

AWARDS

WORLD ENVIRONMENTAL & WATER RESOURCES CONGRESS 2011

PALM SPRINGS, CALIFORNIA / MAY 22-26, 2011



AWARDS PRESENTATION EVENTS:

**OPENING CEREMONY, KEYNOTE BREAKFAST AND LECTURE, AND LIFETIME ACHIEVEMENT,
SERVICE TO THE INSTITUTE, OUTSTANDING ACHIEVEMENT,
AND MARGARET S. PETERSEN OUTSTANDING WOMAN OF THE YEAR AWARDS**

MONDAY, MAY 23 / 7:00 - 8:45 a.m. (PRIMROSE A/B)

ICE BREAKER RECEPTION – SECTION WELCOME WITH POSTERS IN THE EXHIBIT HALL

MONDAY, MAY 23 / 5:30 - 7:30 p.m. (OASIS 1)

WATERSHED COUNCIL BREAKFAST, AWARDS, AND LECTURE

TUESDAY, MAY 24 / 7:30 - 8:45 a.m. (PRIMROSE A)

WATER DISTRIBUTION SYSTEM ANALYSIS (WDSA) SYMPOSIUM BREAKFAST AND LECTURE

TUESDAY, MAY 24 / 7:30 - 8:45 a.m. (PRIMROSE B)

VISITING INTERNATIONAL FELLOWS RECEPTION WITH POSTERS IN THE EXHIBIT HALL

TUESDAY, MAY 24 / 5:30 - 7:30 p.m. (OASIS 1)

**PLANNING AND MANAGEMENT & IRRIGATION AND DRAINAGE COUNCILS
BREAKFAST, AWARDS, AND LECTURE**

WEDNESDAY, MAY 25 / 7:00 – 9:00 a.m. (PRIMROSE A/B)

STUDENT AND NEW PROFESSIONALS ACTIVITIES COUNCIL LUNCHEON AND AWARDS

WEDNESDAY, MAY 25 / 12:30 – 1:30 p.m. (PRIMROSE A)

ENVIRONMENTAL COUNCIL BREAKFAST, AWARDS, AND LECTURE

THURSDAY, MAY 26 / 7:30 – 8:45 a.m. (PRIMROSE A)

HYDRAULICS AND WATERWAYS COUNCIL BREAKFAST, AWARDS, AND LECTURE

THURSDAY, MAY 26 / 7:30 – 8:45 a.m. (PRIMROSE B)

The Environmental & Water Resources Institute (EWRI) of the American Society of Civil Engineers (ASCE) is proud to recognize the recipients of the EWRI 2011 Lifetime Achievement Awards, ASCE-EWRI National Career Achievement Society Awards, ASCE-EWRI National Paper Society Awards, EWRI Journal and Practice Periodical Awards, EWRI Service Awards, EWRI Chapter Awards, EWRI Visiting International Fellowship Awards, and EWRI Student & New Professionals Activities Council Awards.

**Opening Ceremony, Keynote Breakfast and Lecture,
and Lifetime Achievement, Service to the Institute,
Outstanding Achievement,
and Margaret S. Petersen Outstanding Woman of the Year Awards**

EWRI LIFETIME ACHIEVEMENT AWARDS

Established in 2001, the Environmental & Water Resources Institute Lifetime Achievement Award is presented to members who are judged to have advanced the profession, exhibited technical competence, and significantly contributed to public service, research, or practice in the environmental and water resources profession.

The **2011 Lifetime Achievement Award** is presented to **William E. Cox, Ph.D., M.ASCE; Jacques W. Delleur, D.Eng.Sc., P.E., M.ASCE;** and **Jerry R. Rogers, Ph.D., P.E., D.WRE, Dist.M.ASCE.**

William E. Cox, Ph.D., M.ASCE

William E. Cox earned a Ph.D. in Civil Engineering from Virginia Tech where he also served as a faculty member for nearly 38 years before retiring in 2010. His teaching and research in water resources management have been highly interdisciplinary, focusing on interaction between engineering and social science fields central to water management practice such as law and economics. He has been active in the programs of EWRI and its predecessor organizations through conference organization, publications, and extensive committee participation, including serving as chair of the Executive Committee of the previous Division of Water Resources Planning and Management. Other professional activities have included consulting in the private sector and extensive advisory roles and other assistance to local governments, river basin commissions and other regional organizations, state agencies, committees of the U.S. Congress and the Virginia state legislature, and international organizations such as UNESCO and the International Water Resources Association.

Dr. Cox's awards include EWRI's Service to the Profession Award, Virginia Tech's College of Engineering Dean's Award for Excellence in Service, and election to membership in the Academy of Distinguished Alumni of Virginia Tech's Department of Civil and Environmental Engineering. The Virginia Tech Board of Visitors conferred upon him the title of professor emeritus after his retirement.



Jacques W. Delleur, D.Eng.Sc., P.E., M.ASCE

Jacques W. Delleur, D.Eng.Sc., P.E., M.ASCE, is Professor Emeritus of Hydraulic Engineering at Purdue University. Dr. Delleur received undergraduate training in Civil & Mining Engineering at the National University of Colombia in 1949. He earned his M.S. from Rensselaer Polytechnic Institute and his doctorate from Columbia University. As a hydraulic and hydrologic engineering specialist, he focused his research on open channel hydraulics; surface, subsurface, and urban hydrology; and hydromechanics. His most recent publication activity includes serving as Editor-in-Chief, *Handbook of Groundwater* (1st ed. 1996, 2nd ed. 2007); Associate Editor for *Hydraulic Engineering, Civil Engineering Handbook* (1st ed. 1995, 2nd ed. 2002); and author, "Elementary Groundwater Flow and Processes" in *Handbook of Groundwater Engineering* (2nd ed. 2007).

