

In this issue...

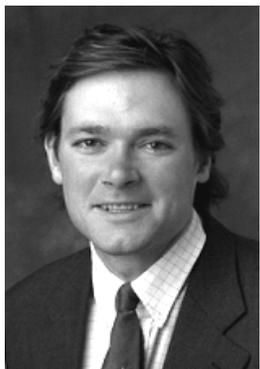
AEESP News.....2
AEESP History.....4
Member News.....5
Program News.....6
Employment
Opportunities.....7
Conferences /
Calls for Papers.....8
Short Courses.....10
Membership
Application.....11

Register by June 1 for the 2005 AEESP Research & Education Conference

The 2005 Research and Education Conference, hosted by Clarkson University in collaboration with Syracuse University, will be July 24-27, 2005, at Clarkson University in Potsdam, New York.

The conference theme, *Pushing the Boundaries: Making Research and Education in Environmental Engineering and Science Count*, will be supported through a variety of conference activities, such as workshops, poster sessions, a plenary session, and concurrent presentation sessions, and will culminate in the AEESP Legacy Reunion and Appreciation Dinner and presentation on Tuesday evening. See pages 2 and 8 for more details.

Letter from the President



A term on the AEESP board ends with a feeling of relief and sadness. Along with the obvious labor on behalf of the membership, board service provides a unique chance to glimpse the soul of our association. It is truly

invigorating to see the enthusiasm displayed by those volunteers who strive to advance our

“It is truly invigorating to see the enthusiasm displayed by those volunteers who strive to advance our common mission.”

sense of purpose and lifelong friendships. I am very grateful for the opportunity.

common mission.

When Chuck, Amy, and I were elected to serve from 2001-2004, we never could have predicted how much fun all the work would be. The experience has left me with a strong

-Marc Edwards
AEESP President

Spring 2005 AEESP Board meeting



At the Spring 2005 AEESP Board meeting are (L-R): Joanne Fetzner, Joan Rose, Kimberly Jones, Paige Novak, Marc Edwards (seated), Menachem Elimelech, Pedro Alvarez (seated), Lynn Katz, Philip Singer (seated), Catherine Peters, and James Mihelcic (not shown: Bill Ball).

Newsletter submissions

Submissions may be sent electronically to:

Amy E. Childress
amyec@unr.edu
(775) 784-6942
(775) 784-1390, fax

Letters to the president may be sent to:

Marc A. Edwards
Virginia Polytechnic Institute
& State University
407 NEB
Blacksburg, VA 24061-0246
edwardsm@vt.edu

Letters to the editor may be sent to:

Amy E. Childress
University of Nevada, Reno
Department of Civil
Engineering/258
Reno, NV 89557-0152
amyec@unr.edu

Address changes may be sent to:

Joanne Fetzner
AEESP Business Office
2303 Naples Court
Champaign, IL 61822
jfezner@uiuc.edu

AEESP Newsletter online

Current issue:

www.uidaho.edu/aeesp

Archived issues:

www.aeesp.org/pubs/NewsArch.html

2005 AEESP Research and Education Conference highlights

Founding Member Appreciation

AEESP members who earned their Ph.D. in environmental engineering or a related field prior to about 1976 were instrumental in developing the field of environmental engineering as well as AEESP. From an idea by George McCallum, action by Harvey Ludwig, and implementation under Earman Pearson, AEESP (then AAPSE - the American Association of Professors in Sanitary Engineering) has grown from eighteen organizing members to nearly 800 members today.

An AEESP reunion event will be held at the 2005 AEESP Research and Education Conference at Clarkson University in Potsdam, New York, July 26, 2005. All AEESP members are invited to attend, to meet old friends and honor those members (PhD before 1976) at a Legacy Reunion and Appreciation Dinner Tuesday evening. A historical and conceptual presentation about the association and the early years of environmental engineering will follow the dinner. Make plans to come to the Reunion and enjoy the conference. Conference registration and more information is available at the conference website www.clarkson.edu/aeesp which can also be reached through www.aeesp.org. Come and talk with your colleagues, relive the past, and see the future of our profession.

Environmental Sustainability: Educating Students, Colleagues, and Ourselves

Environmental Sustainability: Educating Students, Colleagues and Ourselves, is a workshop to be held at the 2005 AEESP Research and Education Conference, jointly sponsored by ASEE and AEESP.

Engineering education will change significantly over the next several decades as sustainable development plays an in-

creasingly prominent role throughout our curricula. While many academicians are still struggling to identify viable approaches to use their knowledge and skills in teaching sustainability, undergraduate and graduate students across campus are demanding an education that will allow them to address environmental issues in developing countries; design sustainable technologies that address environmental, social, and economic considerations; and work in the global arena.

This need has also been recognized by ABET. Starting with the 2005-2006 accreditation cycle, Criterion 3 of the ABET accreditation process will include the statements: "Engineering programs must demonstrate that their graduates have: ... (c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability" and ... (h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context. These changes to the ABET process recognize the importance of extending engineering education beyond science and technology and instilling students with a sense of social responsibility. While ABET did not provide the motivation for this paradigm shift, it may facilitate its implementation and these criteria may have substantial impacts on environmental engineering courses, demands on environmental faculty, and college and university curriculum.

