



IEEE Rochester Section

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April 2018

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Message from the Chair

Dear colleagues,

I am gratified by participation of our membership. The renewed activity in the various chapters is encouraging. I hope that all chapters will have two or more speakers this year as part of their activities. It is also heartening to note that we are having great attendance at the EXCOM meetings. Before we know it the JCM will be upon us. I encourage all members to attend-and register early to take advantage of discounted rates. We have assembled great presentations that should be of interest to all our members.



We are having a joint meeting between the life members of the ASME and IEEE on the Chandra X-Ray Space Telescope, which was developed in Rochester. This meeting will be held on April 12, at 7:00 pm, in the new NextCorps (formerly HTR) facility in downtown Rochester. This very in depth and interesting talk will be given by ASME distinguished speaker, Jon Kriegel.

We will be planning to have the summer picnic at Corning with a visit to the glass museum. Details will be forthcoming in future newsletters.

Sreeram Dhurjaty

2018 Rochester Section Joint Chapters Meeting



The IEEE Rochester Section Joint Chapter Meeting is on March 28th, 2018, at RIT. The technical sessions are free to attend for IEEE members. **Reservations are required** to attend the dinner a keynote presentation. Go to <https://events.vtools.ieee.org/m/157596> to make your reservation!

Keynote Speaker

We are proud to have Dr. Kelly Robinson as the Keynote Speaker of the 2018 Joint Chapter Meeting. The Keynote will take place during dinner (7:30 – 8:30 PM in SLA 2210 & 2220). **Registration is required!**



Dr. Robinson's talk is entitled "Static Control for the Flexible Packaging Industry". He will demonstrate the neutralizing performance of several commercial

static dissipators and will present several best-practice static control examples, including a gravure, solvent coater and an unwinding roll of bare polymer film.

Technical Sessions

4:30 – 5:25 PM SESSION I A: IEEE Computer Society & Computational Intelligence Society -- PHY-Layer Encryption and Modulation Obfuscation: Challenges and Solutions by Hanif Rahbari, RIT (Room: SLA 2120)

B: IEEE Technology and Engineering Management Society -- Patent Licensing by William Fowlkes, IP.com (Room: SLA 2130)

C: IEEE Geoscience and remote Sensing Society -- [MX1: A New Multi-modal UAS Payload System with High Accuracy GPS and IMU](#) by Timothy Bauch, RIT (Room: SLA 2140)

5:30 – 6:25 PM SESSION II

A: IEEE Microwave Theory and Techniques Society & Antennas and Propagation Society -- Metamaterials for Microwave Applications by Jun (Brandon) Choi, SUNY University at Buffalo (Room: SLA 2120)

B: IEEE Engineering in Medicine and Biology Society -- Photoacoustic Imaging: Technology Development and Application for Cancer Diagnosis, Navalgund Rao, RIT (Room: SLA 2130)

C: IEEE Photonics Society -- Opportunities for growth and investment in Optics, Photonics and Imaging Sujatha Ramanujan, Luminate Inc. (Room: SLA 2140)

5:30 – 7:00 PM CHAPTER POSTER SESSION Local research will be on display. Best student poster prize of \$100.

IEEE Rochester Section Members' Presentations at the 2018 Engineering Symposium Rochester

The Engineering Symposium in Rochester is on April 24th, 2018, at the Rochester Riverside Convention Center, 123 East Main Street, from 7:30 AM to 6:30 PM. Register at <http://www.roceng.org/event-2790872>. Registration includes continental breakfast, coffee breaks, lunch, and parking.

Several section members are included in the 2018 program. Dr. Ram Dhurjaty's talk is "**High Voltage Power Supplies for Medical X-Ray Generators.**" Dr. Raymond Ptucha will describe "**What Is and How Will Machine Learning Change Our Lives.**" Prof. Jaime Cardenas, Ph. D will discuss "**Optical Packaging of Photonic Chips.**" Dr. Yossi Nygate will answer "**Do machine learning algorithms really learn?**". Rick Church, P.E. will describe "**Shading Effects on Photovoltaic Systems.**" Mark Schrader will present "**TM-30-15 A New Standard for Measuring Light Quality.**"

IEEE Rochester Section Signal Processing Society Workshop

Over 75 people attended a sold-out workshop on "Deep Learning", sponsored by the IEEE Signal Processing Society, NVIDIA, and Uber. Topics discussed at the workshop include "**Deep Learning Demystified**", "**Image Classification with DIGITS**", "**Introduction to TensorFlow**", and "**Image Segmentation with TensorFlow**". In addition, Felipe Petroski Such, of Uber Research Labs (pictured to the right), gave the invited talk, "**Image Segmentation with TensorFlow**".



IEEE Rochester Section Geoscience and Remote Sensing Society Collaboration

Dr. Emmet Lentilucci, member of the Geoscience and Remote Sensing Society was invited to the "Remotely Sensed Big Data Analysis and Mining 2018" workshop in Kolkata, India recently. This international collaboration was supported by the IEEE and Geoscience and Remote Sensing Society led by the Kolkata, India section, with participation from the Western New York, Benelux, Bombay, and Hyderabad sections. Dr. Lentilucci gave a talk, entitled, "**Remote Sensing and the Growth of Data in RIT's DIRS Lab: Applications and Data Processing**". As a result of the workshop, Professor Susmita Ghosh has applied for a fellowship to work with the Digital Imaging and Remote Sensing (DIRS) laboratory in the Center for Imaging Science at the Rochester Institute of Technology. The proposed research is on "remotely sensing hyper spectral image analysis." A PhD student from Bharathiar University has applied for a fellowship to study "**An Iterative Supervised Deep Learning Convolutional Neural Network for Non-Linear Spectral Unmixing**" at DIRS.



IEEE Rochester Section Upcoming Events

<u>Event</u>	<u>When</u>	<u>Where</u>
NIST, Hyperspectral Imaging Standards, and Alternative Methods of Sensor Evaluation , by Dr. Dave Allen	March 28, 2018 @ 3:30 – 4:30 PM	Center for Imaging Science Auditorium, Room 1125, Building 76
Rochester IEEE Joint Chapters Meeting	March 28, 2018 @ 4:00 – 9:00 PM	Louise Slaughter Hall, RIT Building 78 Conference Center (2 nd Floor)
EXCOM Meeting	April 3, 2018 @ 11:45 – 1:00	Tandoor of India, 376 Jefferson Rd Henrietta NY
Chandra X-Ray Space Telescope Talk, by Jon Kriegel	April 12, 2018 @ 7:00 PM	NextCorps, 260 E Main St Suite 6000, Rochester, NY
Power & Energy/IAS Tour of New RGE Substation	April 25, 2018 @ 5:00 -7:00 PM	Transmission Substation 262, Corner of Mt Hope Ave. and Hamilton St. RSVP to jeankendrick@ieee.org for mandatory details

Please visit our website, sites.ieee.org/rochester/ for more details, and to see more upcoming events!