Over the years, he has won many ASCE awards, including EWRI Type 2 (2003); Ven Te Chow (2002); Service to the Profession (2000); and Freeman Fellow (1961-1962). He has also been recognized with the following: Charles Harold Bechert Award (Indiana Water Resources Association 1992) and Exchange Scientist (U.S. NSF and French CNRS 1983-1984).



Opening Ceremony, Keynote Breakfast and Lecture, and Lifetime Achievement, Service to the Institute, Outstanding Achievement, and Margaret S. Petersen Outstanding Woman of the Year Awards

Jerry R. Rogers, Ph.D., P.E., D.WRE, Dist.M.ASCE

Jerry R. Rogers, Ph.D., P.E., D.WRE, Dist.M.ASCE, is Associate Professor of Civil Engineering at the University of Houston, where he has taught since 1970 after receiving his Ph.D. from Northwestern University. His M.S.C.E. and B.S.C.E. (with honors) were earned at the University of Arkansas.

Dr. Rogers has worked passionately to promote and advance the civil engineering profession and preserve its history. He has enjoyed serving for over 20 years on National Executive Committees for the American Society of Civil Engineers, ASCE's Environmental & Water Resources Institute, American Academy of Water Resources Engineers, Texas Section of ASCE, and American Water Resources Association.

Dr. Rogers was active on the EWRI Founding Task Committee; served on the first EWRI Officer Nominations Committee; helped with the EWRI Founding Reception (ASCE 1999 Annual Conference, Charlotte); served on EWRI's first Congress Steering Committee (Orlando 2001); served on the EWRI Board for two years as an ASCE Presidential Appointee; served as National Vice President on the Executive Committee of ASCE in planning for ASCE's 150th; chaired the EWRI History & Heritage Committee (1999 through September 2011); and served on the EWRI Education and Research Council. He has consistently coordinated the EWRI civil engineering history sessions at each EWRI Congress, and coordinated and co-edited presentations for EWRI Engineering History Symposia: *Environmental and Water Resources History* (Washington, DC 2002); *Water Resources and Environmental History* (Salt Lake City 2004); *Environmental and Water Resources Milestones in Engineering History* (Tampa 2007); *Great Rivers History* (Kansas City 2009); and the *Hoover Dam 75th Anniversary History Symposium* (ASCE 2010 Annual Conference, Las Vegas). It is notable that he hosted the ASCE Water Systems Water Resources Division Conference (Houston/Mexico City 1979). He served as a National AAWRE Board Member, and continues to serve on the Editorial Board of the ASCE *Journal of Professional Issues* (2005-present).

He has been similarly active with other professional organizations. He chaired the first WATER FORUM '81 for HD, WRMPD, EED, IDD, and WPCOD (San Francisco 1981). He was American Water Resources Association National President in 1989, and was also Texas Section President.

He has received numerous honors and awards. He received ASCE's National Service to the Professional Award (1990); AWRA Fellow (1992); Texas Section ASCE History/Heritage Award (1994); NSPE/TSPE Houston Engineer of the Year Award (1996); AWRA Iben Award (1998); ASCE National Fellow (1999); National ExCEED Leadership Award for ASCE Education Activities (2000); ASCE Lifetime Member (2006); ASCE National Distinguished Member (2009); ASCE Texas Section Lifetime Service Award (2009); and ASCE Civil Engineering History and Heritage Award (2011).



**Opening Ceremony, Keynote Breakfast and Lecture,
and Lifetime Achievement, Service to the Institute,
Outstanding Achievement,
and Margaret S. Petersen Outstanding Woman of the Year Awards**

**MARGARET S. PETERSEN OUTSTANDING
WOMAN OF THE YEAR AWARD**

Newly established by EWRI, the Margaret S. Petersen Outstanding Woman of the Year Award is sponsored by EWRI's Education Council and the Emerging and Innovative Technology Committee. It honors the life-long professional accomplishments of Margaret S. Petersen, P.E., F.ASCE, Hon.D.WRE, a female pioneer in hydraulics and water resources engineering. The award is presented to a female member of ASCE and/or EWRI who has demonstrated exemplary service to the water resources and environmental community.

Margaret Katherine Banks, Ph.D., P.E., F.ASCE



Dr. Margaret Katherine (Kathy) Banks has served the water resources and environmental engineering professions for more than 20 years, and currently serves as the Head of the School of Civil Engineering at Purdue University. She has authored more than 120 journal articles and presented her research at more than 200 conferences and scientific meetings. She is a recognized expert in environmental engineering with a focus on phytoremediation. She has served as the Editor-in-Chief of the ASCE *Journal of Environmental Engineering* and received the Rudolf Hering Medal (2010). Following the tradition established by the award's namesake, Margaret S. Petersen, Dr. Banks has a notable history of mentorship of young female engineers beginning with her undergraduate presidency of the University of Florida Society of Women Engineers Chapter nearly 30 years ago. Dr. Banks' efforts have been recognized by a number of awards including the Sloan Foundation Mentoring Fellowship, the American Dissertation Fellowship from the American Association of University Women, and a faculty fellowship from the Women Engineering Leadership Institute. It is fitting that, as the first recipient of the Margaret S. Petersen Outstanding Woman of the Year Award from EWRI, Dr. Banks has advised several female graduate students and more than 100 female undergraduates, and continues to serve as a mentor to many of them in their professional careers.

EWRI SERVICE AWARDS

EWRI OUTSTANDING ACHIEVEMENT AWARD

The Outstanding Achievement Award acknowledges exceptional performance of an important task over a short period of time that advances the work of the environmental and water resources profession.