Over the past several years, there have been a number of successful programs and resources developed to address this growing need. The approaches include the development of course modules that have been incorporated into existing engineering and non-engineering classes, new courses in areas such as industrial ecology and green engineering, service-based

learning programs with a domestic and/or global perspective, and overall curriculum or program reform.

AEESP and the environmental engineering division of ASEE are sponsoring a workshop to capture the insights of panel members and participants who are interested in developing and implementing sustainability in their courses and curriculum, and to explore ways that environmental engineering faculty can participate with colleagues in other departments and colleges in efforts to teach concepts of sustainability.

The workshop will be held on Sunday, July 24, prior to the 2005 AEESP Research and Education Conference.

2005 AEESP Distinguished Lecturer

It is a pleasure to announce that Dr. René Schwarzenbach will serve as the 2005 AEESP Distinguished Lecturer. Dr. Schwarzenbach is Professor of Environmental Chemistry at the Federal Institute of Technology (ETHZ) in Zurich, Switzerland. Currently he is the head of the Department of Environmental Sciences at ETHZ and of the Institute for Aquatic Sciences and Water Pollution Control located at the Federal Institute for Environmental Science and Technology (EAWAG). He is also a scientific counselor of the Swiss National Science Foundation, and is on the Advisory Board of *Environmental Science and Technology*.

Born in December 1945, René Schwarzenbach earned his diploma degree and Ph.D. from ETHZ. He spent two postdoctoral years at the Woods Hole Oceanographic Institution. In 1992, he was awarded the Körber Prize, together with four colleagues from Germany, France and Switzerland. In 2000 he was elected as an original member of the ISI Highly Cited Researchers Database, and in 2001 he won the SETAC Environmental Education Award.

Dr. Schwarzenbach's research and teaching focus primarily on the distribution, fate and effects of organic pollutants in the natural environment. The re-

search addresses fundamental chemical as well as multidisciplinary system-oriented aspects. His textbook "Environmental Organic Chemistry" that he authored together with two colleagues from

MIT and ETHZ, and that won the "Chemistry Book of the Year Award" of the Association of American Publishers in 1994, has established itself as the standard text in the field of environmental organic chemistry. The second, completely revised and expanded edition was published in 2003.

A solicitation for schools that are interested in hosting Dr. Schwarzenbach was distributed via the AEESP list-serv in mid-February. Dr. Schwarzenbach plans to offer two talks: (1) Use of Stable Isotope Fractionation to Assess Organic Pollutant Transformation in Contaminant Hydrology, and (2) Quantification of Sorption Equilibria of Organic Pollutants – Tackling Sorbate and Sorbent Variability by a Unifying Approach.

The Lecture's committee appreciates the extensive input received from the membership in response to our invitation for nominees for the Distinguished Lecturer.



René Schwarzenbach

Newsletter policies

Submissions deadline

The AEESP Newsletter is published three times a year in January, April, and September. The deadline for newsletter submissions is one month prior to the publication date. Please keep in mind when submitting items with deadline dates that members receive issues four to six weeks after the submissions deadline.

Advertising policy

Any advertisement, including faculty, post-doc, or student ads, or other types of announcements submitted by an AEESP member, will be free for the first 250 words (approximately 1/4 page) and then charged at \$1 per word for additional content, if formatted to fit in a column. Non-members will be charged at the per word rate for any size column-formatted ad. Full page formatted advertisements will be charged at \$500 for members and \$1,000 for non-members. All formatted full page ads will be accompanied by a free web ad.

Photo submissions

Photo submissions to the AEESP Newsletter are encouraged. Please submit your photos electronically (to amyec@unr.edu) in jpeg format at the highest dimension for down-sizing to print resolution (preferably less than 750 KB). Also, please include captions with names, locations, and dates.

The MIT Explosion

by P. Aarne Vesilind, Bucknell University

The other day I saw a student sneeze in class, spraying fine aerosols all around, and I wondered just how many other students might have been infected by that sneeze. Explosions such as sneezes distribute fine particles; explosions such as nuclear reactions distribute radiation; and explosions such as the destruction of a department distribute faculty. This is the story of the MIT explosion.

The Massachusetts Institute of Technology first opened its doors to students in 1865 and soon became the premier technical school in the country. One of its first curricula was in civil engineering, designated Course II (MIT designation for a program of instructional courses, or what we today would call a curriculum). In 1889 William Sedgwick helped to organize what became Course XI, Sanitary Engineering, and in 1892 Course XI was assigned to the Department of Civil Engineering (then known as Course I) for administration. Those were the days of Ellen Swallow Richards, the first woman to graduate from MIT, and the establishment of the Lawrence Experiment Station, the first effective sanitary engineering laboratory in the United States. In 1929 Thomas Camp developed Course XI as a successful undergraduate program. MIT had clearly become the preeminent school for sanitary engineering.

But the MIT School of Public Health decided to get in on the action and organized a course quite similar to Course XI. A competition for students ensued, causing a reduction in student numbers. A national decline in civil engineering student numbers also contributed to the problems.

