Graduate Student Profile

In Geoscience Newsletters throughout the year, we will profile one of our geoscience graduate students, so that we can learn more about them!

Graduate student Chandi Witharana graduated from the University of Peradeniya (Sri Lanka) in May 2005, with first class honors degree in Geology. Chandi also won the University Award for Academic Excellence in academic year 2004/2005. His undergraduate research work mainly concentrated on application of Geoinformation science and Earth observation for Environmental Impact Assessment (EIA) processes in hydropower development projects. While an undergraduate, he worked as a trainee Hydrogeologist, Geotechnical Engineer and a field Geologist in different terrains of Sri Lanka.

Further, he has done several research projects on the application of Geomatics as a tool for road traffic accident analysis, groundwater quality assessments and coast conservation activities.

After graduating from Peradeniya, he started his career as a Geographic Information System (GIS) officer in the United Nations Organization. During this time Chandi worked on humanitarian information management, disaster risk information management and vulnerability mapping in tsunami impacted coastal regions of Sri Lanka.

Chandi says he always wondered about the realistic nature of Geo-information Science and the spectrum of applications in various disciplines, especially human and environmental security, natural resources management and disaster risk management. He has found that the Center for Integrative Geosciences is an ideal place to amalgamate various disciplines in a rigorous way. At UConn his main research area is streamlined with the application of Geomatics on storm surge flood modeling and groundwater at risk in the coastal cities of Connecticut. Chandi’s wife, Piyumi, is also now a student in the Center.

Chandi looks forward to spending his summer vacation with the sensation of the delicate breeze blowing over the paddy fields in Sri Lanka.

Geoscience Writing Internship


Do you like science and love to write? We are currently accepting applications for our summer 2007 internship. The intern will work as a member of the Geotimes staff: writing for the News Notes section and other parts of the magazine, writing weekly Web Extras for Geotimes online, attending press briefings and science seminars in Washington, D.C., and helping to edit and produce the magazine for print and Web. Based at the American Geological Institute in Alexandria, Va., the internship is 12 weeks long and includes a $3,500 stipend. Starting time is flexible. All applications should be received by March 23, 2007. A background in the geosciences is a plus. Send a résumé, letter describing what you hope to gain from the internship, and writing samples (no more than three) via email, fax or mail to: Attention: Geotimes Summer Internship—American Geological Institute, 4220 King Street, Alexandria, VA 22302. Fax: (703) 3797563; Email: geotimes@agiweb.org

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In the News for Geosciences:

- The world is warming, and the burning of fossil fuels is "very likely" to blame, according to a new report released on 2/2/07 in Paris by the Intergovernmental Panel on Climate Change (IPCC). IPCC is a nonpartisan group of thousands of scientists from 180 governments that operates under the auspices of the United Nations Environment Programme and the World Meteorological Organization. The report is "a very emphatic reaffirmation" of the seriousness of human-caused global warming, Richard Somerville of the Scripps Institution of Oceanography said at a press conference to announce the release of the report.
Announcements, Awards, Publications, etc.

Faculty Contributions on Publications:
As a reminder, copies of these pubs are located in the 207 office, in a blue binder on the front counter, for anyone who would like to take a look or make copies.


IMPORTANT ANNOUNCEMENTS!

Congrats to Tom Meyer, Geosciences Faculty Advisory Board member—he was recently named to the editorial board of the Journal of Surveying Engineering!

Check out the UConn Geophysics group website:
http://www.phys.uconn.edu/research/geophysics/index.html

New Course for Fall 07: NRME 353 Digital Terrain Modeling. This course is meant to be a practical, hands-on exploration of modeling natural surfaces. Topics include kriging estimation, logistic regression, polynomial surface patches (e.g., triangulated irregular networks) and tensor product surfaces. Emphasis is on learning how to do the modeling, rather than in-depth treatments of the underlying mathematics. MWF 1-1:50