Eric D. Loucks, Ph.D., P.E., D.WRE



The **2011 EWRI Outstanding Achievement Award** is presented to **Eric D. Loucks, Ph.D., P.E., D.WRE**, for his outstanding contribution to the profession in support of the ASCE-EWRI World Environmental and Water Resources 2010 Congress in Providence, RI. Specifically, Dr. Loucks played a significant and critical role during the event to manage and organize tracks and sessions, well above and beyond the call of duty; serve as a highly responsive resource to resolve issues; and work passionately to recruit colleagues and students, not actively involved in EWRI, to participate in conference, committee, and council activities. These efforts are in addition to Dr. Loucks' involvement as Past Chair of the ASCE-EWRI Planning and Management Council, U.S. Co-Chair for Technical Peer Review of the International Upper Great Lakes Study for the International Joint Commission, and his roles in various task committees.

EWRI SERVICE TO THE INSTITUTE AWARD

The EWRI Service to the Institute Award is given in recognition of extensive and outstanding service to the Institute and/or its predecessor divisions.

Jeffrey B. Bradley, Ph.D., P.E., D.WRE, F.ASCE



The **2011 Service to the Institute Award** is presented to **Dr. Jeffrey B. Bradley** for dedicated service in developing support for EWRI's creation, developing operating and management paradigms, donating large amounts of personal time, and encouraging and supporting critical involvement of his staff to ensure the success of EWRI.

Keynote Breakfast included for all Full, Student, and Monday-daily Registrants. Additional tickets: \$35.

Ice Breaker Reception – Section Welcome with Posters in the Exhibit Hall

ASCE-EWRI SECTION AND BRANCH ACTIVITIES COUNCIL OUTSTANDING TECHNICAL GROUP OR INSTITUTE CHAPTER AWARD

The purpose of this Section and Branch Activities Council Outstanding Technical Group or Institute Chapter Award is to honor an outstanding ASCE Section or Branch Environmental and/or Water Resource Technical Group or EWRI Chapter based on their activities, relative to their size and geographic location.

East Central Florida EWRI Chapter

The **2011 ASCE-EWRI Section and Branch Activities Council Outstanding Technical Group or Institute Chapter Award** is presented to the **East Central Florida EWRI Chapter** for its contributions to its Section and Branch and to the Community.

Rolando L. Raymundo, *Chair*; **Vicki L. Burke**, *Vice Chair*;
Mark Van Hala, *Secretary*; **Robert Walter**, *Treasurer*;
Joe Walter, *Past President*

Watershed Council Breakfast, Awards, and Lecture

Lecture Title:

Web Services for Sharing Water Data

ASCE-EWRI NATIONAL CAREER ACHIEVEMENT SOCIETY AWARDS

VEN TE CHOW AWARD

Established in 1995, the Ven Te Chow Award recognizes individuals whose lifetime achievements in the field of hydrologic engineering have been distinguished by exceptional achievement and significant contributions in research, education, or practice.

David A. Maidment, Ph.D., P.E., M.ASCE



Dr. David A. Maidment holds the Hussein M. Alharthy Centennial Chair in Civil Engineering and is Director of the Center for Research in Water Resources, University of Texas at Austin, where he has been on the faculty since 1981. He teaches water resources engineering, and conducts research on the application of geographic information systems in water resources. Dr. Maidment is also the leader of the Hydrologic Information Systems program of the Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUAHSI). CUAHSI represents 120 U.S. universities and is supported by the National Science Foundation to develop infrastructure for the advancement of hydrologic science and education in the United States.

Dr. Maidment is a distinguished alumnus of the University of Illinois.

Watershed Council Breakfast, Awards, and Lecture

ARID LANDS HYDRAULIC ENGINEERING AWARD

The Arid Lands Hydraulic Engineering Award is given in recognition of original contributions in hydraulics, hydrology including climatology, planning, irrigation and drainage, hydroelectric power development, navigation specially applicable to arid or semi-arid climates, or contributions to the understanding and development of new technology in river basins.

Upmanu Lall, Ph.D., M.ASCE



Dr. Upmanu Lall is an expert on hydroclimatology, climate change adaptation, risk analysis, and mitigation. Over his 35 years as a hydrologist, Professor Lall has pioneered statistical methods and their application to the prediction of hydrologic and climate conditions, and advanced tools for decision analysis and risk management. His research projects have covered water quality and energy resource management, flood analysis, groundwater modeling, subsurface characterization, climate modeling, and the development of statistical and mathematical modeling methods. He has taught some 20 distinct university courses and has been involved as a consultant with specialization in groundwater flow and contaminant transport modeling covering mining operations, stream flow modeling and water balance, risk and environmental impact assessment, and site hydrologic evaluation. Recently, he has focused on global and regional water sustainability and modeling planetary change because of human and natural dynamics. He is developing technical and policy tools to project environmental change as part of a quantitative approach to the sustainability of earth systems.

As Director of the Columbia University Water Center, a unit of the Earth Institute that he helped found in 2008, his work emphasizes the importance of viewing water issues across several traditional academic disciplines to fully understand its global dimensions. Under a three-year, \$6 million grant from the PepsiCo Foundation, the Center is currently at work in India, Brazil, China, and Mali, as well as in the U.S. Everglades, Delaware River Basin and Colorado River. In the developing world, much of the work focuses on improving the efficiency of agricultural water use.

Dr. Lall is currently the Alan and Carol Silberstein Professor of Earth and Environmental Engineering at Columbia University, where he served as Earth and Environmental Engineering Department Chair from 2003 to 2006. He is also a Senior Research Scientist at the International Research Institute for Climate and Society. Dr. Lall received his B.S. from the Indian Institute of Technology and both his M.S. and Ph.D. in civil engineering from the University of Texas.

EWRI SERVICE AWARD

GROUND WATER COUNCIL AWARD

Peter Kitanidis, Ph.D.

A certificate of appreciation is presented from the Ground Water Council to **Peter Kitanidis, Ph.D.**, for service as the 2011 Pioneer in Ground Water Speaker.