When Karl Taylor Compton, a physicist from Princeton, became president he set out to change MIT. He believed that the future of universities such as MIT was in doing research. President Franklin Delano Roosevelt, recognizing the importance of technology in the defense industry, established the White House Scientific Advisory Board, and chose Compton to head it. The dean of engineering at MIT, a Compton appointee, was Vannevar Bush. Apparently at Compton's



P. Aarne Vesilind

urging, Bush was asked to run the Carnegie Institution, and this placed two of the most important MIT administrators into powerful positions in Washington. Money soon began to flow to MIT as the nation was heating up technology programs in preparation for the expected war. Thanks to Compton and Bush, research funding at MIT rose exponentially during the 1930s and MIT soon became the preeminent research university in the United States.

President Compton was intent on changing the face of the Institute. Using external review committees and various grants from foundations to fund studies that seemed to concur with his predetermined views, Compton soon had the ammunition to move biological science out of the Department of Public Health Engineering and into the more fundamentally oriented biology program, which also included biophysics and bioengineering. By 1944 all of the undergraduate courses in Course XI, sanitary engineering, were eliminated and graduate courses in sanitary engineering were combined with the graduate courses in public health engineering.

In 1944 Tom Camp left MIT to establish Camp, Dresser and McKee. It is unclear why this happened. Correspondence between Compton and Camp is most cordial and correct, but there most likely were some disagreements on the future of sanitary engineering at MIT.

After the war, the Institute wanted to build up its research, and brought in William Stanley to head the new graduate program in sanitary engineering. Stanley hired Clair Sawyer, Murry Horwood, A. A. Thomas, and Rolf Eliassen, and with the establishment of the "William Sedgwick Memorial Laboratories in Sanitary Science," a

vibrant research program was reestablished. In 1950, Thomas left to practice engineering, and Horwood retired. Ross McKinney, who received his Sc.D. under Horwood, was asked to stay on as a faculty member. In 1958 Stanley retired and Jim Symons, who was getting his Sc.D. with McKinney, was asked to stay on. In that same year, Clair Sawyer left to join Metcalf & Eddy. Thus in 1959 the program had Rolf Eliassen, Ross McKinney, and two junior professors, Perry McCarty (who was getting his Sc.D. with Ross McKinney) and Jim Symons. Funding was strong and there was optimism that the program would survive.

But the conditions were not good, and the lack of an undergraduate program concerned the faculty. The final blow was a major reorganization of MIT in 1959 that again stressed research and mathematical modeling. The support for sanitary engineering was tenuous, and this eventually precipitated an explosion that sent the very best sanitary engineering faculty in the world to the far reaches of the country.

Russ McKinney was the first to see opportunities elsewhere, and decided to take a position at the University of Kansas. Rolf Eliassen moved to Stanford University which had made him a standing offer, and he convinced Perry McCarty to move with him. Jim Symons went to the U.S. Public Health Service Laboratories in Cincinnati and in 1982 to the University of Houston.

The chair of the civil engineering department, Charles Miller, had been told by the new dean of engineering, Gordon Brown, to "shape up civil engineering" and Miller's view, in concordance to the new philosophy from MIT leadership, was that the future was in mathematical and computational modeling. Sanitary engineering did not fit into his vision, and thus when the sanitary engineering faculty left, he declined to hire anyone to replace them. Course XI and the legacy of Sedgwick, Sparrow, and so many others, was dead. The explosion had disintegrated the best sanitary engineering department in the world, but it fertilized new environmental engineering programs all over the country. Ironically, without Compton's dogged

belief that there was no future in sanitary engineering, our field would be much the poorer. As it was, the faculty who left MIT helped to create a new and vibrant profession that spanned the United States.

Eventually MIT realized its mistake and reestablished environmental engineering (nee sanitary engineering) as a part of civil engineering. In 1992 the department was even renamed Civil and Environmental Engineering. Today the program includes Dave Marks, who was hired in 1969, and Phil Gschwend, Harry Hemond, and Patrick Jaillet. They share a dual legacy, that of William Sedgwick, and the explosion that made our discipline what it is today.

Note: I am indebted to Ross McKinney, Jim Symons, Perry McCarty, Dave Marks, and Dan Okun for their first person remembrances, and to Silvia Mejia of the MIT libraries for her invaluable assistance in providing documents relating to the rise and fall of sanitary engineering.

University of Delaware Di Toro named to Academy



AEESP member **Dominic M. Di Toro** has been elected to the prestigious National Academy of Engineering (NAE). Di Toro, Edward C. Davis Professor of Civil and Environmental Engineering at the University of Delaware, is noted for his leading-edge work in the establishment of water quality standards and the development of water quality models.

Academy membership honors those who have made outstanding contributions to engineering research, practice or education. Di Toro was selected because of his leadership in the development and application of mathematical models for establishing water-quality criteria and making management decisions.

Di Toro earned his bachelor's degree from Manhattan College and both his master's degree, in electrical engineering, and his doctorate, in civil and geological engineering, from Princeton University. Before joining the UD faculty, he was the Donald J. O'Connor Professor of Environmental Engineering at Manhattan College. Di Toro has managed or directed water quality studies of some of America's most important bodies of water, including New York, Boston, and Milwaukee harbors; the Delaware, Ohio, Sacramento, and Potomac rivers; and the Chesapeake and San Francisco bays.

