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Highlights

Need to renew your 2010 AEESP membership? Go to "Join > membership renewal" on the AEESP website: ***AEESP.org***

AEESP Newsletter Submissions

Please send news, conference announcements, job postings, letters to the editor, and other contributions to the newsletter to the editor, Joe Ryan, at joseph.ryan@colorado.edu. The next newsletter will appear in May, 2010.

President's Letter

Copenhagen and Beyond: A CleanTech Perspective

Peter Adriaens

Dear Friends and Colleagues:

In what appears to be the blink of an eye, the first quarter of my term as President has passed. This short time has seen the U.S. Congress vigorously debate a climate bill, the kickoff of COP-15, the EPA prepare to regulate greenhouse gas emissions, and AEESP initiate the President's Strategic Initiative on *Framing and Expanding Opportunities for Environmental Research using Economic, Financial, and Business Entrepreneurship Principles*. More on this initiative in the next newsletter.

In my first letter this Fall, I spoke to business value creation from environmental research, as well as to the shift in our community to embrace energy and climate change issues from a scientific and a translational perspective. If you'll indulge me, I want to continue on this theme in light of the expectations from the climate talks, and what it may and may not mean for scientific discovery and innovation. The reason is that President Obama acknowledged that "time has run out" for a legally binding deal to come from the climate talks, and that the outcome will at best be the development of a political framework for a final Climate Treaty in 2010 at the earliest. Whereas this managed expectation was always 'expected' considering the pre-summit outcomes and the deliberations in the U.S. Congress, the question that is being debated in the entrepreneurial and investment community is whether a policy commitment matters, at least in the short term, in the drive toward innovative solutions for climate change.

As advisor to two Cleantech funds at the University of Michigan, and through my courses in (CleanTech) entrepreneurship, I would posit that there is a different perspective on the impact of a COP-15 framework for advancing innovations to combat climate change. For those not familiar with the venture investment world, the CleanTech domain constitutes investment in alternative energy, green building, the smart grid, electric and hybrid vehicles, biofuels, and water treatment and energy-water nexus (energy from water, and energy for water) companies. Though only in existence for less than a decade, CleanTech has emerged as the largest investment domain of U.S. venture capital, topping software, biotech, and medical devices for the first time in Q3 of 2009. In 2008, the highest year on record, $8.4 bn was invested, and just in the latest quarter, $ 1.7 bn of investments were made. The reason for this trend is that entrepreneurs and investors have over the years developed ways to couple technologies with innovative business models to generate returns while serving a clean technology market estimated to be worth 60 times that of the Internet, according to Vinod Khosla, an investor who has raised a $1.1 bn fund for CleanTech investments. Because venture investments are largely responsible for the translation of research dollars into economic societal value (i.e. innovation), enablers for the greening of the economy, and for the implementation of solutions for climate change, the CleanTech perspective is important in this debate.

If there is one thing I have learned from working across engineering and business approaches to entrepreneurship, it is that the

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AEESP Membership Application online:

www.aeesp.org/membership/AEESP_member_app.pdf

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2010 AEESP Award Nominations

The AEESP Foundation manages the numerous awards that our community presents for outstanding contributions to environmental engineering and science education and research. We thank the members of the 2009 Awards Committee (Inez Hua, Kurt Pennell, Judith Perlinger, Vishal Shah, Jim Young, and Jennifer Becker [Chair]) for their service.

Nominations for the 2010 awards are now being accepted. Award descriptions and nomination instructions are presented below. Please note that the award criteria and nomination requirements for the AEESP Educator awards have changed this year. Instructions may also be found on the AEESP Foundation website (http://www.aeespfoundation.org/), which provides lists of prior award winners. All awards will be presented by the AEESP President or by a representative of the corporate sponsor for each award at the AEESP Meet and Greet event at WEFTEC 2010 (October 4, 2010; New Orleans, Louisiana).

All nominations are due March 15, 2010. Supporting documentation is required at the time of nomination. All award nominations must be submitted electronically as .pdf files. Award nominations (except Ph.D. and M.S. theses awards) should be sent by email to aeesp.2010.awards@gmail.com.

Please indicate the name of the award for which you are submitting a nomination (Founders, Outstanding Publication, Frontier in Research, Outstanding Teaching, Outstanding Contribution to Education, or Pohland Medal) in the subject line of your email. Questions about award nominations or the submission process should be directed to the Chair of the Awards Committee, Professor Jennifer Becker (Department of Civil and Environmental Engineering, Michigan Technological University; jgbecker@mtu.edu).

For M.S. thesis and Ph.D. dissertation award nominations, submission instructions are provided separately below.

AEESP Founders' Award

This award is given annually to recognize an environmental engineering or science professor who has made "sustained and outstanding contributions to environmental engineering education and practice." Nominees must be members of AEESP.

Nomination packages should include (1) a cover letter from the nominator; (2) full curriculum vitae for the nominee; and (3) at least two, but no more than five, additional letters of recommendation. Past nominations will be carried over and considered for three years and may be modified during this period.

AEESP Outstanding Publication Award

This award is given annually to recognize the author(s) of a "landmark environmental engineering and science paper that has withstood the test of time and significantly influenced the practice of environmental engineering and science." At least one of the authors must be living and previous winners are ineligible for a period of three years.

Nominations must be made by individuals who are not authors or co-authors of the paper. Nomination packages should include (1) a nomination letter (two-page maximum) that gives the full citation of the paper, the reasons why the paper is considered a landmark, and a description of the influence the paper has had on environmental engineering and science; (2) a clear electronic copy of the publication; and (3) at least two, but no more than five, additional letters of support. Past nominations will be carried over and considered for three years and may be modified during this period.

Malcolm Pirnie/AEESP Frontier in Research Award

This award is given annually to recognize an environmental engineering or science professor who has advanced the environmental engineering and science field through recognized research leadership and pioneering efforts in a new and innovative research area. The selected recipient will receive a plaque and a cash prize of $4,000. Malcolm Pirnie, Inc., also provides a $750 travel allotment that may be used by the recipient to attend the awards ceremony.

Nomination packages should include (1) a brief cover letter from the nominator; (2) a supporting statement plus selected literature citations that clearly detail the nominee's contribution to the new and innovative research achievement for which the nominee is being honored; (3) a full curriculum vitae for the nominee; and (4) at least two, but no more than five, additional letters of recommendation describing the pioneering efforts and innovative nature of the nominee's work. Past nominations will be carried over and considered for three years and may be modified during this period.

AEESP thanks Malcolm Pirnie, Inc., for their generosity in sponsoring this award.

CH2M Hill/AEESP Outstanding Doctoral Dissertation Awards

These awards annually recognize two outstanding doctoral dissertations that contribute to the advancement of environmental science and engineering. The awards will each consist of a plaque and a cash prize of $1,500 for the student, and a plaque and a cash prize of $500 for the faculty advisor. CH2M Hill, Inc., also provides $750 as a travel allotment to recipients who attend the awards ceremony. A selection committee of five AEESP members will read and judge each dissertation on the basis of 100 points allocated as follows: scientific and technical merit of the research (30 pts), originality of the research (30 pts), contribution to advancement of environmental engineering (30 pts), and clarity of presentation (10 pts).