EWRI JOURNAL AWARDS

JOURNAL OF HYDROLOGIC ENGINEERING AWARDS

2011 BEST PAPER

E.A. Meselhe, E.H. Habib, O.C. Oche, S. Gautam

“Sensitivity of Conceptual and Physically Based Hydrologic Models to Temporal and Spatial Rainfall Sampling”

Vol. 14, No. 7, pp. 711-720, July 2009

2011 BEST PAPER NOTABLE MENTION

J.C. Padowski, E.A. Rothfus, J.W. Jawitz, H. Klammler, K. Hatfield, M.D. Annable

“Effect of Passive Surface Water Flux Meter Design on Water and Solute Mass Flux Estimates”

Vol. 14, No. 12, pp. 1334-1342, December 2009

2011 BEST TECHNICAL NOTE

L. Fennessey, J.M. Hamlett, M.A. Ralston

“Low Head Weirs for Enhancing Infiltration: Central Pennsylvania Case Study”

Vol. 14, No. 8, pp. 862-871, August 2009

2011 BEST DISCUSSION

D.M. Scott

“Streamflow Depletion of Groundwater Pumping in Leaky Aquifers”

Vol. 14, No. 8, pp. 887-889, August 2009

Water Distribution System Analysis (WDSA) Symposium Breakfast and Lecture

Lecture Title: Water Distribution System Analysis: How We Got Here and Where We're Going

WDSA KEYNOTE SPEAKER

Walter Grayman, Ph.D.



Dr. Walter Grayman is an independent consulting engineer in Cincinnati, Ohio, with more than 40 years' experience in the areas of water supply and water resources with emphasis on infrastructure, modeling, water quality, and risk/security issues. He holds a

Ph.D. and M.S. from the Massachusetts Institute of Technology and a B.S. from Carnegie Mellon University, all in civil engineering with a specialty in water resources. He is a registered professional engineer in Ohio and active at the national level in the American Society of Civil Engineers, particularly as former Chair of the ASCE Water Resources Planning and Management Division. He is also active with American Water Works Association. Dr. Grayman has produced more than 120 publications including as co-author of the forthcoming ASCE book *Toward a Sustainable Water Future: Visions for 2050*, co-author of the AWWA book *Modeling Water Quality in Drinking Water Distribution Systems*, contributing author for McGraw-Hill and Wiley Handbooks on Water Distribution Systems and Water Supply Systems Security, and AWWA's M32 manual, *Computer Modeling of Water Distribution Systems*. He has received best paper awards from ASCE and AWWA for his work in modeling water quality in distribution systems and water storage tanks.

Choice of the Water Distribution System Analysis (WDSA) Symposium Breakfast or Watershed Council Breakfast included for all Full, Student, Tuesday-daily, and Spouse/Guest Registrants. Additional tickets: \$35.

Visiting International Fellows Reception with Posters in the Exhibit Hall

EWRI VISITING INTERNATIONAL FELLOWSHIP AWARDS

The International Committee (IC) established the Visiting International Fellowship program to promote cultural and technical exchange between EWRI members and international colleagues from developing countries. This marks the program's tenth year.

Visiting International Fellows are competitively selected by the IC's Visiting International Fellowship Task Committee. The 2011 EWRI Visiting International Fellows will participate in the Congress and in additional professional and cultural exchange activities during their visit to the United States.

The 2011 Visiting International Fellows will be recognized during the Congress at this Reception.



Mitthan L. Kansal, Ph.D., Department of Water Resources Development and Management, Indian Institute of Technology (IIT), Roorkee, India

Dr. M.L. Kansal is a civil engineering graduate with a Masters Degree in Water Resources Engineering and a Ph.D. from Delhi University. In addition to his professorship, he serves as the Associate Dean of Student's Welfare at IIT Roorkee. He is also Chair of the North India Chapter of EWRI.



Professor Pradeep Kumar, Ph.D., Indian Institute of Technology (IIT), Roorkee, India

Dr. Pradeep Kumar, B.E., M.E., Ph.D., also from IIT Roorkee, serves as professor in the Department of Civil Engineering. He has been published in the Hydrogeology Journal, the Journal of Environmental Management, and elsewhere. Since 2007, he has also been active with Cooperation Centre Riverbank Filtration, Haridwar, India.



Cayo Leonidas Ramos Taipe, Assistant Professor, La Molina National Agrarian University, Lima, Peru

Mr. Cayo Leonidas Ramos Taipe, a Licensed Professional Engineer in Peru who has worked as a water resources consultant for many entities, is an expert in developing and applying hydrologic and hydraulic simulation models and optimization systems to water resources, especially in the agricultural sector. He is currently pursuing his Ph.D. in Water Resources Engineering at La Molina National Agrarian University, where he teaches hydraulic and hydrologic disciplines.



Ms. Chen Zang, Lecturer/Assistant Professor, Inner Mongolia University of Technology, PRC

Ms. Chen Zang is a graduate of Control Theory and Control Engineering from the Inner Mongolia University of Technology in the Peoples Republic of China. A candidate for a Ph.D. in Biological Environment and Energy Engineering at Inner Mongolia Agricultural University, she currently lectures at the Engineering Training Center of the Inner Mongolia University of Technology.

Included for all Full, Student, Tuesday-daily, and Spouse/Guest Registrants. Additional tickets: \$45.

Planning and Management & Irrigation and Drainage Councils Breakfast, Awards, and Lecture

Planning and Management Lecture Title: Provoking Constructive Discussions on Water Management and Policy

**ASCE-EWRI
NATIONAL CAREER
ACHIEVEMENT
SOCIETY AWARDS**

**JULIAN HINDS AWARD
AND LECTURE**

The Julian Hinds Award recognizes the author or authors of a paper that is judged to make the most meritorious contribution to the field of water resources development. The award may also be made to an individual for notable performance, long years of distinguished service, or specific actions that advanced engineering in the field of planning, development, and management of water resources.