Di Toro was the technical leader through the 1990s as the federal Environmental Protection Agency embarked on the development of sediment quality criteria, and he is the author of the well-received book *Sediment Flux Modeling*. As a consultant and principal at the environmental consulting firm HydroQual Inc., Di Toro has participated in or directed numerous water quality modeling projects. These studies have involved an analysis of the impact of municipal, industrial and nonpoint sources on water quality.

University of Hawaii Kim receives CAREER Award

This year, the National Science Foundation (NSF) has selected Assistant Professor **Albert Kim** of the Department of Civil and Environmental Engineering, University of Hawaii, to be a recipient of the Faculty Early Career Development (CAREER) Award with a \$400,000 grant for his project, "Aggregate-Enhanced Membrane Filtration." Dr. Kim's research interest centers on high performance computation of membrane filtration systems with environmental engineering applications. He is currently developing networks of supercomputers that are capable of performing rigorous and computationally intensive modeling of water treatment processes. Cluster computing makes possible acutely precise simulations of large scale physical/chemical/hydrody-

dynamic systems that are not attainable with single-processor computer models. Professor Kim is among the first to apply the technology of the cluster computing to environmental engineering research. His research has contributed important findings that shed new knowledge on better methods of water treatment. The impact of his research will help the cause of environmental conservation and sustainability of water resources.

Dr. Kim is also working to motivate high school, undergraduate, and graduate students to engage in collaborative research projects in environmental engineering. His goal is to bring students from diverse academic and cultural backgrounds together to learn about exciting new technologies for water treatment. Such learning opportunities will introduce students to environmental engineering as a future career choice.

Dr. Kim holds a B.S. in physics from Kyung Hee University in Korea, a master's in physics from Yonsei University in Korea, and a master's and doctorate in civil and environmental engineering from UCLA.

University of Texas at Austin

Danny Reible joined the newly renamed Department of Civil, Architectural and Environmental Engineering in August 2004 as the Bettie Margaret Smith Chair in Environmental Health Engineering. He was previously at Louisiana State University in Baton Rouge where he was the Chevron Professor of Chemical Engineering. Reible serves as Co-Director of the EPA South/Southwest Hazardous Substance Research Center, a university consortium consisting of LSU, Rice University, Texas A&M, Georgia Tech, and the University of Texas at Austin. His research interests





lie in contaminant fate and transport, environmental processes and effects, and assessment and remediation of contaminated sediments. He was elected this year to the National Academy of Engineering in recognition of his development of widely used methods of managing contaminated sediments. He is the author of the textbooks, *Fundamentals of Environmental Engineering* and *Dif-*

fusion Models of Environmental Transport, and editor of *Innovative Approaches to the On-Site Assessment and Remediation of Contaminated Sites* and *Contaminated Groundwater and Sediment*.

Clarkson announces new environmental engineering undergraduate degree program for Fall 2005

Clarkson University now offers a bachelor of science degree program in Environmental Engineering. Administered through the Department of Civil and Environmental Engineering, the new undergraduate program will be grounded in systems engineering and will allow for numerous cross-disciplinary courses leading to research with other units at Clarkson. This interdisciplinary approach, a hallmark of a Clarkson education, will further the goals of the environmental engineering research focus area.

Clarkson's Environmental Engineering program will be one of the few in the country that uses a "systems approach" to problem solving. The method, which is often used only at the graduate level, looks at the overall picture for finding solutions, producing the most positive results achievable without drawbacks in ecological, societal, or economical scopes.

Clarkson's location in the foothills of the Adirondack Mountains will also be an obvious draw for students interested in the environmental engineering major. The surrounding area provides many opportunities for students to study the environment first hand.

Clarkson University, located in Potsdam, New York, is an independent university with a reputation for developing innovative leaders in engineering, business, and the sciences. Its academically rigorous, collaborative culture involves 2,700 undergraduates and 400 graduate students in hands-on team projects, multidisciplinary research, and real-world challenges.

Further details on the new undergraduate program are available at http://www.clarkson.edu/prospective/academic_majors/majors/environmental.html. For more information, contact Hung Tao Shen, department chair, at htshen@clarkson.edu or 315-268-6606.

Welcome new AEESP members!

Welcome to all the following AEESP members who have joined the Association in 2005:

Braden Allenby, Arizona State University
Debera Backhus, Indiana University
Shannon Bartelt-Hunt, North Carolina State University
Xiaosong Chen, University of Florida
Yongjun Chen, University of Cincinnati
Ki Don Cho, Duke University
Joel J. Ducoste, North Carolina State University
Dianchen Gang, West Virginia University
James Hanson, Lawrence Technological University
Chris Hendrickson, Carnegie Mellon University
Astrid Jacobson, Cornell University
James Johnson, Howard University
Jeremiah Johnson, Yale University
H. Scott Matthews, Carnegie Mellon University
Mark R. Matsumoto, University of California, Riverside
Anna M. Michalak, University of Michigan
Ernest Nnadi, Coventry University, U.K.
Anu Ramaswami, University of Colorado
Danny Reible, University of Texas
Pascal E. Saikaly, University of Cincinnati
John D. Sivey, Clemson University
Svetoslava Todorova, Syracuse University
Nathalie Tufenkji, McGill University
James Uber, University of Cincinnati
Kanapathipillai Vijayarajnam, London Engineering School, U.K.
Sharon L. Walker, University of California, Riverside
Guibo Xie, Drexel University
Ying Xu, New Jersey Institute of Technology
Jianpeng Zhou, Southern Illinois University, Edwardsville

Member news submissions

News items about AEESP members may be submitted for publication in the 'Member News' section by sending them to:

Amy E. Childress
AEESP Newsletter Editor
amyec@unr.edu

The submissions deadline for the September 2005 AEESP Newsletter is **August 1, 2005**.

