

AEESP Newsletter

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Need to renew your 2014 AEESP membership? Go to "Membership > Online Renewal" on the AEESP Web site: AEESP.org

AEESP Newsletter Submissions

Please send news, conference announcements, job postings, letters to the editor, and other contributions to the newsletter to Upal Ghosh at ughosh@umbc.edu. The next newsletter will appear in January 2015.

President's Letter

Submitted by JOHN E. TOBIASON (UNIVERSITY OF MASSACHUSETTS AMHERST)

Dear AEESP Members:

Greetings to everyone as we begin another academic year (in North America) and the (mostly) annual cycle of important AEESP activities. As noted by many in the past, we are truly fortunate to be members of this special, unusual, and uplifting organization representing educators of environmental engineering and science, emanating from, and focused on, higher education but evermore extending to K-12 and other sectors of learning. What a great field of work we are engaged in, and what a wonderful group of people!

I am pleased and honored to begin service as your 2014-2015 AEESP President during the September 8-9, 2014 AEESP Board of Directors meeting at Georgia Tech in Atlanta. At that meeting, the Board welcomes three new members elected by the AEESP membership (page 2) and we bid farewell to three members who complete their terms on the Board. I want to express sincere thanks to President Jennifer Becker, Secretary Sarina Ergas, and Chief Information Officer Sharon Walker for their incredible dedication and service to AEESP over the past 3 to 4 years. Their work has benefited every AEESP member, often "behind the scenes," and they have been a pleasure to work with. I'm sure each of them will continue to have great impact on their colleagues and students as "AEESP citizens."

The extensive breadth and depth of AEESP activities occurs because of dedicated members of committees. I want to thank all committee chairs and members for their work in reviewing award nominations, selecting lecturers, planning for the next conference (page 4), mentoring graduate students, assessing/compiling educational resources, posting items for emailing to members, editing our web site, and much more. I also want to give special thanks to

members of the AEESP Foundation Board, especially current Chair David Dzombak and Treasurer Bob Arnold, for their



work as stewards of the endowments whose earnings provide resources for a number of our cash awards. We are also especially thankful to all who contributed to complete endowment of the Perry L. McCarty/AEESP Founders' Award during the past year. Recognition of "pillars" and "pioneers" in our field through such awards is an important AEESP function. The important contributions of our Sustaining Members for awards is also greatly appreciated.

You may wonder about the picture I included with this letter; here's the deal. Last week I stood on the Continental Divide in Wyoming, just south of Yellowstone Park, pointing to creeks heading west to the Columbia River (and Portland, OR where my sons live) and east to the Mississippi River (and New Orleans where WEFTEC is), one foot in each of these enormous watersheds, really exciting for a water engineer. In the past few years, AEESP has had some bold undertakings, perhaps "watershed events." We set a strategic goal in 2012 of greater international involvement – what steps should we take to achieve that goal? We embarked on a new business model in late 2013 with TTC and Executive Administrator Brian Schorr – how do we manage and optimize this for a sustainable relationship? We entered an agreement for Environmental Engineering Science to be the official AEESP journal – will we deliver on content? how best to engage/utilize this resource? I look forward to working with everyone in AEESP to explore/utilize/improve the yield and quality of resources from these and other "watershed" events in the coming year.

John E. Tobiason, PhD, PE, BCEE



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www.aeesp.org/membership

Highlights of the AEESP Board of Directors May 2014 Meeting

Submitted by GREG CHARACKLIS (UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL, AEESP VICE-PRESIDENT)

The following is a brief summary of some notable activities and decisions undertaken by the AEESP Board during its May meeting at Duke University (Durham, NC) and its July Conference Call:

- Yale University was selected to host the 2015 AEESP Research and Education Conference. The Board asked for clarification and modification of several items in the Conference proposal, which will be addressed at the September Board meeting. After which a formal announcement of Conference dates and details will be forthcoming.
- New activities for the AEESP Chairs and Directors subcommittee were discussed
- Board Election results were reviewed. New Board members are Dion Diony-

siou (Cincinnati), Cindy Lee (Clemson) and Linda Weavers (Ohio State). Election turnout was relatively good (29% of membership voted), but methods of increasing turnout further were discussed

- Formalization of the Steve K. Dentel AEESP award for Global Outreach, including a discussion of the event at which the award was rolled out at the University of Delaware (with Steve Dentel in attendance, as well as current and former AEESP Presidents, Jennifer Becker, Mark Wiesner and Joel Burken).
- AEESP Business Office reports suggest that this year's outlays slightly outpaced revenues, largely due to some one-off charges, but that overall, the organization is in a sound financial position.
- Discussion of potential ways of increasing revenue to maintain AEESP's sound financial position in the future.
- Discussion of continuing to strengthen ties between AEESP and the journal Environmental Engineering Science.
- Nominations were accepted for a number of AEESP Distinguished Service Awards.

Highlights of the AEESP Board of Directors Fall 2014 Meeting

Submitted by PETER VIKESLAND (VIRGINIA TECH, AEESP VICE-PRESIDENT)

The AEESP Board of Directors met at Georgia Tech in Atlanta, GA on September 8 & 9. Brian Schorr of the AEESP Business Office joined the Board at this meeting. The following briefly summarizes the meeting highlights:

1. The Board welcomed three newly elected members: Dionysios Dionysiou, University of Cincinnati; Cindy Lee, Clemson University; and Linda Weavers, Ohio State University.

2. At the same time that we welcomed our

three new additions, we said goodbye to our three departing members: AEESP President Jennifer Becker, Michigan Tech; AEESP Secretary Sarina Ergas, University of South Florida; and AEESP Chief Information Officer Sharon Walker, University of California, Riverside. The Board sincerely thanks our outgoing members for all of their hard work and dedication to AEESP!

3. John Tobiason, University of Massachusetts, Amherst assumed the office of President after serving the past year as President-Elect. Board elections were then conducted to fill the vacant officer positions. The outcome of these elections were as follows:

- President-Elect: Greg Characklis, University of North Carolina at Chapel Hill

continued on next page

Fall Board meeting, continued from page 2

- Vice-President: Peter Vikesland, Virginia Tech
- Secretary: Ching-Hua Huang, Georgia Tech
- Chief Information Officer: Shankar Chellam, University of Houston

4. The Board discussed the activities of the numerous AEESP committees. Of particular immediate interest to the membership are the plans of the Government Affairs committee to host a conference call between NSF and junior AEESP members who are planning to

submit CAREER proposals. This call is tentatively planned for January 2015.

5. The Board reviewed the list of delinquent members and developed a plan to encourage these former members to pay their dues and rejoin AEESP.

