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CIS Imaging Connection

Your source for current events from the Chester F. Carlson Center for Imaging Science at RIT

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Introducing New Faculty

Several new faculty have been welcomed as part of CIS. In the previous newsletter we introduced two of them, Dr. Gabe Diaz and Dr. Jie Qiao. In this issue, we'll introduce our latest addition, Dr. Chip Bachmann. The following write-up is by Susan Gawlowicz of RIT University News and can be accessed in its original context here.

Dr. Charles "Chip" Bachmann

A leader in the field of environmental imaging research has recently joined the Rochester Institute of Technology Chester F. Carlson Center for Imaging Science.

Charles "Chip" Bachmann, the new Frederick and Anna B. Wiedman Professor in Imaging Science, comes to RIT with 23 years of experience as a civilian research scientist at the Naval Research Laboratory in Washington, D.C.

Bachmann specializes in coastal remote sensing and image processing. He most recently headed the Naval Research Laboratory's Coastal Science and Interpretation Section in the Coastal and Ocean Remote Sensing Branch. He has planned and executed campaigns to collect measurements of physical and optical properties in water and on land around the world.

He holds two patents, with a third pending, for software developed to synthesize aerial imagery and ground truth into physical models.

Bachmann's research program at RIT will focus on developing digital models across different coastal types. His research will account for various types of sands and sediment found along coastlines and the effects of inundation of water and the drying process, among other dynamic variables.

You can read more about Dr. Bachmann in this feature from the RIT Athenaeum publication: New leadership propels imaging science into next era

Research @ RIT

Imaging Science was featured prominently in the Fall/winter issue of Research at RIT, which had a spotlight on Visualization. The very first article is a detailed History of Imaging Science, starting from our beginnings as a photographic technology program in 1930. Photographic Science and Instrumentation alumnus, RIT Trustee, and CIS Advisory Board member Jeffrey Harris is featured in the article, Career Dedicated to Helping Maintain National Security. CIS's partnership with Exelis, Pictometry, and Lockheed Martin on the Consortium for 3D Innovation is detailed in the article, Academia and Industry Collaborate to Automate 3D Imagery, while the technical details and challenges of our involvement in creating a 3D rendering of last year's RIT Big Shot is described in Cowboys Stadium in 3D. The Multidisciplinary Vision Research Lab's work involving geological applications of eye tracking is detailed in What Are You Looking At? Lastly, research on segmentation of images and video being performed by Dr. Eli Saber, professor of electrical engineering in RIT's Kate Gleason College of Engineering and extended CIS faculty, and Dr. David Messinger, Director of CIS's Digital Imaging and Remote Sensing lab and CIS Associate Research Professor, is explored in the article Image Detectives. We hope you enjoy the detailed look into some of the cutting edge research happening in CIS at RIT.

New: RIT "Tiger Term" Intersession

RIT's new semester calendar system includes a four week intersession, called Tiger Term, between fall and spring semesters and following winter break. Although CIS did not offer any official credit-bearing courses through the Registrar, we did experiment with our own set of free courses designed to increase one's knowledge in a number of imaging-related topics. Courses were open to all CIS undergraduate and graduate students, as well as faculty and staff. Classes were administered as morning and/or afternoon sessions, and while each day of the term was booked, we thankfully had no conflicts. Topics ranged from Fourier Optics, to MATLAB, to Eye Tracking and Virtual Reality, to New Product Development; a full list of offerings is kept at www.cis.rit.edu/intersession. In total, 85 people signed up for the new program, which we hope to offer again next year.

Imaging Hall of Fame

The 2013 Imaging Hall of Fame Induction Ceremony and Reception took place on December 11 to celebrate three new inductees: Dr. George Heilmeier, a pioneering contributor to the development of the liquid crystal display; Dr. Ren Ng, the founder and Executive Chairman of Lytro, the first company to produce and market a light field camera for consumer use; and August Toepler, a German physicist who was the first to succeed at visualizing acoustic waves in air. For the second time in the Hall of Fame's history, one of the current recipients, Ren Ng, was present for the ceremony and to accept a plaque identical to the one that now hangs in the Carlson Auditorium. Following the induction ceremony, keynote speaker Dr. Steven Koonin presented "The Promise of Urban Science", which can be viewed online here. An after party at TC Riley's followed, detailed in the Alumni Events section below. Biographies of all past and present inductees are available on the Imaging Hall of Fame website.

Awards and Recognitions

CIS Director **Dr. Stefi Baum** has been named to a leadership position in the American Association for the Advancement of Science. Dr. Baum began her term as chair-elect of the society's Section on Astronomy on Feb. 18. Read More

Imaging Science PhD student **Saugata Sinha** won the Best Student Paper award at the 2013 IEEE Western New York Image Processing Workshop, held at RIT on Nov. 22. The award was given based on reviewers' recommendations and the presentation of his paper, "Differentiation between malignant and normal human thyroid tissue using frequency analysis of multispectral photoacoustic images." Read More

FluxData, a Rochester company founded by RIT alumni **Pano Spiliotis** ('99 BS Imaging Science, '01 MBA), **Tracie Spiliotis** ('99 BS Accounting, '01 MBA), and **Lawrence Taplin** ('01 MS Color Science) recently received a lot of press for graduating from RIT's Venture Creations incubator. FluxData manufactures multispectral cameras for aerospace, defense, industry, medical, and scientific markets. You can hear more about their expansion via RIT University News, the Democrat & Chronicle newspaper, and WROC Rochester Channel 8 News.

