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May 21-25, 2017 World Environmental & Water Resources Congress Sacramento Convention Center



#### Monday, May 22 12:15 pm - 1:45 pm

Welcome & Awards Luncheon

#### Tuesday, May 23 12:15 pm - 1:45 pm

Irrigation & Drainage Council Luncheon & Awards Lecture Planning and Management Council Luncheon & Awards Lecture

#### Wednesday, May 24 12:15 pm - 1:45 pm

Student Luncheon

Watershed Council Luncheon & Awards Lecture

Environmental/Water, Wastewater & Stormwater Council Luncheon & Awards Lecture

#### Thursday, May 25 12:15 pm - 1:45 pm

Groundwater Council Luncheon & Awards Lecture Hydraulics & Waterways Council/WDSA Luncheon & Awards Lecture

#### Monday, May 22 - Welcome & Awards Luncheon



Karen C. Kabbes, P.E., D.WRE, ENV SP, F.ASCE, is head of KEI, a Chicago area based international water resources and environmental engineering firm. Her consulting work follows a distinguished career in state and local government as a regional waterway agency executive director, a countywide chief stormwater engineer, and as creator of a coordinated state-local floodplain mapping and regulatory program for one of the largest metropolitan areas in the United States.

As the 2014 EWRI President, she headed the organization's strategic planning effort which resulted in the EWRI members enacting a number of new groups and initiatives including Collaborate. She has a civil engineering degree from University of Illinois Champaign-Urbana campus and Masters in Public Policy Analysis from the Chicago campus. She is a license professional engineer in Illinois.

Ms. Kabbes recognizes the important role professionals play in mentoring others, especially historically non-traditional individuals, throughout their educational and professional careers.

## **Margaret Petersen Award**



## Lifetime Achievement Award



Before becoming provost, Bras was a distinguished professor and dean of the Henry Samueli School of Engineering at UC-Irvine. For 32 years, he was a professor at MIT where he held several leadership positions.

He holds an honorary degree from the University of Perugia, was named to the Hispanic Engineer Hall of Fame and received NASA's Public Service Medal. Special recognitions include the Macelwane and Horton Medals of AGU; John Simon Guggenheim Fellowship; the Clarke Prize; Simon W. Freese Environmental Engineering Award; Honorary Diplomate of Water Resources Engineering; and the Anthony J. Drexel Exceptional Achievement award.



Walter Grayman, Ph.D., P.E., D.WRE, is an independent consulting engineer in Oakland, California, with over 45 years of experience in the areas of water supply and water resources with emphasis on infrastructure, modeling, water quality, GIS and risk/security issues.

He holds a Ph.D. and M.S. from the Massachusetts Institute of Technology and a B.S. degree 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 (EWRI) and American Water Works Association.

Dr. Grayman has over 150 publications including co-editor of the ASCE/EWRI book Toward a Sustainable Water Future: Visions for 2050, and co-author of the AWWA book Modeling Water Quality in Drinking Water Distribution Systems.





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## Service to the Institute Award



Dennis L. Richards, P.E., D.WRE, F.EWRI, F.ASCE, is an engineering consultant in Phoenix, Arizona, with a focus in hydraulic and sedimentation engineering. His experience encompasses planning, analysis, design, and construction of flood control and transportation projects.

Dennis earned an M.S. in Civil Engineering with an emphasis in fluvial hydraulics at South Dakota State University in 1970. He has actively participated in EWRI activities since the formation of the Institute. His primary involvement has been as an active member of the Local Activities Council where he has championed the development of EWRI Chapters.

He is currently the Chair of the Management Practices for Erosion and Sediment Control Standards Committee; Vice-Chair of the Technical Products and Modernization Committee; Secretary of Local Activities Council, and a member of the Standards Development Council.



