



November 2017

Newsletter of the Schenectady Section of the IEEE

(Section Established: 26 Jan 1903, part of IEEE Region 1)

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

## Celebrating IEEE Volunteers



(Small Actions) x (Lots of People) = BIG CHANGE

Please consider participating in IEEE section activities. IEEE Schenectady Section still has openings on many Section committees. See page 6 for roles and responsibilities.

Please note that IEEE may close Section Society Chapters if there is no leadership.

### Holiday Lunch and Section General Membership Meeting

December 7, 2017, 11:45 am – 1 pm.  
Niskayuna Reformed Church  
3041 Troy Schenectady Rd, Niskayuna, NY

### Upcoming Events

2017 IEEE MIT Undergraduate Research Technology Conference  
November 3-5, 2017 at MIT, Cambridge, MA  
<http://ieee.scripts.mit.edu/conference>

1ST Western New York IEEE EDS Conference  
November 10, 2017 at Rochester Institute of Technology, Rochester, NY  
<http://www.rit.edu/kgcoe/microelectronic/EDSWNY>

14th Annual CNY Engineering Expo  
November 13, 8 am – 5 pm, Oncenter, Syracuse, NY  
<http://www.cscos.com/engineeringexpo/>

11th Albany Nanotechnology Symposium  
November 15, 2017 at CNSE, Albany, NY  
<http://www.albanynanotechnology.org/>

## 2018 Elected Officer Nominations

Anyone interested please contact Rebecaa Nold or Krishnat Patil.

Please see pages 6 – 8 for a description of volunteer duties. These nominees will be elected by acclamation at the December 7 Section General Membership Meeting.

### Executive Committee

Chair Amal Mallavarapu, amal.mallavarapu.r@ieee.org

Vice Chair, Membership Aqsa Patel, aqsa.patel@ge.com

Vice Chair, Treasurer Colin McDonough, cmcdonough@sunypoly.edu

Vice Chair, Secretary Krishnat Patil, krishnat.patil@siemens.com

Past Chair Rebecca Nold, r.nold@ieee.org

### Computational Intelligence Society

Chair Open

Vice Chair Open

### Computer Society

Chair Open

Vice Chair Open

### Dielectrics and Electrical Insulation Society

Chair Open

Vice Chair Open

### Education Society

Chair Open

### Electron Device Society

Chair Rinus Lee, rinus.lee@gmail.com

Vice Chair Stanley Kocsis, kocsis@ieee.org

Vice Chair Luigi Pantisano, luigi.pantisano@globalfoundries.com

Vice Chair Katarine Dovidenko

### Engineering in Medicine and Biology Society

Chair Open

### Industry Applications Society

Chair Jiangbiao He, jiangbiao.he@gmail.com

Vice Chair Xu She, xshe@ieee.org

Dong Dong, Dong@ge.com

Di Pan, pandi1021@gmail.com

### Power and Energy Society

Chair Tim Corrigan, tcorrigan@ieee.org

Vice Chair Masoom Chowdhury, masoom.chowdhury@siemens.com

### Signal Processing Society

Chair Javad Heydari Khormizi, khormizi@gmail.com

Vice Chair Open

## 2018 Appointed Officers

Anyone interested please contact Rebecaa Nold or Krishnat Patil.

Awards Chair Open

Membership Meeting Coordinator Aqsa Patel, aqsa.patel@ge.com

Newsletter Editor Krishnat Patil, krishnat.patil@siemens.com

Nominating Committee Chair Rebecca Nold, r.nold@ieee.org

PACE Chair Open

Past Section Chair Rebecca Nold, r.nold@ieee.org

PDH Coordinator John Golde, John.Golde@goldeengineering.com

Section Historian Open

e-Week Committee Chair Open

Section Liaison to Prof. Eng. Society

Steinmetz Committee Chair Open

Student Activities Chair Rinus Lee, rinus.lee@gmail.com

Webmaster Krishnat Patil, krishnat.patil@siemens.com

Women in Engineering Affinity Group Open

Young Professionals Program Open

## RPI Students Visit GE Power Schenectady

Rebecca Nold organized tour of the steam turbine / generator manufacturing facility at GE Power in Schenectady on October 18 for Manoj Shah's Machinery Design Class from RPI.