**Jay R. Lund, Ph.D.,
A.M.ASCE**

Jay R. Lund, Ph.D., A.M.ASCE, is Ray B. Krone Professor of Environmental Engineering and Director of the Center for Watershed Sciences at the University of California - Davis. His main specialties are optimization and management of large-scale water and environmental systems, the use of economic ideas and methods, reservoir operation theory, and water demand theory and methods. He has done some work on California water problems, and is author/co-author of more than 250 publications.



**WALTER L. HUBER CIVIL
ENGINEERING RESEARCH PRIZE**

The Walter L. Huber Civil Engineering Research Prizes are awarded to members of the Society, in any grade, for notable achievements in research related to Civil Engineering. Preference is given to younger members (generally under 40 years of age) of early accomplishment who can be expected to continue fruitful careers in research.

Casey Brown, Ph.D., P.E., M.ASCE has been selected to receive the **Walter L. Huber Civil Engineering Research Prize** for his research in the field of "human-hydrological" system analysis including the incorporation of climate change and climate-informed seasonal forecasts in managing the world's water for society's benefit.

**ASCE-EWRI NATIONAL
PAPER SOCIETY AWARDS**

J. JAMES R. CROES MEDAL

Established by the Society in 1912, the prize is named for the first recipient of the Norman Medal, John James Robertson Croes, Past President, ASCE. There is no direct nomination for this award. The medal is awarded to the author, or authors, of the paper judged next in order of merit among those not selected for the Norman Medal. If the Norman Medal is not awarded, the Croes Medal may be awarded to the paper judged worthy for its merit as a contribution to engineering science.

Mustafa M. Aral, Ph.D., P.E., F.ASCE
Jiabao Guan, Ph.D., P.E., M.ASCE
Morris L. Masilia, P.E., D.WRE, M.ASCE

The **2011 J. James Croes Medal** is presented to **Mustafa M. Aral, Ph.D., P.E., F.ASCE**; **Jiabao Guan, Ph.D., P.E., M.ASCE**; and **Morris L. Masilia, P.E., D.WRE, M.ASCE** for the paper, "Optimal Design of Sensor Placement in Water Distribution Networks," *Journal of Water Resources Planning and Management*, Vol. 136, No. 1, pp. 5-18, 2010

EWRI SERVICE AWARD

**PLANNING & MANAGEMENT COUNCIL
SERVICE-TO-THE-PROFESSION AWARD**

The Planning & Management Council Service-to-the-Profession Award is given to recognize and honor a person or persons for outstanding leadership, activities, and achievement in service to the profession in the field of water resources planning through the institute, councils, local sections, or other organizational units of the Society.

Daene C. McKinney, Ph.D.

The **2011 Planning & Management Council Service-to-the-Profession Award** is presented to **Professor Daene C. McKinney, Ph.D.**, for long-term leadership in the World Water Forums and other international activities of ASCE and EWRI, particularly in the area of integrated water resources management.

EWRI JOURNAL AWARDS

**JOURNAL OF WATER RESOURCES
PLANNING AND MANAGEMENT**

2011 BEST RESEARCH-ORIENTED PAPER AWARD

**Laurel Reichold, Emily M. Zechman,
E. Downey Brill, Hillary Holmes**

"Simulation – Optimization Framework to Support Sustainable Watershed Development by Mimicking the Predevelopment Flow Regime"

Vol. 136, No. 3, pp. 366-375, 2010

**2011 QUENTIN MARTIN BEST PRACTICE PAPER
AWARD**

**Sergio I. Martínez, Venkatesh Merwade,
David A. Maidment**

"Linking GIS, Hydraulic Modeling, and Tabu Search for Optimizing a Water Level-Monitoring Network in South Florida"

Vol. 136, No. 2, pp. 167-176, 2010

2011 BEST POLICY-ORIENTED PAPER

**Jonathan P. Deason, G. Edward Dickey,
Jason C. Kinnell, Leonard A. Shabman**

"Integrated Planning Framework for Urban River Rehabilitation"

Vol. 136, No. 6, pp. 688-696, 2010

Planning and Management & Irrigation and Drainage Councils Breakfast, Awards, and Lecture

Irrigation and Drainage Council

ASCE-EWRI NATIONAL CAREER ACHIEVEMENT SOCIETY AWARD

ROYCE J. TIPTON AWARD

The Royce J. Tipton Award recognizes outstanding contributions to the advancement of water and soil aspects of irrigation by software development, promoting application or new technologies, and through public and professional service.

Thomas L. Spofford, P.E., M.ASCE



Thomas L. Spofford, P.E., M.ASCE is the recipient of the **2011 Royce J. Tipton Award** for his contributions in the areas of teaching, research, planning, design, construction, and management. Mr. Spofford is a retired National Water Management Engineer for the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). He is a life member of the U.S. Committee on

Irrigation and Drainage as well as the Irrigation Association, where he received the "IA Person of the Year" award in 2001. He has been a member of the America Society of Biological and Agricultural Engineers since the early 1980's and was named "Engineer of the Year" (1984) by the Inland Empire Chapter of the American Society of Agricultural Engineers for his work on the "Washington Irrigation Guide." In 2005, he received the EWRI Task Committee Award of Excellence as a member of the Task Committee on Standardization of Reference Evapotranspiration. He took the national lead within NRCS to bring industry and government together to develop a standardized method for design and evaluation of center pivot irrigation systems. Over his career, he published, co-authored, and edited numerous papers and technical manuals. These manuals are used to design irrigation systems across the nation as well as internationally. He also contributed to a number of national design standards of the American Society of Agricultural and Biological Engineers, including Standard S376 on the design, installation, and performance of underground thermoplastic irrigation pipe, for which he received a national award. Tom mentored many engineers through his roles at NRCS, where he served as Washington State Irrigation Engineer, Regional Water Management Engineer (Portland, OR), and National Water Management Engineer (Washington, DC). With his wife Sharon, he currently resides in Soap Lake, WA. *Mr. Spofford is not able to attend.*