Faculty advisors are encouraged to nominate a dissertation completed under their supervision but must limit themselves to a single entry. Self-nominations by students will not be accepted. Nominated dissertations must have been submitted to the student's graduate institution in 2009. The nominated dissertation should be submitted as a .pdf file and sent by email to aeesp.phd.dissertation.award @ gmail.com. Nominations should include a simple letter of transmittal stating (1) the email and mailing addresses and telephone numbers for the student and advisor, (2) an indication as to when the dissertation was completed, and (3) a concise statement defining the student's intellectual contribution to the work. The latter statement is especially important if multiple authors contributed to the work under consideration.

Questions may be directed to the chair of the doctoral dissertation committee, Elizabeth Butler (School of Civil Engineering and Environmental Science, University of Oklahoma, ecbutler@ou.edu; 405-325-3606).

AEESP thanks CH2M Hill, Inc. for their generosity in sponsoring this award.

Montgomery Watson Harza Consulting Engineers/AEESP Master's Thesis Awards

This award annually recognizes the first and second most outstanding M.S. theses that contribute to the advancement of environmental science and engineering. Each award consists of a plaque and a cash prize for both the student and the faculty advisor. The prize for the first place award consists of a plaque and $1,500 for the student and a plaque for the faculty advisor. The second place award consists of a plaque and cash prize of $500 for the student and a plaque for the faculty advisor. Montgomery Watson Harza also provides $750 as a travel allotment to all recipients who attend the awards ceremony. A selection committee of three AEESP members will read and judge each thesis. Each thesis will be evaluated based on 100 points allocated to the following major categories: scientific and technical merit (30 pts), originality of research (30 pts), contribution to the advancement of environmental engineering (30 pts), and clarity of presentation (10 pts).

Faculty advisors are encouraged to nominate a thesis completed under their supervision but must limit themselves to a single entry. Self-nominations by students will not be accepted. Nominated theses must have been submitted to the student's graduate institution in 2009. The nominated thesis should be submitted (as a .pdf file) via email to aeesp.ms.thesis.award@gmail.com. The submission should be accompanied by a simple letter of transmittal stating (1) the mailing and email addresses and phone numbers for the student and advisor, (2) an indication as to when the thesis was completed, and (3) a concise statement defining the student's intellectual contribution to the work. The latter statement is especially important if multiple authors contributed to the work under consideration.

Questions may be directed to the chair of the master's thesis committee, Timothy Strathmann (Department of Civil & Environmental Engineering, University of Illinois, strthmnn@ad.uiuc.edu; 217-244-4679).

AEESP thanks Montgomery Watson Harza for their generosity in sponsoring this award.

AEESP Outstanding Educator Awards

Two Outstanding Educator Awards are given, one for "Outstanding Teaching in Environmental Engineering and Science" and one for "Outstanding Contribution to Environmental Engineering and

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Science Education." These awards are given annually to recognize environmental engineering or science professors who are making outstanding contributions to the teaching of environmental engineering, both at the individual's home institution and beyond. A cash award of $500 is given in each category. Previous winners are ineligible for the same category.

The award for "Outstanding Teaching in Environmental Engineering and Science" is given annually to recognize excellence in classroom performance and related activities, as defined by the criteria below. Specifically, nomination packages should demonstrate that the nominee (1) possesses and is able to communicate interest in and breadth and depth in subject area knowledge; (2) designs classroom, laboratory, field-based, or other learning activities that challenge and motivate students and demand thinking and learning; and/or (3) is committed to professional mentoring and academic advising of students. In addition, the nomination package should provide direct evidence of outstanding classroom performance including course evaluations with reference evaluation averages for the same or similar course sizes or levels from the nominee's department or college. Although open to nomination at any rank, the award is intended primarily to recognize a demonstrated commitment to teaching early in a person's career. Preference is usually given to nominees who are at the assistant or associate level and have demonstrated excellence in teaching undergraduate courses. The award is sponsored by McGraw-Hill.

The award for "Outstanding Contribution to Environmental Engineering and Science Education" is given annually to excellence in teaching scholarship and/or professional society educational initiatives, as defined by the criteria below. Nomination packages may consider any or all of the following: (1) development or authorship of educational or instructional material or a text that enhances the student learning process; (2) effectiveness in course and/or curriculum development; (3) development of educational facilities; (4) publication of original work through peer-reviewed publications and/or presentations at professional meetings that enhances the engineering education process or adds value to teaching methodology literature; (4) service as a mentor to other teaching faculty or participation in the development and delivery of seminars and workshops focused on improvements to teacher classroom effectiveness; (5) administration of engineering colleges or departments that has led to substantial and recognized improvements in the art of engineering education; and/or (6) a strong record of activity in the educational activities of AEESP or another professional society. This award is open to nomination at any rank. The award is sponsored by John Wiley & Sons, Inc.

For both awards, nomination packages should include (1) a brief cover letter from the nominator; (2) a brief curriculum vitae (4-page maximum) for the nominee; (3) documentation related directly to the award criteria consisting of no more than 30 pages (including course evaluations with reference evaluation averages for Outstanding Teaching in Environmental Engineering and Science award nominees); (4) one (minimum) to three (maximum) letters of recommendation from current or past students; (5) one (minimum) to three (maximum) letters of recommendation from faculty, administrator, or industry peers; and (6) a teaching philosophy statement (500 word maximum) written by the nominee (for Outstanding Teaching in Environmental Engineering and Science award nominees only). Past nominations will be carried over and considered for three years and may be modified during this period.

The Frederick George Pohland Medal

This award honors an individual who has made sustained and outstanding efforts to bridge environmental engineering research, practice, and education. Only members of AEESP and/or AAEE are eligible to receive this award. The award will consist of a medal, a $1,000 cash award, and reimbursement of travel costs of up to $1,000 for travel to the award ceremony.

Nominations must be made by members of AEESP and/or the American Academy of Environmental Engineers (AAEE). Nomination packages should include (1) a cover letter from the nominator; (2) a full curriculum vitae for the nominee; and (3) at least two, but no more than five, additional letters of recommendation. Past nominations will be carried over and considered for three years and may be modified during this period.

AAEE and AEESP thank the Pohland family and other donors to the Frederick George Pohland Memorial Fund for their generosity in establishing this award.

AEESP 2011 Conference: Proposals by January 30, 2010

The Conference Planning Committee requests proposals from AEESP members and their institutions to host the 2011 AEESP Research and Education Conference. This conference is the flagship event of the association and is held every two years at a member's institution. This past summer, the University of Iowa hosted a very successful event and we are all looking forward to another rewarding experience in the summer of 2011.

