IEEE NEWS FOR APRIL 2008

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Rochester IEEE home page at: http://www.r1.ieee.org/~roch

Rochester Section Meeting Tuesday, April 1, 2008

The next Rochester Section business meeting is on Tuesday, April 1, 2008 at Noon, at the Shanghai Restaurant, 2920 West Henrietta Road, just south of the intersection with Brighton-Henrietta Town Line Road. All IEEE members are welcome to attend this meeting, meet your officers and have lunch for just $3.00.

2008 IEEE Rochester Joint Chapters Meeting will be on May 1

The annual IEEE Joint Chapters Meeting will take place at the RIT Inn & Conference Center on Thursday, May 1, 2008 beginning at 5:30 PM. Mark this date down. The keynote speaker will be Dr. Ching W. Tang, Doris Johns Cherry Professor of Chemical Engineering, Chemistry and Physics at the University of Rochester. Dr. Tang's talk will be on "The Development of OLED Displays". Prior to the keynote address, there are expected to be five concurrent society chapter technical presentations.

IEEE members will be receiving full details in an email. Full details will also be available at: http://www.r1.ieee.org/~roch/jc08/

The cost of dinner will be $20 for IEEE members, $25 for non-members, and $10 for IEEE Student members. There is no charge for attending the technical presentations.
See full announcement on pages 7-8.

Geoscience and Remote Sensing Society April 4 Meeting

Title: Urban Land Use Classification from Contemporary Remote Sensing
Speaker: Prof. Le Wang, Department of Geography, University at Buffalo, the State University of New York
Date: Friday, April 4, 2008
Time: 3:15 - 4:15 PM
Location: Wilkeson 145H (inside the Geographic Information and Analysis Lab) at the University at Buffalo
See full announcement on pages 4-6.

Updated information will be available on the chapter web site:
http://ewh.ieee.org/r1/new_york/grss/ .

Signal Processing Society Chapter Meeting April 15

Topic: Improving Cardiac Safety from Drug Toxicity using Signal Processing
Speaker: Richard Frank Kerr, Ph.D., iCardiac Technologies
Date: Tuesday, April 15, 2008
Location: The Laboratory for Laser Energetics Auditorium - 240 East River Road, Rochester, NY 14623
Time: 6:30-7pm Pizza and Socializing, 7pm-8pm Technical Presentation
SPS Announcements + Venue Map: http://ewh.ieee.org/r1/rochester/sp/location.html
RSVP: to Andy Gallagher (andrew.gallagher@kodak.com) for pizza count

Abstract:
The human heart is a complex muscle group that is susceptible to electrical signal path disruption resulting from the unintended effects of some drugs on the cardiac system. The electrical output from the cardiac system may be depicted as a composite signal waveform, referred to as an electrocardiogram (ECG), containing the superposition of sequenced depolarization and repolarization operations as specific areas of the heart muscle contracts and then relaxes. The aggregate of this muscle motion constitutes the heart beat. The disruptive effect of drugs on the cardiac system can manifest as a prolongation of the time interval between the sequenced muscular operations, and thus prove deadly for a segment of the population susceptible to dangerous heart arrhythmias. The U.S. Food and Drug Administration is acutely aware of this problem and has enacted regulations for cardiac drug safety monitoring that the pharmaceutical industry must follow to bring a drug to market. For the past 30 years the University of Rochester Heart Research Follow-up Program has been researching congenital prolongation and more recently they have investigated acquired prolongation due to drugs. One outcome of their research is a computer program named COMPAS, which provides a comprehensive analysis of the cardiac repolarization signal, in addition to supporting advanced cardiac biomarkers and statistical tools. In 2006 COMPAS was exclusively licensed to iCardiac Technologies. In addition to providing COMPAS for testing the safety of new drugs during clinical trials, iCardiac is pioneering technology to evaluate on a per-person basis the personal cardiac safety of drugs which are known to induce arrhythmias in a small segment of the population. This endeavor will enable the acceptance and distribution of drugs which might otherwise be terminated during the clinical trial or withdrawn after release if the drug is considered to pose a cardiac risk for a small percentage of the overall population. The signal processing incorporated into COMPAS, along with the future direction of cardiac safety signal processing research at iCardiac, will be discussed.

