

Greetings from the President



Welcome you to another issue of our newsletter. I hope you and family enjoy the activities and change in pace that summer offers, and would like to update you on what were done in recent months.

To enhance the interaction and networking among

our members, we have increased the frequency of our newsletters (to have three this year); increased the number of featured members in each issue (three or four); compiled and distributed our membership directory; and facilitated gatherings of our members and colleagues at professional conferences or events. I want to thank our officers and members for their great contributions to these efforts. Our membership continues to grow. I encourage you to invite your eligible colleagues to join CAPEES.

To further develop our association and to broaden our impact, we are seeking opportunities to play a greater role in our professional community and want to build a unique identity for CAPEES through such efforts. You may have seen in most recent AEESP newsletter (*President's Column*, May 2011, www.aeesp.org) that we have begun the conversations with AEESP on working together. Prof. Ching-Hua Huang is our liaison with AEESP. We have also formed a task committee that consists of Prof. Yuefeng Xie (Chair), Prof. Ching-Hua Huang, and Prof. Jianmin Wang aiming to explore the possibility of organizing a CAPEES event in Asia next year. Our association would not be successful without your inputs and contributions. Please share with Prof. Huang, Xie, and Wang your thoughts and ideas on these initiatives (their emails are in the directory).

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In this newsletter, you will find member news, new members, funding opportunities and conferences, professional and life stories of four featured members. You are invited to submit your news about promotions, awards, new appointments etc. to our editors. You may also publish your job openings and call for papers etc. to our association's web site. In addition, please get prepared to share with us your stories as featured members in future. I hope you enjoy reading this issue and want to thank Xingmao (Samuel) Ma for his great work in putting it together.

Wish you all the best for a pleasant summer.

Jianpeng Zhou/周健鹏, 2011 President
Southern Illinois University Edwardsville

Member News

Please visit www.capees.org for more details

CAPEES Members Gathered in ACS Spring Meeting

Six CAPEES members gathered in the ACS spring conference at Anaheim, CA.



A fun CAPEES dinner gathering was held during the 241st ACS National Meeting at Anaheim, CA in March 28th, 2011. Attended included (from left to right): Prof. Xu Li (University of Nebraska-Lincoln), Prof. Kun-Lin Yang (National University of Singapore), Prof. Qingguo (Jack) Huang (University of Georgia), Dr. Zhi Shi (Pacific Northwest National Laboratory), Prof. Jianzhong He (National University of Singapore), and Prof. Ching-Hua Huang (Host, Georgia Tech).

CAPEES Members Met in Tsinghua University

On the occasion of the Centenary Celebration of Tsinghua University, six CAPEES members gathered in Beijing on April 22, 2011. From left to right are Prof. Ming Xu/徐明 (University of Michigan), Prof. Jianpeng Zhou/周健鹏 (Southern Illinois University Edwardsville), Prof. Jiangyong Hu/胡江泳 (National University of Singapore), Prof. Yuefeng Xie/解跃峰 (Tsinghua University/Pennsylvania State University), Prof. Xinmin Zhan/占新民 (National University of Ireland, Galway), and Prof. Jingkun Jiang/蒋靖坤 (Tsinghua University). In addition to a pleasant dinner together, they met with over 50 students and faculty representatives of Tsinghua's School of Environment, shared their perspectives and experience on career development, research and education, professional and personal growth, also introduced CAPEES to the audience.



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Dr. Helen Hsu-Kim Won Department of Energy CAREER Award

Dr. Helen Hsu-Kim, Assistant Professor of Environmental Engineering at Duke University was recently awarded the Department of Energy 2011 Early Career Research Award. Hsu-Kim was selected as one of 67 recipients for this five-year \$750,000 award, now in its second year of competition. The award will support her research titled "Nanoscale Mercury Sulfide-Organic Matter Interactions and Implications for Solubility and Biomethylation". Details information is at <http://science.energy.gov/news/in-the-news/2011/05-06-11>. Dr. Hsu-Kim is also featured in this newsletter.

Collaboration Opportunities in Ireland

Ireland has several programs encouraging high caliber international researchers for short visits to Ireland research institutions (3 – 24 months) to enhance research links between Irish researchers and international researchers. The E.T.S. Walton Visitor Awards especially welcome researchers from Australia, Brazil, Canada, China and other countries with relatively less collaborations with Ireland. The other program FP7 Marie Curie International Fellowship mainly supports young researchers under the age of 35. You may contact Prof. Xinmin Zhan, National University of Ireland, Galway, xinmin.zhan@nuigalway.ie, for further information.