University of Nevada

GRADUATE PROGRAM DIRECTOR, INTERDISCIPLINARY PROGRAM IN HYDROLOGIC SCIENCES. The University of Nevada, Reno, Graduate School, is seeking candidates for a full-time academic faculty position to administer the interdisciplinary program in hydrologic sciences. Duties are divided 50/50 between administration and teaching/research activities. Successful applicants will have a Ph.D. in hydrologic sciences or a related area and a strong record of scholarship with the credentials to be appointed as a tenured associate or full professor. For complete position description and requirements contact the Search Chair, Stephen Wheatcraft (775) 784-1973, wheatcraft@unr.edu, or Search Coordinator, Lynn Herman (775) 327-2365, lherman@unr.edu, or view at <http://www.hydro.unr.edu> or <http://jobs.unr.edu>. Applicant review will begin April 29, 2005.

EEO/AA. Women and under-represented groups are encouraged to apply.

University of New Hampshire

PH.D. AND M.S. ASSISTANTSHIPS. The Environmental Research Group at the University of New Hampshire has multiple M.S. and Ph.D. research assistantships available for next year. ERG annually conducts more than \$3 million in externally sponsored research in partnership with industry, municipalities, state and federal agencies, and international organizations. Its 16 full and associate faculty members come from three departments and specialize in seven areas: contaminated sediments characterization, treatment and management, advanced water treatment technologies, electrotechnologies research, waste characterization and utilization, ground water processes and bioremediation, stormwater treatment technologies, and contaminant monitoring and remediation

Qualified candidates are encouraged to apply to the program and contact Dr. Kevin Gardner by phone (603-862-4334) or e-mail (kevin.gardner@unh.edu).

San Diego State University

RESEARCH ASSOCIATE. Permanent position at San Diego State University (SDSU). Responsibilities: Operate and maintain all analytical instruments in the environmental engineering laboratories, e.g., GC, GC-MS, HPLC, IC, TOC, UV Spect., etc.; manage the laboratories, chemical ordering/storage, waste management, record keeping, and laboratory safety; teach the laboratory courses; help graduate students in the laboratories; help the Blasker Chair Professor conduct research; co-author papers; and prepare research proposals.

Qualifications: Ph.D. in Environmental and/or Analytical Chemistry, plus two years of experience in operating and maintaining research and teaching laboratories.

Salary: \$48,000-72,000 per year, commensurate with experi-

ence, knowledge and skills. Available immediately.

Applicants must complete the SDSU employment application and provide a resume and a minimum of two reference letters. Please see the following link for applications: <http://bfa.sdsu.edu/ps/flyers/2448.htm>.

West Virginia University

The Department of Civil and Environmental Engineering in the College of Engineering and Mineral Resources at West Virginia University invites applications to fill one tenure-track position in the area of ENVIRONMENTAL ENGINEERING at the assistant professor level, available in August 2005. Candidates are sought with experience working at the interface between organic contaminants and solid phase media, such as contaminated river sediments and biosolids. Candidates should also have the ability to work closely with researchers performing studies on inorganic contaminants and nutrients. The successful candidate will complement current faculty expertise and contribute to research initiatives in the assessment and restoration of perturbed natural systems. Candidates must hold an earned doctorate in Civil Engineering or a related field at the time of appointment and should have the potential to become a registered professional engineer.

Applications must include a curriculum vita, statement of research and teaching interests, unofficial copies of all university transcripts, as well as the names, addresses, phone numbers, and email addresses of at least three professional references. Applicants who are not citizens of the U.S. must include a statement of authority to work in the U.S. Review of applications will begin April 15, 2005. Applications will be accepted until the position is filled. Women and minorities are encouraged to apply. Send application materials to: Dr. Roger C. Viadero, Jr., Search Committee Chair, Department of Civil and Environmental Engineering, West Virginia University, P.O. Box 6103, Morgantown, WV 26506-6103.

West Virginia is an Equal Opportunity/Affirmative Action Employer.

News submissions deadline

The submissions deadline for the September 2005 AEESP Newsletter is **August 1, 2005**.

Send news items to:

Amy E. Childress
AEESP Newsletter Editor amyec@unr.edu

2005 AEESP Research and Education Conference

July 24, 2005

Clarkson University

Potsdam, New York

The 2005 Research and Education Conference will be held July 24-27, 2005 at Clarkson University in Potsdam, NY. The Conference is hosted by Clarkson University in collaboration with Syracuse University. The conference theme, Pushing the Boundaries: Making Research and Education in Environmental Engineering and Science Count, will be supported through a variety of conference activities, such as workshops, poster sessions, a plenary session, and concurrent presentation sessions, and will culminate in the AEESP Legacy Reunion and Appreciation Dinner and presentation on Tuesday evening. Breakfast is available Wednesday morning before you move on to other activities.

