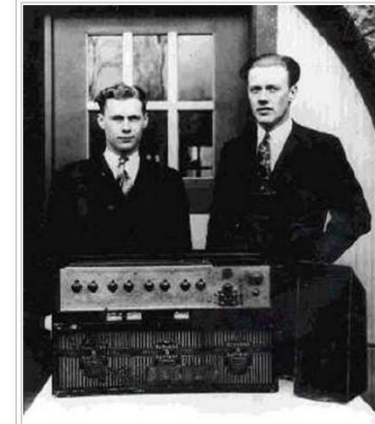
But in 1928, a dedicated Detroit patrolman and an electronics buff devised the first successful one-way radio link between police headquarters and cruisers. Critical news of crimes in progress could now be transmitted from the stationhouse to police cars as they drove.

Electronics was a fledgling science when Detroit Patrolman Kenneth Cox and Robert L. Batts, an engineering student, built a stable radio receiver and antenna system. Their successful one-way radio, coming after years of trial and error, was installed in April 1928. The Detroit Police Department made history as the first to dispatch patrol cars regularly by radio. Many city police departments shortly followed suit with their own systems.

Between 1921 and 1927, radio buffs Kenneth R. Cox, Walter Vogler and Bernard Fitzgerald, all Detroit police officers, experimented with radio sets they had installed in the back seat of a Model T Ford police patrol car.

The receivers picked up signals, but not very consistently. Frequently, broadcasts would fade out as the car passed large buildings or under railroad bridges. Also, police had no designated band on which to broadcast, so the system operated like any radio station. The station was appropriately called KOP and listed locally as an entertainment station.

To meet FRC (Federal Radio Commission, predecessor of the FCC) licensing requirements, police officers broadcast recorded music in between lists of stolen vehicles and descriptions of missing children. Persistent work by Cox and Robert Batts led to the development of an improved receiver in 1927. A broadcasting station, W8FS, was set up on Belle Isle and regular dispatches began in 1928. (Source: Detroit Free Press).



IEEE Southeastern Michigan Section Recent Laurels (2021)



2021 Outstanding Chapter Award

presented to the

**IEEE Computer Society Southeastern Michigan
Section Chapter**

*"For the Computer Society Professional Chapter providing the best overall set of
programs and activities for its local members"*

A handwritten signature in cursive script that reads "Melissa Russell".

Melissa A. Russell, Executive Director
Dec 2021



*2021 Outstanding Chapter Award
for Industry Engagement*

presented to the

**IEEE Computer Society Southeastern Michigan Section
Chapter**

*"For the Computer Society Professional Chapter providing the best programs
and activities to encourage industry engagement"*

A handwritten signature in cursive script that reads "Melissa Russell".

Melissa A. Russell, Executive Director
Dec 2021

IEEE Southeastern Michigan Section Recent Laurels (2022)



IEEE Southeastern Michigan Section Appreciation (2023)



IEEE Southeastern Michigan Section Laurels (2018)



