

AWARDS

WORLD ENVIRONMENTAL & WATER RESOURCES CONGRESS 2012

ALBUQUERQUE, NEW MEXICO / MAY 20-24, 2012



AWARDS PRESENTATION EVENTS:

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

Sponsored by CDM Smith

MONDAY, MAY 21 / 7:30 – 9:15 A.M. (BALLROOM A/B/C)

ICE BREAKER RECEPTION – SECTION WELCOME WITH POSTERS

MONDAY, MAY 21 / 5:30 – 7:30 P.M. (SOUTHWEST EXHIBIT HALL)

ENVIRONMENTAL COUNCIL BREAKFAST, AWARDS, AND LECTURE

TUESDAY, MAY 22 / 7:30 – 8:45 A.M. (BALLROOM A/B)

HYDRAULICS AND WATERWAYS COUNCIL BREAKFAST AND AWARDS

TUESDAY, MAY 22 / 7:30 – 8:45 A.M. (BALLROOM C)

VISITING INTERNATIONAL FELLOWS RECEPTION WITH POSTERS

TUESDAY, MAY 22 / 5:30 – 7:30 P.M. (SOUTHWEST EXHIBIT HALL)

WATERSHED COUNCIL BREAKFAST, AWARDS, AND LECTURE

WEDNESDAY, MAY 23 / 7:30 – 8:45 A.M. (BALLROOM A/B)

IRRIGATION AND DRAINAGE COUNCIL BREAKFAST, AWARDS, AND LECTURE

WEDNESDAY, MAY 23 / 7:30 – 8:45 A.M. (BALLROOM C)

STUDENT AND NEW PROFESSIONALS ACTIVITIES COUNCIL LUNCHEON
AND AWARDS

WEDNESDAY, MAY 23 / 12:30 – 1:30 P.M. (BALLROOM A/B)

PLANNING AND MANAGEMENT COUNCIL BREAKFAST, AWARDS, AND LECTURE

THURSDAY, MAY 24 / 7:30 – 8:45 A.M. (BALLROOM A/B)

The Environmental & Water Resources Institute (EWRI) of The American Society of Civil Engineers (ASCE) is proud to recognize the 2012 recipients of the Society's Career Achievement Awards and Paper Awards, EWRI's Lifetime Achievement Awards, Journal Awards, Service Awards, Chapter Award, Visiting International Fellowship Awards, Student Awards, and Council Awards.

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

Sponsored by CDM Smith



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 **2012 Lifetime Achievement Award** is presented to **Jonathan W. Bulkley, Ph.D., P.E., F.ASCE; A. Jacob Odgaard, Ph.D., P.E., F.ASCE;** and **William W-G. Yeh, Ph.D., NAE, Hon.M.ASCE.**

Jonathan W. Bulkley, Ph.D., P.E., F.ASCE

Jonathan W. Bulkley, Ph.D., P.E., F.ASCE, received degrees in Civil Engineering (SB and SM) and Political Science (SB and Ph.D) with a focus on water resource systems from M.I.T. between 1956 and 1966. From 1966-68, he served on active duty with the U.S. Army. He held an active faculty appointment at the University of Michigan from 1968 through 2011, including – for 43 years – a joint appointment between the School of Natural Resources and Environment and the Department of Civil and Environmental Engineering in the College of Engineering. In the University, he served as Co-director of the Center for Sustainable Systems within the School of Natural Resources and Environment (1997-2012). Multi-objective planning techniques and risk reduction concepts formed the basic orientation for his research efforts. He served as a member of the Michigan Environmental Science Board (1992-95), and was appointed as a Special Master and a Monitor for the United States District Court for the Eastern District of Michigan for three water pollution cases (1977-2010). He served as Member, Vice-chair, and Chair of the Environmental Advisory Board, Chief of Engineers, U.S. Army (1995-1999), and as a U.S. member of the International Upper Great Lakes Study Board of the International Joint Commission for the Boundary Waters Canada and United States (2007-2012). Upon his retirement, the Regents of the University of Michigan granted him the following emeritus status: The Peter M. Wege Endowed Professor Emeritus of Sustainable Systems, Professor Emeritus of Resource Policy, Professor Emeritus of Civil and Environmental Engineering. Dr. Bulkley has been a Member of ASCE since 1963 and is a Founding Member of EWRI.



A. Jacob Odgaard, Ph.D., P.E., F.ASCE

A. Jacob Odgaard, Ph.D., P.E., F.ASCE, is Professor of Civil and Environmental Engineering at The University of Iowa and Research Engineer at IIHR-Hydroscience and Engineering. He is also a former Associate Dean for Research and Graduate Studies in the College of Engineering, University of Iowa. After receiving his Ph.D. from the Technical University of Denmark in 1970, he served with the Danish Army Corps of Engineers and was a lecturer at the Technical University of Denmark. Following a Post-Doc at the University of Cambridge, UK, from 1972 to 1973, he became Senior Research Engineer at the Danish Hydraulic Institute (DHI) in Copenhagen, Denmark. He came to Iowa in 1977.

