ROCHESTER SECTION
IEEE NEWS FOR NOVEMBER 2013

Jacob Z. Schanker, P.E., Newsletter Chair
The Rochester section web site is at: http://rochester.ieee.org/

Rochester Section Meeting – Tuesday, November 5, 2013 at Noon

The next Rochester Section business meeting is on Tuesday, November 5, 2013 at 12:00pm, at the **Hibachi Sushi Buffet Restaurant** in South Town Plaza on Jefferson Road (Route 252) just west of West Henrietta Rd. (Route 15). Any IEEE member is invited to attend. Lunch is only $3 for IEEE members. No reservation or RSVP is needed, just show up.

Rochester Section 2014 Officer Nominees

Here is the slate of the 2014 candidates, as chosen by the Nominating Committee and approved by the section Executive Committee at the September meeting:

Chair candidates:	Greg Gdowski, University of Rochester
	John Kerekes, RIT
Vice Chair candidates	Matthew Sidley, Harris Corporation
	James Ziobro
Treasurer candidates:	William Fowlkes, Eastman Kodak Company
	Dennis Thompson, Exelis Inc.
Secretary candidate:	Raymond Ptucha, RIT

The biographies and pictures of these candidates, and any additional petition candidates, are published on our section website at
http://rochester.ieee.org/administrative/elections/candidates/.

Eligible voting members of the section will receive an email prior to November 1 containing directions for online voting using the IEEE vTools.

IEEE AESS and Communications Joint Chapter Meeting Nov. 5

Title: Multi-Intelligence Information Fusion: Seeing Through the Clouds
Date and Time: 2 PM to 5 PM, Nov 5, 2013
Location: RIT building 70 Room 1400.
Presenter: Erik Blasch, AFRL, Information Directorate
RSVP: "Kaiqi Xiong" <kxxics@rit.edu>

Abstract: Recent trends in information fusion afford large data computations, advanced modeling, and distributed applications. In this presentation, we discuss developments in cloud computing in support of massive data analytics for information fusion. We highlight Level 1 Information Fusion of simultaneous tracking and identification (STID) using non-linear, non-Gaussian modeling methods for advanced estimation, filtering, and prediction. With information fusion modeling and cloud computing, context-enhanced information fusion is demonstrated for Situation Awareness (Level 2 Information Fusion) and Threat Assessment (Level 3 Information Fusion). Key advances in computing support Level 4 Information Fusion of "Sensor Management," of which we highlight enterprise methods for intelligence data. Finally, we discuss multisource intelligence data fusion such as video and text in support of decision making and analysis for Level 5 Information Fusion of "user refinement". The user, with visualization techniques can timely respond for Level 6 Information Fusion of Mission Management. Demonstrations and examples will be presented for full motion video, textual reports, and robotics.

Biography: Erik Blasch (S'98-M'99-SM'05) is a principal scientist at the US Air Force Research Lab (AFRL) in the Information Directorate at Rome, NY. From 2009-2012, he was an exchange scientist to Defence R&D Canada (DRDC) at Valcartier, Quebec. From 2000-2009, Dr. Blasch was the Information Fusion Evaluation Tech Lead for the AFRL Sensors Directorate - COMprehensive Performance Assessment of Sensor Exploitation (COMPASS) Center supporting AF and DARPA evaluations. Dr. Blasch was previously an Adjunct Electrical Engineering Professor at Wright State University and the Air Force Institute of Technology in Dayton, Ohio teaching signal processing, target tracking, and information fusion (2000-2010). He is also a reserve Lt. Col. with the Air Force Office of Scientific Research (AFOSR) in Washington, DC supporting physics, electronics, and nanotechnology developments. Dr. Blasch currently serves as an AESS BoG member (2011-2016), the AESS International Chapters Chair, AIAA/AESS representative (2013-2014), and an AESS Distinguished lecturer (2013-2014). Dr. Blasch was a founding member of the International Society of Information Fusion (www.isif.org) in 1998, held various leadership roles in the Fusion conferences, and was the 2007 ISIF President. He has focused on robotics, automatic target recognition, targeting tracking, and information fusion research compiling 450+ scientific papers, tutorials, and book chapters. His recent book is High-Level Information Fusion Management and Systems Design (Artech House, 2012).

Dr. Blasch received his B.S. in Mechanical Engineering from the Massachusetts Institute of Technology in 1992 and Master's Degrees in Mechanical ('94), Health Science ('95), and Industrial Engineering (Human Factors) ('95) from Georgia Tech and attended the

University of Wisconsin for a MD/PHD in Neurosciences/Mechanical Engineering until being called to Active Duty in 1996 to the United States Air Force. He completed an MBA ('98), MSEE ('98), MS Econ ('99), and a PhD ('99) in Electrical Engineering from Wright State University and is a graduate of Air War College ('08). He is a Fellow of SPIE, Associate Fellow of AIAA, and a senior member of IEEE.

IEEE EMC-PSE Joint Chapter goes anechoic

EMC-PSE Chair J. Shipkowski reports that no nominations for 2014 chapter officers were received by the October 1 deadline. Since all officer positions will be vacant, the chapter will become inactive January 1, 2014.

Computer / Computational Intelligence Society Joint Chapter Meeting

The Rochester Chapter of the IEEE Computer Society will be holding a technical meeting on November 19. Reynold Bailey, Assistant Professor of Computer Science at RIT, will be giving the following presentation.