Speaker Biography:
Richard Frank Kerr, Ph.D., Senior Research Scientist at iCardiac Technologies. His role at iCardiac involves the research and development of novel cardiac biomarkers and the verification of the COMPAS software signal processing algorithms. Prior to joining iCardiac, he was a Systems Engineer and a Senior Development Engineer in the Health Group of the Eastman Kodak Company for 20 years. He served as the Systems Engineer for Kodak's family of DirectView Digital Radiography X-ray products, and a Senior Development Engineer for their Computed Radiography and medical laser film printer products. He graduated from the University of Rochester in 2003 with a Ph.D. in Electrical Engineering. In addition, he has earned two independent Master of Science degrees in Electrical Engineering, whose respective areas of concentration were signal processing (University of Rochester) and computer engineering (SUNY at Buffalo). His Ph.D. research concentrated on medical ultrasound signal processing using Heterodyned Spatial Quadrature (HSQ) to estimate blood flow velocity in multiple dimensions. The distinguishing feature of the HSQ technique comes from its ability to estimate the velocity of the transverse blood flow component at a Doppler angle of 90 degrees to the sound beam axis, where traditional flow estimation techniques fail.

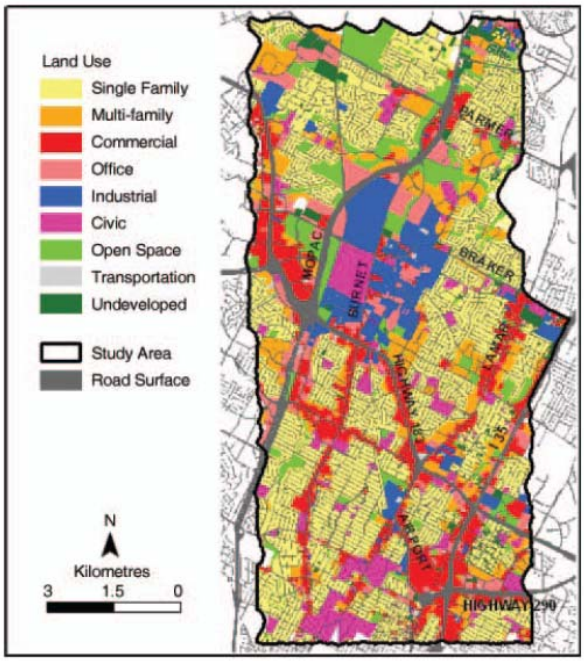
Congratulations to our latest Senior Member

Wucheng Wu, Xerox Corporation, was recently elevated to Senior Member of the IEEE.

The IEEE Geoscience and Remote Sensing Society Western New York Chapter and the NSF GIScience IGERT Colloquium Series at University of Buffalo, the State University of New York (SUNY)

present a technical seminar:

Urban Land Use Classification from Contemporary Remote Sensing



Dr. Le Wang

National Center for Geographic Information and Analysis
Department of Geography
University at Buffalo
the State University of New York
Email: lewang@buffalo.edu

Friday, April 4, 2008
1-2 pm
Refreshment and cookies provided at 12:30pm.
Wilkeson Quad. Room 144
Buffalo, NY 14261

Abstract:

Frequently updated land use information at fine spatial scale, such as single family, multi-family, industrial, and commercial, is often needed by decision makers and urban planners. However, the current manner of generating such information mainly relies on aerial photo interpretation and field surveys, which are very labor intensive and time consuming. Therefore, automated methods for detecting land use features and labeling them with correct categories are greatly needed, but not possible from conventional remote sensing methods. In order to tackle the difficulty posed by spatial and spectral heterogeneity with each land use type, we will present a new method by fusing multi-source contextual information from contemporary remote sensing to aid extraction of land use features.