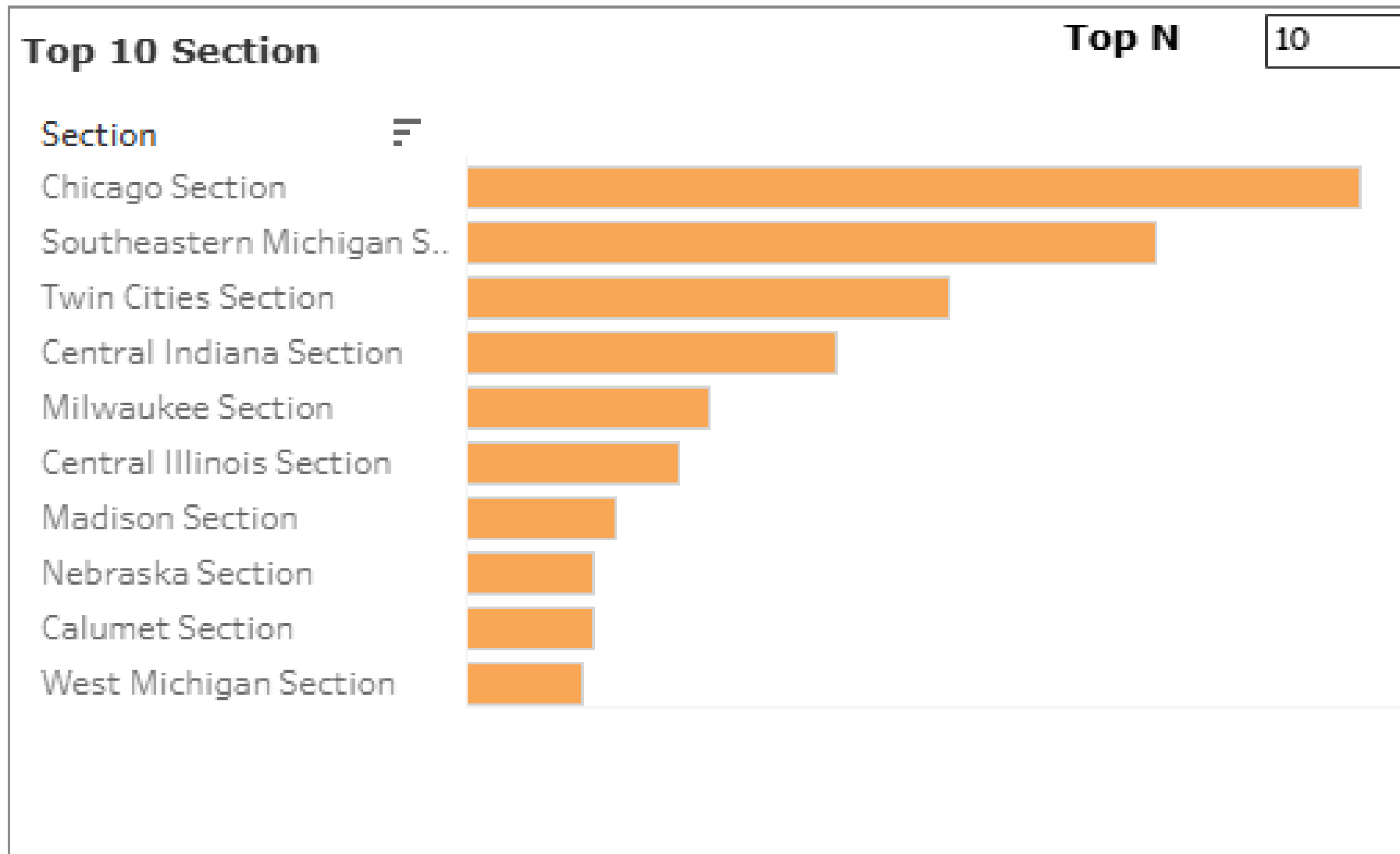
IEEE Southeastern Michigan Section Laurels (2023)