The next meeting of the AEESP Board of Directors will be held in Tampa, Florida in February and that meeting will then be followed by a meeting at Yale University held in conjunction with the 2015 AEESP Research and Education Conference in June. The Board looks forward to seeing many of you at this biennial conference. As always, it will be a great time to catch



The AEESP Board at the Fall 2014 Board Meeting

up with friends and colleagues, meet new people, and learn about all of the great science and engineering research and education that pervades AEESP!

2014–15 Distinguished Lecture Host Schools Selected

Submitted by KARL G. LINDEN (UNIVERSITY OF COLORADO BOULDER)

The AEESP Lectures Committee is pleased to announce the schedule for the 2014-15 AEESP Distinguished Lecture Series by Bruce E. Logan. Bruce will be visiting sixteen environmental engineering and science programs in North America as well as China and Saudi Arabia during his tour from October 2014–April 2015. He will be offering two primary lectures during his tour: “Microbial Fuel Technologies for Renewable Power and Biofuels Production From Waste Biomass” and “Energy Generation from Water: Just Add Salt.”

Professor Bruce E. Logan is an Evan Pugh Professor, the Stan & Flora Kappe Professor of Environmental Engineering, and Director of the Engineering Energy & Environmental Institute at Penn State University. His current research efforts are in bioenergy production and the development of an energy sustainable water infrastructure. Dr. Logan has mentored over 110 graduate students and post docs, and is the author or co-author of over 380 refereed publications (h-index = 91) and several books. He is the founding Deputy Editor of the new ACS journal *Environmental Science & Technology Letters*, and a member of the US National Academy of Engineering (NAE), and a fellow of AAAS, the International Water Association (IWA), the Water Environment Federation (WEF), and the Association of Environmental

Engineering & Science Professors (AEESP). He received his Ph.D. in 1986 from the University of California, Berkeley.

For additional information, please contact the host school contacts or Dr. Karl G. Linden, Chair of the AEESP Lecturers Committee (karl.linden@colorado.edu)



Bruce E. Logan, Department of Civil and Environmental Engineering, Penn State University, PA, USA

DATES	UNIVERSITY	CONTACT
October 7-14	Nankai University	Xin Wang, xinwang1@nankai.edu.cn
November 6	University of Southern California	Amy Childress, amyec@usc.edu
November 13	Howard University	Kimberly Jones, kljones@howard.edu
December 5	University of Colorado Boulder	Zhiyong Ren, jason.ren@colorado.edu
January 24	Stanford University	Lynn Hildemann, hildemann@stanford.edu
January 29	Clarkson University	Tom Holsen, holsen@clarkson.edu
February 4	Georgia Tech	Yongshen Chen, yongsheng.chen@ce.gatech.edu
February 6	University of North Carolina-Chapel Hill	Orlando Coronell, coronell@unc.edu
February 11	Drexel University	Chuck Haas, haas@drexel.edu
February 20	University of Texas Austin	Des Lawler, dlawler@mail.utexas.edu
February 27	University of Central Florida	Steve Duranceau, steven.duranceau@ucf.edu
March 4	Northwestern University	George Wells, george.wells@northwestern.edu
March 6	University of Iowa	Tim Mattes, tim-mattes@uiowa.edu
April 15	University of Michigan	Lut Raskin, raskin@umich.edu
April 17	University of Connecticut	Allison Mackay, mackaya@engr.uconn.edu
TBD	KAUST	Pascal Saikaly, pascal.saikaly@kaust.edu.sa

Announcing the upcoming
2015 AEESP Research and Education Conference

ENVIRONMENTAL SCIENCE AND ENGINEERING: AT THE NEXUS



When: June 13 to June 16, 2015
Where: Yale University, New Haven, Connecticut

Workshop and Conference programs will be announced shortly.
For now, please mark your calendar and help spread the word!



Organized by:

Jaehong Kim (Conference Chair) jaehong.kim@yale.edu

Menachem Elimelech (Conference Co-Chair) meny.elimelech@yale.edu

and faculty and students of Yale University's Environmental Engineering Program

Second Class of AEESP Fellows Chosen, 2014

Submitted by STEVE CHAPRA (TUFTS UNIVERSITY, AEESP FELLOW CLASS OF 2013, CHAIR AEESP FELLOW SELECTION COMMITTEE)

On behalf of the other members of the AEESP Fellow Selection Committee (Dave Dzombak, Chuck Haas, Bruce Logan, and Sue Powers), I am pleased to announce that we have selected the second class of AEESP Fellows. The Fellows membership classification is intended to recognize members who have served AEESP and our profession with distinction for a period of at least 15 years. As exemplified by the initial cohort of AEESP Fellows, the individuals who receive this honor may include members who have exhibited exceptional long-term excellence in environmental research, teaching and/or service to the environmental engineering and science community. The four individuals honored as members of the 2014 class of AEESP Fellows are:

- Dr. Paul Bishop (The University of Cincinnati)
- Dr. William (Bill) Cooper (University of California Irvine)
- Dr. Menachem (Meny) Elimelech (Yale University)
- Dr. Gene F. Parkin (The University of Iowa)

The below citations were adapted from the letters of nomination submitted for each Fellow.

Paul L. Bishop

Paul received his B.S. in civil engineering from Northeastern University and his M.S. and Ph.D. from Purdue University in environmental engineering. He is currently the Associate Dean of Engineering for Research at the University of Rhode Island and recently finished a 4-year term as Environmental Engineering Program Director for the Division of Chemical, Bioengineering, Environmental and Transport Systems at the NSF. In April, 2011, he retired as Associate Vice President for Research and is Professor Emeritus of Environmental Engineering at the University of Cincinnati. Paul has made many significant contributions to the science and practice of water quality and environmental engineering. These contributions, and especially those in the areas of biological treatment, bio-film processes, hazardous waste remediation, and pollution prevention, have been recognized world-wide. He has directed over \$19 million of environmental research and is the author or co-author of five textbooks and over 500 technical publications. Paul has not only contributed tremendously to the advancement of our understanding of the water environment and to solving water contamination problems, but also to the education of a large number of students and post-graduate associates. He has graduated almost 100 Masters and 30 PhDs, most of whom have gone on to academic careers. He has served in various leading roles for several professional associations. Among other accomplishments, he is a Past President of the AEESP, a Registered Professional Engineer; and a Board Certified Environmental Engineer of the American Academy of Environmental Engineers. Over this long career, he has received many awards including the Simon Freese Prize, Fellow status from ASCE, WEF and

IWA; the IWA Outstanding Service Award; and the AEESP Frontier in Research Award. Paul Bishop was nominated by Dion Dionysiou.

