

2009 Society Award Winners Announced

ASCE President's Medal

The ASCE President's Medal recognizes the accomplishments and contributions of eminent engineers to the profession, the Society or the public.



Herrmann



Leoncio

The 2009 ASCE President's Medal is presented to **Andrew W. Herrmann, P.E., F.ASCE** and **Potenciano A. Leoncio, Jr., P.E., M.ASCE**. Mr. Herrmann is recognized for his accomplishments, contributions, and leadership in producing the 2009 Report Card for America's Infrastructure. Mr. Leoncio is recognized for his accomplishments, contributions, and leadership in Region 10.

ASCE Presidents' Award

The ASCE Presidents' Award commemorates the nation's first President, who was a civil engineer and land surveyor. The award recognizes an ASCE's member's distinguished service to his or her country.



James A. Rispoli, P.E., F.ASCE is presented the 2009 ASCE Presidents' Award for more than 30 years of leadership in the design and construction of major projects and programs, including public works management, planning, design, consultation, and construction services to our armed forces and other executive agencies, especially our Department of Energy.

William H. Wisely American Civil Engineer Award

The William H. Wisely American Civil Engineer Award recognizes individuals or groups of individuals who are members of ASCE and who have made continuing efforts to promote appreciation for the history, tradition, developments and technical and professional activities of the Society.



Terence E. (Ed) Richardson, P.E., M.ASCE is the recipient of the 2009 William H. Wisely American Civil Engineer Award for his accomplishments and contributions to the Society, and for his leadership and tireless service in the creation of the Industry Leaders Council.

Arid Lands Hydraulic Engineering Award

The Arid Land 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 recipient of the 2009 **Arid Lands Hydraulic Engineering Award** is **Rao S. Govindaraju, Ph.D., M.ASCE** for outstanding contributions to arid land hydrology and hydraulics by improved understanding of infiltration and run-on processes over hillslopes and watersheds, through journal articles, books, task committees, and conference activities. Over the past two decades, Professor Govindaraju has made wide-ranging contributions to the field of hydrology with many related to arid lands. A prime example is his work over the last 12 years on infiltration in arid soils with notable collaboration from colleagues in Italy. He has focused on the run-on process, how rainfall gets partitioned between infiltration and runoff, in natural fields and watersheds that have heterogeneous soil hydraulic properties. He has approached the problem using field experiments, laboratory experiments, modeling, and theoretical process development. He has made innovative use of machine learning techniques and copulas to advance his work.

The Harland Bartholomew Award

The Harland Bartholomew Award recognizes a Society member who is judged worthy of special commendation for enhancement of the role of civil engineers in urban planning and development.



The 2009 winner of the **Harland Bartholomew Award** is **Lester A. Hoel, D.Eng., P.E., F.ASCE, NAE** for significant contributions to the enhancement of civil engineering in urban planning and development through research, publications and education in urban and regional transportation planning. Dr. Hoel is one of the academic leaders in the country who has shaped many of the transportation planning procedures are used in the profession. He has done extensive research in the field, written widely including several text books, that and participated in numerous professional and technical committees related to transportation planning and policy. His contributions to the profession have been recognized by various organizations including ASCE, TRB, ITE, ARTBA and CUTC. He was also elected to the National Academy of Engineering.

Stephen D. Bechtel Pipeline Engineering Award

The Stephen D. Bechtel Pipeline Engineering Award recognizes outstanding achievements by a member of ASCE who, through research, planning, design or construction, has advanced the art, science and technology of pipeline engineering.



