June 6, 2017

Ron Tabroff

Director, Region 1 IEEE

Greg Gdowski

Chair, IEEE Rochester Section

Dear Ron,

Please find enclosed a yearly report for the 2017 Region 1 Board of Governors meeting. The report details many of the important activities conduced in the Rochester IEEE Section over the last year. It also lists important events that will be carried out in the later part of 2017. If you have any questions, please do not hesitate to contact me.

Best Regards,

Greg Gdowski

Chair, IEEE Rochester Section

June 6, 2017

Rochester IEEE Section

2017 Region 1 Board of Governors Report

## Past Events

1. **Rochester Section Joint Chapter Meeting (Technical Event).**

The meeting will feature a keynote presentation and two parallel sessions with technical presentations from different chapters and societies.  The meeting was held at the Rochester Institute of Technology. There were roughly 80 people attending (60 were IEEE members). Members were charged $30 to attend the dinner and keynote presentation.

* CS-CIS, “A Vision for Human-Centered Cybersecurity” by Dr. M. Wright
* GRSS, “Multi-modal unmanned aerial system development and applied research at RIT” by Dr.
* SPS, “Analyzing/Tracking Persons 3D Gaze” by Gabriel Diaz
* EMBS, “An Adaptable Framework to Extract Abnormal Brain Networks” by Dr. Archana Venkataraman
* APS/MTTS, “Gallium Nitride Power MMICs – Fact and Fiction” by Dr. Charles Campbell
* PES/IAS, “IEEE SMART Village Initiative” and “HVDC – Powering the future” by Girish Behal
* KEYNOTE PRESENTATION: “Robert Moses Niagara Falls Hydroelectric Plant” by Rick Fremming

1. **Image and signal processing workshop (wnyispw), 2016 IEEE Western New York (Technical Event)**

The Western New York Image and Signal Processing Workshop (WNYISPW) is a venue for promoting image and signal processing research in our area and for facilitating interaction between academic researchers, industry researchers, and students.  The workshop comprises both oral and poster presentations. The workshop, building off of 17 successful years of the Western New York Image Processing Workshop (WNYIPW), is sponsored by the [Rochester chapter](file:///C%3A/Users/rwpeec/Desktop/rwpeec/IEEE/WNYISPW2016/WWW/index.html) of the IEEE Signal Processing Society with technical cooperation from the Rochester chapter of the Society for Imaging Science and Technology. 110 People attended (about 80 IEEE members). The meeting was held at the Rochester Institute of Technology.

* “Video and Language” by Jiebo Luo
* “A Deeper Understanding of Large Neural Nets” by Jason Yosinski
1. **40TH IEEE EDS activities in Western New York Conference (Technical Event)**

The focus of this conference is to bring engineers and researchers together to share information on a wide variety of topics related to microelectronic devices and systems.  The conference is a joint event technically co-sponsored by the Electron Devices Society and the Photonics Society of the IEEE Rochester Chapters.  The conference was held at RIT in the CIMS facility on the west side of the campus.

* “Physics and limiting mechanisms of ultrafast response of field effect transistors” by Michael Shur.
* ” Optical and Photonic Transparent Ceramic Materials” by Yiquan Wu.
1. **IEEE Rochester NY participated in the 27th annual E3 Fair at RIT Clark Gymnasium on 27 April. (STEM Event)**

IEEE Senior Member, Joseph DeVita, brought the Musical Engineer back to the 2017 E3 Engineering and Technology Fair with a presentation about the science of sound. Middle school students were introduced to the electro-mechanical fundamentals of audio speakers, sound amplification and sound pressure measurement. There was a hands-on demonstration of a do-it-yourself picnic-plate speaker. Kits consisting of a Styrofoam plate, voice coil wire, spools, business cards and magnets were given to students interested in building their own versions at home. Visitors to the IEEE display were impressed with the level of “fidelity” the 98 cent speaker was able to generate. This ‘second-generation’ DIY speaker was based on a paper-plate design used by IEEE student members at the University of Rochester in their STEM outreach programs. Sound Source in Rochester NY provided commercial speakers for tear downs. We also wish to thank the students and educators that participated, for their interest and thoughtful inquiries.

## Upcoming Events

1. **Rochester Section summer event: Seabreeze** (Social Event) Open event for families at a local amusement park ($5/ticket). July 13th.
2. **GRSS STRATUS Workshop** (Systems and Technologies for Remote Sensing Applications through Unmanned Aerial Systems). October 22, 2017.

The emergence of low-cost and easy-to-use Unmanned Aerial Systems (UAS), commonly referred to as drones, has led to an explosion of their use for numerous applications. In particular, these new platforms have enabled new imaging and earth remote sensing technologies and applications previously unavailable due to the high cost of manned aircraft or satellites. This workshop will bring together academics, industry representatives, and domain specialists to share perspectives on this rapidly evolving topic. **Interested in presenting or know someone in your section that might be? Please contact Greg Gdowski (Chair Rochester Section)?**

<http://ewh.ieee.org/r1/rochester/grss/STRATUS2017/>

1. **Image and signal processing workshop (wnyispw), Friday, November 17, 2017 IEEE Western New York (Technical Event)** CIMS building at Rochester Institute of Technology

The Western New York Image and Signal Processing Workshop (WNYISPW) is a venue for promoting image and signal processing research in our area and for facilitating interaction between academic researchers, industry researchers, and students. Topics include, but are not limited to Computer Vision, Audio Processing, Information Retrieval, Image and Color Science, and Machine learning.  Applications areas include:  Medical Image and Signal Analysis, Remote Sensing, Archival Imaging, Printing, Consumer devices, Security, Surveillance, Document Imaging, Art Restoration and Analysis, Astronomy. **We are looking for Keynote presentations!**

Submitted by Greg Gdowski

Chair, IEEE Rochester Section

# To be presented at the Board of Governors meeting in Nashua NH, 2017.

[STRATUS 2016](http://ewh.ieee.org/r1/rochester/grss/STRATUS2016/)

Summary of the STRATUS 2016 Workshop

October, 28. There were 82 people registered for the workshop from both industry and academia. Companies such as SkyOp, microdrones, Harris, Eagle Hawk, EnableUAV, Oak Ridge National Labs and even the Monroe County Water Authority were represented. Individuals from universities such as University of Guelph (Canada), Beijing Institute of Technology (China), Hobart and William Smith, Cornell, St. John Fisher, U of R, RIT and MCC were also in attendance.

There were 11 oral and 6 poster presentations along with two keynote speakers, one from industry (i.e., Headwall Photonics in Boston) and one from academia (i.e., RIT). Student awards ($200 each) were given out for best paper (Ahmed Elshamli), poster (Dylan Cornell), and oral presentation (Ryan Ford). These awards were made possible by the generous financial contributions of EagleView-Pictometry.

The workshop was made possible, in part, by an IEEE Geoscience and Remote Sensing Society (GRSS) award won by RIT Research Professor, and general workshop chair, Emmett Ientilucci. The award allowed for low registration fees for non-students while waiving registration fees for students. The workshop also received the technical co-sponsorship of the IEEE GRS Society which enabled hosting the event on the IEEE GRSS website, advertisement in the GRSS Magazine, and the ability to publish accepted full papers in IEEE Xplore.