



# IEEE Rochester Section

Serving Rochester Engineers  
for over 100 years  
December 2020 Newsletter

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## Message from the Chair

Dear Colleagues,

As 2020 nears its end, it is worth reflecting on the silver linings in the face of dramatic and unprecedented changes this year brought to IEEE. The quintessential IEEE in-person events and meetings became high-risk activities in the COVID-19 world. However, through the hard work and dedication of IEEE volunteers, our greatest asset, many of these in-person meetings were adapted to a virtual platform. In doing so, the doors were opened to engage with a broader IEEE audience from all over our Northeastern region and the world. We continue to learn from this change in event mediums and improve our virtual event quality as we strive to engage with this broader audience. Additionally, the IEEE Rochester Section gained several new enthusiastic ExCom volunteers that I believe will help invigorate the section and drive additional activities in 2021. This makes me hopeful for the future of the IEEE Rochester Section in the year ahead.

Stay healthy, and best regards,



## Editor's Note

Two years ago, I volunteered to edit the newsletter because I thought it would be a way I could help and simultaneously learn about the Rochester IEEE Section. I can check off both. It is time for me to let someone else have this opportunity. If you are interested, please contact Eric. I'm continuing to work with Chris on our section's electronic communications.

--Howard

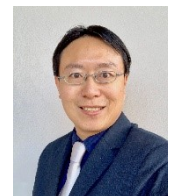
## Introducing Rochester Institute of Technology Student Group Sponsor


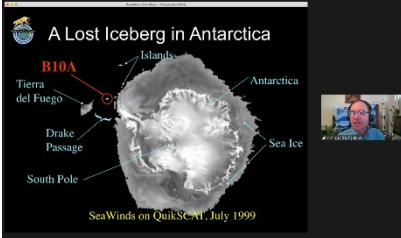
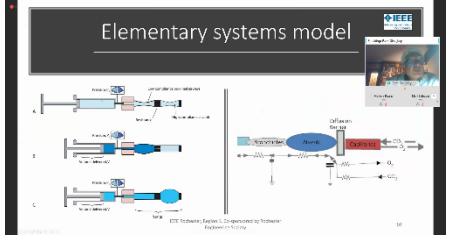
Jamison Heard is an assistant professor at the Rochester Institute of Technology, where he researches adaptive human-robot teams, reinforcement learning, human-robotic interaction, task recognition, and real-time human state assessment. He received the Bachelor of Science degree in electrical engineering from the University of Evansville in 2013 and the Master of Science degree and Ph.D. in electrical engineering from Vanderbilt University in 2016 and 2019, respectively. He worked for the Oregon State University Robotics Department while completing his PhD.



## Introducing University of Rochester Student Group Sponsor

Dr. Ming-Lun Lee, Assistant Professor of Electrical and Computer Engineering, is the new faculty advisor for the University of Rochester IEEE Student Branch. Lee received his Ph.D. in historical musicology and music theory from the University at Buffalo. He also holds master's degrees in electrical engineering and musicology from National Taiwan University. He teaches several courses for the Audio and Music Engineering (AME) and Electrical and Computer Engineering (ECE) programs. Lee's research areas include wireless communication, spatial audio recording and reproduction for AR/VR, audio software design, and audio preservation.



|   |   |   |
|---|---|---|
| <p><b>Power Engineering</b></p> <p><b>GREENSPARK SOLAR</b></p> <p><b>Equipment + Technology</b></p> <p>All solar projects are storage ready<br/>         Panels anywhere from 315-400 watts<br/>         Panels are about 3' x5' or 3'x4'<br/>         Add 3-5 lbs pof<br/>         Inverters<br/>         Flat roofs (ballasted)<br/>         Groundmounts (Ground Screws)</p>  | <p><b>Geoscience &amp; Remote Sensing</b></p> <p><b>A Lost Iceberg in Antarctica</b></p>   | <p><b>Life Members</b></p> <p><b>Elementary systems model</b></p>    |
| <p>Mary Nicholas and Doug Weishaar presented to 19 people, including 7 IEEE members from the Buffalo, Rochester, and Syracuse sections. They discussed their company, the solar energy boom, design and financial considerations, equipment and technology, and public policy.</p>  | <p>Professor David Long of Brigham Young University, described applications of scatterometer – a class of active microwave remote sensors. 36 people, including 7 IEEE members, attended. Scatterometry permits satellite sensing of environmental and geophysical features such as wind velocity, oil spills, glaciers, sea ice, and icebergs.</p> | <p>Ram Dhurjaty discussed “Systems Physiology of Ventilation, Electrical Analogs, and Simulations”, using hydraulic, hemodynamic, and electrical models. He presented LTSPICE™ simulations of both pressure controlled and volume-controlled ventilators. 57 people attended.</p> |