William (Bill) C. Pisano, PhD, P.E., M.ASCE is the recipient of the **2009 Stephen D. Bechtel Pipeline Engineering Award** for significant advancements in combined sewer overflow, storage, and collection system improvements and wet weather sewerage system controls and technologies, including authoring over 130 technical papers and manuals of practice on urban runoff flooding, hydraulics and sediment control. Bill Pisano is recognized for his greater than 35 years specialized experience in CSO technology and urban runoff flooding and pollution control. He has been involved in every aspect

of CSO control technologies ranging from research and development, planning, hydrologic and hydraulic modeling, design, construction oversight, and post construction evaluation. For the past 12 years, Dr. Pisano has been actively involved as Technical Director for the City of Cambridge, MA sewer separation and stormwater management program which includes over \$300 million in capital improvements for sewer separation, stormwater management, best management practices controls, and CSO floatables control for the city over a 20 year period. Innovative approaches such as use of flushing and grit control systems, underground storage and pumping facilities in urban areas, flow deflection and hydraulic controls, and floatables controls have been used and shown to be effective in advancing the use of emerging technologies in urban wet weather control. His numerous technical contributions on professional committees, author and presenter of papers, manuals of practice, and research and development ideas have advanced the pipeline industry in urban wet weather control. Dr. Pisano's practical experience, technical knowledge, and understanding of urban runoff and stormwater controls, as well as knowing the impact of regulatory conditions, allows him to have a big picture and strategic approach for each project that has helped improve water quality and enhanced quality of life in each community.

Maurice A. Biot Medal

The Maurice A. Biot Medal was established to recognize the lifetime achievement of Dr. Maurice A. Biot and is awarded to an individual who has made outstanding research contributions to the mechanics of porous materials.

The recipient of the 2009 **Maurice A. Biot Medal** is **Bernhard A. Schrefler, Ph.D.** for his outstanding contributions in the constitutive modeling and numerical implementation of multi-phase, thermo-hydro-chemo-mechanical coupling in porous media, with applications to land subsidence, concrete subject to high temperature, and other geo-environmental problems.

Can-Am Civil Engineering Amity Award

The Can-Am Civil Engineering Amity Award is given to a member of the American Society of Civil Engineers or of the Canadian Society of Civil Engineers for either a specific instance that has had a continuing benefit in understanding and goodwill, or a career of exemplary professional activity that has contributed to the amity of the United States and Canada.



The 2009 **Can-Am Civil Engineering Amity Award** is presented to **Douglas L. Kane, Ph.D., P.E., M. ASCE** for his long career of teaching, research and publications on cold regions engineering hydrology in Alaska and Canada, his involvement in many joint US-Canadian hydrological studies, and for his co-management of the 2008 International Conference on Permafrost. Dr. Kane has served as the General Chair of four international meetings with participation of Canadian engineers and scientists. He has also co-organized several joint USA-Canadian workshops on northern hydrology, such as the Workshop on Northern Experimental Watersheds at the University of Victoria, BC, and continually interacts with more than 20 Canadian engineers and scientists on permafrost and water related issues. He was recently the invited Woo Lecturer at the 2008 Canadian Geophysical Union meetings in Banff, Alberta, and was one of two non-Canadians on the Canadian NSERC review committee for the Mackenzie River GEWIX II studies. Through these efforts, Dr. Kane has been exemplary in coordinating USA-Canadian efforts toward the understanding and application of new engineering knowledge of northern and permafrost hydrology, as well as influencing the direction of future research on climatic warming trends and effects. He has contributed more than 130 publications as primary or co-author, including 18 refereed publications in the last five years. He has fostered Canadian and International goodwill by serving on, and often chairing, many US and International committees, and serves on the editorial board for the international journal *Cold Regions Science and Technology*.

Arthur Casagrande Professional Development Award

The Arthur Casagrande Professional Development Award is presented in recognition of outstanding accomplishments as evidenced by completed works, reports or papers in the field of geotechnical engineering. The award was established to provide professional development opportunities for outstanding young practitioners, researchers and teachers of geotechnical engineering.