Dr. Odgaard's expertise covers environmental fluid mechanics, river mechanics, hydraulic structures, and hydraulic modeling. Recent accomplishments include the design and patenting of a double-curved sediment control structure for rivers, development of techniques for stabilizing rivers and mitigating stream bank erosion, development of alternative fish diversion schemes for hydropower projects, and design optimization of drop structures for transfer of storm and wastewater to deep underground tunnels. In 2001, he received the Hydraulic Structures Medal from ASCE in recognition of his innovations in experimental and engineering design. Previous honors include ASCE's Karl Emil Hilgard Hydraulic Prize, and being named Editor and Associate Editor of ASCE's *Journal of Hydraulic Engineering*. He has served on numerous ASCE and EWRI committees over the years, on the Iowa Highway Research Board, and on several NSF and NCHRP panels. In 2009, he received the University of Iowa College of Engineering Award for Exceptional Service. One of his latest publications is the book *River Training and Sediment Management with Submerged Vanes*, published by the ASCE Press in 2009. He is a Fellow of ASCE and a registered Professional Engineer in Iowa. His consulting activities span the globe.



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

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EWRI LIFETIME ACHIEVEMENT AWARDS

William W-G. Yeh, Ph.D., NAE, Hon.M.ASCE

William W-G. Yeh, Ph.D., NAE, Hon.M.ASCE, is the Richard G. Newman AECOM Distinguished Professor of Civil Engineering at UCLA. Dr. Yeh is well known in his field for having pioneered the development of large-scale optimization models that utilize systems analysis techniques to plan, manage, and operate large-scale water resources systems. Additionally, he pioneered the development of nonlinear inverse algorithms for parameter identification in groundwater hydrology, and his methodologies and algorithms for parameter estimation have been widely adopted in groundwater modeling. Dr. Yeh's work has garnered distinction both nationally and internationally. He is a Fellow of AGU and of AAAS, an Honorary Member of ASCE, an Honorary Diplomat of the American Academy of Water Resources Engineers, and a member of the National Academy of Engineering.



Dr. Yeh received his B.S. in 1961 from the National Cheng Kung University in Taiwan, his M.S. in 1964 from New Mexico State University, and his Ph.D. in 1967 from Stanford University, all in civil engineering. Throughout his career, Dr. Yeh has made major contributions to the profession through service to ASCE and AGU, including five years as Editor of the *Journal of Water Resources Planning and Management*. Since joining UCLA in 1967, he has served twice as department chair. To date, he has graduated more than 50 Ph.D. students.

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

Recently established by EWRI, the Margaret S. Petersen Outstanding Woman of the Year Award is sponsored by EWRI's Education & Research 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.

Peggy A. Johnson, Ph.D., A.M.ASCE

Dr. Peggy A. Johnson is Professor of Civil Engineering and Head of the Civil and Environmental Engineering Department at the Pennsylvania State University. She conducts research in the areas of bridge scour, stream restoration, reliability analyses, and river mechanics. She received her B.S. from the New Mexico State University in 1981 and her Ph.D. from the University of Maryland in 1990. In 1992, Dr. Johnson won the National Science Foundation Young Investigator award and in 1995, she won the NSF Presidential Faculty Fellow award. She has also won several teaching awards, including the Lilly Teaching Fellow and the university's Outstanding Teacher award. She has published more than 50 papers in peer-reviewed journals on bridge scour, stream restoration, uncertainty in hydraulic engineering, and risk and reliability assessment. Most recently, she has published journal articles on incorporating road crossings in stream restoration projects, improving the urban stream restoration effort, physiographic characteristics of bridge-stream intersections, and the risk of bridges due to channel instability. She is currently conducting research on an NCHRP project on reliability-based scour factors for bridges. In addition to her research, Dr. Johnson also consults on numerous hydraulic engineering issues. Over her career, Dr. Johnson has been continually active with ASCE and EWRI, serving in numerous leadership positions, and presently serves as EWRI's President-elect.



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EWRI SERVICE AWARDS

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.

Jeanette A. Brown

The **2012 Service-to-the-Institute Award** is presented to **Jeanette A. Brown** for her many contributions to the environmental and water resources engineering profession, particularly for the many young men and women she has recruited and mentored in their professional development.

Jeanette Brown received her Bachelor of Science degree from the University of Maryland and began an illustrious career in environmental and water resources engineering. Jeanette's influence has been felt profoundly by the fellow engineers with whom she has worked. She has contributed to many publications including, the *Manuals of Operation*, prepared for the Water Environment Federation (WEF) and American Society of Civil Engineers (ASCE). Jeanette has been with the Stamford Water Pollution Control Authority, Stamford, Connecticut, since 1975 and now serves as its Executive Director. Not only does she supervise an agency with 39 employees and an annual budget of more than \$22 million, but she also continues to be active in many professional organizations in which she holds membership. Among her most significant contributions to these organizations are her recruiting and subsequent mentoring of younger members. She has received citations from WEF, ASCE, and the U.S. Environmental Protection Agency. She continues to be recognized by her peers as they regularly place her in positions of responsibility. She has held senior positions in EWRI, including as President in 2007, but she also served in 2006 while that year's President was called to active duty in Iraq. In 2004, she also served as President of the American Academy of Environmental Engineers, and today is the Immediate Past President of the Water Environment Federation.



**Ice Breaker Reception –
Section Welcome with Posters**

EWRI SPECIAL ACHIEVEMENT AND APPRECIATION AWARDS

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

The purpose of this award is to honor an outstanding ASCE Section or Branch Environmental and/or Water Resource Technical Group or EWRI Chapter based on its activities, relative to its size and geographic location.

Illinois Chapter of EWRI

The **2012 ASCE-EWRI Section and Branch Activities Council Outstanding Technical Group or Institute Chapter Award** is presented to the **Illinois Chapter of EWRI** for its contributions to its Section and Branch and to the Community.

The award is being accepted by **Megan Elberts, P.E., CFM**, on behalf of the Illinois Chapter, whose officers are:
Chair: **Arun Heer**, Vice-chair: **Sandy Homola**, Treasurer: **Gary Paradoski**, Secretary: **Don Oliphant**

Environmental Council Breakfast, Awards, and Lecture

Lecture Title: "Emerging Contaminants in the Environment"

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 person in the field of environmental engineering.