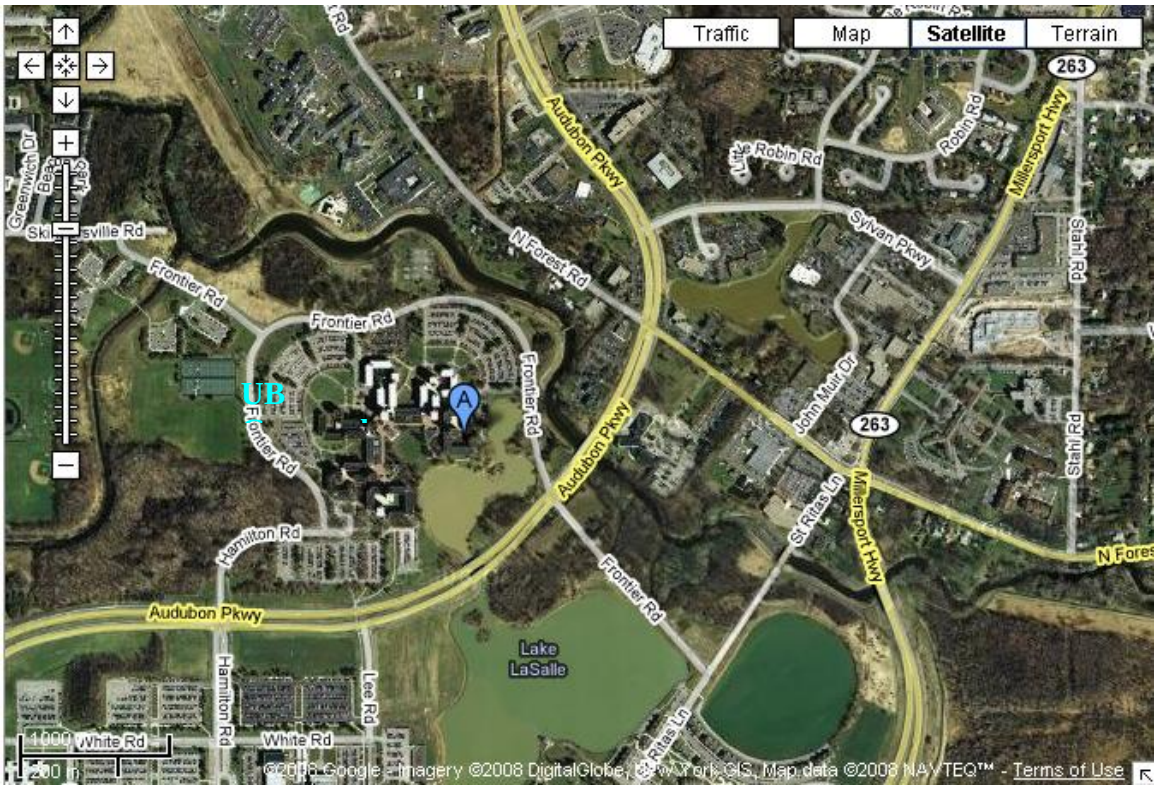
Biography

Dr. Le Wang is an assistant professor in the department of Geography at SUNY-Buffalo. Dr. Wang received his Ph.D. degree from University of California at Berkeley in 2003. His research interests include: development of new remote sensing methods for high-spatial resolution and hyperspectral remote sensing imagery, mangrove forest characterization, invasive species spread modeling, urban feature extraction, and urban population estimation.