Please consult with your colleagues and consider submitting a proposal to host the conference at your institution. The RFP can be downloaded from the Association's website (http://www.aeesp.org/node/290). More information can be obtained from Rick Diz, chair of the Conference Planning Committee, at diz@gannon.edu or 814-871-7633.

The deadline for submitting a proposal is January 30, 2010.

AEESP Welcomes 112 New Members in 2009

The Association was pleased to welcome the following new members in 2009, and looks forward to their participation in AEESP activities in the future.

- ***John Albertson,*** Duke University
- ***Aaron Archer,*** Missouri University of Science & Technology
- ***Felicia Armstrong,*** Youngstown State University
- ***Nandita Basu,*** University of Iowa
- ***Antonio D. Benetti,*** Universidade Federal Do Rio Grande Do Sul
- ***Nicole Berge,*** University of South Carolina
- ***David Bolzonella,*** University of Verona
- ***Bryan Boulanger,*** Texas A&M University
- ***Treavor H. Boyer,*** University of Florida
- ***Johnny A. Bueno-Abdala,*** Microgreen Services International, LLC
- ***Steve Cabaniss,*** University of New Mexico
- ***Indranil Chowdhury,*** University of California, Riverside
- ***Prabhakar Clement,*** Auburn University
- ***Carol Clinton,*** University of Cincinnati
- ***Patricia J.S. Colberg,*** University of Wyoming
- ***Sherri Cook,*** University of Michigan
- ***Orlando Coronell,*** University of Illinois
- ***Rose M. Cory,*** University of North Carolina
- ***Dongjuan Dai,*** University of Michigan
- ***Jeff Dozier,*** University of California, Santa Barbara
- ***Brajesh K.*** Dubey, East Tennessee State University
- ***Eric A. Evans,*** Iowa State University
- ***Julian Fairey,*** University of Arkansas
- ***Valerie Fuchs,*** Michigan Technological University
- ***Sudeshna Ghosh,*** University of Michigan
- ***Riccardo Gori,*** University of Florence
- ***Brandon M.*** Graver, North Carolina State University
- ***Robert Handler,*** University of Iowa
- ***Zhen He,*** University of Wisconsin–Milwaukee
- ***Andrew Henderson,*** University of Michigan
- ***Monica R. Higgins,*** University of Michigan
- ***Stephen R. Hoffmann,*** Purdue University
- ***Britt A. Holmen,*** University of Vermont
- ***Ahmed Mohamed Hosni Hassan,*** Lamar University
- ***Enos C. Inniss,*** University of Missouri–Columbia
- ***Xue Jin,*** UCLA
- ***Jeremy B. Jones,*** Old Dominion University
- ***Bahngmi Jung,*** University of Toronto
- ***Craig Just,*** The University of Iowa
- ***Hyunjung Kim,*** University of California, Riverside
- ***Amalia Kokkinaki,*** University of Toronto
- ***Lingjun (Lynn) Kong,*** US EPA
- ***Shonali Laha,*** Florida International University
- ***Divagar Lakshmanan,*** University of Houston
- ***Philip Larese-Casanova,*** Yale University
- ***Douglas E. Latch,*** Seattle University
- ***Woo Hyoung Lee,*** University of Cincinnati
- ***Yusong Li,*** University of Nebraska
- ***Yang Liu,*** University of Alberta
- ***Wen-Tso Liu,*** University of Illinois
- ***J.V. Loperfido,*** University of Iowa
- ***Ting Lu,*** University of Cincinnati
- ***Gebhard B. Luilo,*** University of New Mexico
- ***Saleh Faraj Magram,*** King Abdulaziz University
- ***Stefano Manzoni,*** Duke University
- ***Arash Massoudieh,*** The Catholic University of America
- ***Patricia Maurice,*** University of Notre Dame
- ***Shawn P. McElmurry,*** Wayne State University
- ***David M. Metzer,*** University of Delaware
- ***Baoxia Mi,*** George Washington University
- ***Sondra M. Miller,*** Boise State University
- ***Jade Mitchell-Blackwood,*** Drexel University
- ***Chongzheng Na,*** University of Notre Dame
- ***Fuzhan Nasiri,*** Yale University
- ***Prince Albert Nfodzo,*** University of Texas Arlington
- ***Pinar Omur-Ozbek,*** Colorado State University
- ***Mi-Hyun Park,*** University of Massachusetts
- ***Ruoting Pei,*** University of Texas at San Antonio
- ***Miguel A. Pelaez,*** University of Cincinnati
- ***Edward (Ted) Peltier,*** University of Kansas
- ***Kelly G. Pennell,*** Brown University
- ***Holly G. Peterson,*** Montana Tech of the University of Montana

- ***Tanapom (Pom) Phenrat,*** Carnegie Mellon University
- ***Peter Pommerenk,*** Old Dominion University
- ***Mark L. Porter,*** Oregon State University
- ***Tyler S. Radniecki,*** Oregon State University
- ***Brian G. Rahm,*** Columbia University
- ***Sekar Raju,*** ChELSI
- ***David Ramirez,*** Texas A&M University–Kingsville
- ***Dawn Reinhold,*** Michigan State University
- ***Debora Frigi Rodrigues,*** Yale University
- ***Mark Rowe,*** Michigan Technological University
- ***Gaurav Saini,*** Oregon State University
- ***Olanrewaju Sanusi,*** University of North Carolina at Charlotte
- ***Anne Schauer-Gimenez,*** Marquette University
- ***Youngwoo Seo,*** University of Toledo
- ***Marc Serre,*** University of North Carolina at Chapel Hill
- ***Jonathan O. Sharp,*** Colorado School of Mines
- ***Caitlyn Shea,*** University of Notre Dame
- ***Heather J. Shipley,*** University of Texas–San Antonio
- ***Heather M. Stapleton,*** Duke University
- ***Peter G. Stroot,*** University of South Florida
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- ***Chang-Yu Wu,*** University of Florida
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- ***Teng Zeng,*** University of Minnesota–Twin Cities
- ***Changyong Zhang,*** University of Illinois
- ***Yuntao Zhou,*** University of Michigan
- ***Julie L. Zilles,*** University of Illinois

President's Letter, continued

focus on identifying opportunities that have business value provides a different angle to inform problem solving. The analytical process that goes into solving problems that have business value is very non-linear and open-ended, and tends to be less constrained by regulatory frameworks or technical boundary conditions, yet does not ignore feasibility of the solution. This is different from technical problem solving, which tends to be constrained by defined boundary conditions or specifications, and tends to be ignorant of business value. Clearly, we need both. However, the difference, as captured by John Naisbitt in his book *Mind Set!* (2006), states: "Problem solvers are still worrying about the fruits that have already fallen; opportunity seekers look for the new ones that are ripe for the picking." Applying this to the climate change debate, the discussion at investment conferences and within the broader CleanTech community is whether the boundary conditions of any climate agreement ultimately matter in the development of valuable business solutions. In fact, a key investment mantra is that if one needs government policy or incentives for the business to survive or go bust, the business fundamentals are probably not sound and the company is not sustainable, even if the technology is great.