Rao Y. Surampalli, Ph.D., P.E., D.WRE, BCEE, F.AAAS, Dist. M.ASCE is presented the **2012 Simon W. Freese Environmental Engineering Award** for his outstanding contribution to environmental engineering and management, and for pioneer research on development and applications of innovative technologies and processes for environmental pollution control.

Rao Y. Surampalli, Ph.D., P.E., D.WRE, BCEE, F.AAAS, Dist. M.ASCE



Dr. Surampalli has served with the U.S. Environmental Protection Agency for 25 years, and is currently Engineer Director. His expertise lies in the area of water/waterwater treatment, sludge treatment/disposal, hazardous/solid waste management, and soil and groundwater treatment.

He has authored more than 500 technical publications and currently serves, or has served, on 46 national and international committees, review panels, or advisory boards. He is editor of ASCE's *Hazardous, Toxic, and Radioactive Waste Management Journal*, and the Water Environment Federation's *Water Environment Research Journal*. He is also adjunct professor at six universities: Iowa State-Ames; University of Missouri-Columbia; Missouri University of Science and Technology-Rolla; University of Nebraska-Lincoln; University of Quebec-Sainte Foy; and Tongji University-Shanghai. He has provided technical assistance, facilitated technology transfer, and built technical capacity for numerous developed and developing nations including Brazil, India, Nepal, Taiwan, Japan, Thailand, Philippines, Namibia, Kazakhstan, Panama, Germany, Slovenia, Hong Kong, Ghana, China, and Korea. He has voluntarily developed environmental protection and improvement programs through work in India, Namibia, Kazakhstan and Panama, and was selected for a multi-disciplinary engineering team organized by ASCE to evaluate the ecological and environmental impacts of the 2004 Indian Ocean Tsunami.

In his 33-year career, Dr. Surampalli has received numerous awards and honors including ASCE's National Government Civil Engineer of the Year Award (2006), State of the Art of Civil Engineering Award, Rudolph Hering Medal (twice), Wesley Horner Medal, and Best Practice Oriented Paper Award. He has received numerous other awards from associations and government. In addition to recognition as a Distinguished Member of ASCE (2009), he was elected a Fellow of the American Association for the Advancement of Science (AAAS, 2005). Election as a fellow is among the highest honors in American science and recognizes an individual for "efforts toward advancing science or fostering applications that are deemed scientifically or socially distinguished."

See page 16 for Water, Wastewater, and Stormwater Council Awards that will also be presented at this time.

Your choice of the Council Breakfasts is included for all Full, Student, and Tuesday-daily Registrants. Additional tickets: \$35

Environmental Council Breakfast, Awards, and Lecture

Lecture Title: "Emerging Contaminants in the Environment"

ASCE-EWRI SOCIETY PAPER 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.

Tzai-Tang Tsai, C.Eng., Aff.ASCE; Chih-Ming Kao, Ph.D., P.E., F.ASCE; Rao Y. Surampalli, Ph.D., P.E., Dist.M.ASCE; Wen-Yen Huang, Ph.D., Aff.ASCE; J.P. Jao, M.ASCE

"Sensitivity Analysis of Risk Assessment at a Petroleum-Hydrocarbon Contaminated Site"

Journal of Hazardous, Toxic, and Radioactive Waste Management, 15, 89 (2011)

RUDOLPH HERING MEDAL

The Rudolph Hering Medal recognizes outstanding papers that contribute to the advancement of the environmental branch of the engineering profession.

Erin N. Kallman, M.ASCE; James A. Smith, M.ASCE; Vinka A. Oyanedel-Craver, Aff.M.ASCE

"Ceramic Filters Impregnated with Silver Nanoparticles for Point-of-Use Water Treatment in Rural Guatemala"

Journal of Environmental Engineering, Vol. 137, No. 407, 2011

WESLEY W. HORNER AWARD

The Wesley W. Horner Award recognizes papers that have contributed to the areas of hydrology, urban drainage, or sewerage.

Davide Motta; Jorge D. Abad, Ph.D; Marcelo H. Garcia, Ph.D., M.ASCE

"Modeling Framework for Organic Sediment Resuspension and Oxygen Demand: Case of Bubbly Creek in Chicago"

Journal of Environmental Engineering, 136(9), 952-964 (2010)

EWRI JOURNAL AWARDS

JOURNAL OF HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE

2012 BEST THEORETICAL-ORIENTED PAPER

Shengyan Gao, Jay N. Meegoda, Liming Hu

"Microscopic Modeling of Air Migration during Air Sparging"

15(2), 70-79, 2011

2012 BEST PRACTICE-ORIENTED PAPER

Kelvin T.W. Ng, Irene M.C. Lo

"Effects of Design Mix and Porosity of Waste Derived Paste as Landfill Daily Covers on Lead Retardation"

14(3), 195-204, 2010

EWRI COUNCIL AWARDS

OUTSTANDING ACHIEVEMENT AWARD

Carol B. Diggelman, Ph.D., Milwaukee School of Engineering (retired)

For her service for seven years as Co-chair of the Environmental Council's Solid Waste Engineering Committee. Her dedication and perseverance resulted in the reinvigoration of the Committee and the production of four successful webinar series, which disseminated cutting-edge technical knowledge on a wide range of solid waste topics.