Bill Cooper

Bill received his B.S. in Chemistry from Allegheny College, his M.S. in Fuel Science/Organic Geochemistry from Penn State, and his Ph.D., from the University of Miami (Florida) in Marine and Atmospheric Chemistry. He currently serves as the Environmental Engineering Program Director at the NSF. It is especially noteworthy that in the midst of the Vietnam War, Cooper was drafted out of his doctoral studies and became a Captain in the U.S. Army's Medical Environmental Engineering Research Unit where he was responsible for various research projects addressing air and water pollution. As a civilian, he continued to work in the same unit on research involved with chemical degradation of pesticides, characterization of trace organics in waters and waste waters, and identification of impurities in chemicals for toxicological testing. He also ran the Army's water reuse program where he funded (with NSF and Dept. of Interior, Office of Water Science and technology) the first International Symposium on Water Reuse in 1979, held in Washington DC. In 1980, he joined Florida International University as research faculty where he also served as Director of the Drinking Water Research Center. He is currently a Professor on the faculty at the University of California Irvine where (before taking leave to serve at NSF) he served as Director of the UC Irvine Urban Water Research Center. Bill has made many significant contributions to the science and practice of water quality and environmental engineering. His contributions to the teaching of aquatic chemistry and water treatment through the production of edited and authored books include *Chemistry in Water Reuse*, *Photochemistry of Environmental Aquatic Systems*, and *Environmental Applications of Ionizing Radiation*. In 2011 he was elected a Fellow of AAAS. Over his career, Bill has reached far beyond chemistry. He has been passionately active in K-12 education. In the 1970's and 80's he was a coauthor on a series of papers that had as their ultimate goal to elucidate the structure of sex attractant pheromones in Silkworm Moths. Most recently, he has published a book entitled "The Butterflies of Iguazu Falls, Argentina," initiating a project to record the biodiversity of nature through his photography. Finally, Bill has been a steadfast steward of our field through his service. He has had many leadership roles in outreach efforts, but has also been a scientific and technical leader. He has served on many advisory boards and has organized over 25 international symposia. He recently completed stints on the AEESP Board of Directors and on the AEESP Foundation Board of Directors. Bill Cooper was nominated by Joel Burken.

Menachem (Meny) Elimelech

Meny is the Roberto Goizueta Professor of Chemical and Environmental Engineering at Yale University. Meny has made significant contributions to the field of environmental engineering through his innovative research, leadership, mentoring of graduate students and postdocs, and service to the profession. In research, he has made seminal contributions in several areas, including environmental colloids and interfaces, particle filtration and aggregation, environmental nanotechnology, and membrane science and technology. In addition to his fundamental contribu-

Second Class of Fellows, *continued from page 5*

tions to these fields, his work on forward osmosis resulted in a successful Yale spin-off company, Oasys Water, which specializes in treatment of high salinity wastewaters, such as shale gas produced water. Meny genuinely enjoys teaching and mentoring of graduate students and postdocs. He has graduated 33 PhD students and 24 postdocs, many of whom hold faculty positions in the United States and overseas. Meny has been an active member of our profession. He was an AEESP board member and served on several AEESP committees. He also organized numerous conferences and symposia and served on several NRC committees and external review teams of programs and centers all over the world. Meny was the recipient of numerous research awards, but he is most proud of his teaching/mentoring awards, including the Yale University Graduate Mentor Award in 2004 and Yale University Postdoctoral Mentoring Prize in 2012. Meny Elimelech was nominated by Jaehong Kim.

Gene Parkin

Gene received his B.S. and M.S. in civil engineering from the University of Iowa and his Ph.D. at Stanford. He has taught at Stanford, Drexel, and currently teaches at the University of Iowa where he is the Bently Professor of Engineering and the Director of the Center for Health Effects of Environmental Contamination. Gene is widely recognized as a worldwide expert in environmental engineering. He is the co-author of one of the most widely used textbooks in the field, *Chemistry for Environmental Engineering and Science*. He is particularly well-known for his scholarly contributions in the area of wastewater design and treatment and the use of iron in remediation of chlorinated solvents. His papers on anaerobic digestion and methane fermentation systems are seminal and

have influenced engineering practice. His research has strongly contributed to the fact that the use of anaerobic digesters as part of wastewater and solids treatment is now an accepted and normal component in new municipal and industrial wastewater treatment plants. While Gene's scholarly productivity is an impressive accomplishment on its own, his influence on future generations of environmental engineers is one of his most lasting and important contributions. Gene's mentoring and shepherding of graduate students through their environmental engineering and science academic careers has had tremendous impact on a large number of individuals. He has been the primary advisor or co-advisor for 18 doctoral students. Of these students, 12 have been professors at graduate programs including Drexel University (Dean of Engineering), Carnegie-Mellon, the University of Minnesota, and Notre Dame. Gene has been recognized by his peers, by professional associations, and for his contributions to the University of Iowa many times. Some of the most notable include the Harrison Prescott Eddy Medal from the Water Environment Federation, the AEESP Keynote presentation at the annual meeting of the WEF, and the Cleanup Project of the Year from the Department of Energy (SERDP). The University of Iowa has recognized his work (research, service and teaching) with some of the most prestigious awards available at the University. He has received the Hancher-Finkbine Medallion, University of Iowa Collegiate Teaching Award, and Board of Regents Award for Faculty Excellence. Gene Parkin was nominated by Michelle Scherer.

2015 AEESP Fellow Nominations

Submitted by JENNIFER BECKER (MICHIGAN TECHNOLOGICAL UNIVERSITY)

Nominations are being accepted for the AEESP membership classification of Fellow. Eligible nominees must have a minimum of 10 years of faculty-level membership in AEESP. It is expected that nominees will have achieved full promotion or emeritus status at their respective home institutions.

AEESP Fellows will be selected based on their accomplishments in environmental engineering research, teaching and professional service, with emphasis on service within the AEESP. Selection will be for life or the duration of membership within the AEESP.

Self nominations will not be accepted. Nomination packages must include (i) a letter of nomination and a one-paragraph citation from the nominator who must be an AEESP member, (ii) a full curriculum vitae and one-page statement from the nominee, and (iii) three supporting letters (each a maximum of one page). Nomination and support letters must all be from individuals affiliated with different institutions. Application materials should be submitted electronically as a single pdf file to

the AEESP Secretary (Ching-Hua Huang; ching-hua.huang@ce.gatech.edu) by March 15, 2015. Application materials will be maintained and reevaluated for three consecutive years. Please note that the 2015 AEESP Fellows will be recognized along with the 2014 class of Fellows at a ceremony held in conjunction with the next biennial AEESP research and education conferences, which will be held in Summer, 2015.

A committee comprising current AEESP Fellows will be responsible for selection of the 2015 class of AEESP Fellows. The committee will submit recommendations on Fellow selection for approval by the AEESP Board of Directors. Although there will be no absolute limit on the number of AEESP Fellows, as a guideline, it is anticipated that the number of Fellows will not exceed five percent of the AEESP faculty membership and that no more than five Fellows will be added in a single year.