Political and economic competitiveness pressures are shifting the dialogue from carbon trading developed under Kyoto to technological innovation and value creation. For the CleanTech venture community, an economic solution for a specific compelling need (e.g. improving energy efficient extraction technologies for lipids from algae for biodiesel production) carries more value than the high-level policy goals on emission targets. Ultimately, the achievement of any emission targets will be led by profitable CleanTech ventures addressing very specific needs, socio-economic incentives that drive behavioral change, and business models that accelerate clean technology adoption. This mantra appears to also be the focus of Secretary of Energy Steven Chu's vision, as well as that of individual state economic development corporations in the U.S., and indeed around the globe, to develop technology incubation models that accelerate the path to market for university- and private entity-led inventions. So keep watch on the G20, the U.S.-led Major Economies Forum (MEF) on Climate and Energy, and the G2. It was never really about the United Nations Framework Convention on Climate Change (UNFCCC) for the private sector innovation community.

So how does all of this apply to the university research community, which forms the pipeline for many CleanTech innovations, whether material, process, or financial (the U.S. holds 12% of all global CleanTech patents)? I remarked in my last letter that the shift to value creation and integrating economics and finance in environmental and sustainability research is an individual choice, and is not for everyone. However, it was interesting to note that many of the proposals submitted to the CBET Environmental Sustainability Program this Fall included an integration of technology development and assessment with finance, economics, and/or innovation (societal value creation) concepts. This was a major shift from previous years, and is not incompatible with the NSF mandate for fundamental research. The rationale is that these concepts change the assumptions for creative approaches to the investigation of fundamental research topics and address the socio-economic broader impact requirement at the same time.

Is this a paradigm shift or a blip against background? Time will tell. Does it represent a sign of the times we live in and the urgency to solve real world problems? Absolutely. Either way, I would argue this is encouraging. After all, history has shown that innovation thrives when systems are in a state of disequilibrium. Out-of-the-box (high risk–high impact) environmental problem solving is of the essence for the nascent greening of economies world-wide, and for an environmentally sustainable future that will need to adapt to a changing climate.

Arup SenGupta Receives 2009 Lawrence K. Cecil Award from AIChE

Arup SenGupta at Lehigh University in Bethlehem, Pennsylvania, is the recipient of the 2009 Lawrence K. Cecil Award from the American Institute of Chemical Engineers (AIChE). The award annually recognizes an individual's outstanding engineering contribution and achievement in the preservation or improvement of the environment. Arup SenGupta was honored for advancing the field of ion exchange science and technology and for his life-long work on the mitigation of environmental hazards in both developed and developing worlds.

SenGupta formally received the Cecil Award at the November Annual Meeting of the AIChE in Nashville, Tennessee, and delivered the Cecil Award Lecture entitled "Hybrid Ion Exchange in Environmental Separation: From Decontamination to Desalination."

SenGupta served as the chairperson of the Department of Civil and Environmental Engineering at Lehigh University from 1998 to 2005. He was the editor of the *Journal of Reactive & Functional Polymers* from 1996 to 2006. SenGupta received many research awards including the 2001 AEESP Frontier Research Award, the 2004 International Ion Exchange Award in the United Kingdom, and the 2007 Grainger Challenge Silver Award from the National Academy of Engineering. The first polymer-based regenerable arsenic-selective sorbent was developed in SenGupta's laboratory and is currently in use in over 1,000 installations in six different countries including the U.S.

SenGupta follows two other AEESP members as a recipient of the Cecil Award. Walter Weber of the University of Michigan and Menachem Elimelech of Yale University received the award in 2007 and 2008, respectively.

Morton Barlaz Selected as 2010 Kappe Lecturer

Dr. Morton Barlaz, a Professor in the Department of Civil, Construction, and Environmental Engineering at North Carolina State University, has been selected as the 2010 Kappe Lecturer by the American Academy of Environmental Engineers.

Dr. Barlaz received a B.S. in Chemical Engineering from the University of Michigan and an M.S. and Ph.D. in Civil and Environmental Engineering from the University of Wisconsin. He has been involved in research on various aspects of landfill processes and solid waste management since 1983. Over this time, he has conducted research on biological refuse decomposition, methane production, and the biodegradation of hazardous wastes in landfills. He has participated in two state-of-the-practice reviews of bioreactor landfills. His research forms the basis for much of the work done to assess the impact of landfills on methane emissions inventories. Dr. Barlaz also conducts research on the use of life-cycle analysis to evaluate environmental emissions associated with alternate solid waste management strategies.

Dr. Barlaz will offer two lectures including (1) Development of a Carbon Footprint Model for Landfill Disposal of Solid Waste and (2) The Use of Life-Cycle Analysis for the Study of Alternatives for End of Life Materials Management. Information on hosting Dr. Barlaz will be available in early 2010 from the American Academy of Environmental Engineers.

Brajesh Dubey Joins ETSU College of Public Health

Brajesh Dubey was appointed as an Assistant Professor in the Department of Environmental Health Sciences at East Tennessee State University (ETSU) in Johnson City, Tennessee in August 2009. Dr. Dubey, who received his Ph.D. from the University of Florida in 2005, comes to ETSU from The University of Auckland, New Zealand, where he was Senior Lecturer in the Department of Civil and Environmental Engineering. He graduated with a B.Tech (Hons.) in Civil Engineering from IIT Kharagpur, India, in 1997.

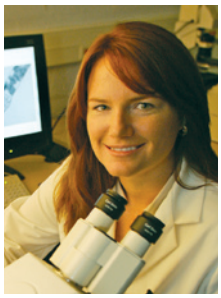
Following a four-year stint in a consulting practice in the environmental field, he joined the University of Florida's Environmental Engineering Sciences Ph.D. program. His Ph.D. research focus was on treated wood and its environmental and human health impacts.

Brajesh Dubey measuring the differential settlement of the leachate recirculation lines inside a municipal solid waste landfill in Florida.

He graduated with his Ph.D. in 2005 and continued his work in the University of Florida Solid Waste research group as a postdoctoral fellow and research program coordinator.

Dr. Dubey demonstrated himself to be one of the Department's top contributors during his tenure at the University of Florida. He was awarded an outstanding international student award from University of Florida and the Ron Cockcroft Award from the International Research Group in Wood Protection in Sweden in 2004. His research contributions on the environmental impacts of treated wood helped shape national policy in the U.S. on this subject. Dr. Dubey's present research focuses on the fate and transport of pollutants in the environment (especially emerging pollutants, nanomaterials, pharmaceuticals, and endocrine-disrupting compounds), beneficial reuse of waste material, risk assessment, remediation, and waste disposal issues.

