University of Maryland Goes Global With Environmental Science Field Study Courses

Environmental Science and Technology (ENST) faculty taking steps to train the next generation of international scientists to conserve the earth’s wetlands, ecology and natural resources.

New Study Abroad Summer Courses Create Innovative Bonds

College of Education students learn alongside alumni mentors while Middle East program bridges an historical divide.

University of Maryland High Energy Physics Group Plays Leading Role in Internationally-Funded “Supercollider”

Strong contingent of UM faculty participate in monumental effort to find out what the universe is made of and how it works.

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Department of Environmental Science and Technology (ENST) faculty are taking steps to train the next generation of international scientists to conserve the earth’s wetlands, ecology and natural resources. The department has partnered with universities in Germany and Brazil to create two cutting-edge exchange programs for German, Brazilian and University of Maryland students. The exchange with Germany, “International Summer School in Wetland Science and Management,” and with Brazil, “Student Exchange in Ecology and Natural Resources Management,” ran simultaneously at UM from late-July to mid-August.

**Wetland Science—A New Global Niche**
Funded by a grant of 40,000 Euros ($64,000) from the German Academic Exchange Service (Deutscher Akademischer Austausch Dienst [DAAD]), a delegation of 12 graduate students from Hamburg University visited UM for a 17-day program on wetland science and management. The course was aimed at graduate students and filled a niche in their training that was previously vacant. “Wetlands and associated scientific, management, and policy issues are complex and multidisciplinary, and there is a need for graduate-level teaching and international exchange in this area,” says Dr. Andrew Baldwin, Associate Professor in ENST and the program’s coordinator at Maryland. “Furthermore, global climate change is
viewed increasingly as a major threat to wetlands.” As wetland damage and destruction grows into a worldwide issue, the universities recognized the need for global partnership, and thus joined forces to create the curriculum, recruit students, and offer the program.

The summer school is designed to engage graduate students in complex wetland science and management issues through lectures, student presentations, field and laboratory exercises; structured discussion; and visits to restored and natural wetlands in the mid-Atlantic region. “Exposing German students to wetland science and management approaches from other parts of the world was a great way to learn about alternative ways of approaching environmental research and management,” Baldwin says.

**Hands-on Experiences Emphasized**

Besides attending lectures by ENST professors and field experts, German students had an opportunity to engage in hands-on study of wetland research methods. Study trips helped students examine the differences and similarities between wetlands in Maryland and Germany. “Different attitudes regarding wetland management became obvious in discussions between American and German students,” says Kai Jensen, Professor at Hamburg University and the program’s coordinator in Germany. “For instance, widespread efforts to control non-native species in the U.S. surprised the students from Germany, whereas cattle-raising as a management tool for biodiversity conservation in European wetlands was an unexpected approach for the graduate students from UM.”

Other topics the summer school addressed in lectures, labs, and discussions include: evolution of wetlands after the last glaciation; abiotic/biotic wetland environments; and conservation, restoration, and environmental regulation of wetlands. “I felt that in many aspects wetlands are very important to the citizens in America; and, from my observations, I concluded that people in Maryland are more involved in restoring wetlands than in Germany,” says Cynthia Erb, Hamburg University graduate student. “This program is so valuable, and I hope that more courses like this are offered in the future.”

ENST plans to send American students to study European wetlands through a complementary class in Hamburg in August, 2009.

**“People to People” Exchange Celebrates 40-Year-Partnership**

Hosted by ENST and the Office of International Programs, the “Student Exchange in Ecology and Natural Resources Management” program is another successful effort between Brazil’s Federal Rural University of Rio de Janeiro, Fluminense Federal University in Niteroi, and Partners of the Americas, the Maryland–Rio de Janeiro Chapter. Partners of the Americas is one of the “people to people” exchange programs initiated by President Kennedy in the early 1960s. Its mission is to promote collaboration between organizations in the U.S. and their counterparts in countries or regions of Latin America. Through the years, Partners of the Americas has helped expand the links between Maryland and the state of Rio de Janeiro through a progression of cultural, educational, technical and scientific exchanges and through the sharing of knowledge and experience.

The latest group of 10 Brazilian students arrived in Maryland
in July, eager to learn about the UM Gemstone Project, “Saving Testudo,” an undergraduate research project focused on the survival of diamondback terrapins. “Brazilian students interacted with “Gemstoners” and learned about efforts to reduce predation on terrapin nests from foxes and raccoons on beaches of the lower Patuxent River,” says Dr. Lowell Adams, Associate Professor in ENST and the program’s coordinator.