## **Outstanding Institute Chapter**

Presented during the Local Activities/Diversity & Inclusion Breakfast on Wednesday, May 24

#### **EWRI East Central Florida Chapter**

## **EWRI Fellows**

Pascale Champagne, Ph.D., P.ENG., D.WRE, F.EWRI Xuefeng Chu, Ph.D., F.EWRI Prabhakar Clement, Ph.D., F.EWRI David Curtis, Ph.D., F.EWRI Michael Dukes, Ph.D., P.E., F.EWRI Val Frenkel, Ph.D., P.E., D.WRE, F.EWRI Jinsheng Huo, Ph.D., P.E., BCEE, F.EWRI C. Dale Jacobson, P.E., BCEE, D.WRE, F.ASCE, F.WEF, F.EWRI Latif Kalin, Professor, F.EWRI Jiang Li, Ph.D, P.E., PHG., D.WRE, F.EWRI Barbara Minsker, Ph.D., F.EWRI Yusuf Mohamoud, Ph.D., P.E., M.ASCE, F.EWRI Sharika Senarath, Ph.D., P.E., P.H., PMP, D.WRE, M.ASCE, F.EWRI Daniel Thomas, Ph.D., P.E., D.WRE, F.ASCE, F.ASABE, F.EWRI Thomas Walski, Ph.D., P.E., F. ASCE, F.EWRI Jianpeng Zhou, Ph.D., P.E., BCEE, F.EWRI



## **Visiting International Fellows**





Fariba Arzhung, Ph.D., Afghanistan



Reza Modarres, Ph.D., Iran



Prem Patel, Ph.D., India



Lucy Lahrita, Research Associate, Indonesia

#### Tuesday, May 23 - Irrigation & Drainage Council Luncheon & Awards

## **Royce J. Tipton Award**



Dr. Robert D. von Bernuth, Ph.D., M.ASCE, for significant contributions to the development, advancement, and transfer of irrigation technologies; conservation of water resources by development of better decision making strategies under limited water supplies; and development of education material for academia and the irrigation industry.

# Journal of Irrigation & Drainage Engineering

#### **Best Paper**

"Interannual Variation in Long-Term Center-Pivot Irrigated Evapotranspiration and Various Water Productivity Response Indices. I: Grain Yield, Actual and Basal Evapotranspiration, Irrigation-Yield Production Functions, Evapotranspiration-Yield Production Functions, and Yield Response Factor"

S. Irmak, Ph.D., M.ASCE

#### **Outgoing Editor Recognition**

William Ritter, Ph.D.

#### **Best Paper**

"Correcting Midseason Crop Coefficients for Climate"

#### R.L. Snyder, Ph.D., M. ASCE E. Guerra, Ph.D. D. Spano, Ph.D. F. Ventura, Ph.D.

#### **Best Discussion**

For the Discussion of "Assessment of Reference Evapotranspiration by the Hargreaves Method in the Bekaa Valley, Lebanon"

Pablo Gonzãlez-Altozano, Ph.D. Pau Marti, Ph.D. Álvaro Royuela

#### **Best Reviewer**

Antono Miglio, Ph.D. Matthew Mersel

#### **Honorable Mention Paper**

"Validation of a Decision Support System for Improving Irrigation System Performance"

Kristoph-Dietrich Kinzli, Ph.D., M.ASCE Kendall DeJonge, Ph.D., M. ASCE Ramchand Oad, Ph.D. David Gensler Nabil Shafike



#### **Honorable Mention Paper**

"Estimating Actual Transpiration of Apple Trees Based on Infrared Thermometry"

Y. Osroosh, Ph.D. R.T. Peters, Ph.D. C.S. Campbell



#### Tuesday, May 23 - Planning & Management Council Luncheon & Awards

## **Julian Hinds Award**



Daniel P. Sheer, Ph.D., M. ASCE, has contributed to the field of water resources management for over forty years, and his work has impacted the profession in extremely significant and enduring ways. He has worked both in the public sector for the Instate Commission on the Potomac River Basin and as the founder and President of HydroLogics, Inc., a company that has had a substantial influence on water supply utilities throughout the U.S. and internationally.