AEESP Lectures and Activities at Water Environment Federation Technical Exhibition & Conference (WEFTEC) **September 27 – October 1, 2014, Morial Convention Center, New Orleans, LA**

Submitted by GREG CHARACKLIS (UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL, AEESP VICE PRESIDENT)

The AEESP community is invited to participate in several rewarding AEESP-sponsored activities that will occur at WEFTEC on September 29th and October 1st in New Orleans. Detailed information on these events, including the AEESP/WEF lecture, the AEESP/WEF Scientists' luncheon, the AEESP Meet-and-Greet, and three technical sessions is provided below.

WEF is pleased to offer special registration rates for WEF's Academic Members – just \$675 for full conference and exhibition and new lower rates for nonmembers, furthermore, there is no charge for student members to attend WEF events. (<http://www.weftec.org/register/>)

AEESP/WEF Research Lecture

Dr. J.B. Neethling, HDR

“Implementing New Technology in a Rapidly Changing Environment”

Monday, September 29th, 1:30 PM

Room 347, Morial Convention Center

AEESP/WEF Scientists Luncheon

Professor Lutgarde Raskin, University of Michigan

“A Decade of Anaerobic Membrane Bioreactor Research and Development: From Idea Generation to Technology Development”

Sponsored by Brown & Caldwell

Monday, September 29th, 12 PM

Room 260, Morial Convention Center

AEESP Meet & Greet

Sponsored by Carollo Engineers

Monday, September 29th, 5:30 pm to 7:00 pm

Magnolia Room, 3rd Floor, Hilton New Orleans Riverside

A great opportunity to meet and network with fellow AEESP members and learn about recent and upcoming AEESP activities from AEESP Board members in attendance.

AEESP Sessions: Late Breaking Research

The AEESP sessions at WEFTEC are primarily intended as a platform to promote the participation of students and researchers at WEFTEC. These sessions feature cutting edge fundamental and applied research focused on emerging future issues related to water, wastewater and the environment. They are particularly intended to highlight collaborative research conducted jointly by utilities and universities.

AEESP Late Breaking Res. I: Innovative Nitrogen Removal

Monday, September 29th, 3:30PM – 5 PM, Room 347

AEESP Late Breaking Res. II: Innovative Nutrient Removal Concepts

Wednesday, October 1st, 8:30AM – 10AM, Room 353

AEESP Late Breaking Res. III: Emerging Contaminants and Microbial Resilience

Wednesday, October 1st, 10:30AM – 12 PM, Room 353

(room numbers for these three sessions are in reference to the Morial Convention Center)

AEESP Seeking New Newsletter Editor and Committee Members

Submitted by SARINA ERGAS (UNIVERSITY OF SOUTH FLORIDA AND AEESP SECRETARY)

Dear AEESP members,

We are seeking a new AEESP newsletter editor and several AEESP committee chairs are looking for new members. I've listed these committees below, with a brief statement of their needs. Please contact the committee chairs directly if you would like to be considered for these positions. Service to AEESP can be a very rewarding experience, both personally and professionally.

Newsletter Editor: AEESP is taking applications for a NEW EDITOR for the Newsletter. If you are interested in applying, please send your

CV and a brief (1-2 paragraph) statement of interest to ughosh@umbc.edu. The deadline for applications is Friday, Nov 21, 2014. The AEESP Board intends to select a new editor by early December so that the new editor can work with Upal Ghosh on the January 2015 Newsletter and start the three-year term with the May 2015 Newsletter.

Awards: The awards committee is looking for at least three new members for the Awards Committee, M.S. Thesis Awards Sub-Committee, and Ph.D. Dissertation Awards Sub-Committee. The committee oversees selection of AEESP members for awards that recognize service, research, professional involvement and teaching. In particular, the committee selects students who have written outstanding theses and dis-

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Editor, Committee Members Sought, *continued from page 7*

sertations. If interested, please send a brief bio (200 words) to Lynn Katz (lynnkatz@mail.utexas.edu).

Internet resources: The IRC seeks one new member to kick start a social media presence for AEESP and post to the listserv. The approximate time commitment is 2 hours per week for the first year. The expected commitment is for 4 years, with rotating duties to webmaster in the 2nd year, committee chair in the 3rd year and being available (as-needed) as past chair in the 4th year. The committee assists the AEESP membership with communication through maintaining the AEESP web site and listserv. The current chair is Jane Hill (jane.hill@dartmouth.edu).

Membership and Demographics: The membership and demographics committee is interested in getting 1-2 Assistant Professor-level members and one student member. Current key priorities are a student video competition and writing a report on Environmental Engineering demographics. It is hoped that one of the Assistant-Professor level members

would be interested in serving as a committee co-chair and that the student member will assist with social media. Please contact the chair Lee Blaney (blaney@umbc.edu).

Lectures Committee: The lectures committee is seeking 2-3 new members, specifically to assist in selecting lecturers in the following areas: Aerosol (AAAR-related theme); AWWA (water); and WEF (Wastewater). Key responsibilities are participating in selecting the AEESP lecturer and helping with selecting and coordinating lectureships in areas of discipline at conferences that have an AEESP-based lecture. Effort is required approximately three times per year by reviewing and ranking nominated lecturers, reviewing and ranking applications for hosting lecturers, selecting discipline conference lecturers. Most of the committee's work is done by email. Please contact Karl Linden for more information (Karl.Linden@Colorado.EDU).

Yale Hires Desiree Plata and Continues Expansion of Environmental Engineering and Green Design Leadership

Submitted by MENACHEM ELIMELECH (YALE UNIVERSITY)

Yale University is pleased to welcome Desiree Plata as an Assistant Professor of Chemical and Environmental Engineering starting this July. Her hiring is part of the ongoing expansion of the Environmental Engineering Program at Yale and the commitment to Green Engineering and Green Chemistry at Yale. Professor Plata comes from Duke University where she served on the faculty of Civil and Environmental Engineering. Her doctoral work was conducted at the Woods Hole Oceanographic Institution and the Massachusetts Institute of Technology in Chemical Oceanography and Environmental Chemistry. She also holds a B.S. degree from Union College (Schenectady, NY) in Chemistry.



Desiree Plata

Plata's research interests focus on improving the development of novel chemicals and engineered systems to include environmental objectives, along with traditional performance and cost metrics. In particular, Plata's group seek to (1) predict and mitigate environmental damage through physiochemical understanding of material reactivity, prognostic fate models, and geochemical analyses, and (2) design benign syntheses via mechanistic understanding of chemical reactions used in industrial processes. A current focus is on carbon-based nanomaterial synthesis to enable sustainable nanomanufacturing and atomic-scale precision in bulk nanomaterial synthesis. This will not only enable the critically needed nanotechnologies, but also enhance material and energy economies in those processes such that they can fulfill their intended environmental benefits.