**Two States, One Goal: Conserving the Bays’ Ecosystems**

Although environmental conservation in Rio de Janeiro and Maryland differ, both states have one common thing to fight for: the health of their bays. The Chesapeake Bay in Maryland and Guanabara Bay in Rio are both affected by pollution, urbanization, and human behavior. The Guanabara Bay’s ecosystem – which used to be incredibly rich and diversified – has suffered tremendously from sewage, garbage, and oil spills. “Both bays have sedimentation and require ongoing work to restore shore lines as well as improve sewage treatment plants,” explains Gustavo Grossi Roberto, a Geology undergraduate student at the University Federal Rural de Rio de Janeiro. Grossi, who visited the U.S. for the first time, enjoyed his experience so much that he is planning to return to UM for graduate studies in Geology.

**Brazilian Students Surprised About Volunteer Opportunities in Maryland**

After visiting places like Jug Bay Wetlands Sanctuary in Lothian, Maryland; National Park Service’s Center for Urban Ecology; Patuxent Wildlife Research Center; and Great Falls National Park, Brazilian students had only one question – “How do Americans get citizens involved in saving Maryland’s wildlife?”

“In Brazil, we don’t have volunteer opportunities for citizens, but in Maryland it is a widespread practice,” observed Renata Van Der Haagen Henriques, graduate student in Environmental Geochemistry at Fluminense. Henriques believes that the lack of government volunteer programs in Brazil could be related to the lack of community service programs that offer volunteer opportunities. As a result, Henriques plans to get a job with the local Brazilian government to create an educational program that promotes environmentally-related volunteer opportunities. “This trip has made me realize how to establish volunteer programs in my home country,” she says, “and how both the governments and citizens of the world can work together to save the global environment.”

Renata Van Der Haagen Henriques, graduate student in Environmental Geochemistry at Fluminense Federal University

Photos by Dr. Lowell Adams, Dr. Andrew Baldwin, and Edwin Remsberg, photographer

Learn more about ENST and its efforts at www.enst.umd.edu
NEW SUMMER STUDY ABROAD COURSES CREATE INNOVATIVE BONDS

College of Education Students Learn Abroad Alongside Alumni Mentors

The University of Maryland’s soon-to-be teachers learned by experience this summer in the College of Education’s study abroad program to classrooms in the Netherlands, Belgium and Germany. During the three-week program, “International Study of Teaching and Learning Environments,” the course’s eight undergraduate and graduate students shared a sense of European teaching styles, culture—and an unusual bond of support.

This three-week field study course, led by K-16 Partnership Center director Dr. James Greenberg, has run four times previously. This year, however, the program incorporated alumni mentors into its curriculum—a first for a UM study abroad course.

“We want to serve as important, supportive mentors to first year teachers,” says Jim deGeorge ’68, ’70, Associate Director of the College Park Scholars’ Advocates for Children Program and President-elect of the College of Education Alumni Executive Board—the organization that made this program possible. “Too many teachers are leaving the profession due to lack of encouragement and ongoing support. We would like to develop a cadre of alumni board members who can serve this need.”

The beneficiaries of the initiative—the students—certainly echo their approval of the concept. “This program has redefined my commitment to teaching, and broadened my interest in the possibility of international education,” says Emily Floyd, a senior Elementary Education major. Greenberg says there are plans to offer a similar course again during the Winter 2009 term, and again in Summer 2009—with inclusion of mentors.

Inaugural Program in the Middle East Bridges a Divide

The first UM study abroad course to Egypt and Israel, “Intercultural Communications and Religious Conflicts,” represents years of planning by Faculty Directors Dr. Talaat (Tal) Shehata and Dr. Edward (Edy) Kaufman—but the outcome was worth their long efforts.

The program, a study of Middle Eastern conflict through cultural analysis, gave 12 undergraduates a first-hand look into the current state of affairs through lectures/workshops at universities and religious institutions in Egypt, Israel and at Bethlehem.

“I learned of the complexity and pluralism that surrounds the Palestinian-Israeli conflict,” says Jennifer Young, a senior History major who was so influenced by the course that she now plans graduate studies and a career centered on the Middle East. “Having the opportunity to visit two cultures that have spent generations at odds with one another gave me the chance to learn about the struggles from both sides.”