Leslie Shor and Timothy Vadas Join University of Connecticut



Dr. Leslie McCabe Shor joined the faculty of the Department of Chemical, Materials, and Biomolecular Engineering and the Center for Environmental Science and Engineering at the University of Connecticut in August, 2009. Dr. Shor earned a Ph.D. and M.S. in Chemical and Biochemical Engineering at Rutgers University, and a B.A. in Environmental Sciences and Chemistry at the University of Virginia. Her research interests include contaminant fate and transport and environmental biotechnology. Her recent work has emphasized microfluidic approaches to observe the dynamic responses of bacteria and protozoa to systematically controlled micrometer-scale habitat features.

In January, 2010, Dr. Timothy Vadas joins the faculty of the Department of Civil and Environmental Engineering and the Center for Environmental Science and Engineering at the University of Connecticut. Tim received his Ph.D. from Cornell University in 2008 where he was an EPA STAR Fellow and an NSF IGERT Fellow in Biogeochemistry and Environmental Biocomplexity, working with Beth Ahner on thiol-enhanced phytoremediation of lead and cadmium. He spent the last year and a half as a postdoctoral associate at the University of Maryland–Baltimore Campus where he developed an interest in stormwater management systems. Dr. Vadas is interested in metal biogeochemistry in both natural and constructed ecosystems and will be teaching a course on ecological engineering.

Na Joins the Faculty at the University of Notre Dame

Chongzheng Na joined the Department of Civil Engineering and Geological Sciences at the University of Notre Dame (UND) as an assistant professor in July, 2009. Chong received his Bachelor's degree from Tsinghua University, China, his Master's degree from Pennsylvania State University, and his Ph.D. from the University of Michigan, all in environmental engineering. Before joining UND, he was a postdoctoral fellow at Harvard University. His research focuses on probing the molecular processes at environmental surfaces and interfaces using state-of-the-art experimental techniques such as atomic force microscopy (AFM).

His lab currently has openings for both graduate students and postdoctoral fellows. He invites self-motivated candidates to submit applications for an adventure in environmental molecular chemistry. Further information about his lab can be found at www.nd.edu/~cna.

Eberhard Morgenroth joins ETH Zürich and the Swiss Federal Institute of Aquatic Science and Technology (Eawag)

Eberhard Morgenroth joined the faculty of ETH Zürich and the Swiss Federal Institute of Aquatic Science and Technology (Eawag) as a full professor in August, 2009. Dr. Morgenroth's research is developing biological processes with application in drinking water and wastewater treatment. His past research has developed novel approaches to monitor and quantify large-scale and long-term development of biofilm structures and how these heterogeneities influence biofilm performance. Other research areas include the evaluation of endogenous microbial processes, fouling in membrane bioreactors, and processes for bioenergy production. Before joining ETH/Eawag, Eberhard Morgenroth was a member of the faculty at the University of Illinois at Urbana-Champaign for the past nine years. He received his Dipl.-Ing. from the Hamburg University of Technology, his M.S. from the University of California at Davis, and his Ph.D. from the Technische Universität München, and was a postdoctoral researcher for two years at the Technical University of Denmark.

Tau Chi Alpha Chapter Established at the University of Central Florida

Submitted by DEBRA REINHART, UNIVERSITY OF CENTRAL FLORIDA

With the support of Debra Reinhart, the University of Central Florida has established a chapter of *Tau Chi Alpha*. Dr. Reinhart also serves at *Tau Chi Alpha*'s faculty advisor. The goal of the UCF chapter is to encourage interaction among experienced professionals and students.

Tau Chi Alpha is an Environmental Engineering Honor Society sponsored by the American Academy of Environmental Engineers to advance the quality of environmental engineering education. The overall purpose of *Tau Chi Alpha* is to promote the environmental engineering profession by identifying and placing a mark of distinction on those environmental engineering students and engineers who have demonstrated high scholastic achievement, ethical character, practicality, and sociability or significant achievement. There are currently three established chapters: Manhattan College, Florida International University, and, now, the University of Central Florida.

The first TXA class was initiated by Dr. Hector R. Fuentes, Professor of Environmental Engineering at Florida International University, on October 30, 2009. The first class included eleven undergraduate and graduate students and one faculty member. Student members are encouraged to complete volunteer hours and to be active in the organization. For more information regarding TXA, contact Joe Cavaretta at jcava@aaee.net.

Officers and advisors of the new Tau Chi Alpha chapter at the University of Central Florida: (left to right) Johanna Clifford (treasurer), Jessica Ross (secretary), Christopher Boyd (marshall), Lillie Thomas (vice president), Stephanie Bolyard (president), Dr. Debra Reinhart (faculty advisor), and Dr. Hector Fuentes (Florida International University and TXA representative).

Inaugural OU International WaTER Conference / Water Prize

Submitted by DAVID SABATINI, UNIVERSITY OF OKLAHOMA

The inaugural OU International WaTER (Water Technologies for Emerging Regions) conference was held at the University of Oklahoma on October 26–27, 2009. The conference attracted 170 participants from 21 U.S. states and 21 countries (six continents) reporting on work conducted in 35 countries. The conference included two days of oral and poster presentations plus a one-half day workshop demonstrating drilling techniques and pumps targeted for remote villages.

Dr. Stephen Luby (left) receives the first University of Oklahoma International Water Prize from Dr. Tom Landers, Dean of Engineering at University of Oklahoma, at the inaugural OU International WaTER Conference held October 26–27, 2009.

During the conference the first University of Oklahoma International Water Prize was awarded to Dr. Stephen Luby, program head of Infectious Diseases and Vaccine Services at the International Centre for Diarrheal Disease Research in Bangladesh. This award honors Luby's 20-plus year career researching public health, water, sanitation, and communicable disease epidemiology in low-income countries. This is the first prize specifically dedicated to the field of water supply and sanitation in remote areas of emerging nations.

"I am both humbled and honored to be the first recipient of the OU International Water Prize," Luby said. "I accept this honor on behalf of all the researchers and scientists and doctors and journalists worldwide who are working to solve global water problems. It's my hope that over time, a prize of this stature will help bring increased attention and interest to the issues, needs, and concerns related to water and sanitation in low-income countries."

Engineering Cities REU at Drexel University

Undergraduate research positions are available at Drexel University in the summer of 2010. The NSF-sponsored Engineering Cities Research Experience for Undergraduates (REU) program provides cutting-edge summer research opportunities in the emerging field of urban engineering. In this broadly multidisciplinary REU program, students will conduct research and work closely with faculty mentors on some of the most pressing societal challenges to sustainable urban engineering, using Philadelphia as a research site. Research projects will involve one or more of the following research thrusts:

1) Analysis and Mitigation of Natural and Anthropogenic Hazards,
2) Environmental Quality and Sustainability,
3) Urban Infrastructure Management,
4) Disaster and Emergency Preparedness, and
5) Application of Sustainable Technologies for Urban Engineering.