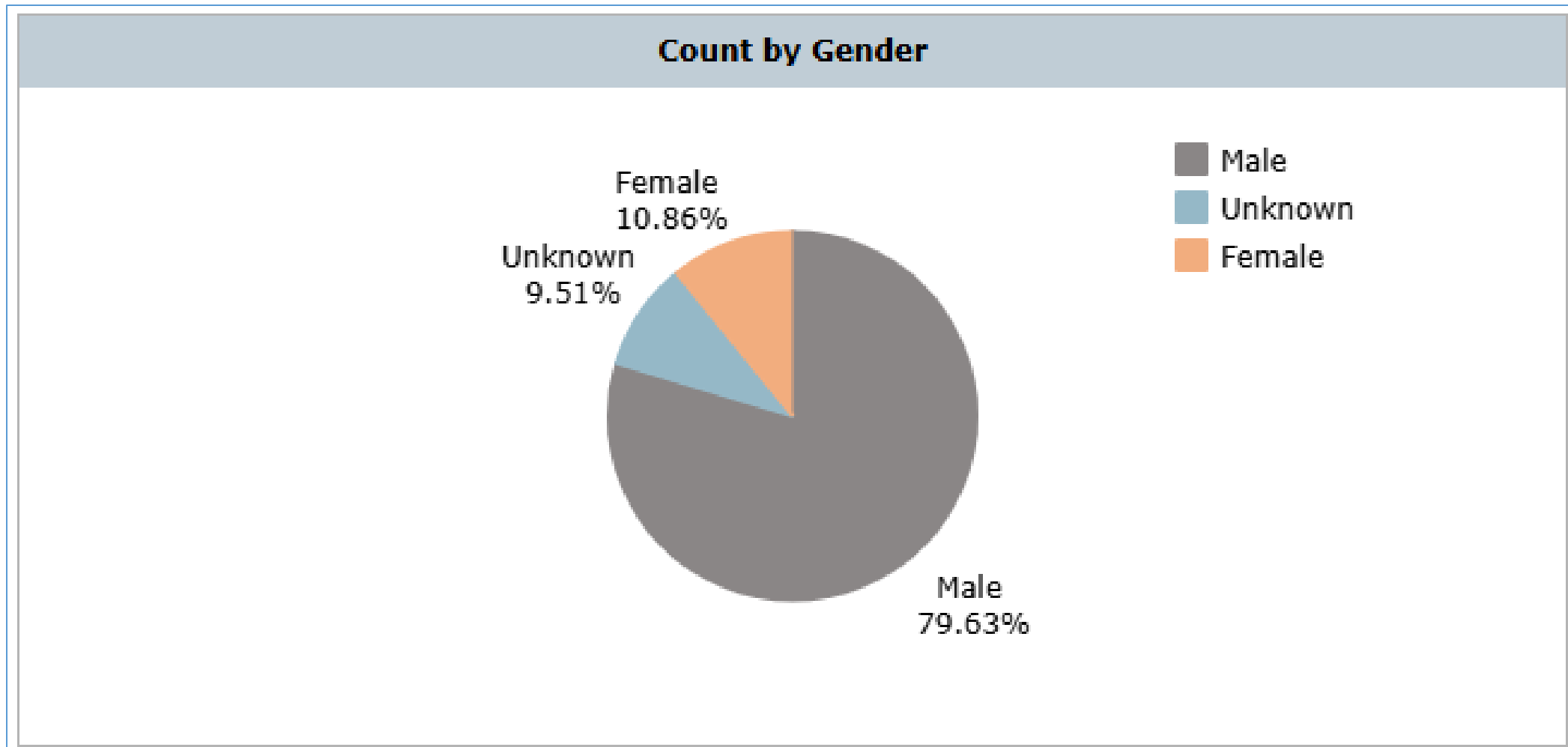
IEEE Southeastern Michigan Student Branch Laurels (2025)