Meeting Report: 2020 IEEE Rochester Section Joint Chapters Meeting and Keynote



The 2020 IEEE Rochester Section Joint Chapters Meeting was hosted online, as a digital forum, on October 27, 2020, and gathered more than 40 attendees. The event was a success, featuring six technical sessions highlighting some of our flagship IEEE Chapters in the Rochester section and a keynote address by Dr. Katherine Duncan, 2020 IEEE-USA President-Elect. Attendees learned about remote sensing, remote manipulation tasks, prevention of static ignition, body language during professional networking, ferroelectric device computations, and novel approaches to manipulate electromagnetic waves.

Dr. Duncan’s keynote on the “Evolving Mission and Vision of IEEE USA” provided an overview of IEEE-USA organization, services, awards, recognition, and resources. In addition, there was a very successful “virtual hallway” networking session that enabled attendees to “join” different networking groups by “entering” different rooms off the main “virtual hallway”.

We thank all speakers and attendees and look forward to welcoming everyone to our 2021 event. Please note that registered attendees are eligible to apply for PDH credits – if interested please contact [Christian.Linte@ieee.org](mailto:Christian.Linte@ieee.org) for additional information.

**IEEE-USA Strategic Plan**

**OUR MISSION –**  
 Provide effective public policy advocacy and career and member services to members, the profession, and the public within the USA to shape and foster technological innovation and excellence for the benefit of humanity


**OUR VISION –**  
 Be recognized by IEEE U.S. members as their premier source for public policy advocacy and member services that promote lifelong career vitality

**IEEE-USA WILL:**

- Promote public policy issues that shape and protect technological growth and jobs to better serve the interests of our members, the profession and the U.S. public
- Provide career and member services to foster technological innovation and excellence for the benefit of IEEE U.S. members and the profession
- Provide timely, useful IEEE-USA information to members, and publicly recognize distinguished professional achievements


**Core Values:**

- Trust
- Community Building
- Integrity in Action
- Service to Humanity
- Partnership
- Growth and Nurturing
- Support for the Nation’s well-being

IEEE-USA 

**Highlights From IEEE-USA’s 2020 Member Benefits Survey**

|   |   |  |
|---|---|--|
| <b>81.7%</b><br><i>of U.S. IEEE Members</i>                     | <b>66.4%</b><br><i>of U.S. IEEE Members</i>   | <b>64.2%</b><br><i>of U.S. IEEE Members</i>          |
| Believe that IEEE-USA’s Mission is Important to Them Personally | Are Satisfied With IEEE-USA<br><i>(on par with satisfaction result for overall IEEE membership)</i> | Believe that IEEE-USA Adds Value to Their Membership |
| ↑ Up 10.7% from 2018  | ↑ Up 13.8% from 2018  | ↑ Up 10.1% from 2018                                 |

IEEE-USA 

IEEE Rochester Section Events

Please check the events to ensure they are as scheduled below. Visit [events.vtools.ieee.org/m/vtools#](https://events.vtools.ieee.org/m/vtools#) for details about any of these events.

| Event                         | Vtools # | When                                     | Where     |
|-------------------------------|----------|--|-----------|
| <a href="#">EXCOM Meeting</a> |          | December 1 <sup>st</sup> , 11:50 – 13:00 | Via Webex |
| <a href="#">EXCOM Meeting</a> |          | January 5 <sup>th</sup> , 11:50 – 13:00  | Via Webex |