“For me, it was an expression of desire to show that it is possible to teach, write and have study abroad programs across a divide,” Kaufman, Government and Politics professor and senior researcher in the Center for International Development and Conflict Management, says of the course. “I think this program is a ray of light in a very difficult situation.”

Both Kaufman and Shehata, former director of the Office of International Programs, plan to offer a repeat of the course during Summer 2009.

Kellie Corcoran, OIP corcoran@umd.edu
OIP FILM SERIES PART OF CAMPUS-WIDE DIALOGUE ON WAR

“A Semester on War and the Representation of War” (www.war.umd.edu) is sponsored by the College of Arts and Humanities and the College of Behavioral and Social Sciences. Each film in the Office of International Program’s 2008-09 International Film Series, “WAR & CINEMA”, can be seen for free in the Stamp Student Union’s Hoff Theater.

Wednesday, September 10, 2008
11.09.01-SEPTEMBER 11
Directed by Youssef Chahine, Amos Gitai, Alejandro Gonzalez Irarrutia, Shohei Imamura, Claude Lelouch, Ken Loach, Samira Makhmalbaf, Mira Nair, Idrisa Ouédraogo, Sean Penn, Danis Tanovic (2002)
Hosted by Myron Lounsbury, American Studies
Commissioned by French television soon after the terrorist attacks of September 11, 2001, eleven filmmakers from around the world contribute stories, told from their own nation’s perspective, that will alternately excite, puzzle and surprise American audiences accustomed to stereotyping foreign cultures and their opinions regarding the USA in peace and war.

Wednesday, October 1, 2008
ALL QUIET ON THE WESTERN FRONT
Directed by Lewis Milestone (1930)
Hosted by Peter Beicken, SLLC
This is Milestone’s award-winning film, based on E.M. Remarque’s classic 1929 anti-war novel about the physical and psychological devastation of World War I.

Wednesday, November 5, 2008
LAND AND FREEDOM
Directed by Ken Loach (1995)
Hosted by José María Nahrar-Calderón, SLLC
Partially based on George Orwell’s Homage to Catalonia, this film about the Spanish Civil War depicts the contradictions and power struggles in the camp of the democratic Spanish Republic, abandoned to its tragic fate by England, France and the United States.

Wednesday, November 19, 2008
WITNESS TO HIROSHIMA
Directed by Kathy Sloane (2008)
Hosted by Michele Mason, SLLC
This short film highlights how Japanese citizen Keiji Tsuchiya uses 12 powerful watercolors to tell the story of his experiences in Hiroshima as a 17-year-old soldier immediately following the dropping of the atomic bomb, and how he ultimately directed his life towards purpose and healing.

BAREFOOT GEN (HADASHI NO GEN)
Directed by Mori Masaki (1983)
Hosted by Michele Mason, SLLC
Based on a true story, this animated short makes a powerful statement against war through its vivid portrayal of the effects of the Hiroshima atomic bombing on the lives of six-year-old Gen and his family.

Wednesday, December 3, 2008
DUCK, YOU SUCKER (GI ù LA TESTA)!
Directed by Sergio Leone (1971)
Hosted by Saverio Giovacchini, History
Probably the most overtly political “Spaghetti western” by Leone, the film is set in Mexico at the time of the Revolution. A story of fights, betrayals, friendships, and transformation.

Wednesday, February 4, 2009
WITNESS TO HIROSHIMA
Directed by Kathy Sloane (2008)
Hosted by Michele Mason, SLLC
This film explores the converging paths of a group of bitter enemies, who find more than they bargained for in the peaceful mountain village of Dongmagkol.

Wednesday, May 6, 2009
GILANIE
Directed by Mohsen Abdulvahab and Rakshosh Bani Etemad (2005)
Hosted by Ahmad Karimi-Hakkak, SLLC
Set in 1988, during the Iran-Iraq war, this film explores a mother’s courage, hardship, and love, in times of war.

Does the Israeli-Palestinian Conflict Still Matter?