Directions and Parking:

From Interstate 90 (New York State Thruway)

1. Take Route 90 to Exit 50, Route 290. Proceed West along Route 290.
2. Take Route 290 to Exit 4, Route 990.
3. Take Route 990 to Exit 1, State University of New York. The Exit will feed you onto the Audubon Parkway (see campus map on the right)
4. Just before first traffic light, make U-turn (left turn) onto opposite lane of Audubon Parkway
5. Follow the Audubon Parkway to the SECOND intersection with Frontier Road, the traffic light reached after crossing a small bridge over the channel between two ponds.
6. Take the first left off Frontier Road into parking lot (Dept. of Geography is indicated on the sign at the entrance to the lot).
7. Drive straight ahead to the visitor parking spaces located on the right side of the driveway past the parking lot entrances; if the visitor parking is full, you can turn into the large parking area.
8. You will need to display a visitor parking hangtag on your rear view mirror. First park your car, then follow the directions in the next step to go to the department main office in Wilkerson Quad Room 105 to get a visitor parking hangtag from Mr. Joe Murray.
9. Proceed from the parking lot into the courtyard in front of Wilkeson Quad (there are signs to show the way). Enter the center doors to the building and turn right. Room 105 will be the second door on your left.
10. The presentation will be in room 144 in the same building.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John Muir Dr
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Robin Rd
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1000 ft
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2008 Rochester Section Joint Chapters Meeting

May 1, 2008

RIT Inn & Conference Center, 5257 W. Henrietta Road

Registration and refreshment:	5:00 – 5:30 PM (refreshment continue to 7:00PM)
Chapter Technical Presentations:	5:30 – 6:30 PM
Networking (bar available):	6:30 – 7:00 PM
Dinner & Keynote Speaker:	7:00 – 9.30 PM

Keynote Speaker: Dr. Ching W. Tang

Doris Johns Cherry Professor of Chemical Engineering, Chemistry and Physics
University of Rochester

The Development of OLED Displays

Ching W. Tang obtained his B.Sc. degree in chemistry from the University of British Columbia in 1970 and his Ph.D. from Cornell University in 1975. He joined the Kodak Research Laboratories as a research chemist after graduating from Cornell and was actively involved in the research and development of organic opto-electronic devices throughout his career at Kodak. He retired from Kodak in 2006 and was appointed the Doris Johns Cherry Professor of Chemical Engineering, Chemistry and Physics of the University of Rochester in the same year. Dr. Tang is best known for his work on heterojunction organic solar cells and light emitting diodes, which are often cited as the basis of modern organic electronics. His major invention, the organic light emitting diode, has led to the commercialization of the much acclaimed OLED displays. He holds more than 70 U.S. patents and has published over 70 papers. He is a Fellow of the American Physical Society and the Society for Information Display. In 2006 he was elected a member of the National Academy of Engineering. Dr. Tang has received numerous awards, including the Eastman Innovation Award from the Eastman Kodak Company, the Carothers Award and the Team Achievement Award from the American Chemical Society, the Jan Rajchman Award from the Society for Information Display, the Humboldt Research Award from the Humboldt Foundation, and the Daniel E. Noble Award from the IEEE.

Parallel Technical Chapter Presentations*

Signal Processing Society	Prof. Dan Schonfeld	U of I Chicago Circle	Distributed Image and Video Processing
Comm. Soc & Aerospace	Aparna Gupta	RPI	Future Internet and Risk Assessment
EMC	Prof. Mark Steffka	U. of Michigan	
MTT & EMBS	TBD		
Engr. Management	TBD		

*No charge for attending technical presentations. Reservation / registration not required

Dinner Selections

New York Strip Steak
10 oz., Peppercorn rubbed with roasted sliced portabella mushroom

Or Cedar Plank Salmon
Teriyaki with Wasabi

Or Grilled Vegetable Napolen
(Vegetarian) layers of roasted peppers, eggplant & portabella mushrooms on a bed steamed rice, Chimichurri Drizzle

All dinners include soup, salad, napkin, dinner roll basket, coffee, teas, and dessert

Reservations (required for dinner):
Contact the reservation clerk at RES, 585-254-2350 by April 24, 2008 to guarantee your dinner choice.
Dinner: $20.00 (IEEE members), $25.00 (Non-members), and $10 for Student members.
Further details at: **http://www.r1.ieee.org/~roch/jc08/**