## DEIS Chapter Update:

After four years (2013-2016) of excellent scheduled activities (talks by Distinguished Lecturers and other international experts) the Dielectrics and Electrical Insulation Society Schenectady Chapter has held no invited talks in 2017, nor has yet any scheduled through December. A search is underway to confirm nominees for chair and vice-chair for 2018, in order to re-establish a viable, active Schenectady DEIS Chapter. It is hoped to successfully complete the search by the time of the Section AGM in December. Suggestions for potential nominees should be directed to Professor Keith Nelson ([k.nelson@ieee.org](mailto:k.nelson@ieee.org)) or Dr. Clive Reed ([reedcw@nycap.rr.com](mailto:reedcw@nycap.rr.com)).

## IEEE EDS Schenectady Chapter 2017 Mini-Colloquium

The EDS Schenectady chapter organized a mini-colloquium (MQ) in collaboration with GLOBALFOUNDRIES in Malta, NY, on September 22nd, 2017. The theme of the MQ was "Green Electronics". Three IEEE EDS distinguished lecturers and IEEE Fellows; Prof. Paul Yu from UC San Diego, Prof. Suman Datta from Notre Dame and Prof Michael Shur from RPI were invited to anchor the morning plenary program. Paul started off the morning strong by inviting the audience to share in the vision of "Going Green" with UC San Diego's campus wide initiatives in PV, EV, MicroGrids and Building Efficiency. Next up was Suman, who gave us an excellent overview of how semiconductor manufacturing has evolved from classical-scaling to equivalent-scaling, and how energy efficient nano-electronics will be critical to meet the demands of next generation applications. To bring it all home, Michael delivered an excellent talk on terahertz sensing technology. These three invited talks provided a well-rounded perspective on future opportunities for semiconductor

manufacturing. There were about 300 attendees, comprising of students, faculty members and IEEE members from the capital region.



Organizing Committee and Invited Speakers of the Mini-Colloquium

### 2017 IEEE Albany Nanotechnology Symposium

The 11th Albany Nanotechnology Symposium, co-sponsored by IEEE EDS Schenectady Chapter, will be held at the College of Nanoscale Science and Engineering (CNSE) on November 15th, 2017, in Albany, NY. This is a workshop-style symposium that provides a unique forum for engineers, scientists, faculty and students working in the field of electronics to share and discuss results and common interests. Oral sessions of invited and lightning talks, as well as a lively poster session, have been designed to encourage discussion. The program includes talks and poster presentations from all areas of semiconductor technology. For more information, please visit <http://www.albanynanotechnology.org/>

#### Sponsors



#### Donors



## Appreciation Lunch for Ming-Yi (EDS Vice-Chair 2016-2017)

An appreciation lunch for Ming-Yi was held on Oct 3rd (IEEE Day!) to bid him farewell as he leaves the Capital Region to take on new challenges with his freshly minted PhD. In the past two years, he has been instrumental in leading/organizing our technical seminar series, enabling IEEE members to connect and learn. And for that, we presented him with an IEEE appreciation award! His passion and enthusiasm in organizing these seminars will be missed. We wish him the very best in his future endeavors.



IEEE Schenectady EDS Chapter Committee

## IEEE Section Committee Roles and Responsibilities

### Executive Committee member

Committee usually meets monthly at lunch. Together they come up with the general membership activities you see advertised in the section. Programs can lunch programs, and/or evening seminars in any technical, career development or social area. There is also the opportunity for involvement in Region 1 activities (Region 1 covers the Northeast). Executive Committee members tend to stay on the committee for four years and serve as chair during the fourth year. Each year we ask if you want to continue, so there is a chance to leave if needed. The following offices have specific responsibilities as shown.

#### Chair

- Call and run Section Executive committee meetings.
- Work toward programming that creates value for members and returns their dues/rebates to them.
- Attend Regional meetings or find a representative.
- Notify Regional leadership/secretary of voting proxy if a representative is sent.
- Ensure that year-end reports are submitted.
- Help coordinate meeting reports so that each chapter is credited with appropriate meeting activity.
- Be secondary check writer after the treasurer.
- Write IEEE Fellow nomination referrals as required.

