



CIS IMAGING CONNECTION

YOUR SOURCE FOR CURRENT EVENTS FROM THE CHESTER F. CARLSON CENTER FOR IMAGING SCIENCE AT RIT

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Summer Interns 2012

2012 marked the thirteenth year for the High School Summer Intern Program at CIS. Fourteen highly talented students, 13 of which were from the Greater Rochester area with one from Wayland, MA, took part in the 7-week program. Participating labs included: Astrophysics, under direction of Dr. Joel Kastner, separate project directed by Dr. Andrew Robinson; Digital Imaging and Remote Sensing, under direction of Rolando and Nina Raqueno; Document Restoration, under direction of Dr. Roger Easton, Jr.; Insight Lab, under direction of Dr. Jake Noel-Storr; Multidisciplinary Vision Research Lab, under direction of Dr. Jeff Pelz and Susan Farnand; and Space Weather, under direction of Dr. Roger Dube. The tradition of weekly cookouts was continued from last year, while weekly Imaging Science challenges were introduced to expose the interns to additional imaging concepts and to promote team building. A field trip to the Mees Observatory resulted in incredibly positive feedback from all parties involved. [Blogs maintained by the interns](#) are available for viewing, as are [pictures from the final presentations](#).

Two of this year's interns, Kyle Ludgate and Nicholas Ng, were sponsored by Goodrich Corporation. Thank you, Goodrich, for your generous support for the internship program and for your help in nurturing young talent with invaluable lab experiences.

The Summer Intern Program continues to be our most successful recruitment effort. Of the 144 total participants over 13 years, ~50% have applied to RIT for STEM-related disciplines, with 12% enrolling as students in the Imaging Science program. From 2011's group of 14 interns, 5 applied for admission to Imaging Science, with 3 ultimately joining us as freshmen this fall. Two others have enrolled at RIT in STEM programs, including the highly selective Ultrasound program, and maintain close ties with the Center. We continue to be proud of and impressed by the great things our past interns go on to achieve.

Summer REU Program

This summer presented the second year of our NSF-funded Research Experience for Undergraduates (REU) program, "[Imaging in the Physical Sciences](#)" (combined with additional support from the Center and from the Laboratory for Multiwavelength Astrophysics). 10 participating undergraduate research students came from far and wide, from as close as different Colleges on the RIT campus, to as far as the University of Puerto Rico at Humacao, and the Universidad Nacional de La Plata, Argentina. The students worked for 10 weeks in research labs with faculty mentors across CIS, and participated in workshops on giving presentations and writing papers, a weekly seminar series given by the Imaging Science Faculty, and a weekly innovation and entrepreneurship movie session. All of the students presented the results of their work at the annual RIT Undergraduate Research Symposium, and their talks, posters, and papers, will be available online soon.

Incoming Class Snapshot

The fall of 2012 brings the largest freshmen Imaging Science undergraduate class in over a decade, with 16 enrolled students from across New York state and Massachusetts. Eight additional students from Motion Picture Science, University Studies, and Engineering Exploration complete the class roster for this year's Freshmen Imaging Project.

CIS is also welcoming 20 new Imaging Science graduate students, 13 at the PhD level and 8 Masters. Seven students are US Air Force officers (3 PhD and 4 MS), and one is joining us all the way from Saudi Arabia. Color Science welcomes two Masters students and one PhD student.

We hope to be able to continue this upward trend in BS applicants, and especially hope to increase our reach across the United States at all degree levels—and **we need your help to do so**. Please consider [joining us as a CIS Ambassador](#).

CIS Awards and Recognitions

Two CIS students have won highly prestigious awards from the National Science Foundation Graduate Research Fellowship Program. The program will provide three-year, \$30,000 annual stipends to Alexandra Artusio-Glimpse and David Kelbe, PhD students in RIT's Chester F. Carlson Center for Imaging Science. The NSF program recognizes and supports outstanding graduate students pursuing research in fields within the foundation's mission. [Read more about Aly's and Dave's projects](#)

Focus on: IPLER

RIT and the University at Buffalo have created an NSF Partnership for Innovation program called the Information Products Laboratory for Emergency Response (IPLER), dedicated to innovation in disaster management. IPLER seeks to enhance the use of novel imaging and computing technologies to improve emergency management. The lab, which includes several faculty and staff from CIS, has conducted work in support of response efforts related to the Japanese Tsunami and the Haitian earthquake. Research@RIT recently produced a video about IPLER which [can be watched via the RIT University News YouTube channel](#).