Dominic Assimaki, Sc.D., A.M.ASCE is the 2009 recipient of the **Arthur Casagrande Professional Development Award** for her contributions to geotechnical earthquake engineering and engineering geology related to assessing seismic ground motions. Dr. Assimaki is an outstanding researcher and a well-respected professor having earned the 2008 Bill Schutz Junior Faculty Teaching Award at Georgia Tech for her work in enhancing her students' educational experience in the classroom. She has been successful in publishing her research, with fourteen papers published in highly respected journals. Dr. Assimaki is a dedicated member of the geo-community, serving on the Geo-Institute' Earthquake Engineering and Soil Dynamics Committee, as well as a technical reviewer to several journals in the geotechnical earthquake engineering field

Jack E. Cermak Medal

This medal was established by the Engineering Mechanics Division/SEI to recognize Dr. Jack E. Cermak's lifetime achievements in the field of wind engineering and industrial aerodynamics.



The **2009 Jack E. Cermak Medal** is presented to **Theodore Stathopoulos, Ph.D., P.E., F.ASCE** for his contributions to wind engineering, particularly his work that has been the key ingredient in the low rise wind provisions of the Canadian Building Code and the ASCE 7 Standard, affecting the design of millions of buildings. Dr. Stathopoulos has an outstanding research and teaching record in the field of wind engineering. He is among the leading researchers in the area of wind effects on low-rise structures. His doctoral work

led to the current wind load specifications of low-rise buildings in both the ASCE 7 and National building Code of Canada, which has been updated based on his later work in the area. Through these documents his work has influenced the design of countless buildings in North America and many other parts of the world that regard these documents as authoritative design references. He has mentored many graduate students who are currently serving both in academia and industry. He has held numerous leading positions in professional organizations, including chair of ASCE's Aerodynamics Committee, Experimental Analysis and Instrumentation Committee and Wind Effects Committee. He currently serves as chair of the Executive Committee of the Technical Council of Wind Engineering (ASCE), and editor of the International Journal of Wind Engineering and Industrial Aerodynamics.

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 winner of the 2009 **Ven Te Chow Award** is **M. Levent Kavvas, Ph.D., F.ASCE** for notable contributions to engineering hydrology and water resources management, outstanding service to the profession through the founding of the ASCE *Journal of Hydrologic Engineering*, and mentoring of young hydrologic engineers.

Professor M. Levent Kavvas was the founding editor of the ASCE *Journal of Hydrologic Engineering*, and as such initiated an ASCE Journal dedicated expressly to the dissemination of new hydrologic methods and practices to the civil engineering community. Not only that, Professor Kavvas brought this new journal to prominence in the field with enthusiasm and tireless effort. Professor Kavvas has proven himself to be an excellent researcher as shown by the quantity and breadth of his publications, as well as awards received for several of his publications. He has made significant contributions over a broad spectrum of hydrologic research topics, including: mathematical modeling of coupled hydrologic and atmospheric processes over a wide range of scales, prediction of floods and droughts, mathematical modeling of contaminant transport, erosion and sediment transport, infiltration, snow melt, ensemble forecasting, and stochastic hydrology. Professor Kavvas has made seminal pioneering contributions in the area of upscaling of hydrologic governing equations. Professor Kavvas is an outstanding educator in the field of Hydrologic Engineering, as evidenced by the exceptional quality of the many students he has supervised over his career to date.

Civil Government Award

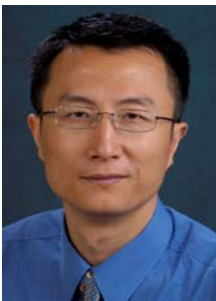
The Civil Government Award recognizes those members of the engineering profession who have rendered meritorious service in elective or appointive positions in government.