UM Professor Shibley Telhami, the Anwar Sadat Chair for Peace and Development, recently released an important and highly cited study, published by the Brookings Institution. The paper is part of a larger research project that Professor Telhami has been conducting for nearly a decade, which includes substantial public opinion polls in six Arab countries: Egypt, Saudi Arabia, Morocco, Jordan, Lebanon, and the United Arab Emirates. The paper deals specifically with Arab public perceptions of the Palestinian-Israeli conflict by analyzing six annual polls, the last conducted in the spring of 2008. One central finding was that the Arab public continues to view the world largely through the prism of the Palestinian-Israeli conflict, not the prism of Iraq, Iran, and the Sunni-Shiite divide (which are also important). The vast majority of Arabs continue to rank the issue high in their priorities with only small variations across countries, time, and demographic groups. The attitudes toward Israel were telling: A majority of Arabs supports the two-state solution of Israel-Palestine based on the 1967 borders. However, this positive finding is balanced by a troubling reality: most Arabs do not believe this solution will ever take place. This pessimism helps explain why militant groups remain popular, even among those who prefer a peaceful two-state solution, and why Hassan Nasrallah, the Shiite cleric leader of the Lebanese militant group, Hezbollah, remains the most popular leader in the Sunni Arab world, despite talk a of Sunni-Shiite divide.

2008 ISRAELI-PALESTINIAN CONFLICT
(balance of terror)

Which of the following statements is closest to your view about the prospects of lasting peace between Israel and the Palestinian National Authority?

- I don't believe it will ever happen
- It is possible, but will take more time
- It will happen in the next few years
- It is negotiable, but will take more time

55% 45%
Summer Chinese Culture Camp 2008

As the eyes of the world focused upon Beijing for the 2008 Summer Olympic Games, UM’s Confucius Institute continued its tradition of bringing China to the U.S.

College Park area children enjoyed a week of mini Chinese language lessons, colorful arts and crafts, myths, traditional games, and geography and history “capsules” during their week at CIM’s Chinese Culture Camp. Campers learned about the Five Olympics Friends, the Great Wall, and the terra cotta warriors of Xian; at lunch they sampled interesting flavors ranging from jiaozi (dumplings) and sesame noodles to corn soup and bean curd. Other activities included flying a Chinese kite and rolling the cheling, or Chinese yoyo, on its string between two sticks. During the week, an array of guest artists brought traditional dances, music, martial arts, painting, and handicrafts to the children for a rich variety of hands-on experiences. The campers created tiny clay pagodas for a penjing, or dish garden; folded and cut paper into animal and flower shapes; designed creatures with finger printing art using red, sticky seal ink; and created their own sheet of paper utilizing traditional paper-making techniques. Every day had something Chinese for all the senses.
University of Maryland High Energy Physics Group Plays Leading Role in Internationally-Funded “Supercollider”

The Physics Department’s Nicholas Hadley leads a strong contingent of UM faculty in monumental effort to find out what the Universe is made of and how it works.

On September 10, 2008, members of the University of Maryland Physics Department and, in particular, Professor Nicholas Hadley, began to reap the fruits of a fourteen-year international scientific collaboration. On that day, the Large Hadron Collider (LHC) began operation. The LHC is an internationally-funded proton accelerator—with a budget of approximately $1B Euro per year and a total cost of $5B—under construction since 2003 just outside Geneva, Switzerland, by the European Council for Nuclear Research (Conseil Européen pour la Recherche Nucléaire, or CERN). The LHC is a true “supercollider,” creating “almost a billion proton-proton collisions per second at an energy of 14 trillion electron volts. These collisions will take place at four points around a 27-kilometer ring.” where four main LHC experiments are located. Thousands of scientists around the world collaborated on the design and construction of the LHC, and will use its experiments to investigate the nature of the physical universe.

UM’s Nick Hadley has been involved in the LHC project from its inception—and his leading role among US participants was recently recognized by his election to the Chairmanship of the board of US institutions collaborating in one of the four key LHC projects: the Compact Muon Solenoid (CMS). The more than 400 physicists, 200 graduate students and 200 engineers, technicians and computer scientists who comprise USCMS make it the largest national group in the international CMS collaboration of 2000 physicists from over 140 institutions. The USCMS Collaboration Board has as its main responsibility all policy and reporting for the collaboration and, more importantly, reviewing of the physics results for publication. By his appointment Dr. Hadley succeeds Professor Harvey Newman of Cal Tech as the highest elected physicist in USCMS, and assumes considerable responsibility in the overall quest for new discoveries at LHC. Such a leadership role is hardly a new experience for Dr. Hadley, both on campus and off. In 1995, for example, he was at the head of the group that discovered the TOP quark.