Preconference field trips and dinner will be held Saturday, July 23 in Syracuse. Sunday at Clarkson University will be filled with eight workshops, a poster session and an evening picnic. The Monday morning plenary session will feature keynote presentations. Monday afternoon is free for discussions or recreation in the area. Monday evening and all day Tuesday will feature several concurrent oral presentation sessions.

Concurrent sessions will include:

- Biomolecular tools
- Contaminant transport - NAPLs and organics
- Contaminant transport - Mercury and inorganics
- Course and curriculum development
- K-12 Outreach
- NSF's CLEANER Initiative
- Risk/Public health
- Sustainability
- Sustainability in Education
- Treatment technologies

Register by June 1, 2005 to receive the best conference rate. Registration after June 1 will be \$125 higher in each category. Registration and more information are available at the conference website www.clarkson.edu/aeesp which can also be reached through www.aeesp.org. Join us for a chance to relive the past and plan for the future of our exciting profession!

Call for Papers

Two Special AEESP-ACS Symposia

230th ACS National Meeting

August 28-September 1, 2005

Washington, DC

Division of Environmental Chemistry

For more detailed descriptions and abstract submission instructions, please contact the symposia organizers or check the AEESP website (www.aeesp.org).

1) Environmental Nanotechnology. The symposium will focus on the following aspects of environmental nanotechnology: (a) environmental technologies at the nanoscale (including existing and emerging remediation technologies, monitoring, sensors), (b) synthesis, characterization, and evaluation of nanostructured materials for environmental applications, (c) synthesis of nanostructured materials using environmentally friendly, biotemplating, and "green" chemistry/engineering procedures, (d) applications of self-assembling, templating-based and other nanotechnological procedures to engineer the properties of nanostructured materials, (e) monitoring, fate, and health effects of nanoparticles, (f) fundamental properties (reactivity, transport, interactions) of nanoparticles in different media (water, soil, air, other solvents), (g) nanotechnology in energy production and utilization of renewable energy, and (h) environmental nanotechnology education, including its implementation/experience in environmental science and engineering curriculum.

Organizers: Dionysios (Dion) D. Dionysiou (dionysios.d.dionysiou@uc.edu), Mark R. Wiesner (wiesner@rice.edu), Gregory V. Lowry (glowry@cmu.edu) and Pratim Biswas (pratim.biswas@wustl.edu).

2) Characterization and Properties of Environmentally Relevant Black Carbon Particulates. Environmental black carbon (BC) particulates are of interest to the scientific and engineering communities in various contexts, ranging from paleo-ecological investigations to studies of the fate and transport of pollutants. BC particulates are formed from the incomplete combustion of biomass and fossil fuels and are present in different forms such as aerosols and aquasols as well as in numerous environments that include soils, aquatic sediments, and deep geologic deposits. The physical and chemical characteristics of BC particulates play a significant role in determining not only their own fate, but also their interaction with other chemicals, including many persistent organic pollutants. Properties of BC particulates are highly variable and strongly dependent upon their formation conditions and history.

This symposium will bring together scientists and engineers who are working on various aspects of environmental BC

particulates such as soots and chars. Topics of interest include, but are not limited to:

1. Characterization and properties of environmental BC particulates, including molecular composition, morphology, surface chemistry, and pore structure.
2. Relationship of BC properties to the sorption characteristics of persistent organic pollutants including polycyclic aromatic hydrocarbons and PCBs.
3. Importance of BC-HOC interactions on the chemical and biological availability of organic pollutants in air, water, and sediments.

Organizers: Howard Fairbrother (dfairbr1@jhu.edu), William P. Ball (bball@jhu.edu), Rainer Lohmann (lohmann@gso.uri.edu).

3rd IWA Leading-Edge Conference & Exhibition on Water & Wastewater Treatment Technologies

June 6-8, 2005
Sapporo, Japan

This international event has been growing in importance over the last 3 years. It has become the platform for exposure of key advances in the field with over 250 papers submitted for this event in Sapporo. As the number of sessions to be held has not increased, those papers chosen will truly be 'leading edge.'

In addition to the parallel sessions in Drinking Water and Wastewater, this year also sees the introduction of cross-over and forward-looking sessions and workshops bringing together practitioners from drinking water and wastewater fields to debate critical topics and exchange ideas.

Confirmed Keynote Speakers include Professor Norhito Tambo from The University of the Air, Japan and Professor J.G. Kuenen from TU Delft, The Netherlands.

Running alongside the Conference for the first time will be a trade show. The exhibition is a showcase for providers of leading edge technology products and services that match the conference themes.

For details of the full programme, and to register go to www.let2005.iwa-conferences.org, or

Registration and Sponsorship Enquiries: Contact Noirin Casey, Tel: + 44 (0) 20 7654 5500, Fax: 44 (0) 20 7654 5555, E-mail: let2005@iwahq.org.uk.

Exhibition Enquiries: Contact Exhibition Secretariat, Tel: + 31 23 7505105, E-mail: roy.agterbos@iwa-exhibitions.com, or robert.melaard@iwa-exhibitions.com.