The 2009 **Civil Government Award** is presented to **John M. (Jack) Sullivan, P.E., L.S., M.ASCE** in recognition of his accomplishments, vision, and leadership as a Santa Fe County Commissioner from 2001 through 2008 that resulted in enhanced City and County cooperation, greater policy-making transparency, and environmental stewardship. For eight years Mr. Sullivan brought his expertise and integrity to land use planning, water conservation, and affordable housing. During that time, he was dedicated to increasing citizen participation in county government and in bringing transparency to its decisions. His work has provided the Santa Fe County region with the tools to achieve sustainability. Under Jack's leadership, the first county water conservation and water harvesting ordinance was passed. His engineering knowledge and attention to detail were crucial in securing an agreement with the city of Santa Fe to build a \$200 million project to divert, treat and deliver water from the Rio Grande. The project allowed increased use of surface water to enable the reduction of the mining of the region's ground water resources. His insistence on the need for sound data for decision making resulted in a major hydrologic modeling study of county water resources for sustainability planning. During his tenure as Commissioner, Jack Sullivan also served on both the Regional Planning Authority and the Buckman Diversion Board, to address critical regional strategic issues such as growth management, water acquisition and conservation, transit alternatives, and energy use. His professional expertise and leadership were extremely important to the successful planning and implementation of key projects which will ensure the sustainability of the Santa Fe area community for years to come.

Collingwood Prize

The Collingwood Prize is awarded to the author or authors, under 35 years of age, of a paper describing an engineering project with which the author is directly connected, or recording investigations contributing to engineering knowledge to which the author has contributed some essential contributions and which contains a rational digest of results.



Suren Chen, Ph.D., P.E., M.ASCE is the recipient of the 2009 **Collingwood Prize** for the paper, "Equivalent Wheel Load Approach for Slender Cable-Stayed Bridge Assessment Under Traffic and Wind: Feasibility Study," published in the Journal of Bridge Engineering, November-December 2007. Currently, fatigue design only considers one design truck per bridge, which may not be rational for long-span bridges. Dr. Chen's paper develops a new "equivalent dynamic wheel load approach" for considering the complicated interactions between vehicle, bridge, and wind when more than one vehicle may be present by creating equations which are independent of the number of vehicles. The simplification resulting from the new method lays a foundation for advancing bridge design codes to more accurately analyze fatigue for long-span bridges under wind and actual traffic conditions.

Computing in Civil Engineering Award

The Computing in Civil Engineering Award recognizes outstanding achievement and contribution in the use of computers in the practice of civil engineering.



The 2009 **Computing in Civil Engineering Award** is presented to **Teresa M. Adams, Ph.D., F.ASCE**, for her contributions to computing in Civil Engineering, specifically the use of position-based information to model transportation facilities and systems. Teresa Adams is a national leader in directing and obtaining funding for both the Wisconsin Transportation Center and the National University Transportation Center for Freight Infrastructure Research and Education. She has received financial support for research and for the establishment and maintenance of centers that support education and outreach. In doing so she has brought significant resources to bear on problems of interest to ASCE, to TCCIT, and to the computing community. Teresa has also been recognized by ASCE and by TCCIT for serving on committees and for serving in committee and conferences leadership roles. She has been the secretary, vice chair, and chairperson of the Executive Committee of the TCCIT. Teresa has also served on numerous TCCIT committees including the education committee, the database and information management committee, and the artificial intelligence and expert systems committee. Finally she has been recognized by the Journal of Computing in Civil Engineering through its best paper award for having submitted an outstanding paper and also for serving as a member of its editorial board. Additionally, she has also served as the editor or associate editor for two of its Computing in Civil Engineering Congress proceedings. Teresa's journal publications illustrate how effectively and how broadly she has had an impact on the use of computers in the practice of civil engineering. Teresa's work has and continues to touch upon a variety of computing areas including neural networks, fuzzy systems, and expert systems; spatial data; Geographic Information Systems; data integration; and object oriented data modeling

The Construction Management Award

The Construction Management Award recognizes a member of the Society who has made a definite contribution in the field of construction management in general and, more particularly, in the application of theoretical aspects of engineering economics, statistics, probability theory, operations research and related mathematical oriented disciplines to problems of construction management, estimating, costs accounting, planning, scheduling and financing.