Hydraulics and Waterways Council Breakfast and Awards

ASCE-EWRI SOCIETY CAREER ACHIEVEMENT AWARDS

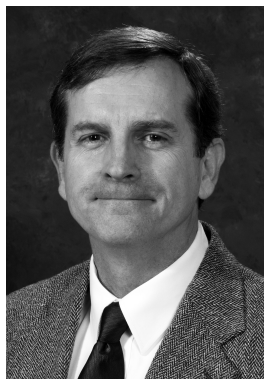
HYDRAULIC STRUCTURES MEDAL

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.

Richard L. Stockstill, Ph.D., P.E., F.ASCE is presented the **2012 Hydraulic Structures Medal** for his contribution in advancing the capabilities for numerical modeling hydraulic structures, particularly for continually developing and improving three-dimensional computation models used to solve complex fluid-structure interaction problems for locks, dams, spillways, approach flows, gates, valves, and vessel maneuverability.

Richard L. Stockstill, Ph.D., P.E., F.ASCE

A research hydraulic engineer at the U.S. Army Engineer Research and Development Center, Coastal and Hydraulics Laboratory, **Dr. Stockstill** serves as a team leader in research pertaining to near-field-flow responses at hydraulic structures. He has been the principal investigator on physical and numerical model studies of navigation systems and flood-control channels. His awards include the USAE Waterways Experiment Station Director's Research and Development Award (1998); the Award of Excellence in Technology Transfer, Southeast Region of the Federal Laboratory Consortium (1998); and the ERDC Research and Development Award (2006). He has been a member of the ASCE Computational Hydraulics and Hydraulic Structures Committees and was a U.S. Representative to the International Navigation Congress (PIANC) Working Group "Design of Mobil Structures Used to Control Port and Waterway Flow: Movable Weirs and Storm Surge Barriers." He has served as an Associate Editor for the *Journal of Hydraulic Engineering*, ASCE. Dr. Stockstill is Adjunct Professor with Mississippi State University and a registered Professional Engineer in Mississippi. He has authored/co-authored more than 90 technical papers and reports.



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.

Panayiotis Diplas, Ph.D., M.ASCE is the winner of the **2012 Hans Albert Einstein Award** for his significant contributions to rivers and sediment transport, particularly macroscopic realities for bedload transport, riverbed sediment sampling, self-formed channels, ecohydraulics, and microscopic study of sediment transport and its relation to turbulence.

Panayiotis Diplas, Ph.D., M.ASCE

Dr. Diplas received his undergraduate degree in Civil Engineering from the National Technical University of Athens, Greece. Subsequently, he pursued graduate degrees in Civil Engineering at the St. Anthony Falls Laboratory of the University of Minnesota. Following the completion of his Ph.D., he spent a year at the University of Canterbury in Christchurch, NZ, and about 1-1/2 years at the Iowa Institute of Hydraulic Research in Iowa City, Iowa as postdoctoral fellow and research associate, respectively. Since 1988, he has been teaching and doing research in environmental, fluvial, and infrastructure hydraulics at Virginia Tech in Blacksburg, Virginia. In 1999, he founded the Baker Environmental Hydraulics Laboratory (www.behl.cee.vt.edu), which he has been directing since then. This is a state-of-the-art facility with the latest equipment and instrumentation for the study of a wide range of environmental topics, including river mechanics and morphology, scour around bridge piers and other hydraulic structures, stream restoration, wetland hydrodynamics, ecological hydraulics, floods and other extreme events, and marine hydrokinetic energy production. Dr. Panos is the recipient of an NSF Presidential Young Investigator Award, a Certificate of Teaching Excellence from Virginia Tech, and during spring 2007 he was the J.S. Braun Intertec Visiting Professor at the University of Minnesota. He has served on the editorial boards of many journals, including the *Journal of Hydraulic Engineering*, and has been active in several EWRI and ASCE committees. He has published widely and has given invited/keynote presentations in many countries around the world.



Hydraulics and Waterways Council Breakfast and Awards

ASCE SOCIETY AWARD FOR RESEARCH

THE WALTER L. HUBER CIVIL ENGINEERING RESEARCH PRIZE

The Walter L. Huber Civil Engineering Research Prizes recognize members of the Society, in any grade, who demonstrate 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.

Patrick M. Reed, Ph.D., P.E., A.M.ASCE, is presented the **Walter L. Huber Civil Engineering Research Prize** for pioneering advances in multi-objective systems analysis that have significantly advanced engineering practice related to hydrologic prediction, observation network design, and risk-based water supply management.

Patrick M. Reed, Ph.D., P.E., A.M.ASCE

Dr. Reed joined the faculty of the Pennsylvania State University (PSU) in the fall of 2002 after receiving his Ph.D. in Civil and Environmental Engineering from the University of Illinois at Urbana-Champaign. Dr. Reed's research is focused on developing innovative management modeling approaches for complex engineered systems and has a particular emphasis on water resources systems. His research is investigating how to effectively combine a wide range of knowledge sources with simulation, optimization, and information technologies to capture impacted systems' governing processes, elucidate human and ecologic risks, limit management costs, and satisfy stakeholders' conflicting objectives. The management modeling tools developed by Dr. Reed's research group combine multi-objective optimization, high performance computing, and advanced spatiotemporal visualization and uncertainty modeling techniques to facilitate improved stakeholder decisions.



ASCE-EWRI SOCIETY PAPER 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.

Thorsten Stoesser, Ph.D., M.ASCE; Su Jin Kim; Panayiotis Diplas, Ph.D., M.ASCE

"Turbulent Flow through Idealized Emergent Vegetation"

Journal of Hydraulic Engineering, Vol. 136, No. 12, December 2010

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.