New Members

Dr. Jingkun Jiang (Tsinghua University)
Dr. Ming Xu (University of Michigan)
Dr. Xuezhi Zhang (Arizona State University)

Funding Opportunities and Proposal Deadlines

NSF Environmental Engineering and Sustainability Program

This CBET program will have only one window now from January 15th to Feb 17th each year.

The fall windows are closed. The program specializes in four major areas: energy for sustainability, environmental engineering, environmental health and safety of nanotechnology and environmental sustainability.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501033&org=CBET&from=home

Water Research Foundation Released Several Requests for Proposals

Water research foundation has several solicited RFPs open. It covers a broad spectrum of topics including water management, impact of climate change, preventing of emerging disinfection by products. Detailed information can be found from the following link.

<http://www.waterrf.org/Research/RFPs/Pages/default.aspx>

Water Environment Research Foundation Accepts Unsolicited Proposal

Water environment research foundation is now accepting unsolicited pre-proposals consistent with their mission. Please find more details from the following link:

<http://www.werf.org/AM/Template.cfm?Section=Funding>

Upcoming Conferences

2011 AEESP Education and Research Conference

The 2011 Association of Environmental Engineering and Science Professors (AEESP) will be held at University of South Florida, Tampa from July 10th to July 12th, 2011. The conference will focus on six themes.

Detailed information and schedules can be found on the AEESP website. **CAPEES will organize a gathering during the conference.** All CAPEES members are cordially invited and are welcome to contact Dr. Samuel Ma at ma@engr.siu.edu if they are attending.

2011 ACS National Fall Meetings

The 2011 national American Chemical Society (ACS) fall meeting will be held in Denver, CO from Aug 28th to Sept 1st, 2011. In addition to the national meetings, ACS holds many regional meetings and technical divisional meetings which could be interesting to CAEESP members. Detailed information on the upcoming conferences organized by ACS can be found through the following link:

<http://portal.acs.org/portal/acs/corg/content>

Dr. Zhiyong Ren is organizing a symposium session titled "*Emerging Issues and Solutions for Sustainable Water and Wastewater Systems*" in ACS Fall meeting at Denver. He will be very pleased see you attending the symposium and host a CAPEES gathering during the meeting. Dr. Ren is at Zhiyong.Ren@ucdenver.edu.

2011 WEFTEC Exhibition and Conference

The 2011 Annual Water Environment Federation Technical Exhibition and Conference (WEFTEC) will be held at Los Angeles Convention Center, October 15th-19th, 2011. Online registration has opened. Detailed information can be found on WEF website.

<http://www.weftec.org/>

International Water Association Events in 2011

The international water association (IWA) will host a series of conferences in 2011. A few conferences potentially interesting to the CAEESP members are:

National Organic Matter Research, From Source to Tap and Beyond from July 27th-29th, 2011 in Irvine, CA;

Biofilm Conference 2011, Processes in Biofilms from Oct 27th to 30th, 2011 at Tongji University, Shanghai, China.

More information about the conferences can be found from:

http://www.iwahq.org/Home/Events/IWA_events/Event_listing/2011/

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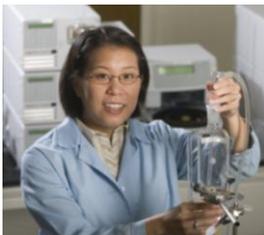
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Featured Member of the Issue

Dr. Helen Hsu-Kim/许海琳

Assistant Professor
Duke University Civil &
Environmental Engineering
Phone: (919) 660-5109
Email : hsukim@duke.edu



1. My career path

I was born and raised in Pittsburgh, PA, and attended the Massachusetts Institute of Technology for a B.S in Environmental Engineering. I pursued graduate degrees at UC Berkeley and studied mercury geochemistry. Afterwards I spent a postdoctoral year in marine chemistry at the University of Delaware before joining the faculty at Duke in 2005.

2. My current interests and projects

My research group studies the biogeochemical processes that affect the fate of trace elements in natural and engineered systems. A central theme of my work is the utilization of chemical speciation for understanding and predicting the persistence, mobility and bioavailability of metals and minerals in the environment. Major research projects include: 1) Mercury biogeochemistry and the factors that control the bioavailability of mercury to sediment microbes. 2) Nanogeochemistry and the importance of natural organic matter for the solubility, mobility, and bioavailability of metallic and mineral nanomaterials; 3) Environmental implications of mountaintop coal mining on stream ecosystems and the fate of metal and metalloids derived from coal ash holding ponds.