Dr. Sheer has been one of the most successful developers of systems optimization modeling tools, most notably his reservoir operations software "OASIS," which has been used extensively in the U.S. and internationally to develop creative explorations of reservoir operations and to illustrate effectively the trade-offs that are available to different operational schemes that optimizes various objectives.



## **Service to the Profession Award**



Debra Leigh, M.ASCE, is President and owner of Leigh Environmental Equipment, Inc., formed in August 1999 in Omaha, Nebraska. She has over 40 years of experience as a manufacturer's representative in the water and wastewater industry.

Debra has been active in many technical organizations throughout her career. She served as President of the Nebraska WEF Association and the Nebraska Chapter of APWA. She served a three-year term on the Board of Directors of the WEF and two terms on the WEF Executive Committee.

Debra joined EWRI in 2000 and has participated on several committees. In addition to EWRI, Debra is an active member of the Water Environment Federation (WEF), the American Water Works Association (AWWA), the American Public Works Association (APWA), and the International Water Association (IWA).

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# Journal of Water Resources Planning & Management

#### **Best Research-Oriented Paper**

"Dynamic Water Quality Simulation for Contaminant Intrusion Events in Distribution Systems"

Dominic L. Boccelli, Ph.D., A.M.ASCE Xueyao Yang

#### **Best Associate Editor**

David E. Rosenberg, Ph.D., M.ASCE

#### **Best Policy-Oriented Paper**

"Effectiveness of Smart Meter-based Consumption Feedback in Curbing Household Water Use: Knowns and Unknowns"

Anders L. Sønderland, Ph.D. Christopher J. Hutton, Ph.D. Joanne R. Smith, Ph.D. Zoran Kapelan, Ph.D. Dragan Savic, Ph.D.



#### **Best Reviewer**

Marco Franchini, Ph.D. Julianne Quinn, M.S.



#### **Quentin Martin Best Practice-Oriented Paper**

"Decision Support System for Water and Environmental Resources in the Connecticut River Basin"

David W. Julian (Lead Author) John T. Hickey Woodrow L. Fields Leila Ostadrahimi Katherine M. Maher Townsend G. Barker Christopher L. Hatfield Kim Lutz Christian O. Marks Samuel Sandoval-Solis Jay R. Lund



Wednesday, May 24 - Student Luncheon & Awards

# Graduate Student Technical Paper Competition



#### Siddarth Saksena, Perdue University First Place

"Integrated Modeling of Surface-subsurface Processes to Understand River-Floodplain Hydrodynamics in the Upper Wabash River Basin"



#### Dilip Kumar Roy, James Cook University Second Place

"Optimal Management of Groundwater Extraction to Control Saltwater Intrusion in Multi-layered Coastal Aquifers Using Ensembles of Adaptive Neuro-fuzzy Inference System"

#### Thomas Bolen, Manhattan College (not pictured) Third Place

"Co-digestion of "Cheese Whey" as Food Waste with Primary or Waste Activated Sludge Maximizes the Biogas Production"

# **Undergraduate Student Technical Paper Competition**





#### Yuezhi Yuan & Madeline Pritchett, **Rose-Hulman Institute of Technology First Place**

"Characterizing a Small-scale, Constructed Wetland for Stormwater Treatment"



Jordan Thompson, **Missouri University of Science and Technology** Second Place

"Long-term Performance of Geothermal Heat Pump Systems"





#### Sabrina Mehzabin, **Bangladesh University of Engineering & Technology Third Place**

"Trend Analysis of Variables and Modeling of Flow and Salinity of the Gorai River Using 1D HEC-RAS Model"