Date: November 19, 2013
Time: 6:00 PM
Place: Room 1445, Golisano Hall (Building 70), RIT Campus (park in J lot)
Title: Guiding Attention in Controlled Real-World Environments
Speaker: Reynold Bailey, RIT Dept. of Computer Science

Abstract: The ability to direct a viewer's attention has important applications in computer graphics, data visualization, image analysis, and training. Existing computer-based gaze manipulation techniques, which direct a viewer's attention about a display, have been shown to be effective for spatial learning, search task completion, and medical training applications. In this work we extend the concept of gaze manipulation beyond digital imagery to include controlled, real-world environments. We address two main challenges in guiding attention to real-world objects: determining what object the viewer is currently paying attention to, and providing (projecting) a visual cue on a different part of the scene in order to draw the viewer's attention there. Our system consists of a pair of eye-tracking glasses to determine the viewer's gaze location, and a projector to create the visual cue in the physical environment. The results of a user study show that we can effectively direct the viewer's gaze in the real-world scene. Our technique has applicability in a wide range of instructional environments, including pilot training and driving simulators.

For more information, visit the chapter's website at:
http://ewh.ieee.org/r1/rochester/computer/index.html

Signal Processing Society

The 2013 Western New York Image Processing Workshop will be on November 22, 2013 at RIT. This is a long-running and very successful annual event. Full details will be found on their website at: http://ewh.ieee.org/r1/rochester/sp/.

Joint Computer / Computational Intelligence Societies Chapter

The Rochester Joint Computer and Computational Intelligence Chapter has elected new officers.

Peter Anderson was elected Chapter Chairman, and Marty Leisner was re-elected as Vice Chairman. Jim Heliotis was appointed Scheduling Officer, and Jim Culler was appointed Webmaster. Bruce Nelson is Junior Past Chairman and Howard Brill is Senior Past Chairman.

The Chapter has scheduled a technical meeting for Tuesday, November 19th, at 6:00 pm at RIT Golisano Hall (Building 70), in room 1445. The speaker and topic have yet to be announced, but the details will be emailed to Section members and posted to the CS/CIS website when available.

Pizza will be served at 6pm, with the presentation beginning at 6:30pm. There will be a small charge for non-IEEE members.

IEEE CS/CIS Chapter technical meetings provide opportunities for professional networking; where invited speakers from the industry share their vision on the computing domain.

Report on tour of Yahoo! Data Center (provided by Jim Ziobro)

On September 19th the Computer and Photonics Chapters of Rochester joined with our friends from Buffalo to tour the YAHOO! Data Center in Lockport, NY. After the tour we sat down to an excellent dinner at a local restaurant.

My first thought of a "data center" is yet another computer room. Perhaps. However, comparing a typical computer room to this data center is like comparing a Mom & Pop car repair shop to a modern auto assembly line. The tour would have been interesting to a wide range of professionals. Of course, there were lots of blinking lights and they have built their own substation to soak up NY hydropower. There are tons of fiber in operation and novel HVAC systems. The number of employees for such a huge facility seemed small. And, there is no application programming staff onsite. The large Yahoo! software staff is scattered around the world.

The maximum size of a tour group at the facility is 30 people. Unfortunately, the limit was reached instantaneously and we had to turn away large numbers. Local volunteers are planning a tour solely for Rochester members in the April time frame.

Congratulations to our latest Senior Members

Elevated to Senior Members at the recent Admission & Advancement meeting held with the cooperation of the Benelux Section on September 14, were two members of the Rochester Section: Minwoo Park, who is a member of the Signal Processing Society, and Anthony Vodacek, a member of the Geoscience and Remote Sensing Society.

MEETING ANNOUNCEMENT & CALL FOR ABSTRACTS

37th EDS/CAS
Activities in Western New York Conference
1PM, Wednesday Nov 13th, 2013

**Louise Slaughter Building on the RIT campus
(CIMS, Bldg. 78, Conference Rooms 2210-2220)
Rochester Institute of Technology
Rochester, NY**

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, allowing one to become acquainted with others of similar interest in nearby locations. This year the conference will be held at RIT in the CIMS facility on the west side of the campus (please visit **http://facilities.rit.edu/campus/maps/**).

The conference registration will be at 12:30PM, and the first invited presentation will follow opening remarks at 1PM. There will be an afternoon coffee break, and a poster session reception will begin at 5PM immediately following the "Flash Nano" talks by the poster presenters.

Please register on-line for the event! **http://www.rit.edu/kgcoe/eme/EDSWNY**

Invited Speakers:

The invited speakers are still to be confirmed. Tentative topics are emerging microelectronic devices and semiconductor manufacturing in New York State. **Please see the conference website for updates.**

Call for Abstracts:

Abstracts are being solicited for contributed talks and poster presentations, especially those which promote research and development activity in Western New York. Abstracts must be received by November 4th. Submission can be done electronically to the conference chair (see email below) using MS-Word or pdf formats.

See the website for the conference registration, invited talk details and the latest agenda updates!

**EDS Conference Chair: Dr. Karl D. Hirschman, kdhemc@rit.edu
EDS Conference Committee: Dr. Robert E. Pearson & Dr. Sean L. Rommel
Electrical and Microelectronic Engineering Department
Rochester Institute of Technology
Visit our EDS website at: http://www.rit.edu/kgcoe/eme/EDSWNY**