The **2012 J.C. Stevens Award** is presented to **James A. Kells, Ph.D., P.Eng., M.ASCE** for the discussion of "Placed Rock as Protection against Erosion by Flow Down Steep Slopes," by W.L. Peirson, J. Figlus, S.E. Pells, and R.J. Cox, *Journal of Hydraulic Engineering*, 134(9), 1370-1375, 2008

James A. Kells, Ph.D., P.Eng., M.ASCE

EWRI JOURNAL AWARD

JOURNAL OF HYDRAULIC ENGINEERING

2012 BEST TECHNICAL NOTE

Martin Detert, Gary Parker

"Estimation of the Washout Depth of Fine Sediments from a Granular Bed"

Vol. 136, No. 10, October 2010

TUESDAY, MAY 22 / 5:30 - 7:30 P.M.
(SOUTHWEST EXHIBIT HALL)

Visiting International Fellows Reception with Posters

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 eleventh year.

Visiting International Fellows are competitively selected by the IC's Visiting International Fellowship Task Committee. The 2012 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 2012 Visiting International Fellows will be recognized during the Congress at this Reception.



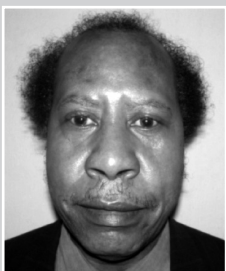
Dr. Muna Abu-Dalo

Assistant Professor,
Department of Applied Chemical Sciences,
Jordan University of Science and Technology
Irbid, Jordan



Mr. Chunliang Cui

Research Team Director and Vice Chief
Engineer
Xinjiang Water Resources Research Institute
Urumqi, Xinjiang, China



Professor Jonathan I. Matondo

Department of Geography Environmental
Science and Planning
University of Swaziland
Kwaluseni, Swaziland

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

WEDNESDAY, MAY 23 /
7:30 - 8:45 A.M. / (BALLROOM A/B)

Watershed Council Breakfast, Awards, and Lecture

Lecture Title: "Testing for Trends in Indian Rainfall Data"

ASCE-EWRI SOCIETY CAREER ACHIEVEMENT AWARDS

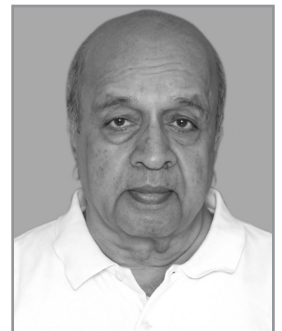
VEN TE CHOW AWARD

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.

The **2012 Ven Te Chow Award** is presented to **A. Ramanchandra Rao, Ph.D., M.ASCE** for pioneering work in statistical and physical hydrology, for providing direction and stimulation to numerous undergraduate and graduate students, for inspiring others, and for his unrelenting service to the profession. Dr. Rao's achievements extend primarily over research and education.

A. Ramanchandra Rao, Ph.D., M.ASCE

Born in India, **Prof. Rao** was educated at B.M.S. College, University of Mysore, in Bangalore. He graduated with a Bachelor of Engineering degree in Civil Engineering in 1960. He worked as a lecturer at B.M.S College (1960-1962), then joined the University of Minnesota as a graduate student of Dr. Alvin G. Anderson and earned an M.S.C.E. In 1968, he received his Ph.D. from the University of Illinois as a student of Prof. Ven Te Chow, then joined Purdue University as a visiting Assistant Professor of Civil Engineering. He retired from Purdue in 2006 as a Professor of Civil Engineering.



In his career, Prof. Rao served as a major professor for more than 20 doctoral students and about 25 master's students. These students now serve in academia, business, government, and consulting fields. He was also the faculty advisor of the Purdue Chapter of Chi-Epsilon for some 16 years.

He has edited or co-authored six books, more than 100 journal papers, more than 200 conference papers, and about 150 technical reports in the fields of stochastic hydrology, urban hydrology, and hydraulics. His books, developed with some of his graduate students, make the potential of advanced statistical hydrology techniques useful to both researchers and practicing hydrologists.

Watershed Council Breakfast, Awards, and Lecture

Lecture Title: "Testing for Trends in Indian Rainfall Data"

ARID LANDS HYDRAULIC ENGINEERING AWARD

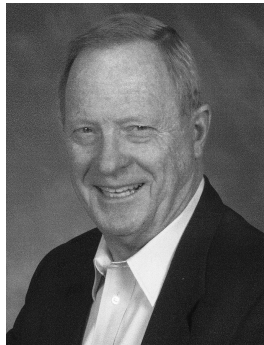
The Arid Lands Hydraulic Engineering Award is given in recognition of original contributions in hydraulics, hydrology including climatology, planning, irrigation and drainage, hydroelectric power development, navigation specially applicable to arid or semi-arid climates, or contributions to the understanding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

The **2012 Arid Lands Hydraulic Engineering Award** is presented to **Conrad G. Keyes, Sc.D., P.E., P.S., D.WRE, Dist.M.ASCE** for his long and distinguished career in the arid Southwestern United States. He has held high committee assignments in ASCE-EWRI and earlier groups. He has also had an outstanding career in New Mexico, Texas, and academia.

Conrad G. Keyes, Sc.D., P.E., P.S., D.WRE, Dist.M.ASCE

Dr. Keyes has provided significant contributions to the field of arid lands hydrology while conducting research at New Mexico State University, serving as a Principal Engineer for the International Boundary and Water Commission, and leading the charge on many ASCE codes and policies related to water resources.