In addition to the research experience, the program will include locally relevant enrichment activities that will enable students to better understand their topical work in its broader societal, ethical, and political context, and will provide them with a rich urban experience. Students will participate in a lecture series on urbanism, participate in Philadelphia walking tours, attend seminars on engineering ethics, and travel to Washington, DC and New York City to learn about urban policy-making and sustainable urban engineering.

Interested students should contact Mira Olson (mso28@drexel.edu) or Patrick Gurian (plg28@drexel.edu), or visit http://www.drexel.edu/coe/cae/REU/index.htm for more information and application materials. Women and under-represented minorities are particularly encouraged to apply.

Summer Research Opportunities in Environmental Sciences and Engineering at Clarkson University

Sponsored by the National Science Foundation

Research Experiences for Undergraduates

THEME: Sustainable solutions to emerging environmental problems.

WHO: Environmental engineering or science students with at least one year of undergraduate study left.

WHEN: Ten weeks, May 31–August 6, 2010.

WHERE: Clarkson University in Potsdam, New York.

WHAT: Conduct environmental research with faculty and graduate student mentors. Research projects are available in the following areas:

- fate, transport, and remediation of emerging pollutants
- green chemistry
- alternative energy and greenhouse gas reduction
- biodiversity and ecological sustainability
- environmental stresses on biological systems
- lifecycle assessment
- political and social responses to emerging environmental problems

BENEFITS: free housing, a stipend of $4,500, some travel and food expenses,a stimulating research environment and great summer outdoors activities.

HOW: Apply by March 1, 2010

ACHIEVEMENTS: Research results from participants in the REU program have been presented at national conferences and won prizes at national paper competitions.

DETAILS: For complete information on this summer's research program, detailed description of application requirements, and a summary of past research experiences, please visit our website: **http://www.clarkson.edu/reu/**

or contact the Co-Investigators directly:

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Air & Waste Management Association Thesis and Dissertation Awards

Submitted by MARK ROOD, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Submissions for the A&WMA's Master Thesis Award and Doctoral Dissertation Award are due by January 15, 2010, for a master or doctoral degree awarded during the previous calendar year (i.e., January 1, 2009–December 31, 2009). The awards are briefly described below. Details are available on the Association's website (http://www.awma.org/awards/award_programs/thesis.html).

The A&WMA Master's Thesis Award will acknowledge up to two exceptional theses per year. Nominations shall be original work that makes an unusually significant contribution to the fields of air quality, all types of waste, or sustainability/management pertaining to air quality or waste. Faculty advisors are encouraged to nominate a master thesis that was completed by their advisee. A&WMA master thesis award nominations are limited to one per year for each faculty member. Self-nominations by students will not be accepted.

The A&WMA Doctoral Dissertation Award will acknowledge up to two exceptional dissertations per year. Nominations shall be original work that makes an unusually significant contribution to the fields of air quality, all types of waste, or sustainability/management pertaining to air quality or waste. Faculty advisors are encouraged to nominate a dissertation that was completed by their advisee. A&WMA dissertation award nominations are limited to one per year for each faculty member. Self-nominations by students will not be accepted.

Students I Have Known and What They Have Taught Me (Part II)

Submitted by P. AARNE VESILIND, BUCKNELL UNIVERSITY

P. Aarne Vesilind

Some students not only are memorable for who they are, but what they teach the professor. Here are the stories of two more of these students.

Derek

Research has shown that the mental state of students changes over the four years they are in college. During the first year students are naïve and trusting, and believe that professors know all the answers. There is truth to be discovered and it is the role of the professors to tell them what this truth is. By the middle of the sophomore year, they begin to realize that this is not necessarily true, and some of them begin to suspect that there is no such thing as truth, that everything is relative, and that professors don't know anything. As their development continues they eventually become committed to some idea that they believe will change the world if only people would appreciate it. By senior year, this commitment to ideas begins to wear off and they start to realize that other people may actually have good ideas that go counter to their own notions.

It is necessary to understand this development if a teacher is to do a good job with the students, and Derek is an example of a case where I forgot this theory of student development.

I was teaching an environmental engineering class to first-year students in civil engineering, and one day I gave a quiz on a simple mass balance, but to make it more interesting, I added extraneous information, such as the time of day, the phase of the moon, my dog's name, etc. I wanted them to extract the information necessary to solve the problem and to ignore the extraneous information. The world is full of information, I argued, and when we solve a problem, we use only what we need and no more.

After class, Derek, who was one of the brightest students I have ever had, wanted to talk. "You were trying to trick us. You gave us more information than we needed."

I told him that indeed he had more information than he needed but that he had to choose what he thought necessary to solve the problem.

"But I've never had problems like that. Nobody else gives us too much information. I think you are being unfair," he challenged.

And then I realized that freshmen had indeed never seen problems with more information than they needed for obtaining a solution. All physics, chemistry, biology, and other sciences give homework problems that have exactly the information needed for the solution, and no more. Freshmen were simply not mature enough to appreciate what I was trying to do, and Derek's complaint made me realize that I had made a mistake. Since that day, I never gave a quiz or exam to freshmen that did not contain the exact information needed. Sophomores, yes—I mess with their minds. But freshmen are still too set on the absolute truth.

The confrontation with Derek taught me that teaching is not a one-way transfer of information, but a continual interaction with the student at the student's level of understanding.

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Andy

One of the fun things I occasionally did during classes was to play music for students as a means of breaking up a lecture into 20-minute segments (and also to teach them something about classical music). I knew it was not engineering, and that some students might correctly accuse me of wasting their time, but I found that sharing my love of music with them was fun and occasionally the students appreciated it. I made the music available to them on tapes in the library so they could listen to the whole composition if they were interested, and some did.

In the same freshman class that Derek was in was a group of five U.S. Army ROTC students, usually in the second row, and always very proper, especially when they were in uniform. When I played the music Andy and his ROTC friends were clearly bored and inattentive, and I figured I was not getting through to them, but that did not deter me.

Three years later, when Andy was a senior, he stopped by my office to chat. He told me how he and his father had gone to a concert where they had heard one of Bach's Brandenburg Concerti, and how much he had liked it. I told him that I thought Baroque music was boring as grass—ta-taa, ta-taa, ta-taa, over and over again, with no soul or emotion.

Andy looked at me like he had been stabbed.

"How can you say that?" he demanded. "This is the most sublime music on earth, and you make fun of it?"

I told him that making fun of Baroque music was easy, like shooting fish in a barrel, and that he should get used to it.

What proceeded was an impassioned argument for why Bach's music was the epitome of artistic creation. While he was talking, my mind flashed back to the freshman year when he and his fellow future officers were bored out of their minds. And now here he was, defending the integrity and honor of Johann Sebastian Bach. In my mind, I was cheering for him all the time I was egging him on.

I learned from Andy that the effect of what you teach is often not immediately obvious, and it takes some years for the information to process. We teachers should not be discouraged when it appears that our best efforts go unrewarded. Sometimes it just takes time.