# WSP | Parsons Brinkerhoff Student Design Competition

#### **Seattle University**

Batseaba Fukur Tyler Winn Maiya Louks

#### Pontificia Universidad Javeriana

Samir Chamie Maria Camila Ortiz Paola Fernanda Castillo Jhonatan Ortiz Almanzar

#### **California Polytechnic State University**

Delaney Nelson Patrick Nagle

#### Wednesday, May 24 - Environmental Council/Water, Wastewater & Stormwater Lecture Luncheon & Awards

# Simon W. Freese Environmental Engineering Award & Lecture



James L. Barnard, Ph.D., C.Eng., Dist.M.ASCE, is recognized internationally for developing the BARDENPHO Process (BARnard DENitrification and PHOsphorus removal), Phoredox (later AO and A2O), the Modified Balakrishnan/Eckenfelder (later called the MLE) process and the Westbank Process.

He also served as Adjunct Professor at the University of British Columbia and taught courses in biological nutrient removal at the Winter School of the University of Queensland Winter School for ten years. Dr. Barnard is presently working on a WERF study for sustainably achieving very low phosphorus removal by a combination of biological and chemical processes.

Dr. Barnard, Ph.D., P.E., received his Ph.D. in Environmental Engineering from Vanderbilt University in 1971. He also received an M.S. in Environmental Engineering from the University of Texas, Austin in 1967.

# **Samuel Arnold Greeley Award**







Stephen Edwini-Bonsu, Ph.D.



David Z. Zhu, Ph.D., M.ASCE



Nallamuthu Rajaratnam, Ph.D., F.ASCE

#### Jan Fiala, Ph.D. (not pictured)

Wayne Pelz, Ph.D. (not pictured)

"Use of Air Circulation Pipes in Deep Dropshafts for Reducing Air Induction into Sanitary Sewers," Journal of Environmental Engineering

## Wesley W. Horner Award



S. Sujitha, Ph.D. (Lead Author)



Sampurna Datta, Ph.D.



K. Geetha Manjari, Ph.D.

# G. L. Sivakumar Babu, Ph.D., F.ASCE (not pictured)

"Risk and Reliability Analysis of Multibarrier System for Near-Surface Disposal Facilities," Journal of Hazardous, Toxic, and Radioactive Waste

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# **Rudolph Hering Medal**



W.H. Huang, Ph.D. (Lead Author)



C. M. Kao, Ph.D., F.ASCE

"Bioremediation of Petroleum-Hydrocarbon Contaminated Groundwater Under Sulfate-Reducing Conditions: Effectiveness and Mechanism Study," Journal of Environmental Engineering





#### **Expression of Appreciation**

For his positive demeanor, leadership and enthusiasm as Chair of the Water Supply, Treatment and Distribution Engineering Technical Committee

#### Sridhar (Sri) Kamojjala, P.E., D.WRE

# Journal of Hazardous, Toxic, and Radioactive Waste

#### **Best Practice-Oriented Paper**

"Herbicide-Impacted Sediment Remediation I: Delineation and Treatment Study"

Dennis G. Grubb Heather L. Ziegelbauer Dusty R.V. Berggren Jeffrey Danko

#### **Best Theoretical-Oriented Paper**

"Effect of Atmospheric Forcing on Plume Dispersion and Study of Nuclear Effluent Trajectories for the Kalpakkam Coast, India"

Kaushik Sasmal, Ph.D. Subba Reddy Bonthu, Ph.D. Subhendu Maity, Ph.D. Hari V. Warrior, Ph.D.



Wednesday, May 24 - Watershed Council Luncheon & Awards

## Arid Lands Hydraulic Engineering Award



Jeffrey Bradley, Ph.D., P.E., D.WRE, F.ASCE, is renowned in hydraulics, hydrology, and sedimentation especially involving debris flow effects on alluvial fan flooding and bridge scour. He is an expert with 40 years of experience with WEST Consultants, Corps of Engineers, and Colorado State.

Dr. Bradley's investigative and engineering contributions have been most noteworthy in the areas hyper-concentrated flow in rivers, mud and debris flow in rivers, development of alluvial fans, bridge scour assessments and analysis, and dam breach and dam break inundation studies. His works have always incorporated leading edge, state-of-the-art analyses providing his clients the very best engineering analysis possible. His clients have included the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, National Health Institute, and Federal Emergency Management Agency to name but a few.