EWRI JOURNAL AWARDS

JOURNAL OF IRRIGATION AND DRAINAGE ENGINEERING AWARDS

2011 BEST PAPERS

Theodor S. Strelkoff, Eduardo Bautista, Albert J. Clemmens
"Soil and Crop Hydraulic Properties in Surface Irrigation"
 Vol. 135(5), pp. 525-596

Leonor Rodriguez-Sinobas, Maria Gil, Luis Juana, Raúl Sánchez
"Water Distribution in Laterals and Units of Subsurface Drip Irrigation. I: Simulation"
 Vol. 135(6), pp. 729-738

2011 HONORABLE MENTION PAPER

Christopher H. Hay and Suat Irmak
"Actual and Reference Evaporative Losses and Surface Coefficients of a Maize Field during Nongrowing (Dormant) Periods"
 Vol. 135(3), pp. 313-322

N. Zapata, E. Playán, A. Skhiri, and J. Burguete
"Simulation of a Collective Solid-set Sprinkler Irrigation Controller for Optimum Water Productivity"
 Vol. 135(1), pp. 13-24

2010 BEST DISCUSSION

Zekai Şen
"Simple Equations for Aquifer Parameters from Drawdowns in Large-Diameter Wells"
 Vol. 135(1), p. 127

2010 BEST REVIEWERS

Jay Dorsey, Ph.D.
 Ohio Department of Natural Resources, Columbus, OH

Thomas Wöhling, Ph.D.
 University of Tübingen, Institute of Geoscience, Tübingen, Germany

Student and New Professionals Activities Council Luncheon and Awards

EWRI STUDENT TECHNICAL PAPER COMPETITION

UNDERGRADUATE DIVISION

FIRST PLACE

Ross Volkwein, University of Pittsburgh, Pittsburgh, PA

“Comparison and Analysis of Hydrodynamic Models for Restoration Projects: The Case of Pool-riffle Structures”

SECOND PLACE

Aida Guido, California State Polytechnic University - Pomona, Pomona, CA

“Bioavailability of Lead in Urban Soil Environments”

THIRD PLACE

Tara M. Martin, University of Alabama in Huntsville, Huntsville, AL

“The Rivers of Madison County: Determination of Bacterial Contamination in the Flint River during Winter Flood Stage”

GRADUATE DIVISION

FIRST PLACE

Celso Ferreira, Texas A&M University, College Station, TX

“Sensitivity of Hurricane Storm Surge Numerical Simulations to Wetland Parameters in Corpus Christi, Texas”

SECOND PLACE

Hui Wang, North Carolina State University, Raleigh, NC

“A Framework for Incorporating Ecological Releases in Sustainable Reservoir Operation”

Student Luncheon included for all Student Registrants.

PB STUDENT DESIGN COMPETITION

2011 COMPETITORS

Seattle University, Seattle, Washington

“Seattle University Green Stormwater Infrastructure Master Plan”

James Appleyard, David Julian, Darton Riely-Gibbons, James Smith, Faculty Advisor: Dr. J. Wesley Lauer

California State Polytechnic University - Pomona, Pomona, California

“Designing a Stormwater Filtration Unit”

Andrew Miller, Rex Panoy, Anne Podgorski, Andrew Reed, Faculty Advisors: Prof. Robert Trazo and Monica Palomo

University of Alabama in Huntsville, Huntsville, Alabama

“Development of a Sustainable System for Water Disinfection for Small, Remote Rural Communities”

Anna Campbell, Jason Harraway, Justin Marks, Faculty Advisor: Dr. Kathleen Leonard

STUDENT & YOUNGER MEMBER PHOTOGRAPHY COMPETITION

The winner of the 2011 Photography Competition for students and younger members that is sponsored by the Environmental & Water Resources Institute of the American Society of Civil Engineers is **Allison M. Gilbert**, University of Alabama in Huntsville for her photo, entitled “Sunrise over the Tennessee River.”

The Tennessee River is one of the world’s largest irrigation and hydropower systems, as well as a major waterway in the southeastern United States.

This photo was taken at dawn overlooking the Honeycomb Bay of Guntersville Lake, part of the Tennessee River in northern Alabama, on a chilly winter morning in January. The Appalachian Mountains are featured in the background.



RECOGNITION OF STUDENT COMPETITION SPONSORS

EWRI acknowledges with very sincere thanks the contributions received from these sponsors to support the 2011 EWRI Student and New Professionals Activities and Student Technical Paper Competition.

Sponsor generosity has made our 2011 program possible, to enhance the growth of future water and environmental resources professionals.

PB STUDENT DESIGN COMPETITION

PLATINUM LEVEL

PB

STUDENT TECHNICAL PAPER COMPETITION

PLATINUM LEVEL

CH2M HILL

GOLD LEVEL

Black & Veatch Corporation

Environmental Council Breakfast, Awards, and Lecture

Lecture Title: Science and Technology for Sustainable Water Supply

ASCE-EWRI NATIONAL CAREER ACHIEVEMENT SOCIETY AWARDS

SIMON W. FREESE ENVIRONMENTAL ENGINEERING AWARD AND LECTURE

The Simon W. Freese Environmental Engineering Award and Lecture is awarded to a distinguished environmental engineer whom the ASCE Executive Director will invite to deliver a lecture at a given meeting of the Society.

Menachem Elimelech, Ph.D., M.ASCE, NAE



Professor Menachem Elimelech is the Roberto Goizueta Professor of Environmental and Chemical Engineering at Yale University, and founder and current Director of the Environmental Engineering Program.

As his first appointment, he served as professor and vice chair of the Department of Civil and Environmental Engineering at the University of California, Los Angeles.