12th Intermountain Conference on the Environment

September 13-14, 2005
Idaho State University
Pocatello, Idaho

Idaho State University is hosting the 12th Intermountain Conference on the Environment (ICE 05). Abstracts are being solicited in the following areas:

- Surface and Groundwater-Portneuf and Snake Watershed Ecosystems
- Emerging Biological and Physical/Chemical Technologies
- Clean Energy Alternatives
- Resource Recycling
- Air Quality and Solid Waste Issues
- Sustainable Agricultural Practices and Urban Planning
- Public Outreach and Implementation
- GIS Applications in Environmental Studies
- Radioactive Waste - Decontamination and Decommission

Papers on other relevant environmental topics are also welcome.

Abstracts should be limited to one word-processed page with one-inch margins and a minimum of 10-pt. font. Posters are welcome and should be limited to a total space of 36 x 48 inches. Abstracts should be sent to the ISU Division of Continuing Education on or before May 13, 2005. Late submissions will be allowed until July 31. A pre-conference field trip to Yellowstone National Park will be made on September 12, 2005. Registration is \$100 U.S. The geo-field trip is optional and the fee is \$60 U.S. Non-presenters are urged to attend and participate in the conference. More information is available at <http://www.isu.edu/conteduc>.

AEESP members

Send address changes to:

Joanne Fetzner
AEESP Business Office
2303 Naples Court
Champaign, IL 61822



Anaerobic Treatment Short Course

September 22-23, 2005
Marquette University
Milwaukee, Wisconsin

A short course titled "Anaerobic Treatment of High-Strength Industrial and Agricultural Waste" will be held September 22-23, 2005 at Marquette University in Milwaukee, Wisconsin. The course will present anaerobic treatment fundamentals, operating strategies, design/construction/start-up guidelines, equipment information, case studies of operating systems, and selected, recent research. Speakers include R. E. Speece (Vanderbilt University), Michael Switzenbaum (Marquette University), Robert Burns (Iowa State University) Dennis Totzke (Applied Technologies, Inc.), and Daniel Zitomer (Marquette University).

Standard registration is \$675. The discount student registration rate is \$180. Attendees receive R. E. Speece's textbook, course notebook, and lunches. For more information, please contact Dan Zitomer, 414-288-5733, Daniel.Zitomer@mu.edu, or see <http://www.mu.edu/wqc>, under "short courses."

First Call for Papers 4th International Slow Sand/ Alternative Biological Filtration Conference

May 3-5, 2006
IWW-Mulheim, Germany

4th International Slow Sand/Alternative Biological Filtration Conference at IWW-Mulheim, Germany, May 3-5, 2006 with an optional program in Amsterdam on May 6, 2006. Conference themes will include biofilter similarities and differences between SSF, RBF, BAC and groundwater recharge; emerging contaminant and removal issues; biological process mechanisms/characterizations in a drinking water treatment context; emerging process modifications and applications; modeling advances; and future research needs. Please submit an electronic abstract (max. 2 pages including tables/figures) to one of the conference organizers by no later than the **July 1, 2005 deadline**: N. J. D. Graham (n.graham@imperial.ac.uk), M. R. Collins (robin.collins@unh.edu), and R. Gimbel (r.gimbel@iww-online.de).

First Announcement & Call for Papers 1st International Conference on Accelerated Carbonation for Environmental and Materials Engineering

June 12-14, 2006
The Royal Society, London

This is the first notice of a three-day conference on accelerated carbonation for materials engineering to be held at the Royal Society, 6-9 Carlton House Terrace London, SW1Y 5AG, London, England, on June 12-14, 2006. The meeting will deal with various aspects of this topic covering the state-of-the-art, recent developments, emerging technologies, and environmental impact related to the following themes:

- Hazardous waste management
- Nuclear waste management
- Super critical carbonation
- Atmospheric carbon sequestration
- Conditioning of soils
- Carbonation of geologically derived minerals
- Process engineering
- Carbonation chemistry
- Carbonation in the oceans and other natural environment
- Sorbent technology
- Biomimetic carbonation

A book of extended abstracts will be provided upon registration. Selected papers will be invited for publication in an international peer-reviewed journal.

THE VENUE

The Royal Society is ideally suited for a First International Conference of this nature, being located within a short distance of Piccadilly Circus, Trafalgar Square, St James Park and Buckingham Palace. In addition to the technical programme a welcome reception and a Conference Dinner will take place at prestigious locations in London.

For a complete flyer or more information please contact Kevin Gardner by phone (603) 862-4334 or e-mail kevin.gardner@unh.edu.

NOTE: The AEESP membership application is also available online at <http://www.aeesp.org/org/membership.html>.



Application for Membership ***Association of Environmental Engineering and Science Professors***

Name: _____

Title: _____

Department: _____

Business address: _____

Business phone: _____

E-mail address: _____

Fax no: _____

Home address: _____

Home phone: _____

Applying for: Regular Member -- Rank: _____

Affiliate Member

Student Member -- Advisor: _____

Sustaining Member

PLEASE ATTACH A BRIEF (1-3 PAGE) CURRICULUM VITAE

Membership in AEESP is on a calendar-year basis. When you join the Association, you will be sent the current AEESP Membership Directory and previous Newsletters and other materials which have been sent to members during the year, if your application is received prior to October 1. If you join after October 1, your membership will begin the following calendar year, but the current AEESP Membership Directory will be sent to you immediately upon approval of your membership by the Association's Secretary. Upon retirement, members may apply to the AEESP Board for Emeritus membership if they have been AEESP members for at least 20 years, or have been a member for fewer years but have contributed substantially to AEESP through service on committees or as an officer.