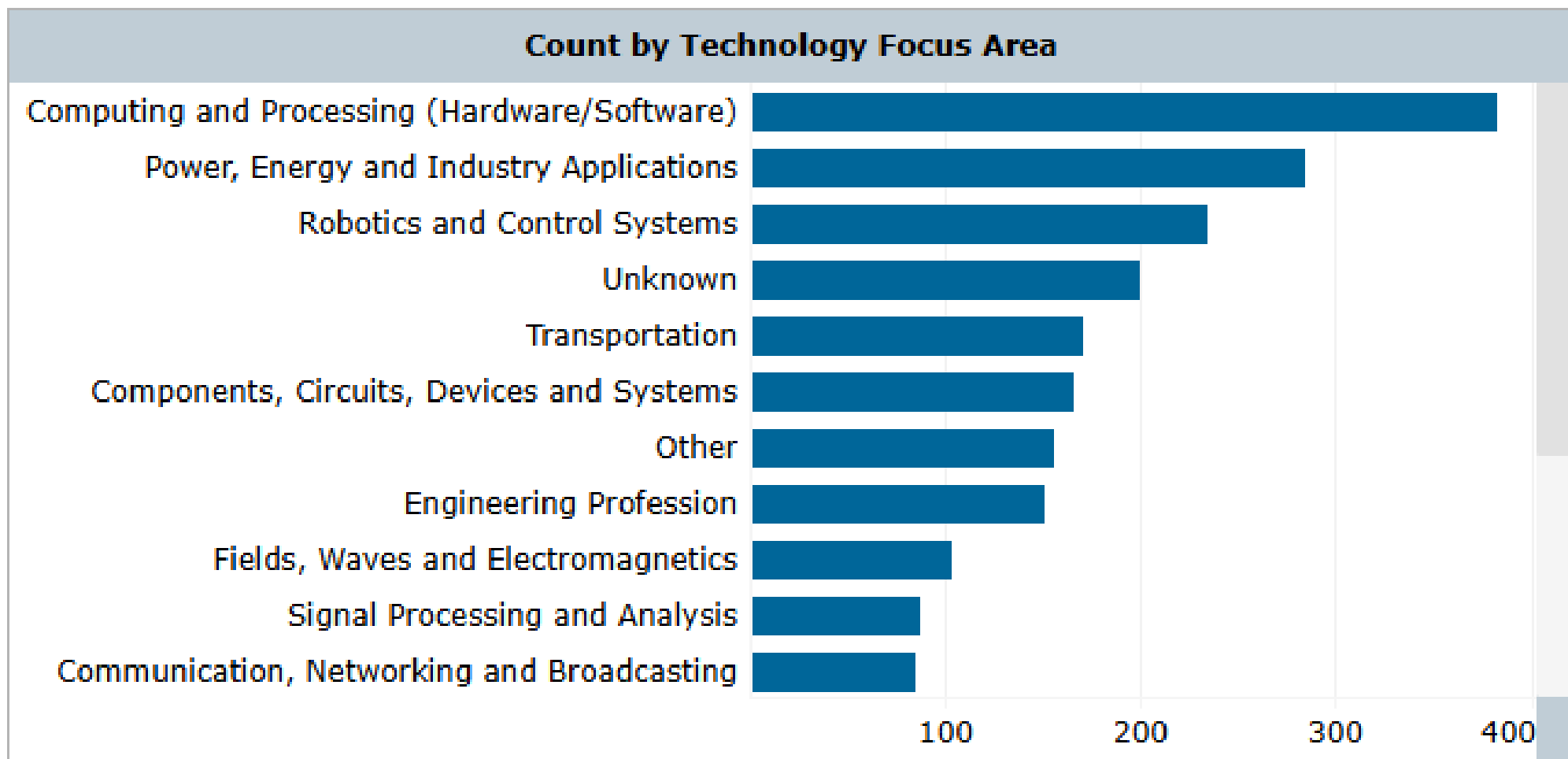
IEEE Southeastern Michigan Membership headcount: within Region 4