Charlie Werth moves to UT Austin

Submitted by DESMOND LAWLER (UNIVERSITY OF TEXAS AUSTIN)

The Environmental and Water Resources Engineering (EWRE) faculty at the University of Texas at Austin are delighted to announce that Dr. Charlie Werth has joined the Department of Civil, Architectural and Environmental Engineering as the Bettie Margaret Smith Chair in Environmental Health Engineering. Previously, Charlie was at the University of Illinois at Urbana-Champaign, rising from an Assistant Professor in 1997 to Professor and Associate Head of the Department of Civil and Environmental Engineering when he left this summer. Charlie received his BS in Mechanical Engineering from Texas A&M University and both his MS and PhD in Environmental Engineering from Stanford University.



Charlie Werth

Charlie's research interests center around reactive transport processes in porous media and the development of sustainable solutions for clean water and energy. Current research topics include biomineralization of metals during reactive transport in contaminated groundwater and in carbon storage reservoirs, improved watershed management strategies to reduce polycyclic aromatic hydrocarbon loadings in urban runoff and lakes, and oxyanion removal from drinking water using tailored nanocatalysts. His research has been funded from multiple sources (e.g., NSF, EPA, NASA, USGS, DOE, and industry), and he is participating in a new DOE Energy Frontier Research Center on geological carbon sequestration. He has published widely on hazardous waste management and is the current Editor-in-Chief of the *Journal of Contaminant Hydrology*.

Charlie is joining a collaborative group of faculty within EWRE developing innovative treatment technologies, consisting of Lynn Katz, Kerry Kinney, Mary Jo Kirisits, Des Lawler, Howard Liljestrand, Navid Saleh, and Jerry Speitel.

Two New Faculty Hires at the University at Buffalo

Submitted by ALAN RABIDEAU (UNIVERSITY AT BUFFALO)

Dr. John D. Atkinson joined the Department of Civil, Structural, and Environmental Engineering at the University at Buffalo (UB) as an assistant professor in August 2014. John received his BS degree in Chemistry, with a minor in Mathematics, from the University of Illinois Urbana-Champaign (UI) in 2007. Following undergraduate studies, John earned an MS in Environmental Engineering, also from UI, where he developed a two-step method for preparing porous carbons from organic salt precursors. He continued at UI for his PhD in Environmental Engineering, working with Dr. Mark J. Rood in the Air Quality Engineering and Science group. John's dissertation describes the expanding applications for tailored carbon materials, focusing on the development of adsorbents and catalysts that can simultaneously control high and low concentration contaminants. During his PhD studies, John was a recipient of the UI College of Engineering's Mavis Future Faculty Fellowship and the Environmental Engineering and Science Program's Engelbrecht Fellowship. After his PhD, John joined Dr. Zaher Hashisho's research group at the University of Alberta for a one-year postdoctoral fellowship where he determined adsorbent regeneration conditions that minimize irreversible adsorption.

At UB, John will continue developing novel materials for air pollution control while teaching Air Pollution and Sustainability courses. His



John Atkinson

overarching research goal is to develop simple, low-cost, and regenerable materials that prevent the emissions of several air pollutants, improving public health and decreasing the exorbitant costs of trace contaminant control. John is an active member of the Air & Waste Management Association, the American Society for Engineering Education, and AEESP.

Ning Dai joined the Department of Civil, Structural, and Environmental Engineering at the University at Buffalo, the State University of New York as an Assistant Professor in August 2014. Ning received her Bachelor's degree in Environmental Science and Engineering from Tsinghua University in China in 2008. She then joined the Environmental Science and Engineering program at Stanford University, from which she received her Master's degree in 2009. Three months later, Ning started her PhD research in the Department of Chemical and Environmental Engineering at Yale University, and received her degree in May 2014. Working with her PhD advisor Dr. William Mitch, Ning studied the formation mechanisms for carcinogenic nitrosamine and nitramine byproducts in amine-based CO₂ capture system, and identified prevention strategies for these byproducts to enable safer CO₂ capture. Ning also studied nitrosamines as byproducts of disinfection in water treatment systems.

Moving forward, Ning will further explore organic nitrogen chemistry in both engineered and natural environmental systems. She believes that such understandings will provide us with more systematic and sustainable solutions for environmental problems arisen from the increasing release of nitrogen-containing organic compounds from industrial and domestic sources.



Ning Dai

Four faculty joining the Division of Environmental and Ecological Engineering at Purdue University, Fall 2014

Submitted by CHAD JAFVERT (PURDUE UNIVERSITY)

Dr. Amisha Shah joined the faculty of Purdue University with joint appointments in the Division of Environmental and Ecological Engineering and in the Lyles School of Civil Engineering in August, 2014. Dr. Shah's research interests focus on the understanding of chemical fate and transport in both engineered (drinking water treatment, sustainable water reuse, and ballast water treatment) and natural systems. Specific interests include chemical oxidation and disinfection byproduct formation, membrane filtration, and photochemical processes. Prior to joining Purdue Dr. Shah worked as a research associate in the Water Resources and Drinking Water division at the Swiss Federal Institute of Aquatic Science and Technology. Dr. Shah received her B.S. degree in Chemical Engineering from Washington University in St. Louis in 2002 and her Ph.D. in Environmental Engineering from Georgia Institute of Technology in 2008.



Amisha Shah



Shweta Singh

Dr. Shweta Singh will join the faculty of Purdue University with joint appointments in the Division of Environmental and Ecological Engineering and the School of Agricultural and Biological Engineering in Fall 2014. Dr. Singh's research interests focus on modeling of coupled natural and human systems utilizing systems scale modeling, economic input-output models, complex systems theories and Industrial Ecology. Her research is directed towards enhancing methodologies for sustainability assessment and urban/industrial sustainability.

Dr. Singh received her Bachelor of Technology in Chemical Engineering from the Indian Institute of Technology, Banaras Hindu University in 2006, and her Master of Science in Applied Statistics from Ohio State University in 2011. In 2012, she earned her Ph.D. in Chemical Engineering at Ohio State University. Prior to joining Purdue, she was a postdoctoral associate at University of Toronto.