2007 TIBOR T. POLGAR FELLOWSHIPS for Hudson River Research Proposal Deadline: Monday, February 26, 2007. The Hudson River Foundation requests proposals for summer fellowships to conduct research on the Hudson River. Managed jointly by the New York State Department of Environmental Conservation and named in honor of the late Dr. Tibor T. Polgar, a major contributor to the early development of the Foundation, this program provides a grant ($3,800 for each fellowship) and limited research funds for up to eight college students (both graduate and undergraduate) to conduct research on the Hudson River. Find out more at:

The Black Hills Natural Sciences Field Station at Department of Geology and Geological Engineering, South Dakota School of Mines and Technology will be running its annual Geology Field Camp in Wyoming from June 18 to July 20, 2007 and in Turkey from July 23 to August 25. Additional information can be found at the following URL: http://geologyfieldcamp.sdsmt.edu

Conferences:
TENTH ANNUAL MEETING OF THE CONNECTICUT ASSOCIATION OF WETLAND SCIENTISTS (CAWS) - “WETLAND RESTORATION, CREATION AND MONITORING: A PROGRESS REPORT” Location: Sheraton Four Points, 275 Research Parkway, Meriden, CT 06450 Date: Tuesday, February 27, 2007 (Registration deadline: 2/21/07) Time: 9:00 am 4:00 p.m.

Internships:
Summer Internships Available in Scientific Drilling
DOSECC (Drilling, Observation and Sampling of the Earth’s Continental Crust) invites students to apply for summer 2007 internships in scientific drilling. The internships promote student involvement in projects where drilling has provided data and materials for study. Internships are open to college students (graduate or undergraduate) and primary and secondary schoolteachers. Internship funding will be available in the summer of 2007 and budgets of $2000 to $5000 are appropriate. Applications must be received by March 1, 2007 and awardees will be announced April 1, 2007. For additional information, consult the information posted on the DOSECC website (www.dosecc.org), or email David Zur, DOSECC’s Education and Outreach Manager (dzur@dosecc.org).

Research Experience for Undergrads

Also known as REU’s, The Research Experiences for Undergraduates program supports active research participation by undergraduate students in any of the areas of research funded by the National Science Foundation. See below for various opportunities!

• Carnegie Institute geophysical lab internships (deadline Feb. 28th): http://www.gli.ciw.edu/interns/
• CalState-San Bernardino West Indies

For All Earth Science Related REU’s, please look here:
**Geoscience Websites of Interest**

For each newsletter that comes out, we will try to feature a few great sites related to geosciences that may be of interest to students and faculty associated with the Center. Please feel free to send any sites you find along to Abi, to be included in this section in future editions!

- **Extreme Science Earth Science page**: This is the place to find information on world records in earth science and geological formations and to also read about key science concepts in the earth sciences, such as plate tectonics and seismology. [http://www.extremescience.com/earthsciport.htm](http://www.extremescience.com/earthsciport.htm)

- **An Inconvenient Truth**: Peer-reviewed science about the movie, in a compelling presentation [http://www.climatecrisis.net/](http://www.climatecrisis.net/)

- **UCAR’s digital library of images**: Collection of weather, climate, and Earth system photos for use. [http://www.fin.ucar.edu/ucardil/](http://www.fin.ucar.edu/ucardil/)

- **Earthquake Probability Mapping (EPM)**: Enter latitude and longitude or zip code allowing you to access information for earthquake rate, location, and magnitude data used by the USGS National Seismic Hazard Mapping Project. The most recent models of earthquake source parameters are used for these maps. [http://eqint.cr.usgs.gov/eq-men/html/neweqprob-06.html](http://eqint.cr.usgs.gov/eq-men/html/neweqprob-06.html)

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**Upcoming Events**

- **Friday Feb. 16th, Geography Colloquium** presents Jo Beth Mullens, Keene State ‘Does What Go Up Have to Come Down? A Study of Public Perception and Dam Removal’. CLAS 434 12Noon.