Larry J. Smith, P.E., F.ASCE is this year's recipient of the **Construction Management Award** for his outstanding leadership and innovative management of the construction of significant major infrastructure projects, his mentoring of future construction management leaders, and his many contributions to the construction management body of knowledge. Mr. Smith is recognized for his exemplary performance as construction manager of multiple major infrastructure projects such as the Folsom Bridge and major Army and Air Force projects in California and Nevada, as well as significant environmental restoration projects in California. On each project, he displayed intense dedication to ensuring quality construction and personnel safety and a superb understanding of sound

engineering and construction techniques. As a result of his personal dedication and inspiring leadership, each of these highly complex projects was completed ahead of schedule and under budget. Mr. Smith has traveled the globe for the U.S. Army Corps of Engineers, teaching contract administration and construction management and has been in the forefront in developing innovative concepts to address construction management challenges.

J. James R. Croes Medal

The J. James R. Croes Medal is presented to the author or authors of a paper which is judged worthy of the award and to be next in order of merit to the paper to which the Norman Medal is awarded.



Fenves



Filippou



Scott

The **2009 J. James R. Croes Medal** is presented to **Michael H. Scott, Ph.D., M.ASCE, Gregory L. Fenves, Ph.D., M.ASCE, Frank McKenna, Ph.D., and Filip Filippou, Ph.D., M.ASCE** for the paper, “Software Patterns for Nonlinear Beam-Column Models,” *Journal of Structural Engineering*, April 2008. The paper presents a framework for simulating the material and geometric nonlinear response of frame members. This framework enables the establishment of software design patterns to create complex beam-column simulation models by composition of basic building blocks. Separate objects encapsulate material stress-strain behavior and cross-sectional integration in order to increase the modeling flexibility for computing the response of fiber-discretized cross sections. Multiple forms of distributed plasticity in beam-column elements re incorporated in the framework through objects that encapsulate one-dimensional quadrature rules.

Charles Martin Duke Lifeline Earthquake Engineering Award

The Charles Martin Duke Lifeline Earthquake Engineering Award is presented to an individual who has made a definite contribution to the advancement of lifeline earthquake engineering.



The 2009 recipient of the **Charles Martin Duke Lifeline Earthquake Engineering Award** is **Leon Kempner, Jr., PE., Ph.D., M.ASCE** for his sustained support and active participation in innovative research to improve the seismic performance of power systems and the implementations of these methods. Dr. Kempner has been at the forefront of the development and implementation of improved seismic design for electric power systems. Some of his many contributions include heading the ASCE task force that developed ASCE Manual of Practice 113, “Substation Structure Design Guide,” contributing to the development of ASCE Manual Practice 96, “Guide to Improved Earthquake Performance of Electric Power System,” and implementing a significant retrofit program for the Bonneville Power Administration, where he is the point person for earthquake issues. Dr. Kempner was one of the primary motivators for establishing a consortium of utilities under the Electric Power research Institute to qualify power equipment using IEEE 693 and has expanded the scope of the group to evaluate and improve the standard and to conduct research. Thus, in addition to research to develop methods to improve the performance of power systems to earthquake, he has taken the next critical step of implementing these methods to actually affect power system performance.

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.



The 2009 **Hans Albert Einstein Award** is presented to **William H. McAnally, Ph.D., P.E., F.ASCE** for his exemplary career as a researcher, manager, and educator, most notably his outstanding contributions to the engineering profession in the areas of hydraulics, sedimentation, and environmental and navigation engineering, and for his inspirational teaching, mentoring, and professionalism. Dr. McAnally has demonstrated a lifetime of achievements as an accomplished researcher, practitioner and science manager. As a member of ASCE he has contributed in many ways over the years to the success and excellence of ASCE.

He has had a distinguished career with the USACE and continues with his activities at MSU. He was a pioneer in watershed approaches and institutionalized regional sediment management in the Corps and continues these studies in a multi-agency environment through the Northern Gulf Institute. The body of sedimentation research was advanced in estuarine sedimentation through his own research in cohesive sediments as demonstrated in his co-authorship of the ASCE Sediment Manual. He continues research excellence through teaching and mentoring of graduate students.