Nor is Dr. Hadley the only UM physicist among the lead US participants at LHC. Professor Andris Skuja has been tapped by CERN to be Project Manager for the Hadron Calorimeter (HCAL); Professor Sarah Eno is leading the CMS Collaboration’s “Supersymmetry and Beyond-the-Standard-Model” new particles search group; and Professor Andrew Baden, in addition to his responsibilities as Chair of the Physics Department, is heading a USCMS upgrade effort for the Hadron Calorimeter.

Thus, just as it is no exaggeration to claim that the startup of the Large Hadron Collider promises to smash the boundaries of High Energy Physics, so it is also true that Maryland physicists are leading the way across this latest international scientific frontier.

For further information, on UM and the LHC, visit www.cmps.umd.edu/lhc
Around Campus

UNIVERSITY RACING TEAM WINS BIG IN INTERNATIONAL COMPETITION

The University of Maryland’s Terps Racing team is making a name for itself in the Formula SAE racing world. Made up of A. James Clark School of Engineering students, the group recently won the Formula SAE West 2008 race at California Speedway in Fontana, California. The international competition drew teams from across the U.S. and the world, including the United Arab Emirates, Japan, Sweden, Brazil, China, Mexico, Canada and Venezuela. During the four-day competition, the students’ hand-built car was judged in seven categories. The combined score earned the team a first-place win, with the following specific rankings:

• 1st in acceleration
• 3rd in skidpad
• 4th in autocross
• 4th in endurance/fuel economy
• 6th in cost

Terps Racing is led by Dr. Gregory Schultz, faculty sponsor and Associate Professor of Mechanical Engineering, and receives a number of corporate sponsorships. For more information on the Terps Racing team, visit www.terpsracing.umd.edu.

Maryland Students Clinch Gold in International Robotics Competition

University of Maryland students recently made a big splash in the world of underwater robotics, taking first place in an international competition in San Diego, California.

The team, Robotics@Maryland, participated in the grueling three-day event with their hand-crafted robot, Tortuga II. Competing against 25 other teams from across the U.S., Canada, India and Japan, the group of UM students designed and built their robot to travel autonomously via sonar through several underwater missions. The competition included tracking an acoustic buoy on the bottom of a tank, following a designated course under water, grabbing an object, bringing that object to the surface, and more. Although there were a few technical set-backs—including computer malfunctions and propeller mishaps—Tortuga II prevailed to win gold in only its second year of competition.

“We have put a lot of time and effort into this, and I would say it has been about two years in the making,” says Leo Singer, a senior physics major who helped found the team last year. “After the first mission, we knew our standing was really high, but it was still extremely suspenseful the whole time—we had our fingers crossed and were really happy that we won.”

Robotics@Maryland consists of 75 active undergraduate and graduate students majoring in engineering, physics, math and computer science, with 12 chosen to represent the team in California. The team labored tirelessly to perfect their robot, under the guidance of their faculty mentors Dave Akin, Director of UM’S Space Systems Laboratory, and Nuno Martins, Assistant Professor of Electrical and Computer Engineering. The group built and tested their robot at UM’S Neutral Buoyancy Research Facility in the Space Systems Laboratory, which has a 25-foot deep water tank. This tank, designed to simulate sub-gravity, is the only facility of its kind at a university.

So what is next for the Robotics@Maryland team? Now that they have conquered water, they hope to conquer land by sponsoring a regional tournament for ground robots. The competition, the Autonomous Robot Speedway, will take place on the UM campus in September, 2008.

The TerpsRacing team Formula SAE car, which recently won the Formula SAE West 2008 held at California Speedway in Fontana, Calif.

The Robotics@Maryland team members who won in San Diego at the 11th Annual International Autonomous Underwater Vehicle (AUV) Competition
President C.D. Mote, Jr. Spans the Globe to Enhance University of Maryland Linkages

**During the first six months of 2008, President Mote led University delegations to Abu Dhabi (United Arab Emirates), Turkey, China and Taiwan.**

