FACULTY NEWS and NOTES

World Wide Web Expert Jim Hendler Receives Inaugural Strata "Big Data" Award

Jim Hendler, head of the Department of Computer Science and senior constellation professor in the Tetherless World Constellation at Rensselaer, has been honored with an inaugural Strata Data Innovation Award, given to individuals who have made significant innovations in the data field.

The award, given as part of the O’Reilly Strata Conference taking place this week in New York City, was created to “recognize disruptive, innovative technologies in big data and data science, highlight data science as an increasing importance for companies, and showcase the highlights of the growing data community,” according to the conference website.

“Through his work on projects like Data.gov and the Linking Open Government Data portal, Dr. Hendler is harnessing the power of technology to serve the public good,” said Laurie Leshin, dean of the School of Science. “We are proud of his efforts and congratulate him on this well-deserved recognition.” For more details, see:

http://news.rpi.edu/update.do?artcenterkey=3101

The Department of Physics, Applied Physics & Astronomy, Hewlett Packard, and the Rensselaer Campus Computer Store Co-Sponsored a Mathematica Applications Seminar on Wednesday, October 10, 2012

Wolfram Research visited campus to offer a Mathematica cross-discipline seminar event. During the event co-hosted by Hewlett Packard Workstations and the Rensselaer Campus Computer Store, Mr. Andrew Dorsett of Wolfram Research highlighted Mathematica 8; Mathematica is a highly efficient tool for projects and course examples in any STEM, business and economics, or liberal arts field. Mr. Gerald O’Connor of Hewlett Packard Personal Systems Group demonstrated the new HP Z1 high performance workstation line.

On October 17, 2012, Gyorgy Korniss, Professor of Physics, Applied Physics and Astronomy, organized the Physics Department Annual Research Orientation Evening serving both graduate and undergraduate students looking for research opportunities. Each research group (Astronomy & Astrophysics,
Nanoscience/Nanomaterials, Condensed Matter, Biological Physics, Energy Research, Optics, Particle Physics, Complex systems/networks) was represented: group leaders or their research associates gave 5-minute talks to overview their current research activities and research opportunities for students (http://www.rpi.edu/dept/phys/research/). **Prof. Gwo-Ching Wang** also gave a brief overview of the NSF REU Program; she has been running this program at RPI Physics in the past 10 years (http://www.rpi.edu/dept/phys/undergraduate/research/reu.html) providing a 10-week research experience to undergraduates from all over the US. The event was attended by over 50 students.

**Heidi Jo Newberg**, Professor of Physics, Applied Physics and Astronomy, was elected Fellow of the American Physical Society for "For her contributions to our understanding of the structure of the Milky Way and the universe and for the development software and hardware infrastructure for measuring and extracting meaningful information from large astronomical survey data sets."

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**Physics, Applied Physics, and Astronomy Department Has Lunch for Saroj Nayak**

The Physics, Applied Physics, and Astronomy Department had a lunch for **Saroj Nayak**, Professor of Physics, Applied Physics and Astronomy, who, after twelve years at Rensselaer, is leaving to start a Physics program at a new Indian Institute of technology.

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**RESEARCH NEWS and NOTES**

**Presentations at the Annual Meeting of the Geological Society of America**

**November 4 – 7, 2012**


* = grad student  
** post-doc  
*** undregrad  
**** Troy High earth science teacher

STUDENT NEWS and NOTES

18th Annual Honors Convocation

The 18th Annual Honors Convocation was held on Saturday, October 20, 2012. The Founders Award of Excellence was established in 1994 to honor students who embody qualities of creativity, discovery, leadership, and the values of pride and responsibility at Rensselaer. The award consists of a special certificate, recognition by faculty, staff, and peers at the Honors Convocation ceremony, and a cash prize.

Nominees for the Founders Award of Excellence demonstrate:

Strong academic performance (Candidates should be in the top 10% of their respective class).

Pride and responsibility in all aspects of his or her life at Rensselaer.

Outstanding leadership skills exhibiting discretion, judgment, and well-rounded regard for the opinions of others.

Originality and imagination that may be evidenced by the potential to solve problems and possess skills to promote new ideas and theories in his or her field of study.