Dr. Andrew J. Whelton joined the faculty of Purdue University with joint appointments in the Division of Environmental and Ecological Engineering and in the Lyles School of Civil Engineering in August, 2014. Dr. Whelton's research areas include sustainable infrastructure materials, water and energy systems, and nanotechnology. Over the past several years, his efforts have been funded by NSF, EPA, water and energy utilities, a research foundation, as well as State agencies. Cooperative work among undergraduate and graduate students, postdocs, and visiting scholars, along with collaborations with AEESP members has been a key to his research group's success. Prior to joining Purdue, Dr. Whelton served on the faculty at the University of South Alabama. He holds Ph.D. (2009), M.S. (2001), and B.S. (2000) degrees in Civil and Environmental Engineering from Virginia Tech. Dr. Whelton's prior experience includes postdoctoral training at NIST and Virginia Tech, as well as employment with the US Army and several consulting firms.



Andrew Whelton



Zhi Zhou

Dr. Zhi (George) Zhou joined the faculty of Purdue University with joint appointments in the Division of Environmental and Ecological Engineering and in the Lyles School of Civil Engineering in August, 2014. His research interests focus on environmental microbiology and the application of biotechnology in engineering systems. His recent projects include development of molecular microbiology techniques to evaluate antibiotic resistant bacteria in natural and urban environments, production of cost-effective biofuels, development of nano-materials for water purification, and indirect and direct potable water reuse. Prior to his academic appointments, Dr. Zhou was employed at an engineering consulting firm in California and worked on various consulting projects including work on UV disinfection, emerging contaminant removal in membrane-based wastewater treatment plants, and cost analysis of water reuse. Prior to joining Purdue, he was an assistant professor of Environmental Engineering at the National University of Singapore. Dr. Zhou received his B.S. (1999) and M.S. (2002) degrees in Environmental Science from Nanjing University, and his Ph.D. degree in Civil and Environmental Engineering from the University of Illinois at Urbana-Champaign in 2007.

Three New Environmental Engineering Faculty at the University of Minnesota

Submitted by RAY HOZALSKI AND PAIGE NOVAK (UNIVERSITY OF MINNESOTA)

Dr. Santiago Romero-Vargas Castrillón will be joining the faculty at the Department of Civil, Environmental, and Geo-Engineering (CEGE) at the University of Minnesota (UMN) later this year. Romero-Vargas has an M.S., and a Ph.D. degree in Chemical Engineering. His doctoral research was completed at Princeton University under the direction of Pablo Debenedetti, and it concerned the study of nano-confined, interfacial, and hydration water using molecular simulation. Romero-Vargas has most recently been doing post-doctoral research in environmental engineering at Yale University, under the direction of Dr. Menachem Elimelech. His postdoctoral work pertained to the development of low-fouling membranes for water separations. At the University of Minnesota, he plans to establish a research group in which numerical simulation and surface analytical techniques are used to understand the interactions of colloids, biomolecules, and bacteria with aqueous interfaces of environmental relevance. Romero-Vargas is looking forward to the possibilities for collaboration with environmental, water resources, geomechanics, and transportation (pavements) colleagues within CEGE, and also with faculty in the chemistry and chemical engineering departments.



Santiago Castrillón



Adam Boies

Dr. Adam Boies will join the faculty of the Department of Civil, Environmental, and Geo-Engineering (CEGE) at the University of Minnesota (UMN) in October 2014. Boies is actually returning to Minnesota. He earned his Ph.D. degree in Mechanical Engineering here under the direction of Steve Girshick in 2010. His doctoral research concerned novel nanoparticle synthesis methods. While at the University of Minnesota, Boies also worked with CEGE Professor Julian Marshall on air pollution research. After completing his Ph.D., Boies joined the faculty at Cambridge and developed a research group engaged in

the study of gas-phase particles. His group is researching emissions from transportation sources (cars and jet planes, for example) and modeling the emissions, pollutant transport, and pollutant fate in the atmosphere. His group has developed a novel device for separating semi-volatiles from gas streams to permit accurate particle measurements. This device resulted in the creation of a start-up company to market the technology. In other research projects, Boies is concerned with predicting changes in air pollutant emissions (e.g., greenhouse gases) that result from use of alternative fuels like ethanol. He has been involved in research funded by a private company to understand and scale up a gas-phase process for producing sheets of aligned carbon nanotubes.

Dr. Sebastian Behrens will join the Department of Civil, Environmental, and Geo-Engineering and the BioTechnology Institute at the University of Minnesota in January 2015. Behrens comes to the University of Minnesota after six years as a junior group leader at the Center for Applied Geosciences of the University of Tübingen, Germany. He obtained his Ph.D. in Microbial Ecology at the Max Planck Institute for Marine Microbiology in Bremen, Germany, under the direction of Rudolf Amann. He did postdoctoral research with Alfred Spormann at Stanford University, focusing on ecological and genomic aspects of microbial reductive dehalogenation.



Sebastian Behrens

Behrens' current research combines environmental microbiology, molecular biology, and geochemistry to understand ecological principles driving the environmental fate of metals and metalloids, the biodegradation of organic contaminants, and the emission of greenhouse gases from natural and engineered systems. His research focuses on questions at the interface of microbial ecology and environmental biotechnology and provides scientific foundation for practical application of microbial processes to achieve the goals of environmental biotechnology. Behrens' future research will include the study of microbial processes for the bioremediation of mining wastes, agriculture runoff, and the recovery of valuable resources from municipal/industrial wastes.

University of Colorado Boulder New Faculty Fall 2014

Submitted by KARL LINDEN (UNIVERSITY OF COLORADO BOULDER)



Christopher Corwin

Dr. Christopher Corwin joined the Environmental Engineering Program and Civil, Environmental and Architectural Engineering Department at the University of Colorado Boulder as an Instructor of Environmental Engineering in January of 2014. Corwin has over 15 years of professional experience in both Civil and Environmental Engineering. Most recently, he worked for Jacobs Engineering doing applied research and process planning for drinking water treatment utilities. Dr. Corwin received both his MS and PhD in Civil Engineering

from the University of Colorado Boulder in 2007 and 2010 respectively. Prior to that, he received his BS in Civil Engineering from the University of Kentucky in 1996.

Dr. Corwin's interests span the field of drinking water treatment, from the regulations, physics and chemistry of all treatment processes to plant operations, with a specialty in granular activated carbon. Dr. Corwin has had research published in Environmental Science and Technology, Water Research, and Journal of the American Water Works Association. He

was also co-author of the AWWA's "Activated Carbon: Solutions for Improving Water Quality." At CU, Chris teaches Fundamentals of Environmental Engineering, Water and Wastewater Treatment, Environmental Engineering Design, and Environmental Engineering Processes.

Dr. Sherri Cook joined the Environmental Sustainability Group in the Civil, Environmental and Architectural Engineering Department at the University of Colorado Boulder as an Assistant Professor of Environmental Engineering in July 2014. Dr. Cook received her MSE and PhD in Environmental Engineering from the University of Michigan in 2009 and 2014, respectively. As a graduate student, she received fellowships from the National Science Foundation and the University of Michigan's Graham Sustainability Institute and Graduate School. Prior to that, she received her BS in Civil Engineering from Virginia Polytechnic Institute and State University (Virginia Tech) in 2008.