A Sense of Where I Was—Environmental Engineering Memorabilia

Submitted by JOE RYAN, UNIVERSITY OF COLORADO AT BOULDER

Fifteen years ago, two years after I completed my graduate work, I attended a Gordon Conference on "Environmental Sciences: Water" and gave a talk on colloid-facilitated transport of contaminants. At the conference, I had the pleasure and honor of meeting Jim Morgan and Charlie O'Melia—or to put it more accurately, my chin met Charlie O'Melia's elbow and my ribs met Jim Morgan's forearm.

Every afternoon, a group of conference attendees played basketball in the New Hampton School gym between the morning presentations and the afternoon posters. There were plenty of other afternoon activities—soccer, hiking, lounging around the school grounds—but I had a sense that the gym was the place to be. The games were serious and sweaty and the tenor of the competition did not suffer from the lack of talent. The presence of Jim Morgan and Charlie O'Melia on the court—and a couple of "nice shot" or "good running" comments from them—made this conference feel like my acceptance into the field of environmental engineering.

A few years after the conference, I got the idea of commemorating these Gordon Conference games by getting Jim and Charlie to sign my basketball sneakers. It took a while—kind of an odd thing to ask! Jim signed first in 2000 at the American Chemical Society meeting session in his honor, and I finally got Charlie to sign this past year after a visit to Johns Hopkins. To Jim "No Air" Morgan

and Charlie "No Easy Layups" O'Melia, thanks for the basketball, your recognition of a young environmental engineer, and your many contributions to the field!

This contribution is the first of what I hope will be more contributions of memorabilia from your careers in environmental engineering and science.

Faculty Position in Environmental Engineering/ Sustainability at SDSM&T

The Department of Civil and Environmental Engineering of the South Dakota School of Mines and Technology invites applications for a tenure-track appointment at the Assistant or Associate Professor level. The successful applicant will have an earned doctorate in Environmental Engineering, Civil Engineering, or a related engineering field by the time of appointment. Preference will be given to candidates possessing bachelor's degrees from ABET accredited programs or equivalent, and who are registered professional engineers or eligible to become registered within three years of appointment.

The focus of this new position will be environmental engineering supported by significant expertise in sustainability. The successful candidate will deliver courses in environmental engineering and related topics as well as in his/her focus areas at the undergraduate and graduate levels, advise graduate and undergraduate students, develop an externally-funded research program, participate in the continued development of the School of Mines' interdisciplinary BS EnvE program, contribute to the environmental engineering option of CEE's MS CE program, participate in the interdisciplinary Atmospheric and Environmental Science Ph.D. program, and support the BS CE program as appropriate.

Applicants must apply for this position online at http://sdmines.sdsmt.edu/sdsmt/employment. Review of applications will begin January 15, 2010, and will continue until the position is filled.

Associate/Full Professor Position, The University of Texas at Arlington

The College of Engineering at the University of Texas at Arlington (UTA) invites applications for a senior faculty position at the Associate/Full Professor (tenured) level. The candidate must have outstanding academic qualifications and stature, demonstrated excellence in teaching, a nationally competitive externally funded research program, and national and international recognition. Outstanding candidates in all engineering disciplines will be considered. Preferred research areas include but are not limited to nano-scale materials, sensors, devices and systems, micro- and nano-fabrication, computer engineering, computational materials and application of these fields to human health, energy, environment/sustainability, and security. The position is interdisciplinary and the candidate must demonstrate leadership to interface with faculty in both the sciences and engineering. The compensation package is competitive and will be commensurate with qualifications. Exceptional candidates will also be considered for an endowed chair position.

The UTA College of Engineering provides the most comprehensive engineering program in North Texas and one of the most comprehensive in the nation with eight baccalaureate programs, twelve master's, and ten doctoral. The college has over 3,700 students and seven academic departments. The college has state-of-the-art facilities at the *Nanofab* Research and Teaching Facility (www.nanofab.uta.edu), the *Characterization Center for Materials and Biology* (http://ccmb.uta.edu), and an institute dedicated to research in robotics and automation (www.arri.uta.edu). The college is in the midst of a major expansion program with the recent or near completion of three new engineering construction projects including the Engineering Research Building, the Civil Engineering Laboratory Building, and the Engineering Laboratory Building. Over the last five years, faculty size has been increased from 100 to over 160, and research expenditures have increased from $12M to over $40M annually.

The University is located in the center of the Dallas/Fort Worth Metroplex (the nation's fourth largest metropolitan area with a population of over 6 million) which has the largest concentration of high-tech industry in the State of Texas and second in the nation after Silicon Valley. The college fosters a collaborative and collegial culture with strong interdisciplinary research teams and ties to the region's extensive number of high technology companies.

Applications including a curriculum vitae, cover letter, and the names of five references will be accepted through online submission at www.uta.edu/engineering/distinguished-facultysearch. Inquiries about the position may be directed to: Professor E.I. Meletis, Chair, Search Committee (meletis@uta.edu or 817-252-2398). Review of applications will begin immediately and continue until the position is filled. This is a security-sensitive position, and a criminal background check will be conducted on finalists. The University of Texas at Arlington is an Equal Opportunity and Affirmative Action Employer.

Civil and Environmental Engineering Faculty Positions at Northeastern University

The Department of Civil and Environmental Engineering (CEE) at Northeastern University seeks faculty candidates for tenured or tenure-track appointments at the Assistant, Associate, or Full Professor level. The department is embarking on a significant, multi-year expansion in size and scope, including faculty, facilities, and programs within several disciplines and across disciplinary boundaries. We invite applications from individuals who can contribute to areas of civil and environmental engineering that include robust urban environments, regional modeling for urban growth, and energy, and have immediate needs in sustainable infrastructure, environmental transformation and climate adaptivity, and environmental chemistry, including physical/chemical processes and environmental impact on public health. Applicants with a distinguished record and vision in environmental engineering and related fields will be considered for the Camp Dresser & McKee endowed chair. The successful candidate will be expected to demonstrate a proven ability to sustain a research program with an emphasis on interdisciplinary and translational research, teach both undergraduate and graduate classes, and be an active, recognized leader in the discipline. The appointment may be with tenure, depending on qualifications. For a senior appointment, we seek individuals with an established program of funded research who will immediately contribute to these strategic research areas.

Qualifications: A Ph.D. in civil engineering or a closely related field, an outstanding record of scholarship commensurate with desired level of appointment. Desirable: B.S. in engineering, P.E. registration, and industrial experience.

About Northeastern University: The CEE Department currently has 14 faculty members, including the Camp Dresser & McKee endowed chair, and a national research center in the area of infrastructure health monitoring. Northeastern University is located in the heart of Boston, Massachusetts and benefits from the intellectual and cultural vitality of an urban environment. Northeastern has numerous international partnerships, and is a National Science Foundation ADVANCE Institutional Transformation site. Faculty enjoy collaboration with the NSF-funded Gordon Center for Subsurface Sensing and Imaging Systems (CenSSIS), the NSF-funded Center for High-Rate Nanomanufacturing, the Homeland Security Center of Excellence, and research clusters in the College of Arts and Sciences and the Bouvé College of Health Sciences. Research is also enhanced through partnerships with other institutions and industrial partners. Northeastern is ranked 11th nationally in funding from the National Science Foundation Engineering Directorate. Northeastern is in the midst of an ambitious multi-year program, adding members to the faculty and increasing the University's research infrastructure.