School of Science

2012 Founders Award of Excellence Winners

**Juniors**

Altan K. Gulen  Computer Science
Robert F. Spivey  Physics

**Senior**

Vera S. Axelrod  Mathematics
Ted J. Berger  Physics – Mathematics
Alexei A. Bulazel  Computer Science – Information Technology and Web Science
Deborah J. Kraft  Geology
Priti Kumar  Computer Science
Alexander S. Lahuerta  Information Technology and Web Sciences
Amy E. Lovell  Physics – Mathematics
Charles H. Martin  Physics – Economics
Shawn D. Nelson  Chemistry – Biochemistry/Biophysics
Steven P. Obrazut  Biology
Lindsay N. Poirier  Information Technology and Web Science and Science, Technology and Society
Michael A. Puthawala  Mathematics – Physics
Michelle K. Sharer  Information Technology and Web Sciences
Christine K. Umbright  Physics – Mathematics
Jessica A. Ziegler  Chemistry


**Graduate Student**

Molly E. Antalis  Geology  
Catherine J. Eldred  Biochemistry/Biophysics  
Kimberly J. Fessel  Mathematics  
John C. Licato  Computer Science  
Bianca M. Pier  Biology  
Amina Shabbeer  Computer Science  
Kajetan M. Sikorski  Mathematics  
Vimla Singh  Biology  
Andrew S. Warner  Mathematics  
He Yang  Mathematics

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**4.0 Awards**

This award is presented to those students who have maintained a grade-point average of 4.0 and have completed a minimum of 90 letter-graded credit hours receiving an “A” grade for each course taken.

**Junior**

Caragine, Christina Marie  PHYS  
Cui, Xiaohui  MATH  
Kinch, Brooks Evan  PHYS  
Li, Da  MATH  
Patti, Douglas A.  CSCI  
Pomeranz, Michael David  CSCI  
Santosh, Bharath  CSCI  
Shastry, Divya Gowri  BCBP

**Senior**

Axelrod, Vera Saldinger  MATH  
Cho, Jonathan Joseph  BIAM  
Closser, Nowell Callanan  MATH  
Pinkert, Michael A.  PHYS  
Tang, Sunli  MATH

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**Fulbright Fellowship**

The Fulbright program is sponsored by the Bureau of Educational and Cultural Affairs, U.S. Department of State. Recipients of Fulbright awards are selected on the basis of academic or professional achievement and because they have demonstrated extraordinary leadership potential in their fields. The purpose of the program, which was established in 1946 under legislation introduced by the late Senator J. William Fulbright of Arkansas, is to build mutual understanding between the peoples of the United States and the rest of the world.

**Syed Waqas Hassan Bukhari**, Information Technology and Web Science

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**National Science Foundation Graduate Research Fellowship**

The National Science Foundation awards three-year Graduate Fellowships to fellows who are expected to contribute significantly to research, teaching, and industrial applications in science, mathematics, and engineering.

**Evan W. Patton**, Computer Science
Department of Defense – SMART Scholarship
The Science, Mathematics and Research for Transformation (SMART) Scholarship program aims to increase the number of civilian scientists and engineers working at Department of Defense laboratories. In addition to working alongside some of the most innovative minds in the world, SMART scholars have access to many world-class facilities, including the world’s largest supercomputers, one-of-a-kind wind tunnels, tow tanks for testing ship models, and biological research facilities.

Michael D. Levy, Mathematics

Last Sunday (October 21st), RCS participated in the National Chemistry Week event held by the Eastern New York Chapter of the ACS at the New York State Museum. The theme this year was Nanotechnology: The Smallest BIG Idea in Science and our demo was Exploring Graphene. The children were able to create a dark band of graphite/graphene on a piece of paper using a pencil and then connect a circuit using this band and watch a light bulb glow. We also used mini marshmallows and toothpicks to make a sheet of graphene, which by the end of the day was quite large! A few pictures of our best pictures from the event are included below. - Alyssa Preston

Ruchira Chatterjee, a graduate student in Professor K. V. Lakshmi’s laboratory at the Baruch ’60 Center for Biochemical Solar Energy Research receives the 2012 National Society for Applied Spectroscopy (SAS) Graduate Student Award at the SAS Awards Banquet in Kansas, MO. Ruchira received the SAS Award for her excellence in scholarship and seminal contributions to the field of applied spectroscopy.

This newsletter is prepared monthly during the academic year and distributed to School of Science faculty, staff, students and alumni to highlight accomplishments and events within the school. Please submit news items for the next newsletter to Samuel Wait, Associate Dean Emeritus of Science, at waitsc@rpi.edu