**January, 2008**

**PETROLEUM INSTITUTE, ABU DHABI, UAE**

President Mote delivered the commencement address to the graduating class of The Petroleum Institute (PI) and participated in a live video workshop between UM and PI faculty, part of the Phase 1 partnership, along with the following Clark School of Engineering faculty: Avram Bar-Cohen, Azar Nazeri, Ashwani K. Gupta, Shapour Azarm, Mohammad Modarres, Greg Jackson, Reinhard Radermacher and Ali Haghani. PI participants were led by its Chairman of the Board, H.E. Mr. Yousef Omeir Bin Yousef, CEO of Abu Dhabi National Oil Company (ADNOC) and host of the Maryland delegation, and PI Provost Michael Ohadi. Along with six other projects, this exchange was a direct result of the close collaboration between UM and PI since signing a MOU in March 2006. Provost Narim Farvardin serves on PI’s Advisory Board. A Phase 2 proposal will be submitted in the Fall for consideration by PI. President Mote also led conversations about other areas of cooperation, as PI considers expanding its offerings to Civil and Environmental Engineering and to the social sciences.

**May, 2008**

**BILKENT UNIVERSITY & MIDDLE EAST TECHNICAL UNIVERSITY, ANKARA, TURKEY**

In the last week of May President Mote traveled to Turkey to lecture ("Sustainability: A University Perspective," "The Role of Business, Government and Universities in the Knowledge Economy") and also to meet with his counterparts, faculty, and administrators, at Bilkent University and at Middle East Technical University (METU, Ankara). A significant number of Maryland PhDs teach at these leading institutions, and many of UM’s Turkish graduate students earned their undergraduate degrees from Bilkent and METU. Rectors Ali Dogramaci (Bilkent) and Ural Akbulut (METU) are promoting UM as a site for postdoctoral research and joint research in engineering and science (including social sciences). Rector Dogramaci will visit UM this Fall.

Discussions with Prof. Nuket Yetis (President of TUBITAK, Turkey’s equivalent to NSF) focused on research support and on funding graduate studies by alumni of Turkey’s leading universities. A meeting with Pres. Attila Asker and Provost Yaman Arkun (Koc University) to consider the planned establishment of an ACC-sponsored Eurasian Studies Center at Koc was particularly productive.

In Istanbul, site of one of UM’s most active alumni clubs, Mote met with several generations of UM graduates who welcome the opportunity to promote UM among colleagues in academia, government and the private sector, as well as among potential students.

**July, 2008**

**CHINA AGRICULTURAL UNIVERSITY (BEIJING) AND NORTHWEST AGRICULTURAL AND FORESTRY UNIVERSITY (SHAANXI), CHINA**

President Mote was accompanied to China by Cheng-i Wei (Dean, Agriculture and Natural Resources), Ray Miller (Director, International Programs in AGNR), Chuan Sheng Lio (Director, Confucius Institute) and Saül Sosnowski (Director, Office of International Programs). As a result of discussions held at China Agricultural University (CAU) in Beijing with President Ke Bingsheng, and with Northwest Agriculture and Forestry University (NWAFU) President Wuxue Sun, and their respective senior staffs, who traveled to Beijing to meet with the UM delegation, UM will increase the training of CAU and NWAFU junior faculty and receive more of their graduate students at AGNR. The first cohort of 2+2 undergraduates from CAU will come to UM in the Fall; another contingent is expected from NWAFU in Fall 2009. Joint research and extension programs are being instituted with these two top-ranked agricultural universities in China.

Relations with Beijing Normal University continue to advance, and a delegation of senior faculty and administrators, led by the Chairman of the University Council, Mme. Liu Chuangsheng, will visit UM in the Fall to develop initiatives in several disciplines. An established relationship exists in remote sensing through former Ministry of Science and Technology Minister, Xu Guanghua. Zhang Xinsheng (Deputy Minister of Education, Chairperson, Chinese National Commission for UNESCO, and Chairperson, China Scholarship Council) and Mme Xu Lin (Director, NOCFL / HANBAN) expressed strong support for UM’s Confucius Institute. An operational agreement to expand its activities in 2008 was signed during this visit. UM is high on the list of institutions recommended for doctoral students receiving scholarships from the China Scholarship Council.

Dr. Mote’s proposal to Prof. Lu Yong Xiang, President of the Chinese Academy of Sciences, to enter into a formal partnership with UM was promptly and enthusiastically accepted. Global warming and climate change are the initial areas that UM and CAS coordinators are working on for a first visit by a UM team, to China in October. The team will be led by Prof. Antonio Busalacchi, Director of ESSIC (Earth System Science Interdisciplinary Center). CAS indicated that it is open to collaborations in all areas, a readiness that should be considered by UM faculty and administrators (Saül Sosnowski, OIP, is the designated point of contact).