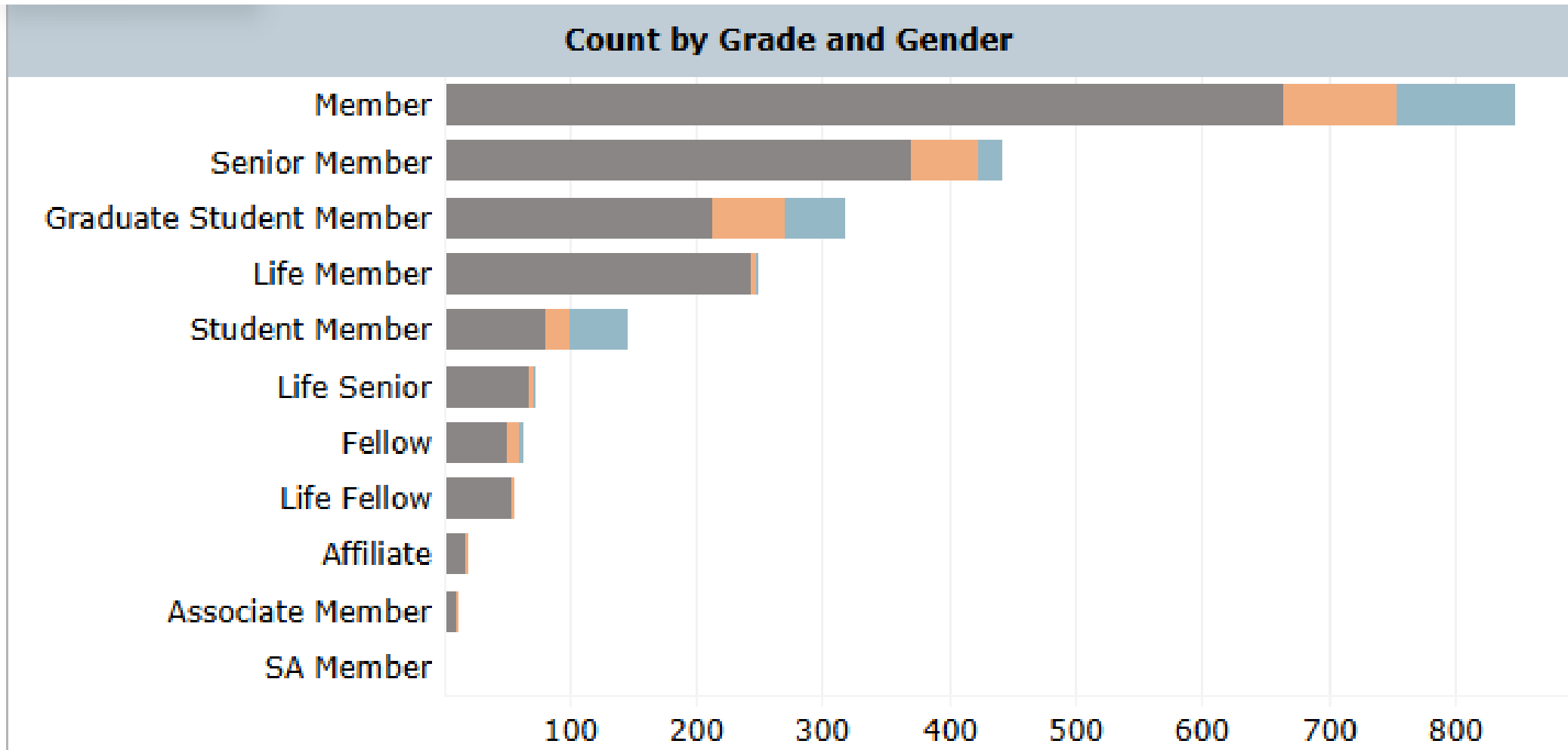
IEEE Southeastern Michigan Membership: Birds Eye View



IEEE Southeastern Michigan Membership: Birds Eye View



IEEE Southeastern Michigan Membership: Birds Eye View



Wavelengths – Monthly Newsletter

The screenshot shows the IEEE Southeastern Michigan Section (SEM) website. The browser address bar displays <https://r4.ieee.org/sem/>. The page header includes navigation links for IEEE.org, IEEE Xplore Digital Library, IEEE Standards, IEEE Spectrum, and More Sites. The main header features the text "IEEE Southeastern Michigan Section (SEM)" and the IEEE logo. Below the header is a navigation menu with links for Home, About SEM, SEM Blog, Careers, Chapters, SEM Calendar, Section Conference, and Wavelengths. The "Wavelengths" link is circled in red, and a blue arrow points to it from the right. Social media icons for Facebook, LinkedIn, Twitter, and YouTube are also present. The main content area is divided into two columns: "Frontpage" and "Upcoming Events".

Frontpage

The [June 2020 edition](#) of the Section monthly newsletter – Wavelengths – has been posted!

Feel free to check it out and share with fellow IEEE members!

TEMSCON 2020 in Detroit, USA is going Virtual due to the COVID-19 pandemic (Coronavirus). See our [virtual announcement](#)

EMC Fest – New Date: [September 17, 2020](#)

[2020 IEEE Women In Engineering Leadership Metro Detroit Summit](#)

In Memorium

MEITZLER, ALLEN HENRY, Ph.D. 1928-2020Dr. Allen Henry Meitzler, a retired applied physicist with the Ford Motor Company's Systems Research Lab and former adjunct professor on the Dearborn campus of the University of Michigan, passed away peacefully Saturday, March 21, at his family residence in Ann Arbor after a brief illness. He was 91 and lived in Ann Arbor with his family since 1973.

A memorial service will be held in Ann Arbor in the summertime. Allen was cremated at his direction and will be laid to rest in Forest Hills Cemetery. Online condolences may be left at www.meitzler.org/allen

[Click here for a list of upcoming events](#) or click the SEM Calendar TAB above. Additional Section events may viewed [here](#).