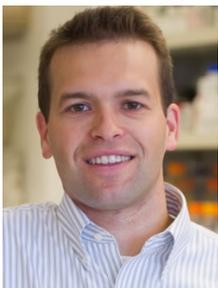


Sherri Cook

Dr. Cook's research and teaching interests are focused on the design and development of sustainable water systems. Specifically her interests include examining and improving the sustainability of wastewater and drinking water systems, investigating the operational limits of biological treatment systems, and integrating environmental and economic factors into design and decision-making. At CU, Dr. Cook will be teaching Wastewater Treatment and will be developing a course on environmental sustainability.

Doug Call Joins North Carolina State University

Submitted by DOUG CALL (NORTH CAROLINA STATE UNIVERSITY)



Doug Call

Dr. Douglas F. Call joined the Department of Civil, Construction, and Environmental Engineering at North Carolina State University as an Assistant Professor in August 2014. Prior to joining NC State, Dr. Call was an Assistant Professor in the Department of Civil and Environmental Engineering at Syracuse University for two years.

He received his PhD (2011) and MS (2008) in Environmental Engineering from Penn State University, a BS (2005) in Civil Engineering from Virginia Tech, and a BS (2003) in Environmental Sciences from the University of Virginia.

His honors include receiving the Penn State Alumni Association Dissertation Award (2012), the AEESP/Montgomery-Watson-Harza (MWH) First Place MS Thesis Award (2008), and a National Science Foundation (NSF) Graduate Research Fellowship (2007).

His research focuses on energy and nutrient recovery from waste streams, greenhouse gas mitigation/utilization from engineered systems, and sustainable wastewater treatment. He combines his multidisciplinary background in microbiology and electrochemistry to research hybrid bioelectrochemical technologies, such as microbial fuel cells, that convert liquid and gaseous wastes into energy and high-value products. More information on his research can be found at www.ce.ncsu.edu

Global Innovation Initiative funds new partnership between Institutions in UK, USA, Brazil, and India

Submitted by DAVID WERNER (NEWCASTLE UNIVERSITY) AND UPAL GHOSH (UNIVERSITY OF MARYLAND BALTIMORE COUNTY)

The Global Innovation Initiative (GII) is a joint effort of the United States and the United Kingdom to strengthen global multilateral collaboration through grants to university consortia focusing on science, technology, engineering, and mathematics (STEM)-related issues of global significance. Twenty three new partnerships were funded in 2014 by the British Council, the UK's Department for Business, Innovation and Skills and the U.S. Department of State. The initiative seeks to foster multilateral research collaboration among higher education institutions in the UK, USA, Brazil, China, India and Indonesia.

One of these 23 partnerships is The Global Innovation Partnership to Investigate, Restore and Protect the Urban Water Environment formed by Newcastle University, UK, the University of Maryland, Baltimore County, USA, the Universidade Federal de Minas Gerais, Brazil, the



GII participants in a workshop at Newcastle University, July 2014

CSIR-National Environmental Engineering Research Institute (CSIR-NEERI) in Nagpur, India, and the Indian Institute of Technology Delhi. The new partnership will pool knowledge, skills, technology testing and analytical facilities, and access to field sites and the facilities of industrial partners for the development of innovative methods to detect and monitor existing and emerging threats to the urban water environment, and sustainable technologies to reduce identified pollution releases and to remediate existing pollution deposits. This initiative will seek to recover urban water resources and their recreational and health values for the people living in cities, thus creating more desirable urban neighbourhoods and providing new business opportunities.

New Book: Introduction to Water Resources

Sam L. Laki, Krishnakumar V. Nedunuri, Ramanitharan Kandiah
Kendall Hunt Publishing Company
ISBN: 978-1-4652-5819-9
206p. First Edition; © 2014

Submitted by RAMANITHARAN KANDIAH (CENTRAL STATE UNIVERSITY)

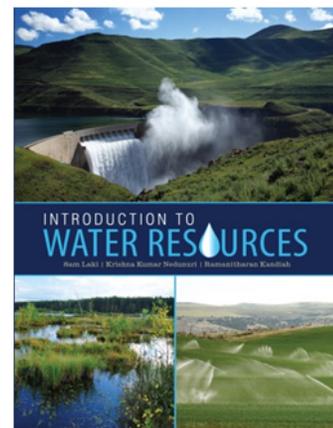
This textbook introduces fundamental concepts in hydrology and water resources to beginners in the field. It gives a comprehensive treatment to the subject covering different aspects of water resources and its uses in municipal, industrial, and agriculture sectors.

It alerts readers to future challenges that humans will face due to anticipated scarcity of freshwater owing to population growth and global climate changes. A true understanding of water requires knowledge of various factors that control its preservation, supply, and equitable distribution. The study of water resources management must include political, economic, social, environmental, and regulatory aspects in addition to scientific and technical knowledge. The book attempts to provide a holistic view of water resources by taking on an inter-disciplinary approach.

Being an introductory book on water resources, it can be useful for undergraduate students majoring in natural resources, hydrology,

environmental sciences, environmental studies and urban planning and also for non-science majors to fulfill one of the natural science requirements of general education courses within a university.

Interested readers can contact Krishnakumar K. Nedunuri at knedunuri@centralstate.edu



ENVIRONMENTAL PROCESSES ENGINEERING

School of Civil and Environmental Engineering, Cornell University

The School of Civil and Environmental Engineering (CEE) at Cornell invites applicants for a tenure-track faculty position in the area of Environmental Processes (EP) engineering. The EP faculty at Cornell have historically focused on the fundamental biological, chemical, and physical phenomena that affect the behavior and fate of contaminants in soil and aquatic environments along with the planning, design, and operation of the engineering facilities needed to ensure effective control of environmental quality. While we wish to maintain this focus, our vision is to broaden the application of these fundamental processes to address the pressing needs of society. A list of examples of research foci that are of interest may be found at: <http://www.cee.cornell.edu>

We seek exceptional candidates with strong experimental skills in the biological, chemical, and physical aspects of environmental engineering. However, complementary capabilities in modeling and theory are also of interest. The School of CEE at Cornell has great strengths in the related areas of Environmental Systems, Water Resources, and Environmental Fluid Mechanics. Candidates displaying a potential to collaborate with research in these areas or other fields at Cornell (including Biological and Environmental Engineering, our sister department in the College of Agriculture and Life Sciences) are especially welcomed.