3. Courses I normally teach

I regularly teach Water Chemistry for upper level undergrads/first year grad students and Aquatic Geochemistry for graduate students.

4. My professional activities

I regularly attend conferences for the American Chemical Society, Goldschmidt, AEESP, and the Gordon Research Conference in Environmental Chemistry - Water.

5. My hobbies and the major attractions and cultural environment of my area and/or community

Duke University is located in Durham, NC, a region known as the 'Triangle'. The area is anchored by three large research universities (Duke, UNC and NC State) and major biotechnology/technology industries that feed the local cultural vibrancy and population growth. The area is extremely affordable and a great place to raise a family. I was pleasantly surprised by the very good selection of restaurants and Chinese supermarket/bakery in the area.

6. My thoughts on key factors that lead to my career today and suggestions to our young members

Throughout my academic careers, I have had great mentors, including professors from my former institutions and junior- and senior level colleagues at Duke. My career path and research were largely shaped by encouragement and general guidance/inspiration from others. Yes, research does require a significant amount of independence, self-motivation, and just plain hard work, but those connections with mentors and colleagues can make the difference for a rewarding career in academia and research.

A career in academic research is a little like running your own small business. To be successful, we need to be effective fundraisers, managers, and long-term planners.



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Featured Member of the Issue

Dr. Yang Deng/邓杨

Assistant Professor, P.E.
Department of Earth and
Environmental Studies,
Montclair State University
Phone: (973)655-6678;
E-mail:
dengy@mail.montclair.edu



1. My career path

I earned my B.S. and M.S. in Water and Wastewater Engineering at Tongji University in 1998 and 2001 respectively. My master thesis evaluated the feasibility of membrane process for the treatment of swimming pool water. I worked as a water engineer for a year and then joined the University of Miami for my PhD (Advisor: Dr. James Englehardt). My dissertation was to develop an iron-mediated physicochemical process to remove refractory organic compounds from landfill leachate. I earned my PhD in 2006 and became a postdoctoral at the same university (Advisor: Dr. Helena Solo-Gabriel) for a year to study leaching of heavy metals, long-term hydraulics characteristics in a sub-tropical wetland, hurricane impact on wetland hydrology, and pathogenic microbes in Florida beaches. In 2007, I started my faculty job in the Department of Construction Management and Civil Engineering at Georgia Southern University. At the beginning of 2008, I became an Assistant Professor in the Department of Civil Engineering and Survey at University of Puerto Rico in Mayaguez, Puerto Rico. In the September of 2010, I was hired as an Assistant Professor in the Department of Earth and Environment Studies at Montclair State University (MSU) to enhance the development of a new PhD program in Environmental Management.

2. My current research interests and projects

My research interests center in physicochemical treatment of water and wastewater, advanced oxidation process (AOPs), environmental remediation, environmental nanotechnology, and landfill leachate management. My research has been funded by NSF, New Jersey Water Resources Research Institute, and USDA.

3. Courses I normally teach

Over the past four years, I taught 12 different courses at four universities. I routinely teach Introduction to Environmental Engineering, Environmental Chemistry, Environmental Remediation, Water Supply and Sewer System, Physical/Chemical Treatment of (Waste)water, and Environmental Geosciences.

4. My professional activities

I am a licensed engineer in Florida and I am a member of AEESP.

5. My hobbies and the major attractions and cultural environment of my area and/or community

My favorites are photography and travel. I also like hiking, skiing and snorkeling. I used to hike along Lijiang River and Three Gorges from 2001 to 2002. MSU's beautiful 246-acre suburban campus is on a hill located in Upper Montclair, a historical and suburban town. It is 14 miles west of New York City and 10 miles away from Newark, New Jersey. The skylines of Manhattan and Newark are easily seen from the campus. Living here allows you to enjoy both the metropolitan convenience and a peaceful life in a small town.

6. My thoughts on key factors that lead to my career today and suggestions to our young members

The most important factors are interest and passion.

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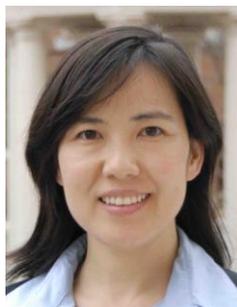
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Featured Member of the Issue

Dr. Baoxia Mi/米宝霞

Assistant Professor
Department of Civil and
Environmental Engineering
The George Town University
Phone: (202)-994-5691
Email : baoxiami@gwu



1. My career path

I hold a BS (1998) and an MS (2001) in Environmental Engineering from Tianjin University (advisor: Ping Gu). I got my PhD degree (2006) in Environmental Engineering at the University of Illinois at Urbana-Champaign (advisor: Benito J. Marinas). My PhD research was on partition and diffusion of arsenic (III) in reverse osmosis and nanofiltration membranes. I did my postdoc research (2006-2008) at Yale University (Advisor: Menachem Elimelech). My postdoc work was on fouling of forward osmosis membranes. I joined The George Washington University as an assistant professor in January 2009. My current research focuses on physicochemical/biological processes with an emphasis on membrane technology and environmental nanotechnology to address critical issues in safe/sustainable water supply.