Upcoming Events

THU 25	Impact of COVID-19 on the Internet ecosystem June 25 @ 18:00 - 19:28 EDT
JUL 07	Innovative & futuristic Applications of IoT (Online) July 7 @ 18:00 - 19:30 EDT
JUL 08	SEM Section ExCom Monthly Meeting (Face-Face) for July 2020 July 8 @ 17:00 - 20:00 EDT
JUL 09	Ch8: AdCom Teleconference July 9 @ 11:00 - 12:00 EDT
JUL 18	Two-Day Online Tutorial: Introduction to C language programming July 18 @ 08:50 - 13:15 EDT

[View More...](#)



100th IEEE Anniversary Celebration



In this Issue

100th Anniversary *Once in a Lifetime!* Event Registration, page 1 • Showing Up, page 3 • DLSEMC course, page 4 • The Secretary's Pavane, page 5 • Mentor News, page 7 • PACE News, page 8 • RoboFest RoboExpo Conference, page 8 • UofM Hybrid Vehicles course, page 11 • EV Battery Tech USA Conference, page 12 • EMC Design, page 13 • Ethics Survey Call for Participants, page 14 • Call of Nominations, page 14 • Definition of IEEE "Chapters" and "Section", page 15 • In Memoriam, page 15 • Science Fair Awards, page 16 • Chapter IV Activities - New Society Added, page 17 • Officers List, page 18

Once in a Lifetime!

100th Anniversary Event

Tuesday, October 11, 2011 6pm The Henry Ford Museum

Early Registration through August 1, 2011

It's here! The 100th Anniversary Event for IEEE Southeastern Michigan Section will be at The Henry Ford Museum, Tuesday, October 11, 2011 starting at 6pm. You and your spouse / companion will enjoy the following at the event:

- Reception and networking with the keynote speaker, the 2011 IEEE USA President, and others in Lovett Hall Lobby
- Robofest Sumo Robot competition demonstration, organized by Prof. C.J. Chung from Lawrence Tech

- Lecture on the history of electricity and electronics during the past 100 years
- Dinner in the Lovett Hall Ballroom
- A night of private viewing of the Museum (a \$15 value!)

The keynote speaker will be Dr. Michael Geselowitz from the IEEE History Center at Rutgers. The title of talk is "From Starters to Startups: 100 Years of IEEE & Southeastern Michigan". He will present a non-technical history of the last 100-years of electronics and electricity --

perfect for members as well as spouses / companions!

Members who attended the Spring Section Conference already registered early (see photo of members lining up to register!).

IEEE members get special discount early registration price of \$90 per couple. Hurry! Early registration is open through August 1, 2011. All of the information is on the web site at http://ewh.ieee.org/r4/se_michigan/100.

We are seeking event sponsors and supporters. See the event web site for details. •



Members line up for 100th Anniversary registration at the April Spring Conference



Wavelengths Newsletter is produced by IEEE volunteers and published by IEEE Southeastern Michigan (SEM) Section (<http://www.ieee-sem.org>) for the Section members.
 Newsletter website: http://ewh.ieee.org/r4/se_michigan/newsletter
 Email: wavelengths@ieee-sem.org

Wavelengths Newsletter July, 2011 | 1



60th Anniversary Southeastern Michigan SECTION Celebration

Once in a lifetime!

Section 60th Anniversary



**Saturday Afternoon Tour, Light Show
with an evening dinner: 3 to 8 pm
November 4, 2023**

Sloan Planetarium & Flint Institute of Art
Flint, Michigan



IEEE

**Southeastern
Michigan**

Electrical and Electronic Engineers Creating Our Future



IEEE Southeastern Michigan – Industry Presence

- SE Michigan is heavily dominated by its famous Automotive Industry
 - General Motors (GM)
 - Ford
 - Stellantis [was FCA (Fiat Chrysler Automotive)/DaimlerChrysler/Chrysler]
- Numerous Tier-1 and Tier-2 Automotive manufacturing suppliers
- Current hot activity is all about:
 - BEV (Battery Electric Vehicles)
 - ADAS (Advanced Driver Assistance Systems)
 - IoT (Internet of Things)
 - Industry 4.0 (Smart Everything)
- Power/Energy Industry (DTE Energy/Consumers Power/Commonwealth Energy/etc)
- Industrial Electronics
- Life Sciences/Medicine/Pharma
- AgriBusiness
- Aerospace (More than 600 related companies)