To learn more about the lab, [visit the IPLER website](#).

Past & Future Receptions

PREVIOUSLY ENJOYED

Rochester, NY—Summer in the City: Around 30 CIS alumni, students, faculty, and staff enjoyed a picture-perfect summer evening in Downtown Rochester at Tapas 177. Attendees dined on a wide selection of delicious tapas and mingled throughout the indoor/outdoor courtyard space dedicated to the gathering. [Click here to view pictures from the event](#)

STILL TO COME

CIS Welcome Back Picnic—Monday, September 24, 5PM: Come and enjoy food, games, and raffles with CIS students, faculty, staff, and alumni at our annual fall picnic. Everyone is invited! The event is free, but we ask that you donate at least one non-perishable food item in exchange for your meal. Members of the IS&T Student Chapter will then donate the bounty to a local food pantry. [More information](#)

Boston, MA— We are in the early stages of planning an alumni event in your area. If you live in or around Boston, please [get in contact with us](#) to help us determine a time and place that would best serve and entertain you and your fellow alumni!

Philadelphia/King of Prussia and LA: You're next! If you are from these areas and would like to provide input on the timing and location of your event, please contact choate@cis.rit.edu.

Did you know? Admissions Waivers

You can give a college-bound student of your choice a fee-waived application for undergraduate admission. If you know a high school senior that would thrive and excel at RIT, this is your opportunity to recruit the best for your alma mater. By encouraging a student to apply, you can share your RIT experiences with a prospective student, while helping to defray the cost of applying to the university. **To request a waiver, please [click here](#) and request one online.** You can also get more information from the [RIT Alumni Association](#) website.



The 2012 High School Summer Interns pose for a group picture after completing their final presentations on August 24. [View full size](#)

SUMMER CIS NEWS HIGHLIGHTS

[Data Fusion and Target Detection Assoc. Prof. John Kerekes featured](#)

[National Ecological Observatory Network \(NEON\) in Harvard Forest, Massachusetts Digital Imaging and Remote Sensing \(DIRS\) Lab featured](#)

[Imaging cameras detect severity of skin problems](#)

[Research by Dr. Carl Salvaggio, Dr. Brent Bartlett, and Jason Faulring, all of DIRS, and CIAS's Chrystie Sisson, referenced](#)

[RIT Graduate Student on Winning Team in 'Prize for Primary Healthcare' Competition PhD student Sid Khullar featured](#)

[Computer Vision Helps RIT Graduate Student See the World PhD student Tommy Keane featured](#)

[Roger Dube turns away cyber attacks](#)

[CIS Assoc. Prof. Jim Ferwerda a recipient of HP Labs research funding](#)

[2012 Data Fusion Contest: winners announcement Associate Scientist Dr. Michael Gartley featured](#)

['Blast Off to Adventure' at RMSC Exhibits from the Insight Lab referenced](#)

[In McNeil's Nebula, a Young Star Flaunts its X-ray Spots Professor Joel Kastner featured](#)

These are only a sampling of our **25** news headlines since the last newsletter! So make sure you also check out [ALL CIS NEWS HEADLINES](#)



A group of REU students visited Niagara Falls over the summer.



Artusio-Glimpse won support for her project, "Optical Lift: Innovating Devices that Fly by Light."



Kelbe was awarded a fellowship for his project, "Linking the Real and Simulation Environments of Airborne Small Footprint Waveform Lidar."

(FUTURE) ALUMNI SPOTLIGHT



Imaging Science PhD candidate Abdul Haleem Syed was recently featured for presenting his research in automated image analysis during the International Conference on Geographical Object-based Image Analysis in Rio de Janeiro, where he won best student paper for his work. "My work involves teaching computers to understand images," Syed says. "We want a computer to be able to look at an image and say, 'That's a road, that's a building, and that's a military compound.'"

Read more about Abdul and his award winning work [here](#) and [here](#).

Congratulations, Abdul!



Summer in the City alumni event



FROM THE ARCHIVES: —The new Chester F. Carlson Center for Imaging Science, when construction was first completed in 1989.

Additional images from the archives will be debuted each newsletter. We need your old photos—Please email choate@cis.rit.edu to add to our archive!