2. My current research interests and projects

My current research activities are externally sponsored by National Science Foundation, USAID, and National Water Research Institute-American Membrane Technology Association. The NSF project integrates molecular simulation and multiscale experimental characterization to achieve a molecular-level understanding of the fouling of reverse osmosis and nanofiltration membranes. The ultimate goal of the research is to facilitate the design of novel antifouling membrane materials. Some other projects involve using nanomaterials to inhibit membrane biofouling and

design membrane-based hybrid systems for sustainable wastewater reuse.

3. Courses I normally teach

I have been teaching Environmental Chemistry, Environmental Nanotechnology, and Hydraulics.

4. My professional activities

I am a member of several professional associations including American Water Works Association (AWWA), Association of Environmental Engineering and Science Professors (AEESP), American Society of Civil Engineers (ASCE), and North American Membrane Society (NAMS).

5. My hobbies and the major attractions and cultural environment of my area and/or community

The most enjoyable moment of my daily life is playing with my 4-year old daughter. I enjoy picking her up after school, going to nearby parks and playgrounds, and visiting zoo and museums on weekends. It is nice that there are so many museums to go to in DC area.

6. My thoughts on key factors that lead to my career today and suggestions to our young members

I think patience and persistence are important in pursuing an academic career and they eventually pay off.

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Featured Member of the Issue

Dr. Huichun (Judy) Zhang/张慧春

Assistant Professor
Department of Civil and
Environmental
Engineering,
Temple University
Phone: (215)204-4807;
E-mail:
hjzhang@temple.edu



1. My career path

I obtained my BS and MS degrees from the School of Environment at Nanjing University and Ph.D. degree from Georgia Institute of Technology. During my graduate studies at Georgia Tech, I focused on the oxidative transformation of antibacterial agents by iron and manganese oxides. My interest in redox transformation continued when I was a National Research Council research associate between 2005 and 2008 at the USEPA national lab in Athens, GA, where the ultimate goal of my research was to develop environmental fate models that will incorporate tools and models necessary to predict pathways and kinetics of reductive transformation. My interest in water treatment dated back to my graduate work at Nanjing University, one-year postdoctoral work at Cornell University and two years at Southern Illinois University Edwardsville as an assistant professor. In August of 2010, I joined the Faculty of Temple University.

2. My current research interests and projects

As an environmental engineer/chemist, my current and future research program focuses on the following areas: (i) transformation and fate of emerging contaminants in natural and engineered environments, (ii) interfacial reactions of contaminants with natural minerals and novel nanomaterials, (iii) reaction mechanisms and kinetic modeling, (iv) reduction-oxidation processes, and (v) polymeric sorbents for the removal of emerging contaminants from water and wastewater. My primary goal is to contribute to the understanding of the fate and transport of contaminants in aquatic and terrestrial

environments to evaluate the risks associated with these chemicals and their impacts on human health and the environment. I also want to advance the science and application of 'green' technology that focuses on the recovery of valuable ingredients from (waste)water.

3. Courses I normally teach

Chemical Principles in Environmental Engineering, Environmental Organic Chemistry, Analysis of Environmental Contaminants, and Environmental Engineering

4. My professional activities

I am a member of American Chemical Society (ACS), Association of Environmental Engineering and Science Professors (AEESP), CAPEES, Society of Environmental Toxicology and Chemistry (SETAC), and SigmaXi. I typically attend ACS annual meetings and Gordon Research Conferences.

5. My hobbies and the major attractions and cultural environment of my area and/or community

I enjoy yoga, hiking, and reading. Temple University is located in North Philadelphia, the sixth largest city in the US. Founded in 1884, Temple University is among the nation's largest providers of professional education (law, medicine, podiatric medicine, pharmacy, dentistry and architecture). It is the 26th largest university in the United States with more than 37,000 undergraduate, graduate, and professional students.

6. My thoughts on key factors that lead to my career today and suggestions to our young members

You have to be passionate about the research you are doing.

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