His areas of research include cloud seeding and desalination of groundwater, which could contribute to important new sources of potable water. He has also worked tirelessly to adapt professional codes and guidance documents to be effective and include state-of-the-art engineering insights. He has contributed to water management and water treaties along the U.S. border with Mexico.



EWRI JOURNAL AWARDS

JOURNAL OF HYDROLOGIC ENGINEERING

2012 BEST PAPER

Daeryong Park, Jim C. Loftis, and Larry A. Roesner
"Performance Modeling of Storm Water Best Management Practices with Uncertainty Analysis"
16(4): 332-344, 2011

2012 BEST TECHNICAL NOTE

Kazumasa Mizumura and Tsubasa Kaneda
"Boundary Conditions of Groundwater Flow through Sloping Seepage Face"
15(9), 718-724, 2010

2012 BEST DISCUSSION

Ali R. Vatankhah
Discussion of "Applying Particle Swarm Optimization to Parameter Estimation of the Nonlinear Muskingum Model," by **H.-J. Chu and L.-C. Chang**
Vol. 15, No. 11, pp. 949-952, November 2010

2012 OUTSTANDING ASSOCIATE EDITOR

Mohamed Hantush, USEPA

See page 16 for SDC Awards that will also be presented at this time.

Irrigation and Drainage Council Breakfast, Awards, and Lecture

Lecture Title: "The ASCE Experiences of Ken Renard"

ASCE-EWRI SOCIETY CAREER ACHIEVEMENT 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.

The **2012 Royce J. Tipton Award** is presented to **Kenneth Renard, Ph.D., P.E., F.ASCE** for significant contributions to the advancement of soil and water management in arid regions through research, technology transfer, and public service.

Kenneth Renard, Ph.D., P.E., F.ASCE



Dr. Renard is Adjunct Professor in Agricultural and Biosystems Engineering at the University of Arizona and a retired Lead Scientist and Hydraulic Engineer for the USDA-ARS Southwest Watershed Research Center. He is among the country's most creative and innovative forces in modern hydrologic and soil erosion science, both in terms of advancing basic scientific understanding and in technology development and transfer. He has been instrumental in solving problems associated with management of surface water resources in arid and semiarid environments. He also developed much of the soil erosion prediction technology used to manage multi-billion dollar soil conservation programs and to help make land management decisions across the U.S. and around the world. His work has been described as "pioneering" and his approaches became "standards" for dealing with the behavior of hydrologic systems in the Southwest. The Walnut Gulch Experimental Watershed, which he helped to develop, became the backdrop for experiences that inspired several former students to become leaders in the field.

Dr. Renard has been active in professional organizations, including ASCE, and is a fellow in three different societies (ASCE, ASAE, and SWCS). In 2004, he was awarded ASCE's Lifetime Achievement Award.

EWRI JOURNAL AWARDS

JOURNAL OF IRRIGATION AND DRAINAGE ENGINEERING

2012 BEST PAPERS

A.J. Clemmens, R.J. Strand, and E. Bautista

"Routing Demand Changes to Users on the WM Lateral Canal With SacMan"

Vol. 136:470, 2010

A.N. French, D.J. Hunsaker, T.R. Clarke, J. Fitzgerald, and P.J. Pinter

"Combining remotely Sensed Data and Ground-based Radiometers to Estimate Crop Cover and Surface Temperatures at Daily Time Steps"

Vol. 136:232, 2010

2012 HONORABLE MENTION PAPERS

Niels Schutze and Gerd H. Schmitz

"OCCASION: New Planning Tool for Optimal Climate Change Adaption Strategies in Irrigation"

Vol. 136:836, 2010

Alexander G. Fernald, S. Cevik, Carlos G. Ochoa, Vincent Tidwell, J. Phillip King, and Steven J. Guldán

"River Hydrograph Retransmission Functions of Irrigated Valley Surface Water-Groundwater Interactions"

Vol. 136:823, 2010

2012 BEST DISCUSSION

D.A. Barry, L. Wissmeier, J.-Y. Parlange, and M. Crapper

For the discussion of "Approximation of M-Function for Partially Penetrating Wells" by Sushil K. Singh

Vol. 136:214, 2010

2012 BEST REVIEWERS

Amian Das and Jean-Philippe Venot

Student and New Professionals Activities Council Luncheon and Awards

PB STUDENT DESIGN COMPETITION

2012 COMPETITORS

Seattle University, Seattle

“Hydrologic Routing Model Simulating Removal of Glines Canyon and Elwha Dams”

Kevin Cook, James Shannon, Kristin Pesman, Katrina Schwab, Justin Milne

Faculty Advisor: J. Wesley Lauer

Southern Illinois University, Edwardsville

“Eliminating Sanitary Sewer Overflows by Implementing Green Infrastructure”

Allison Albrecht, Erica Coombs, Jessica Eichhorst

Faculty Sponsors: Ryan Fries, Jianpeng Zhou

California State Polytechnic University, Pomona

“Crystal Lake Campground Creek Stability and Sediment Management Project”

Christopher Caluag, Valerie Deeter, John Diaz, Nazanin Hajaty, Xochiti Lozano, Ismael Souley, Rebecca Valentine, Erik Villa, Bryan Wilfley

Faculty Sponsor: Seema Shah-Fairbank

University of New Mexico

“Ski Apache Waste Water Treatment System”

Gregory Bevacqua, Michelle Miller, Sonja Mull, Yuniesky H. Perez

Faculty Sponsor: Kerry J. Howe

EWRI 21ST ANNUAL STUDENT AND YOUNGER MEMBER PHOTOGRAPHY CONTEST

Allison M. Gilbert, University of Alabama - Huntsville



EWRI STUDENT TECHNICAL PAPER COMPETITION

UNDERGRADUATE DIVISION

FIRST PLACE

Anjelica Quintero, Rutgers University

“A Review of the Occurrence, Most Relevant Analytical Method, and Possible Treatment for Di-ethylhexyl Phthalate (DEHP) in the Water Environment”