Professor Elimelech received his B.S. and M.S. degrees from the Hebrew University in Jerusalem and his Ph.D. in Environmental Engineering from Johns Hopkins University in 1989. In 1996, he was a Visiting Associate at the California Institute of Technology (Environmental Engineering Science) and in 1997, a Guest Professor at the Swiss Federal Institute of Technology (ETH). In 2002, he was the Exxon-Mobil Chair Professor at the National University of Singapore. Professor Elimelech's research interests include environmental applications and implications of nanomaterials; membrane separations for desalination and water quality control; engineered osmosis for sustainable production of water and power; microbial fate and transport in aquatic systems; and water and sanitation in developing countries. Professor Elimelech was the recipient of the 2005 Athalie Richardson Irvine Clarke Prize for excellence in water research and was elected to the National Academy of Engineering in 2006 "for contributions to the theory and practice of advanced filtration technologies for the treatment and reuse of potable water." His other awards include the W.M. Keck Foundation, Engineering Teaching Excellence Award (1994); ASCE Walter L. Huber Civil Engineering Research Prize (1996); Best Paper Award, Association of Environmental Engineering and Science Professors (AEESP)(2002); Excellence in Review Award from Environmental Science & Technology (2004); Yale University Graduate Mentor Award (2004); the AEESP Frontier Award in Research (2006); election to the Connecticut Academy of Sciences (2006); American Institute of Chemical Engineers Lawrence K. Cecil Award in Environmental Chemical Engineering (2008); World Class University Professorship at Korea University (2009); and Yale University Liza Cariaga-Lo Faculty Award for Diversity in Scholarship and Service (2010). Professor Elimelech has authored more than 185 refereed journal publications and is co-author of the book *Particle Deposition and Aggregation* (1995). He serves on several Editorial Advisory Boards and has advised 26 Ph.D. students and 15 postdoctoral researchers, many of whom currently hold academic positions at major research universities in the United States and abroad.

WALTER L. HUBER CIVIL ENGINEERING RESEARCH PRIZE

The Walter L. Huber Civil Engineering Research Prizes are awarded to members of the Society, in any grade, for notable achievements in research related to Civil Engineering. Preference is given to younger members (generally under 40 years of age) of early accomplishment who can be expected to continue fruitful careers in research.

Eric M.V. Hoek, A.M.ASCE, has been selected to receive the **Walter L. Huber Civil Engineering Research Prize** for his innovative research and development of novel low energy, fouling resistant nanocomposite membranes for desalination and wastewater reuse.

EWRI JOURNAL AWARDS

SAMUEL ARNOLD GREELEY AWARD

The Samuel Arnold Greeley Award is presented for excellence in papers on the design, construction, operation, or financing of water supply pollution control, storm drainage, or refuse disposal projects.

Brian P. Chaplin, Ph.D.

Matthew R. Schnobrich

Mark A. Widdowson, Ph.D., P.E., M.ASCE

Michael J. Semmens, Ph.D., M.ASCE

Paige J. Novak, Ph.D., M.ASCE

"Stimulating In Situ Hydrogenotrophic Denitrification with Membrane-delivered Hydrogen under Passive and Pumped Groundwater Conditions"

Journal of Environmental Engineering, Vol. 135, No. 8, pp. 666-676, August 2009

PRACTICE PERIODICAL OF HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE MANAGEMENT

BEST THEORETICAL-ORIENTED PAPER

G.L. Sivakumar Babu, Krishna R. Reddy, Sandeep K. Chouskey, and Hanumanth S. Kulkarni

"Prediction of Long-term Municipal Solid Waste Landfill Settlement Using Constitutive Model"

Vol. 14, No. 2, pp. 139-150, April 2010

BEST PRACTICE-ORIENTED PAPER

K.S. Chen and W.P. Sung

"Improved Model Applying the 6-Sigma Methodology to Evaluate Leaking Water Faucets"

Volume 13, No. 4, pp. 287-293, October 2009

Hydraulics and Waterways Council Breakfast, Awards, and Lecture

Lecture Title: Flow and Boundary Interaction in Earth Spillway and Embankment Erosion

ASCE-EWRI NATIONAL CAREER ACHIEVEMENT SOCIETY AWARDS

HUNTER ROUSE HYDRAULIC ENGINEERING AWARD AND LECTURE

The Hunter Rouse Hydraulic Engineering Award is presented, upon recommendation of the Executive Committee of the Environmental & Water Resources Institute Hydraulics and Waterways Council, to a distinguished person who will deliver the Hunter Rouse Hydraulic Engineering Lecture at an appropriate meeting of the Society.

Darrel M. Temple, P.E., D.WRE, M.ASCE



Darrel M. Temple, P.E., D.WRE, M.ASCE, is presented the **Hunter Rouse Hydraulic Engineering Award** for outstanding contributions related to the hydraulic

design of grassed waterways using erosionally effective stress principles and for outstanding contributions to the physical and numerical modeling of headcut erosion and breach development processes affecting earthen spillways and embankments. In his 34 years in hydraulic engineering research, Mr. Temple has authored or coauthored numerous technical articles and reports on the interaction of open channel flow with vegetation, soil, and rock. The results of his research expanded the understanding of the interaction of the flow field with the vegetation in grass-lined channels such as waterways and spillways and led to the

erosionally effective stress approach to the design of grass-lined channels documented in USDA Agriculture Handbook #667 and incorporated into ASABE design standard EP464. He served as team leader for research into the failure processes for vegetated earth auxiliary spillways that helped clarify the roles of vegetation and geologic material properties in headcut development and advance in the spillway erosion process. As a part of this research, a new computational procedure was developed for the design and analysis of earth spillways and incorporated into the widely used NRCS watershed site analysis (SITES) computer software. Mr. Temple continues to be involved in ongoing research to expand the concepts used in spillway erosion prediction to prediction of erosion and breach of cohesive earth embankments through overtopping or internal erosion.