Equal Employment Opportunity: Northeastern University is an Equal Opportunity, Affirmative Action Educational Institution and Employer, Title IX University. Northeastern University particularly welcomes applications from minorities, women, and persons with disabilities. Northeastern University is an E-Verify Employer.

How to Apply : To apply, visit the College website http://www.coe.neu.edu/coe/ and click on Faculty Positions. Application should include (1) detailed resume, (2) research development statement, (3) teaching statement, (4) copy of one sample journal paper, and (5) list of four references with contact information. Questions regarding this position should be directed to civilsearch@coe.neu.edu. The position will remain open until filled.

Fellowship for Ph.D. Students and Postdocs in Environmental Chemistry

The Environmental Chemistry and Engineering Research Group at the University of Notre Dame (www.nd.edu/~cna) is considering applications for Ph.D. studies and postdoctoral training with full financial support. The candidate should be highly motivated with good academic standing. The research focus of our group is to advance the molecular knowledge of environmental reactions and interactions using state-of-the-art experimental techniques. Current foci include (1) understanding the transport and transformation of nanomaterials in the environment, (2) developing geo-engineering solutions for climate change and evaluating their environmental impacts, and (3) developing microscopic techniques to quantify environmental reactions and interactions on the molecular level. Interested applicants are welcome to contact Professor Chongzheng Na (cna@nd.edu).

Postdoctoral Fellow at Rice

Applications for a Dreyfus Environmental Chemistry Postdoctoral Fellow in the Department of Civil and Environmental Engineering at Rice University are sought. The Fellow will work under the guidance of Professors Rob Griffin and Daniel Cohan on a laboratory, field, and/or computational project related to heterogeneous reactions on organic particle surfaces in the atmosphere. The Fellow will join a group actively involved in atmospheric chemical research; significant educational and mentoring opportunities will be made available to the Fellow. A Ph.D. in chemistry, chemical engineering, atmospheric science, or other related field is required, with a preference for those not previously engaged in environmental chemistry research. Applications should include a cover letter describing research interests, a CV including list of publications, and contact information for three references, and should be submitted electronically to rob.griffin@rice.edu. Applications will be reviewed until the position is filled. Rice University is an equal opportunity/affirmative action employer.

Senior Research Environmental Engineer or Scientist at the Southwest Research Institute

Summary: Conduct environmental technical studies and reviews, including those related to nuclear fuel cycle facilities, and nuclear waste transportation, storage, and disposal; gather and analyze information for inclusion in EISs; provide NEPA support as part of a multidisciplinary team; prepare technical reports and graphics compliant with appropriate regulatory requirements; prepare and deliver presentations for commercial and government clients and non-technical stakeholders; prepare proposals independently and jointly; participate in business development activities; publish technical results.

Education and Experience: B.S., M.S., or Ph.D. in Environmental Science, Environmental Engineering, Environmental Geology, or related discipline with a minimum three years after Ph.D., six years after M.S., or eight years after B.S. with progressive experience in environmental programs. NEPA certification desired, not required. Must have experience with NEPA EISs, EAs, and supporting activities such as scoping meetings and hearings, and experience with federal and state environmental regulations. Excellent writing and verbal communication skills in the English language required; must have ability to work independently and in multidisciplinary teams, make presentations to diverse audiences, maintain good client relations; experience in air and water environmental permitting, computer modeling of environmental transport processes and GIS experience is a plus; appropriate professional certifications are a plus. A valid and clear driver's license is required. All applicants must pass a conflict of interest evaluation and be qualified for NRC clearance.

Location: Rockville, MD or San Antonio, TX

Job Code: 20-00720

For more information about the Southwest Research Institute, visit the Geosciences and Engineering Division webpage (http://www.ged.swri.org/); apply through http://www.swri.org/hr/default.htm.

Faculty Position in Environmental Health, Tufts University

The Department of Civil and Environmental Engineering at Tufts University (http://engineering.tufts.edu/cee) seeks candidates for a tenure-track faculty position in Environmental Health at the Assistant or Associate level, with rank determined by experience and accomplishments. Exceptional candidates may also be considered for appointment at the rank of Full Professor.

Candidates are expected to possess a doctoral degree or equivalent in engineering or a relevant field, with expertise in the identification, characterization, and toxicology of waterborne pathogens and emerging contaminants, infectious disease, and global health issues. Principal responsibilities will include undergraduate and graduate teaching, establishment of an externally-funded research program, as well as University and professional service. The successful candidate will join an Environmental Health Program that is positioned at the interface between engineering and public health. Preference will be given to candidates with research interests that complement existing strengths and offer opportunities for collaborative research with faculty in the Department and throughout the Schools of Engineering and Arts and Sciences, as well as the suite of professional schools at Tufts including Medicine, Veterinary Medicine, Dental Medicine, and Nutrition Science and Policy.

Candidates should submit an application letter, curriculum vitae, statement of research and teaching objectives, and contact information for three references to Dr. David Gute, Search Committee Chair, Department of Civil and Environmental Engineering, 200 College Avenue, Tufts University, Medford, MA 02155 or via email to grace.clemence@tufts.edu. Review of applications will begin on January 15, 2010 and will continue until the position is filled. Tufts University is an Affirmative Action / Equal Opportunity Employer. We are committed to increasing the diversity of our faculty, and thus, women and members of underrepresented groups are strongly encouraged to apply.

Postdoctoral Scholar, University of Connecticut

Dr. Leslie McCabe Shor at the University of Connecticut has an opening for a postdoctoral scholar in the area of environmental microbiology and biotechnology. Potential research projects will link micro-scale physical and chemical habitat features with dynamic microbial responses. Specific examples include determining the effect of soil or sediment texture on microbial community composition, predicting the bioavailability of nanoparticles to protozoa in sediment, or determining the effect of the infection thread structure on initiating symbiotic nitrogen fixation by rhizospheric bacteria. The position will be in the Chemical Engineering program and will maintain close ties with the Environmental Engineering Program and the Center for Environmental Science and Engineering. Experience is sought in at least one of the following areas, with a desire to develop skills in the others: (1) environmental microbiology including molecular techniques and fluorescence microscopy; (2) design, production, and use of microfluidic devices with integrated sensors; (3) pore-scale transport and reaction modelling. The appointment will be for an initial term of one year and will be renewable subject to performance and availability of funds. Salary is commensurate with qualifications. Please send a cover letter, CV, and a list of references to Professor Shor at leslie.shor@uconn.edu. Additional information may be found at www.leslieshor.com.

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Association of Environmental Engineering and Science Professors Newsletter

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