SECOND PLACE

Hassan Aljanabi, Texas A&M University

“A Trade-off between Supply-side and Demand-side Management for Urban Water Resources”

THIRD PLACE

Sabiha Runa, University of Alabama in Huntsville

“Tracking Water Quality Versus Flow for the Flint River Watershed, Madison County Alabama”

GRADUATE DIVISION

FIRST PLACE

Amin Rasekh, Ph.D. student, Texas A&M University

“Food-grade Dye Injection: A Novel Alerting Mechanism for Consumers Warning of Drinking Water Contamination”

SECOND PLACE

Hasin Shahad Munna, Ph.D. student, University of North Dakota

“Development of a Temperature-based Model to Simulate Evaporative Losses over Water Bodies in Cold Regions”

THIRD PLACE

Hernando Gauto, MSE student, University of Alabama in Huntsville

“Analysis of a Vertical Axis Wind Turbine for Sustainable Water Treatment Applications”

Planning and Management Council Breakfast, Awards, and Lecture

Lecture Title: "Evolution of Urban Water Systems Analysis"

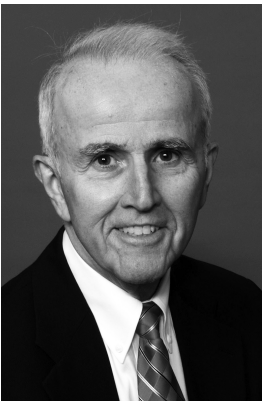
ASCE-EWRI SOCIETY CAREER ACHIEVEMENT AWARDS

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.

The **2012 Julian Hinds Award** is presented to **James P. Heaney, Ph.D., P.E., D.WRE, M.ASCE** for a career distinguished by innovative and groundbreaking applications of systems analysis and optimization methods to management of urban stormwater, urban water use, natural waters, and sustainable urban infrastructure systems, as well as his mentorship of students and professionals.

James P. Heaney, Ph.D., P.E., D.WRE, M.ASCE



A Professor at the University of Florida's Engineering School of Sustainable Infrastructure and Environment and Department of Environmental Engineering Sciences, **Prof. Heaney** teaches courses in water resources and environmental systems engineering and conducts research in urban water systems. He served as Chair of the Department of Environmental Engineering Sciences (2003-2009), and as Professor in the Department of Civil, Environmental, and Architectural Engineering at the University of Colorado at Boulder (1991-2003). His early academic career at the University of Florida (1968-1991) included 12 years as Director of the Florida Water Resources Research Center.

Prof. Heaney has made pioneering contributions in developing decision support systems for more sustainable urban water infrastructure systems including integrated design of water supply, wastewater, and stormwater systems; authoring research papers, technical reports, and software; and mentoring aspiring engineers. His earlier contributions included being part of the team that developed the EPA Stormwater Management Model (SWMM) and simpler versions of SWMM that included nonlinear optimization for area-wide wastewater management planning. These methods provided the basis for national assessments in the United States and Canada to define an optimal blend of waste water and stormwater treatment. More recent research has focused on wastewater and stormwater reuse; urban water and energy conservation; low impact development stormwater best management practices evaluation; robust optimization/process simulation of urban systems; cost allocation of water investments using cooperative game theory; decision support systems; and water infrastructure asset management. A common element in his research has been to develop new techniques that address contemporary water problems in real watersheds in Florida (Kissimmee River Basin, Everglades, Peace River, St. Johns River) and elsewhere (Colorado River, Columbia River, Pecos River, Boulder Creek) as well as dozens of urban areas.

Prof. Heaney received his M.S. and Ph.D. in environmental and water resources engineering from Northwestern University, and his undergraduate degree in civil engineering from Illinois Institute of Technology. He is a former President of the Universities Council on Water Resources, former Chair of the ASCE Urban Water Resources Research Council, and was a member of the Water Science and Technology Board of the National Academy of Sciences. He is a Diplomat of both the American Academy of Environmental Engineers and American Academy of Water Resources Engineers. He is most proud of the dozens of students that he has mentored who have gone on to become leaders in the water resources field.

Planning and Management Council Breakfast, Awards, and Lecture

Lecture Title: "Evolution of Urban Water Systems Analysis"

EWRI SERVICE AWARD

PLANNING AND MANAGEMENT COUNCIL SERVICE-TO-THE-PROFESSION AWARD

The Planning and 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.

The **2012 Planning & Management Council Service-to-the-Profession Award** is presented to **Barbara S. Minsker, Ph.D., M.ASCE**, in recognition for outstanding leadership and service advancing environmental and water resources sustainability research and education.

Barbara S. Minsker, Ph.D., M.ASCE

Dr. Minsker is a graduate of Cornell University and a professor at the University of Illinois. For her work, she has received recognition and numerous awards, including: the National Science Foundation Early Faculty Career (CAREER) Award, the Army Young Investigator Award, the Presidential Early Career Award for Scientists and Engineers, the Walter L. Huber Civil Engineering Research Prize, the Outstanding Achievement Award from ASCE, and the Xerox Award for Faculty Research.