Mr. Temple received a B.S. in Civil Engineering from Oregon State University and an M.S. in Civil Engineering from Colorado State University. He joined the Hydraulic Engineering Research Unit of the Agricultural Research Service as a Research Hydraulic Engineer in 1976. Prior to his retirement from ARS in 2006, he also served as a Research Leader and Laboratory Director. Since his retirement, Mr. Temple has continued to contribute as a cooperating scientist. He has been active in ASCE, ASABE, ASDSO, and other professional organizations serving on the ASCE Task Committee for the Mechanics of Overflow Erosion on Embankments and as an ASABE associate editor. He has assisted graduate education and research at Oklahoma State University as an Adjunct Associate Professor and at Colorado State University as a Faculty Affiliate.

HYDRAULIC STRUCTURES MEDAL

The Hydraulic Structures Medal is awarded to an individual or individuals for significant contributions to the advancement of the art and science of hydraulic engineering as applied to hydraulic structures.

Mahadevan Padmanabhan, Ph.D., P.E., M.ASCE



Dr. Mahadevan (Padu) Padmanabhan is presented the **Hydraulic Structures Medal** for achievement in the area of analysis and physical modeling of hydraulic structures,

including pump intake, discharge outfalls, dams, and navigation structures.

Dr. Padmanabhan has been with Alden Research Laboratory, Holden, MA, for 34 years as Senior Vice President, Principal, and Technical Consultant. He is also Adjunct Professor in Mechanical Engineering at the Worcester Polytechnic Institute, teaching Fluid Mechanics and Hydraulic Engineering.

Dr. Padmanabhan holds a B.S. in Civil Engineering from the University of Kerala, India, and pursued graduate studies at the Indian Institute of Technology, specializing in Hydraulic Engineering. Subsequently, he was an Academic Exchange Research Fellow at the Institute of Hydromechanics, University of Karlsruhe, Germany. He earned his Ph.D. from the Georgia Institute of Technology.

Dr. Padmanabhan's experience in the hydraulic design of pump intakes for power plant circulating water systems and Emergency Core Cooling System (ECCS) sumps for nuclear power plants has led to several publications in ASCE Hydraulics Division Journals, other journals, and conference proceedings. He has conducted very large hydraulic model tests of nuclear power plant ECCS containment sumps for the U.S. Nuclear Regulatory Commission, and contributed to revisions of Regulatory Guidelines.

Hydraulics and Waterways Council Breakfast, Awards, and Lecture

HANS ALBERT EINSTEIN AWARD

The Hans Albert Einstein Award is given to a member who has made a significant contribution to the engineering profession in the area of erosion control, sedimentation, and/or waterway development either in teaching, research, planning, design or management.

Professor Zhao-Yin Wang, Ph.D., M.ASCE



In his career, **Zhao-Yin Wang, Ph.D., M.ASCE** has made unique contributions to the understanding of hyperconcentrated flows, debris flows, watershed vegetation-erosion dynamics, stream ecology and restorations, and integrated river basin management. His advances are so significant that they are currently being applied to address complex environmental erosion and sedimentation problems not only in China, but throughout the world.

Professor Wang received his education at the China Institute of Water Resources and Hydro-Electric Power Research. He is now with the Department of Hydraulic Engineering at Tsinghua University in Beijing. He has been recognized by numerous awards, including: Outstanding Research Scientist (China Ministry of Science and Technology, 2009); 2nd China National Science and Technology Progress Prize for "Complex Responses of the Fluvial Process to Water and Sediment Changes in the Yellow River" (2007); 2nd China Ministry of Education Science Prize: "Hyperconcentrated Flow" (2006); 1st China Ministry of Education Science Prize: "Advanced Theory of Sediment Transportation" (2004); 1st Science and Technology Progress Prize for "Physical Model Study on Sedimentation in the Fluctuating Backwater Region of the Three Gorges Project" (China Ministry of Water Resources, 1995); and Outstanding Young Scientist Research Fund (Central Government of China, 1994).

ASCE-EWRI NATIONAL PAPER SOCIETY AWARDS

KARL EMIL HILGARD HYDRAULIC PRIZE

The Karl Emil Hilgard Hydraulic Prize is presented to the author or authors of the paper that is judged to be of superior merit in dealing with a problem of flowing water, either in theory or in practice.

Gokhan Kirkil, Ph.D., M.ASCE

George S. Constantinescu, Ph.D., M.ASCE

Robert Ettema, Ph.D., M.ASCE

The **2011 Karl Emil Hilgard Hydraulic Prize** is presented to **Gokhan Kirkil, Ph.D., M.ASCE**; **George S. Constantinescu, Ph.D., M.ASCE**; and **Robert Ettema, Ph.D., M.ASCE** for the paper, "Detached Eddy Simulation Investigation of Turbulence at Circular Pier with Scour Hole," Journal of Hydraulic Engineering, November 2009

J.C. STEVENS AWARD

The J.C. Stevens Award is given to the best discussion of a paper, the discussion having been published by the Society in a journal overseen by EWRI during the twelve-month period ending with June of the year preceding the year of award.

James E. Ball, Ph.D., M.ASCE

The **2011 J.C. Stevens Award** is presented to **James E. Ball, Ph.D., M.ASCE** for the discussion of "Automatic Calibration of the U.S. EPA SWMM Model for a Large Urban Catchment," Journal of Hydraulic Engineering, December 2009



EWRI JOURNAL AWARD

JOURNAL OF HYDRAULIC ENGINEERING

2011 BEST TECHNICAL NOTE

Brian Younkin, David Hill

"Rapid Profiling of an Evolving Bed Form Using Planer Laser Sheet Illumination"

Vol. 135, No. 10, October 2009