**July, 2008**

**TAIWAN**

In Taipei, Huang Pi-Twan, Minister of Cultural Affairs, expressed interest in having UM host performers and artists. Minister of Education Cheng-Jei-Cheng would like to promote an increase in the number of Taiwanese graduates who pursue advanced degrees in the US. During the summer, UM began to work with the Taipei Economic and Cultural Representative Office in the United States (TECRO) on a proposed Taiwan studies program. The minister and his staff were also interested in rural education and in leadership training for university administrators.

Recently inaugurated Vice-President, Vincent C. Siew, chaired a substantive discussion of areas of cooperation with UM. To that effect he included, among others, Mu-Lin Lu (Political Deputy Minister), Minister without Portfolio Ovid J.L. Tseng (familiar with UM and colleagues in linguistics) and UM PhD in economics Yun-Peng Chu, Minister without Portfolio.

After conversations with former Vice-President Lien Chan, currently President of the Foundation for Peace Development (UM honorary degree), and colleagues in Beijing, UM is considering a cross-Strait initiative with civil society leaders from Taiwan and the Mainland.
Honda and Toshiba Partner with University of Maryland’s Institute for Systems Research

Many of the offices at the University of Maryland’s Institute for Systems Research (ISR) are decorated with intricate folding fans and other souvenirs of Japanese culture. These mementos symbolize the partnerships that ISR – part of the Clark School of Engineering – has cultivated with Japanese corporate engineers through its visiting scholars program.

These international engineers typically stay between six and fourteen months to complete long-term research projects. And not only do they experience American systems engineering methodologies and applications, but they also become immersed in local culture, language and business practices. Visitors join ISR research teams, working alongside UM faculty and students to use ISR’s state-of-the-art tools for Clark School of Engineering activities. The resulting network of scholars participates in long-term, international work on research projects of mutual interest. Past collaborations have encompassed a wide range of technical areas, including network security; nanotechnology; neuroscience and neuromorphic engineering; and transportation systems, including air traffic management.

Two Japanese corporations, Honda and Toshiba, have each sent 12 visiting scholars to ISR, which customizes the visits to meet each corporation and individual visitor’s needs.

The partnership with Honda brings entry-level engineers to UM to complete 14-month research objectives. Honda engineers are paired with ISR faculty on projects suited to their specialties; along the way, they experience U.S. university research culture and also learn English. Past engineers have worked on control theory research; 3-D image reconstruction for video images; hybrid electric vehicle transmissions; and motorcycle noise-damping systems.

Toshiba engineers come to ISR to spend an average six months of concentrated cross-disciplinary research with faculty members. This program has produced valuable research results for Toshiba, including a data-mining algorithm and “Available to Promise” supply chain management, both of which are now being implemented within the corporation.

Currently, ISR is hosting three visiting scholars from Japan – two engineers from Honda and one from Toshiba. One of the Honda engineers, Kensuke Iwanaga, is conducting research with ISR-affiliated Professor Neil Goldsman (Electrical and Computer Engineering) on device simulation for wide-bandgap semiconductor power devices. The other Honda engineer, Tetsuaki Nakano, is working with Professor P.S. Krishnaprasad (Electrical and Computer Engineering/ISR) on intelligent and robust control for robotic systems. Takeshi Yamanaka, from Toshiba, is working with Professor Balakumar Balachandran (Mechanical Engineering) in the Vibrations Laboratory on vibration reductions.

The visiting scholars program is open to all companies worldwide, as part of the ISR Strategic Partners Program. Participating companies experience a number of benefits, including an increased engineering knowledge-base, intellectual property licenses from joint activities, commercial application of new technological developments, long-term mutually beneficial partnerships, priority attention for Contract R&D, and enhanced recruitment of students.

Companies interested in learning more about the program may contact Jeff Coriale, ISR’s Director of External Programs, at coriale@isr.umd.edu, or visit the program’s information page online at www.isr.umd.edu/industry/VSP.htm.

by Rebecca Copeland, ISR
rebeccac@umd.edu
The University of Maryland recently helped twenty-eight teachers from across the state to further infuse art education into their classrooms by way of a series of workshops, lectures, and performances on “The Arts of India from 1556 to 1658.” The program was the latest edition of the ongoing “Crossing Borders/Breaking Boundaries Summer Institute,” whose aim is to enable school teachers in the state to expand their art curriculum.