- **Tuesday Feb. 20th, Geoscience Seminar Series** Presents Dallas Abbot, Lamont-Doherty Earth Observatory. ‘Evidence for Multiple Late Holocene Impact Events’. 3:30pm in Beach Hall 233 (Reading Room). Reception to follow!

- **Thursday Feb. 22, EEB Seminar Series** Presents Ann Bucklin (MARN) ‘Biodiversity of Marine Zooplankton: Barcoding the Global Assemblage’ 4:00PM in BSP 130

- **Friday Feb. 23, Geography Colloquium** presents Chi Ho Sham, Cadmus Group ‘Protection of Drinking Water Supply Sources in the US’. 12 noon CLAS 434.

- **Tuesday Feb. 27, Geoscience Seminar Series** Presents Melinda Smith, Yale University. Title TBA. 3:30pm Beach Hall Reading Room (233). Reception to follow!

- **Thursday March 1, EEB Seminar Series** Dr. Pamela Templer, Boston University ‘Plant vs microbial controls on nutrient retention in northeastern forest ecosystems’ in BSP 130, 4:00 pm.

- **Friday March 9, MARN Seminar Series** presents John Reinfielder, Rutgers University ‘Metals in the Hudson River Plume’ 3:00pm MARN 103, Avery Point Campus.

- **Thursday, March 22, Teale Lecture Series**: Richard Somerville - Distinguished Professor, Scripps Institution of Oceanography, ‘Climate, Climate Change, and the Intergovernmental Panel on Climate Change’, 4:00pm Konover Auditorium, Dodd Center.

- **Tuesday April 17th Geoscience Seminar Series** Presents: Frank Pazzaglia, Lehigh. ‘Tectonic geomorphology and geodynamic models for Mediterranean subduction’ , 3:30pm Beach Hall 233. Reception to follow!

- **Thursday April 26th: EEB Seminar Series** presents Gene Hunt, National Museum of Natural History, ‘Climate change and the evolution of body size in deep-sea ostracodes’ 4:00PM in BSP 130
EPOD from 2/01/2007: This wondrous view of Comet McNaught was captured above Plettenberg Bay, from Keurboomstrand (East Cape), South Africa, on January 17, 2007. As Comet McNaught moved below the Sun, from the perspective of observers in the Northern Hemisphere, it increased in magnitude and could even be detected during the daytime hours by viewers in the Southern Hemisphere. After sunset, in mid to late January, it was truly a sight to behold. Photo by Louis Barendse, BigSkies Astronomy.
New Climate Change E-Conference Series

The EcoRes Forum is a new series of free, online econferences focusing on the ethical, political, and sociocultural aspects of climate change. The first econference, "From Anthropocentrism to Ecocentrism: Making the Shift" two week dialogue will evaluate the current status what is working (and what isn't) around the globe. Armed with this knowledge, participants will shift focus to the future, considering multiprong approaches for moving forward on this issue.

Summer of Applied Geophysical Experience

June 18 – July 13, 2007 (U.S. Undergraduates)
June 21 – July 12, 2007 (Core Program)
Santa Fe, New Mexico

The Los Alamos branch of the Institute of Geophysics and Planetary Physics (IGPP) is again sponsoring SAGE, the Summer of Applied Geophysical Experience, for 2007. The SAGE program is a three week graduate and advanced undergraduate course of instruction and research in exploration geophysics. For further details and a description of the program, please refer to the SAGE website at www.sage.lanl.gov.

Did You Know?

A new feature for our Geoscience Newsletter that reminds us of past Earth events and milestones that occurred around the time our newsletter comes out!

⇒ February 11th: Did you know? On this date in 1933, Death Valley became a National Park. Known best for being the lowest land point below sea level in North America.

⇒ February 12th: Happy Birthday! Charles Darwin, author of ‘Origin of Species’ was born on this day in 1809.

⇒ February 18-24 is National Engineers Week

⇒ February 26th: Did you know? On this day in 1919 Grand Canyon National Park was established. The park exhibits the largest section of geologic time on Earth.

⇒ March 1st: Did you know? On this day in 1872 Yellowstone National Park was established. The park was the nations first national park, and contains half of the world’s 1,000 known geysers.