EWRI JOURNAL AWARDS

JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT

2012 BEST RESEARCH-ORIENTED PAPER AWARD

Ximing Cai, Mohamad I. Hejazi, Dingbao Wang
"Value of Probabilistic Weather Forecasts: Assessment by Real-time Optimization of Irrigation Scheduling"
Vol. 137, No. 5, pp. 391-403, 2011

2012 QUENTIN MARTIN BEST PRACTICE PAPER AWARD

Samuel Sandoval-Solis, Ph.D.; Daene C. McKinney, Ph.D., P.E., M.ASCE; Daniel P. Loucks, Ph.D., NAE, Dist.M.ASCE
"Sustainability Index for Water Resources Planning and Management"
Vol. 137, No. 5, pp. 381-390, 2011

2012 BEST POLICY-ORIENTED PAPER

Samuel Sandoval-Solis, Ph.D.; Daene C. McKinney, Ph.D., P.E., M.ASCE; Rebecca L. Teasley; Carlos Patino-Gomez
"Groundwater Banking in the Rio Grande Basin"
Vol. 137, No. 1, pp. 62-71, 2011

2012 BEST ASSOCIATE EDITOR AWARD

Thomas M. Walski, Bentley Systems, Inc., Haestad Solutions Center, Nanticoke, PA

2012 BEST REVIEWER AWARD

E.J.M. (Mirjam) Blokker, KWR Watercycle Research Institute, Nieuwegein, The Netherlands and Olivier Piller, Cemagref, Bordeaux Regional Centre, France

EWRI COUNCIL AWARDS

OUTSTANDING ACHIEVEMENT AWARD

Avi Ostfeld, Technion University, Israel

Reflecting his contributions to organization of the WDSA Symposium (2008-2010), BWSN (Battle of the Water Sensor Networks - 2006), and BWCN (Battle of the Water Calibration Networks - 2010).

ADDITIONAL AWARDS

STANDARDS DEVELOPMENT COUNCIL AWARDS

EWRI COUNCIL AWARDS

To be presented at the Watershed Council Breakfast, Wednesday, May 23 / 7:30 – 8:45 A.M. (BALLROOM A/B)

DISTINGUISHED CHAIR SERVICE AWARDS

Conrad G. Keyes, Sc.D., P.E., P.S., D.WRE, Dist.M.ASCE, New Mexico State University (retired)

For his role in upgrading standards 56-10 and 57-10 to ANSI category.

Stephen E. Draper, Draper Group, Engineering Consultants, Atlanta

For his leading role in publication of the Standard on “Model Agreements for Shared Uses of Transboundary Waters.”

Devin L. Galloway, U.S. Geological Survey

For his leading role in publication of the Standard on “Land Subsidence Due to Fluid Withdrawals.”

10TH SYMPOSIUM ON GROUNDWATER HYDROLOGY, QUALITY, AND MANAGEMENT AWARD

PIONEERS IN GROUNDWATER AWARD

Christine A. Shoemaker, Ph.D., Dist.M.ASCE, NAE, has been selected to deliver the lecture, Monday, May 21 / 9:30 - 11:00 A.M. (SANTA DOMINGA). See page 18 of the Onsite Program.

HELP RECOGNIZE OUTSTANDING ENGINEERS

The Honors and Awards Program of the American Society of Civil Engineers (ASCE) and the Environmental & Water Resources Institute (EWRI) has as its basic objective the enhancement of the engineering profession by emphasizing and rewarding exceptional merit and achievement.

Nominations are invited for ASCE Society Awards to be presented in 2013. Do you know someone whose accomplishments deserve recognition or whose published work shows superior merit? Your supervisor, mentor, or colleague? To find out more, please go to the EWRI website at <http://www.asce.org/ewri/Awards/EWRI-Awards/>

WATER, WASTEWATER, AND STORMWATER COUNCIL AWARDS

EWRI COUNCIL AWARDS

To be presented at the Environmental Council Breakfast, Tuesday, May 22 / 7:30 - 8:45 A.M. (BALLROOM A/B)

OUTSTANDING ACHIEVEMENT AWARDS

Karen Karvazy, Chastain Skillman, North Carolina

For her services to the Water, Wastewater, and Stormwater Council. During her tenure as Council Chair, there has been significant growth in numbers of members within committees as well as a webinar series that has been undertaken.

Conrad Keyes, Sc.D., P.E., P.S., D.WRE, Dist.M.ASCE, New Mexico State University, Emeritus

For his guidance of the Water, Wastewater, and Stormwater Council's Desalination and Water Reuse Committee. During his tenure as Chairman, the committee produced a monograph that included a compilation of case studies on concentrate management.

TASK COMMITTEE EXCELLENCE AWARD

Wastewater Engineering Technical Committee

This award is presented to the EWRI Wastewater Engineering Technical Committee, with special recognition of Chair, LaVere B. Merritt (Brigham Young University, Emeritus), for this committee's significant contributions to the Hydraulics Chapter (5) for the ASCE-WEF Manual, *Gravity Sanitary Sewer Design, and Construction*, Second Edition, 2007.

EXPRESSIONS OF APPRECIATION AWARDS

Jerry Lee Anderson, University of Memphis

For his leadership in guiding the Water, Wastewater, and Stormwater Council from its inception through its growth.

Richard Tsang, CDM Smith, Boston

For his special service as Council Chair, October 2008-October 2011 and contributions to the Residuals Committee, 2008-2011.

WITH THANKS TO THE 2011-2012 EWRI AWARDS COMMITTEE

Wayne C. Huber, Chair

Clifford A. Pugh

Teresa B. Culver, Vice-chair

Dennis L. Richards

Jerry L. Anderson

Jery R. Stedinger

Joseph W. Dellapenna

Robert E. Swain

Garry L. Grabow

Eugene J. LeBoeuf