Applicants should have a Ph.D. in Engineering. While we anticipate hiring at the Assistant or untenured Associate Professor level, tenured appointments at the level of Associate Professor or Professor will be considered. Salary and rank will be commensurate with qualifications and experience. Successful applicants will be expected to conduct a vigorous funded research program, while also contributing to undergraduate and graduate teaching in the EP area. Potential courses include: physical/chemical processes, biological processes, environmental microbiology, or water chemistry – including associated laboratory courses and introductory undergraduate courses related to environmental engineering.

The School of Civil and Environmental Engineering and the College of Engineering at Cornell embrace diversity and seek candidates who can contribute to a welcoming climate for students of all races and genders. Diversity and Inclusion are a part of Cornell University's heritage. Cornell as an employer and educator recognized for valuing Affirmative Action and Equal Employment Opportunity, Protected Veterans, and Individuals with Disabilities. We strongly encourage qualified women and minority candidates to apply.

To apply: Application materials must be submitted on-line at
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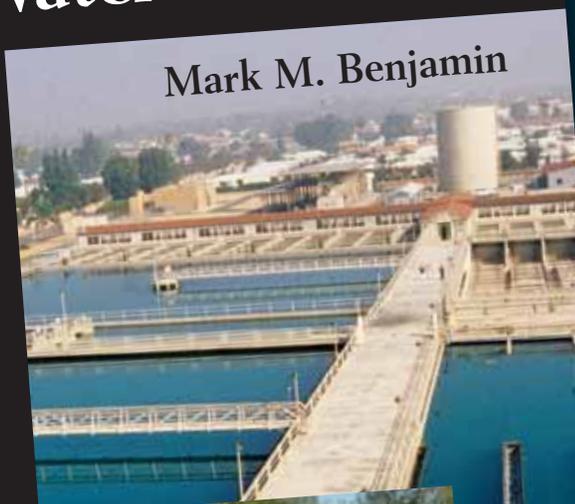
Through this web site, applicants are to submit a curriculum vita, a research statement, a teaching statement, copies of official undergraduate and graduate transcripts, one to three publications or manuscripts, and complete contact information for at least three references. Questions can be directed to cee_search@cornell.edu

Review of applications will begin October 15, 2014 and will continue until the position is filled.

Second Edition

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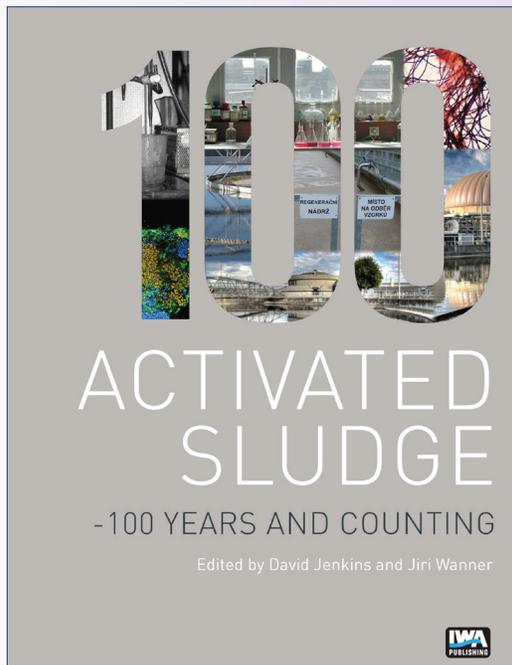
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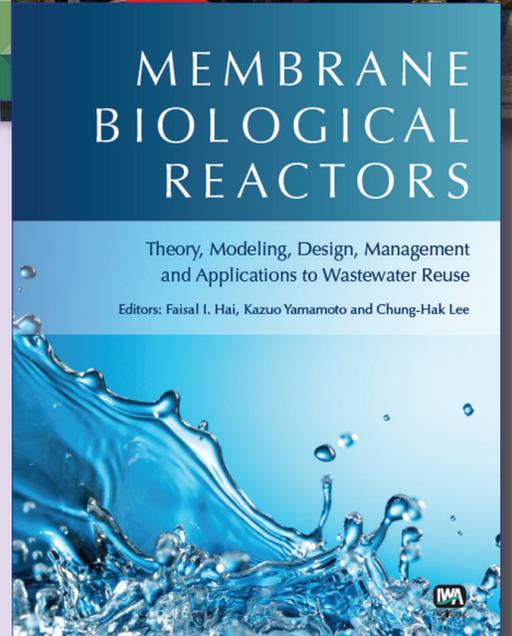
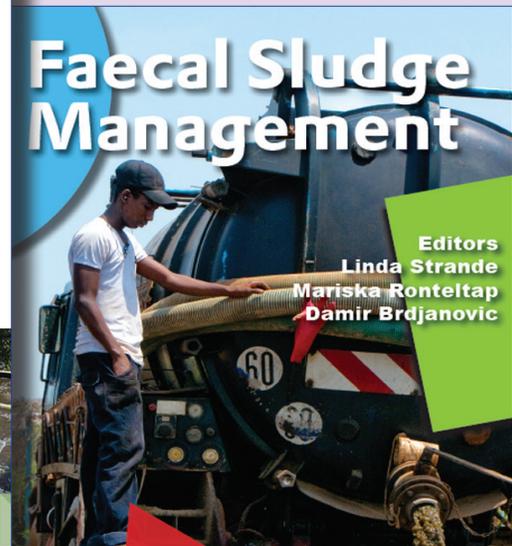
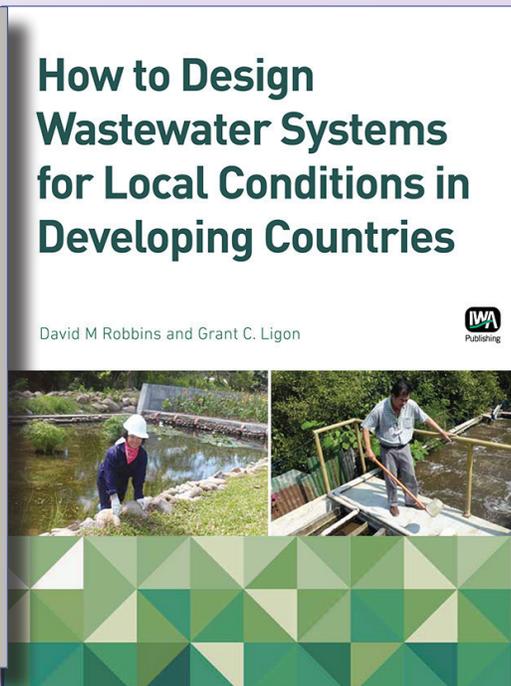
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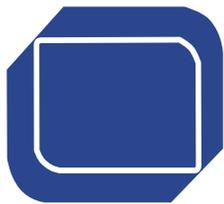
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