## Ven Te Chow Award



Professor Sorooshian, Ph.D., Life M. ASCE, is currently a Distinguished Professor of Civil and Environmental Engineering and Director of Center for Hydro-meteorology and Remote Sensing at University of California at Irvine. He received his B.S. degree in Mechanical Engineering at the California State Polytechnic in 1971 and an M.S. in Operations Research in 1973.

In 1978, he received his Ph.D. from the University of California at Los Angles in Systems Engineering. He is an author of more than 250 journal papers and articles, 7 books, 33 book chapters and 44 conference proceedings papers. He has served in positions including the chair of the National Academy of Engineering Section 12; Board of Director of American Geophysical Union; and Advisory Board member of Jet Propulsion Laboratory, to name a few.



# **Journal of Hydrologic Engineering**

#### **Best Case Study**

"Assessment of the Drought Hazard in the Tiber River Basin in Central Italy and a Comparison of New and Commonly Used Meteorological Indicators"

Tommaso Moramarco, P.E., D.WRE Maggie Kossida, Ph.D. Luca Brocca, Ph.D. Pamela Maccioni

#### **Best Technical Paper**

"Ensemble Combination of Seasonal Streamflow Forecasts"

Mohammad Reza Najafi, Ph.D. Hamid Moradkhani, Ph.D., P.E., D.WRE, F.ASCE, F.EWRI

#### **Best Technical Note**

"Hydrologic Models Developed for Stormwater Infiltration Practices"

James Chwen-Yuan Guo, Ph.D. Toan Luu

#### **Best Discussion**

For the discussion of "Analysis of Extreme Rainfall Trends in Sicily for the Evaluation of Depth-Duration-Frequency Curves in Climate Change Scenarios"

Giorgio Baiamonte, Ph.D. Francesco D'Asaro, Ph.D.

#### **Best Associate Editor**

For exemplary performance of his duties as an Associate Editor for the ASCE Journal of Hydrologic Engineering

Zhiqiang Deng, Ph.D.



# Excellence in Task Committee Vision and Leadership

For his leadership as the chairperson of the TMDL Analysis and Modeling Task Committee

G. Padmanabhan, Ph.D., P.E., F.ASCE



Thursday, May 25 - Hydraulics & Waterways Council/WDSA Luncheon & Awards

# Hunter Rouse Hydraulic Engineering Award

Fotis Sotiropoulos, Ph.D., M.ASCE.F.APS, serves as the Dean of the College of Engineering and Applied Sciences (CEAS) and Professor of Civil Engineering at Stony Brook University (SBU), since October 2015. Prior to joining SBU, Dr. Sotiropoulos was the James L. Record Professor of Civil, Environmental and Geo-Engineering, and Director of the St. Anthony Falls Laboratory at the University of Minnesota, Twin Cities (2006-2015). His research focuses on simulation-based engineering science for fluid mechanics problems in environmental, geophysical, renewable energy and biological applications. Funded by the National Science Foundation, the Department of Energy, the National Institutes of Health, the Sandia National Laboratories, private industry, and other state and federal agencies, Sotiropoulos has raised over \$35M in externally-sponsored funds for research and research facility development and renovation.

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The Hunter Rouse award will be presented at the 2017 Hydraulic Measurements and Experimental Methods Conference in Durham, New Hampshire.

# **Journal of Hydraulic Engineering**

#### **Best Technical Note**

"Automated Riverbed Sediment Classification Using Low-Cost Sidescan Sonar"

Paul E. Grams, Ph.D. Sean M. Smith, Ph.D. Daniel Buscombe, Ph.D.





# **Karl Emil Hilgard Prize**



Yong Lai, Ph.D. (Lead Author)



Kuowei Wu, M.S.



Jianchun Victor Huang, Ph.D.