GeoTrivia!

Fun with Geoscience Trivia

1. What Japanese word is used for waves generated by volcanic eruptions, landslides or earthquakes?
2. During which geologic era did the Danian age exist?
3. Chloanthite is an ore of which metal (hint - see photo!?)

Check your answers:

http://www.geosociety.org/GSA_Connection/0701/trivia.htm

This metal is the clue to question 3!
AWG LECTURER PROGRAM, SCHOLARSHIPS, AND AWARDS

To All Geoscience Department Chairs:

Enclosed for your review and posting are flyers for several AWG programs that benefit students and faculty, both individually and as a community:

- **AWG Distinguished Lecturer Program** – This program provides well-known female speakers in most disciplines of the geosciences. Departments and organizations can receive up to $800 per year toward speaker expenses.

- **Chrysalis Scholarship** – Two $2,000 awards cover thesis-completion expenses for women graduate students whose studies have been interrupted for at least a year; this year’s application deadline has been extended to April 9.

- **Minority Scholarship** – One or more awards totaling $5000 for undergraduate women who are African-American, Hispanic, or Native American; applications due May 15.

- **Geologist-in-the-Parks** – Four positions with $2,500 stipends for women graduate students or professionals; applications due April 1.

In addition, AWG and its chapters provide many other scholarships and awards:

- **Seven chapter scholarships** – For female undergraduate or graduate students in specific regions (Utah, western Washington State, Washington DC area, Kansas and surrounding states); awards from $500 to $1,000; application deadlines from March 15 to May 1.

- **Winifred Goldring Award** – One-year memberships in AWG and the Paleontological Society for a female student pursuing a career in paleontology; applications due October 1.

- **Brunton Award** – Brunton pocket transit for a woman student who demonstrates excellence in geologic mapping that will lead to publication; applications due October 31.

- **Outstanding Educator Award** – For college or university teachers who have played a significant role in the education and support of women geoscientists; nominations due March 15.

Please share this information with interested colleagues and students. For details about these and other programs, visit our website at [www.awg.org](http://www.awg.org).

Cordially,

Nadine Langley, PG
AWG President 2006-2007
Environmental Leadership Awards

The Environmental Policy Advisory Council is now accepting nominations for the University's biennial Environmental Leadership Awards, to be presented during Earth Day celebrations (late-April 2007) to winners in several categories:

1. Undergraduate Student
2. Graduate Student
3. Faculty/Administrator
4. Staff
5. UConn-Affiliated Group, Center or Institute
6. Alumni
7. External Person or Organization

Nominations cover activities that have occurred during some part of the 2005-06 or 2006-07 academic years and will be accepted through March 15, 2007. Winners will be selected based on proven dedication and outstanding contributions to the principles of environmental leadership as outlined in UConn's environmental policy statement (http://www.ecohusky.uconn.edu/policy/state.html).

Emphasis will be on environmental sustainability or "green" campus activities and projects to: improve UConn's environmental performance; promote responsible management and growth of our campuses; demonstrate UConn's environmental stewardship through outreach activities; advance understanding of the environment through curriculum enhancements or academic programs; increase UConn's use of environmentally sustainable products, materials or services; expand recycling or minimize waste on campus; conserve or restore natural resources or wildlife habitat; or achieve shared environmental goals through teamwork.

A complete listing of the criteria and on-line nomination forms are available at the EcoHusky web site. http://www.ecohusky.uconn.edu/2007ELA.htm

Please take a few minutes to submit a nomination and help us recognize UConn's environmental leaders! If you have questions, or for more information, contact Cherie Taylor at the Office of Environmental Policy (486-5446).

LDEO Summer Intern Program

Summer Internship Program for Undergraduates (May 29th-August 2nd, 2007)
Themes: Analyzing Global Databases

The Lamont-Doherty Summer Intern Program offers the chance to experience scientific research as an undergraduate. The program is open to US citizens or permanent residents who have completed their junior or sophomore year in college with majors in earth science, environmental science, chemistry, biology, physics, mathematics, or engineering. Neither graduating seniors nor international students are eligible. Applicants should have an interest in conducting research in the Earth or ocean sciences. Minorities and women are encouraged to apply.