#### Treasurer

- Be present at lunch and Executive Committee meetings as much as possible.
- If there is a check-writing requirement, coordinate who will write/deliver check if you can't attend.
- Keep track of Section treasury and bank accounts (located as required by IEEE).
- Coordinate and pay for PO box and mailing account as required.
- File year-end reports with IEEE as required.

#### Secretary

- Be present at Executive Committee meetings as much as possible.
- Issue minutes of same if in attendance.
- Write thank you letters to speakers.
- Help file year-end meeting reports (?).

### Power and Energy Society Committee Member

Work with other PES committee members to coordinate lunch meetings and/or evening seminars. Other program ideas are welcome. PES committee members typically spend four years on the committee culminating in chairmanship. An opportunity for sponsored travel to officer and section development events exists. Committee should send one representative to attend executive committee meetings.

### Technical Society Committee Member

(Signal Processing, Computer, Industry Applications, Computational Intelligence, Electron Device Society)

Work with other committee members to coordinate lunch meetings and/or evening seminars. Other program ideas are welcome. An opportunity for sponsored travel to officer and section development events exists. Committee should send one representative to attend executive committee meetings.

### **Life Member Chapter Chair**

- The Chapter Chair coordinates 2 – 3 events per year of interest to life members. Events could be anything from technical seminars to historical lectures to social events. Attend executive committee meetings as much as possible – at least several times a year to become familiar with the Section and its events.
- The designation "Life Member" is applicable only to a member who has attained the age of 65 years and who has been a member of IEEE or one of its predecessor societies for such a period that the sum of his/her age and his/her years of membership equals or exceeds 100 years.
- Executive committee meetings are at lunch on a weekday about 10 times a year and include lunch.

### **Awards Chair**

There are many awards available from IEEE, on a regional basis and from technical societies. They recognize volunteering, and technical accomplishment. The Awards chair becomes familiar with what is available and tries to publicize and/or solicit nominations to bring some of this resource/recognition back to the Section. The Awards chair also tries to encourage people to upgrade to senior membership. The Awards chair can use the web site, member emails and the newsletter for publicity.

### **Section Historian**

Preserve and broadcast our proud Schenectady Section history Use and promote the IEEE wiki website for history.

### **Student Activities Chair**

Stay in contact with RPI and Union student chapters. Support Future Cities competition, support other competition and mentoring opportunities as deemed appropriate. Guide career development programming that might be useful to student members. This can be direct participation or organizing other volunteers - email lists available!

### **PACE (Professional Activities) Chair**

Create programs for the purpose of professional development. Affinity groups have the goal of sponsoring one event per year to obtain a rebate from IEEE. It is advantageous to work with student chapters and submit requests for grants available from IEEE.

### **Affinity Group**

[Women in Engineering \(WIE\)](#), [Engineering in Medicine and Biology](#),  
[Young Professionals](#)

Create programs of interest to affinity group. Affinity groups have the goal of sponsoring one event per year to obtain a rebate from IEEE.

### **Webmaster**

Maintain section web site. Post upcoming events. Archive old events. Create list of officers each year. Make other changes as requested by officers.

### **Newsletter Editor/Coordinator**

Publish newsletter. The editor collects articles written by other officers and members. It helps to attend the Executive Committee meetings and luncheons as often as possible so you are aware of what is newsworthy and can contribute to the writing when needed.

### **Nominating Committee Chair**

Each summer check with volunteers to confirm that they want to continue with volunteering in their post or the next elected position in a rotation. Encourage existing volunteers to recruit for open positions, or personally contact new volunteers. Create a nominating committee report and give it to the newsletter editor in September for publishing. Keep track of names, check/assist the incoming Section chair to include new members in their email list. Check officer web site contact list.

### **e-Week Committee Chair Section Liaison to Prof. Eng. Society**

This volunteer should be a professional engineer. He or she helps plan the Albany e-Week event by sitting on the e-Week planning committee and finding speakers for the Electrical Engineering track of the conference.

### **Steinmetz Committee Chair**

Coordinate planning of the Steinmetz Lecture event. The Steinmetz Lecture is financed by a trust set up by the Steinmetz family, and is an evening/dinner event that is held in Schenectady, usually at Union College. As such, this is a great job for a member who is connected with Union College.