IEEE Southeastern Michigan Section has the following *Technical Society Chapters*

▶ Chapter Technical Meetings:

- Chapter: 01 (*Joint*) Signal Processing, Circuits & Systems + Information Theory Society
- Chapter: 02 Vehicular Technology Society
- Chapter: 03 (*Joint*) Aerospace & Electronic Systems Society w/ Communications Society
- Chapter: 04 “Trident” combines Antennas & Propagation, Electron Devices w/ Microwave Theory and Techniques Society (*Joint*)
- Chapter: 05 Computer Society
- Chapter: 06 Geosciences and Remote Sensing Society
- Chapter: 07 (*Joint*) Power Engineering w/ Industrial Applications Society
- Chapter: 08 “EMC” Electromagnetic Compatibility Society
- Chapter: 09 (*Joint*) Industrial Electronics w/ Power Electronics Society
- Chapter: 10 Technology and Engineering Management Society
- Chapter: 11 Engineering in Medicine & Biology Society
- Chapter: 12 Control Systems Society
- Chapter: 13 Education Society
- Chapter: 14 Robotics And Automation Society
- Chapter: 15 Nuclear Plasma Sciences Society
- Chapter: 16 (*Joint*) Computational Intelligence with Systems, Man and Cybernetics Society
- Chapter: 17 Nanotechnology Council
- **Chapter: 18 Magnetics Society (NEW in the SECTION)**

Our Logo



IEEE

**Southeastern
Michigan**

Electrical and Electronic Engineers Creating Our Future



- <https://r4.ieee.org/sem/>
- <https://r4.ieee.org/sem/about-sem/sem-history/wavelengths-magazine-archive/>
- <https://r4.ieee.org/sem/sem-calendar/>
- **SOCIAL MEDIA:**
- <https://www.facebook.com/groups/ieeesemich>
- <https://www.linkedin.com/groups/1766687/>
- <https://www.twitter.com/ieeesemich>
- **WORKSPACE:**
 - <https://ieee-collabratec.ieee.org/app/workspaces/5979/IEEE-Southeastern-Michigan-Section/activities> *(for chapter officers work tracking activities, official records management, etc).*
- **COMMUNITY PAGE:**
 - <https://ieee-collabratec.ieee.org/app/community/6/Detroit-USA/activities> *(for all members discussion activity, general posts, etc)*

- <http://bit.ly/sem-upcoming>
- <https://r4.ieee.org/sem/sem-calendar/>

- **Southeastern Michigan Section Website:** <https://r4.ieee.org/sem/>
- SEM Facebook Page: <https://www.facebook.com/groups/ieeesemich>
- SEM LinkedIn Page: <https://www.linkedin.com/groups/1766687/>
- SEM X (formerly Twitter) Account: <https://www.twitter.com/ieeesemich>
- SEM Collabratec Workspace (for section/chapter/student branch/affinity group official work) <https://ieee-collabratec.ieee.org/app/workspaces/5979/IEEE-Southeastern-Michigan-Section/activities>
- SEM Collabratec Community Page (new – for general members) <https://ieee-collabratec.ieee.org/app/workspaces/5979/IEEE-Southeastern-Michigan-Section/activities>
- SEM Instagram (new): <https://www.instagram.com/ieeesemich/>
- In addition, we maintain a specific listserv for official work (very focused usage)

- ▶ **Southeastern Michigan Section ExCom meetings:**
 - In person once every Qtr (March, June, September and December)
 - Training on IEEE tools, resources and Chapter expectations – **ONLINE** training scheduled
 - Several technical events (both in-person and virtual)
 - **History Related Activities**
 - **Tours of Technical & Industrial Sites**
 - **Distinguished Speakers Visits**
 - **Professional training skills (e.g. leadership, management, etc)**
 - **Social and networking events**
 - **Discussion Forums**
 - **Job related opportunities**
 - **Industry Engagement Fixtures**
 - **Intramural and Extramural events**
 - ***Etc.....***