"Reservoir Turbidity Current Modeling with Two-Dimensional Layer-Averaged Model," Journal of Hydraulic Engineering

## **Hydraulic Structures Medal**



Dr. Hotchkiss', Ph.D., P.E., D.WRE, F.ASCE, research and investigative contributions have been most noteworthy in the areas of culverts and culvert hydraulics; low-head dam operations; and reservoir sedimentation. His most significant efforts have focused on studying turbulence in corrugated metal culverts, hydraulic impacts of fish passage through culverts, enhancements of predicting sediment transport in the vicinity of culverts, and improvements in the analysis of broken back culverts. He co-authored HEC-26, federal design guidelines for culvert design for aquatic organism passage, as well as the revision of HY-8 pertaining to hydraulic jumps and broken back culverts.

Dr. Hotchkiss has worked as an educator since 1989 holding professorial positions at the University of Nebraska-Lincoln, Washington State University (WSU), and Brigham Young University (BYU).

## **Hans Albert Einstein Award**

Professor Vladimir Nikora, A.M.ASCE, has covered an enormous range of topics that touched on everything from fractal properties of meandering and braided rivers to the initiation, development, and equilibrium stages in dune dynamics.

He is well-known for his outstanding contributions to the fields of cohesive sediment transport and turbulence over rough sediment beds. Many sedimentologists contend that his greatest contributions have come from his refinement of a conceptual basis of sediment transport theory.

His fundamental approach to sediment transport processes has been compared to Hans Albert Einstein's work in this area. From an academic perspective, Professor Nikora has an extensive published record on both theoretical and experimental aspects of sediment dynamics in surface waters.





Thursday, May 25 - Groundwater Council Luncheon & Awards

## **Pioneer in Groundwater**





Mike Markus, P.E., D.WRE, BCEE, F.ASCE, is the general manager of the Orange County Water District. With more than 38 years of experience, Mike is well known for his expertise in large project implementation and water resource management.

Mike obtained a Bachelor of Science degree in Civil Engineering from California State Polytechnic University at Pomona and a Master of Science degree in Civil Engineering from the University of Southern California. He is also a registered Civil Engineer in the State of California.

During his 28-year career at the District, Mike has been responsible for managing the implementation of the \$480 million Groundwater Replenishment System program and oversight of the \$142 million Groundwater Replenishment System Initial Expansion project. This water purification facility has won many awards.

## Walter L. Huber Civil Engineering Research Prize

Amit Bhasin, Ph.D., A.M.ASCE Mikhail V. Chester, Ph.D., A.M.ASCE James K. Guest, Ph.D., A.M.ASCE Kaveh Madani, Ph.D., A.M.ASCE Jamie E. Padgett, Ph.D., A.M.ASCE

## J. James R. Croes Medal

For the paper "Bioremediation of Petroleum-Hydrocarbon Contaminated Groundwater under Sulfate-Reduction Conditions: Effectiveness and Mechanism Study," Journal of Environmental Engineering, March 2016

W.H. Huang, Ph.D. C. M. Kao, Ph.D., F.ASCE

Prize will be presented at ASCE's 2017 Annual Convention in New Orleans,

# ASCE State of the Art of Civil Engineering Award

For the book, "Nanomaterials in the Environment," ASCE, 2015

Satinder K. Brar, Ph.D. Tian C. Zhang, Ph.D., P.E., D.WRE, F.ASCE Mausam Verma, Ph.D. R.D. Tyagi Rao Y. Surampalli, Ph.D., P.E., BCEE, Hon.D.WRE, F.EWRI, Dist.M.ASCE

## Norman Medal

Steven L. Kramer, Ph.D., P.E., M.ASCE C.H. Wang

ASCE State of the Art of Civil Engineering and Norman Medal will be presented at ASCE's 2017 Annual Convention in New Orleans, Louisiana, October 8-11, 2017.





## Award Nominations due: 10.1.17 www.asce.org/ewri