RANK / STATUS	ANNUAL DUES
Regular Member (Professor)	\$ 75.00
Regular Member (Assoc. Professor)	\$ 60.00
Regular Member (Asst. Professor)	\$ 40.00
Affiliate Member	\$ 50.00
Student Member	\$ 15.00
Sustaining Member	\$500.00

Please return this form along with your dues and c.v. to the Secretary of AEESP:

Kimberly L. Jones
Department of Civil Engineering
Howard University
2300 Sixth Street NW
Washington, DC 20059

Enclosed are my AEESP dues in the amount of U.S. \$ _____.

Check enclosed.

MasterCard or Visa:

Credit Card No. _____ Exp. Date: _____

Signature

Date

2005 AEESP Officers

President:

Marc A. Edwards, Ph.D.
Dept. of Civil Engineering
Virginia Tech
407 Durham Hall
Blacksburg, VA 24061-0246
Phone: (540) 231-7236
Fax: (540) 231-7916
edwardsm@vt.edu

President-Elect:

Pedro J. Alvarez, Ph.D.
Civil & Environmental
Engineering
Rice University, MS 317
P.O. Box 1892
Houston, TX 77251-1892
Phone: (713) 348-5903
Fax: (713) 348-5203
alvarez@rice.edu

Vice President:

Philip C. Singer, Ph.D.
Environmental Science &
Engineering, CB-7431
University of North Carolina
Chapel Hill, NC 27599-7431
Phone: (919) 966-3865
Fax: (919) 966-7911
phil_singer@unc.edu

Secretary:

Kimberly L. Jones, Ph.D.
Howard University
Dept. of Civil Engineering
2300 Sixth Street NW
Washington, DC 20059
Phone: (202) 806-4807
Fax: (202) 806-5271
kjones@scs.howard.edu

Treasurer:

Lynn E. Katz, Ph.D.
Dept. of Civil Engineering
University of Texas
Austin, TX 78712-1076
Phone: (512) 471-4244
Fax: (512) 471-5870
lynnkatz@mail.utexas.edu

AEESP Board of Directors

Pedro J. Alvarez, Rice University
William P. Ball, The Johns Hopkins University
Marc A. Edwards, Virginia Polytechnic Institute
Menachem Elimelech, Yale University
Kimberly L. Jones, Howard University
Lynn E. Katz, University of Texas
James R. Mihelcic, Michigan Technological
University
Paige J. Novak, University of Minnesota
Catherine A. Peters, Princeton University
Joan B. Rose, Michigan State University
Philip C. Singer, University of North Carolina at
Chapel Hill

AEESP Sustaining Members

American Water Works Association, Jack Hoffbuhr, Denver, CO
BP Products North America Inc., Colin G. Grieves, Naperville, IL
Black & Veatch, Bruce W. Long, Kansas City, MO
Camp, Dresser & McKee, Robert L. Matthews, Tampa, FL
Carollo Engineers, P.C., Walter A. Bishop, Jr., Walnut Creek, CA
CH2M Hill, Glen T. Daigger, Englewood, CO
DEStech Publications, Joseph Eckenrode, Lancaster, PA
Ford Motor Company, Byung R. Kim, Dearborn, MI
HDR Engineering, Inc., Steve Reiber, Bellevue, WA
Malcolm Pirnie, Mike Kavanaugh, White Plains, NY
McGraw-Hill, Inc., Eric Munson, New York, NY
Montgomery Watson Harza, Inc., Rudy J. Tekippe, Pasadena, CA
Parsons Engineering Science, Inc., John Koon, Pasadena, CA
Water Environment Federation, Lynn Orphan, Alexandria, VA
Water Environment Research Foundation, Glenn Reinhardt, Alexandria, VA



The *AEESP News-
letter* is published
three times a year
in January, April
and September by the Association
of Environmental Engineering and
Science Professors. Issues are
published online at [http://www.
uidaho.edu/aeesp](http://www.uidaho.edu/aeesp).

**Please send submissions and
comments to the editor:**

Amy E. Childress, Ph.D., AEESP
Newsletter Editor, University of
Nevada, Reno, Department of
Civil Engineering/258, Reno, NV
89557-0152; phone (775) 784-
6942; fax (775) 784-1390; e-mail
amyec@unr.edu. Assistant Edi-
tor/Publications Designer: Cindy
Lawrence, cynthial@uidaho.edu.

To estimate the amount of lead
time needed for your announce-
ment, please note that members
receive the newsletter 4-6 weeks
after the submissions deadline.

Please send address changes to:

Joanne Fetzner, AEESP Business
Office, 2303 Naples Court,
Champaign, IL 61822; phone
(217) 398-6969; fax (217) 355-
9232; e-mail jfetzn@uiuc.edu.

Association of Environmental Engineering and Science Professors Newsletter

Amy E. Childress, Editor
University of Nevada, Reno
Department of Civil Engineering/258
Reno, NV 89557-0152

PRE-SORTED
FIRST CLASS
MAIL
U.S. POSTAGE
PAID
CHAMPAIGN, IL
PERMIT NO. 75