STIPEND: Students will receive a stipend of $4000 for this 10-week program. In addition, the student will receive free, air-conditioned housing at Columbia University in the City of New York. APPLICATION DEADLINE: Application form must be submitted by March 1, 2007. There is an online application form. http://eesc.columbia.edu/resources/internships/lamont/Application More details here: http://www.ldeo.columbia.edu/~dallas/Answers_to_Questions.htm.

Internships Abound!

CT Summer Intern Program: The Bruce Museum in Greenwich, Connecticut, announces a Summer Science Internship position. The intern will be assisting the Science Curator on projects related to curating a natural history collection. Special consideration will be given to interns majoring in geology or biology since current projects involve our collections of minerals, fossils, birds and mammals. The 2007 program will begin no later than June 18 and will be completed by August 17. This is a full time, 35 hours per week position lasting nine weeks. Compensation is $9.00 per hour for a total of 315 hours. Application Deadline for Summer 2007: April 13, 2007 Applications will be accepted beginning in January 2007 Please include cover letter, resume, and the application form, available at: http://www.brucemuseum.org/2007Science_application.pdf
For more information, see http://www.brucemuseum.org/aboutus/employment.php#31

More Internships listed in Announcements section on page 2!!!
The Center for Integrative Geosciences mission is to offer transdisciplinary programs of instruction and research that advance understanding of the interaction of biological, chemical, geological, and physical processes, including feedback mechanisms, at all spatial and temporal scales that have shaped Earth through geologic time, continue to shape the environment today, and which provide the basis for understanding the present and future impact of human activity on this planet.

We will be issuing these newsletters monthly throughout the academic year to keep associated students, staff, alumni, and faculty up-to-date on the Center's activities!

Crafoord Prize Winner

Wallace Broecker, a geochemist at Columbia University's Lamont-Doherty Earth Observatory and the Newberry Professor of Earth and Environmental Sciences at Columbia was awarded the Crafoord Prize in Geosciences by the Royal Swedish Academy of Sciences. The prize is widely regarded as the discipline's equivalent of the Nobel Prize. In its citation the Academy noted Broecker's "innovative and pioneering research on the operation of the global carbon cycle within the ocean-atmosphere-biosphere system, and its interaction with climate."

Broecker, a resident of Closter, N.J., was born November 29, 1931, in Chicago. He received his undergraduate degree in physics at Columbia College in 1953 and went on to receive his Ph.D. in geology from Columbia University in 1958. Broecker joined the Columbia faculty in 1959 and has remained there to this day.

As a young graduate student at Lamont-Doherty, Broecker was inspired by the late Maurice W. Ewing, the founding director of the Observatory. He began his scientific career with a study of the geological and oceanographic applications of radioactive carbon-14 -- the beginning of a long path of research along which he has made many pioneering discoveries that have had a profound impact on our understanding of the ocean, as well as of its role in global climate change. His research has been instrumental in developing the use of a wide range of geochemical tracers to describe the basic biological, chemical and physical processes that govern the behavior of carbon dioxide in the oceans, and its interactions with the atmosphere.

Broecker has also played an active role in the environmental policy debate. He has been a leading voice warning of the potential danger of increased greenhouse gases in Earth's atmosphere. He has written ten articles for the popular press, testified before Congressional committees and briefed officials at the highest levels of government in an effort to bring scientific insights to bear on policy issues.

A prolific researcher, teacher and author, Broecker has also published more than 400 scientific articles and is the author or coauthor of several textbooks. Among his many awards and citations, Broecker was elected to membership in the National Academy of Sciences in 1979. He is also a member of the American Academy of Arts and Sciences and a Fellow of both the American and European Geophysical Unions. In 1996, he was presented with the National Medal of Science by President Bill Clinton.