Events

PREVIOUSLY ENJOYED

Imaging Hall of Fame After-Party— After the Hall of Fame ceremony and keynote on December 11, CIS celebrated the 2013 inductees at TC Rileys, located just off campus at Park Point. About 35 faculty, staff, students, and alumni braved the weather to socialize and chat with keynote speaker Dr. Steven Koonin and 2013 Inductee Dr. Ren Ng. Dr. Ng made it a point to tell us how valuable Imaging Scientists are to his company, Lytro, and how he wishes there were more of us out there!

SPIE Photonics West & Electronic Imaging—CIS hosted a last-minute get together on February 3 in San Francisco to coincide with two SPIE conferences taking place there. A handful of alumni joined Dr. Andreas Savakis and undergraduate student Kevin Dickey at the Thirsty Bear Brewing Company for some snacks and socialization. Although we couldn't pull together a similar event in time for SPIE Advanced Lithography this year, CIS hopes to organize a major event for San Jose-area alumni in late February 2015. Stay tuned!

COMING UP

DC Metro— Planning is underway for this year's annual spring-time gathering in Washington, DC. Please be on the lookout for official updates and invitations.

ON OUR RADAR

We would like to sponsor an event in the near future in or around **Philadelphia**. If you are an alumnus in the area and would like to assist as our regional host, please contact us so we can get something planned!

If you or any of your fellow alumni are attending upcoming conferences and would like CIS to sponsor a corresponding alumni reception, or you would like CIS to host an event in your area, please contact Bethany Choate. We would be happy to arrange a gathering!

WINTER CIS NEWS HIGHLIGHTS

What It Looks Like When One Satellite Sees Another *CIS Research Faculty Dr. Michael Gartley featured*

RIT digital humanities series brings Lazarus Project director to campus Feb. 20 *CIS Profesor Dr. Roger Easton Jr. Featured*

IEEE Geoscience and Remote Sensing Magazine (GRSM) Guest Feature: Remote Sensing Research and Education at Rochester Institute of Technology *DIRS featured*

Former Undersecretary of Energy Steve Koonin speaks at Imaging Hall of Fame

RIT hosts Capitol Hill briefing to focus attention on critical importance of remote sensing to national security *CIS Professor and Director of DIRS Dr. David Messinger featured*

RIT hosts Western New York Image Processing Workshop Nov. 22 *Numerous CIS students and faculty featured*

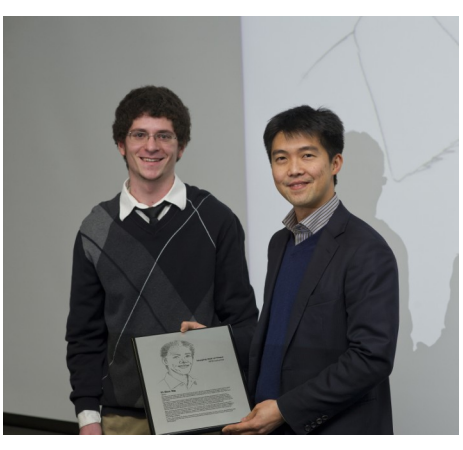
These are just a sampling of over **30** news stories since our last newsletter!

ALL CIS NEWS HEADLINES

The History of Imaging Science is just one of several articles from the most recent issue of Research at RIT, which focused heavily on CIS and its research. Here, past director Dr. Rodney Shaw, Catherine Carlson, and past RIT President Dr. M. Richard Rose formally dedicate the Chester F. Carlson Center for Imaging Science building in 1989.

SPOTLIGHT

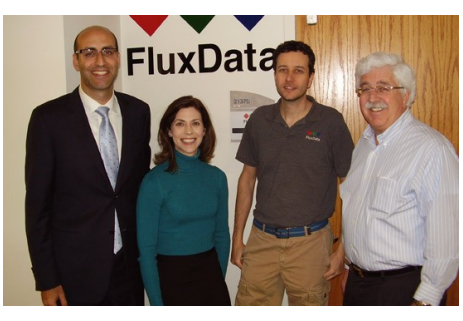
NASA astronaut Donald Pettit visited RIT's Chester F. Carlson Center for Imaging Science on Thursday, Jan. 9, while in town to give a lecture at the George Eastman House on his space photography. Read more about Dr. Pettit's visit. *Photo by Peter Blacksberg*



Second year Imaging Science undergraduate Kevin Sacca presents Dr. Ren Ng with his Imaging Hall of Fame plaque at the 2013 ceremony. *Photo by A. Sue Weisler* More Pics

DON'T MISS IT

RIT produced a 30-second TV commercial, titled "Imagine Your Possibilities," that recently aired nationally on the CBS Sports Network. If you look carefully around 5 seconds in, you will spot the Multi Camera Array built by last year's Innovative Freshmen Experience class. Watch Video



FluxData partners Pano Spiliotis, Tracie Spiliotis and Lawrence Taplin with Venture Creations director Bill Jones.

Hall of Fame After-party-goers chat with 2013 inductee Dr. Ren Ng, front left, and speaker Dr. Steven Koonin, front right. More pictures

ALUMNI ADMISSIONS EVENTS

Represent R·I·T @ COLLEGE FAIRS

Upcoming College Fairs
Boston, MA April 29, May 1, 2
Fairfax, VA April 2
Washington, DC April 23
W. Springfield, MA March 30, 31
FULL DETAILS AND LISTINGS

Assist at a Hometown Reception

Upcoming Hometown Receptions
There are no upcoming Hometown Receptions at this time. Please check back via the FULL DETAILS AND LISTINGS for future events,

Click the buttons above to see when an admissions event is happening in your area!