This free camp, hosted by UM’s Center for Renaissance & Baroque Studies (CRBS), explored India’s Mughal Empire and the value it placed on the production of fine art. Participants visited local exhibitions of Mughal paintings, including those from the Arthur M. Sackler Gallery’s exhibition, “Muraqqa’: Imperial Mughal Albums from the Chester Beatty Library in Dublin, Ireland”.

To complete their study, the teachers will return to campus this fall for a session on the impact of the Mughal Empire on Persian, Central Asian, Hindu, and Muslim traditions. The program will examine art from a 400-year span, including newly-discovered works, in an exhibition, “Garden and Cosmos: The Royal Paintings of Jodhpur.” Local teachers will also return to campus for a second follow-up session in the spring on a to-be-determined topic.

The Summer Institute, which is funded by the Maryland State Department of Education, was first organized in 2000 by the CRBS. The Institute features a different theme each year; past topics have included Portugal and Ancient Africa, among others. “To choose a theme, we poll a sample of teachers to find areas of interest in regards to their planned curriculum,” says Pamala Deane, CRBS Coordinator and one of the program’s developers. “This year, teachers found Ancient India so interesting that the Institute was full well in advance.”

For more information on the Summer Institute, or to get involved in the future, contact Adele Seeff, Director of the CRBS and the Director of Outreach for the College of Arts & Humanities, at (301) 405-6830 or aseff@umd.edu.

The Beijing Grandsoft Company recently signed an agreement to set up a research and development center at the University of Maryland-China Research Park located on the College Park campus. Led by their CEO, Mr. Xiaoping Jia, eight Beijing Grandsoft executives participated in a ceremony held at the A. James Clark School of Engineering during which Interim Dean, Dr. Herbert Rabin, and Mr. Jia signed the agreement.

Also present at the ceremony were Mr. Ben Wu from the State of Maryland’s Department of Business and Economic Development and Mr. Janye Cao from the Chinese Embassy in Washington, DC.

The Beijing Grandsoft Company is the major developer and marketer of software products for the Chinese construction industry, with more than a quarter-million customers. The company employs over 1,500 workers, and had a 2007 revenue of over $35 million.
The communities of Dakole and Nakar outside of Dissin, Burkina Faso, now have a solar-powered water pumping system, thanks to an Engineers Without Borders team from the University of Maryland. Led by Phil Hannam (mechanical engineering junior and 2008 winner of a Truman Fellowship) and Dr. David Lovell (professor of civil engineering), the group included eight undergraduates, one graduate student, one professor, and two practicing engineers. Working with the villagers of Dakole and Nakar, they retrofitted two existing hand water pumps with solar powered motors, and built two water storage tanks, outfitted with four tap stands for easy access to the water.

Prior to the team’s arrival, some community gardens had already been placed and even more were being created, in anticipation of the system’s completion. On the final day of the project, the two communities gathered to see a demonstration and for a discussion, as well as to thank the team and exchange gifts. Dakole gave the students a ram, two chickens, and two pigeons. Nakar was too poor to give any gifts, but the women in the community created a song and dance in Dagara: “For a long time, we were thirsty. Then people came, and they dug a well. But we were still thirsty. And then you came and gave us the water we needed, and knowledge to keep it.” EWB’s principal contact in Dissin, Abbe Thomas, translated a speech Hannam made to the community, and in turn the community elders spoke on behalf of the community to express their gratitude. The experience on that final day left the team feeling that every moment of frustration and anxiety, and every breath of effort on this project, was well worth it.

While some team members then returned to the US, and others ventured to Morocco, Hannam and two colleagues--Matt Bakalar and Headley Jacobus-- went on to the capital of Burkina Faso, Ouagadougou. There they met with another NGO contact to discuss the solar recharge project and future EWB projects in Dissin.

Further information on UM EWB can be found at http://www.eng.umd.edu/ewb.

### Lyric from an original song created by the members of the Dagara Community for the EWB team

“For a long time, we were thirsty. Then people came, and they dug a well. But we were still thirsty. And then you came and gave us the water we needed, and knowledge to keep it.”
To submit story ideas and photos, please contact the editor, Christopher Irwin, at cirwin1@umd.edu or 301.405.4771.