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.



Bruce E. Rittman, Ph.D., M.ASCE is the recipient of the 2009 **Simon W. Freese Environmental Engineering Award and Lecture** for pioneering the development of biofilm fundamentals and contributing to their widespread use in the cleanup of contaminated waters, soils and ecosystems.

Edmund Friedman Professional Recognition Award

The Edmund Friedman Professional Recognition Award is presented to a member, except an Honorary Member, of the Society who is judged to have contributed substantially to the status of the engineering profession by establishing a reputation for professional service.



The recipient of the 2009 **Edmund Friedman Professional Recognition Award** is **Berrin Tansel, Ph.D., P.E., BCEE, D.WRE, F.ASCE** for her outstanding contribution to educational outreach and engineering activities. Her passion for the civil engineering profession and her commitment to mentoring has made a tremendous impact on the vitality, perception, and future of civil engineering. Dr. Tansel has distinguished herself as a member of the civil engineering profession who has advanced “the science and profession of engineering” while serving as an Associate Professor of Civil and Environmental Engineering at the Florida International University (FIU).

Dr. Tansel has provided leadership in the professional development of young engineers and in guiding qualified students seeking civil engineering as a career. She serves as the Associate Director of the Center for Diversity in Engineering and Computing where she leads educational activities to increase the participation of women and minorities in civil and environmental engineering disciplines. She has been actively involved in the FIU student chapter of ASCE and has initiated programs with local public and private organizations to provide internships and training opportunities for students. She has been a mentor for numerous students and helps them prepare for job interviews and oral presentations. Furthermore, she serves on the Undergraduate Program Advisory Committee and the Academic Policies Committee. Dr. Tansel has served on numerous national professional committees including the ASCE Environmental Effects Committee; the ASCE Disaster Mitigation Committee of the Council on Disaster Risk Management; the Infrastructure Security Partnership Educational Outreach Committee of the National Academic Consortium for Homeland Security; and the editorial boards of the *Water Environment Research*, *Journal of Energy Engineering*, *Journal of Environmental Management*, and *Water, Air, and Soil Pollution*

Edmund Friedman Young Engineer Award for Professional Achievement

The Edmund Friedman Young Engineer Award for Professional Achievement is made to younger members of ASCE (35 years of age or younger) who are judged to have attained significant professional achievements by the degree to which they have served to advance the profession; exhibited technical competence, high character and integrity; developed improved member attitudes toward the profession; and contributed to public service outside their professional careers.

The 2009 Edmund Friedman Young Engineer Award for Professional Achievement is being presented to five outstanding engineers. They are: **Alysen M. Abel, P.E., M.ASCE; Stefanie R. Fishman, P.E., M.ASCE; Clay A. Forister, P.E., M.ASCE; Peter Moore, P.E., M.ASCE; and Brian Udovich, P.E., M.ASCE.**



Alysen Abel's involvement in ASCE began when she was a student at the University of Evansville and has continued over the years in the Kansas City Section. She has filled a variety of board positions from Newsletter Editor to President-Elect (2008-2009). Nationally, she has been both a member and corresponding member of the Committee on Diversity and Women in Civil Engineering. On behalf of the Kansas City Section, Alysen led the charge to create the ASCE Engineering Explorer Post, which is part of the Boy Scouts' Learning for Life Center. Alysen is also active in the Joint Engineers Council – Kansas City, the Western Chapter of the Missouri Society of Professional Engineers (MSPE), the KC Metro Chapter of the American Public Works Association (APWA), the American Society for Engineering Management, and the Kansas City Engineers Week Luncheon. Most impressively, she currently holds leadership positions in most of these organizations. Alysen is currently with the City of Overland Park, Kansas planning department. She received her BS from the University of Evansville and her MS (in Engineering Management) from the University of Kansas. She was recognized as the KC Metro Chapter APWA Young Leader of the Year and the MSPE Young Engineer of the Year. She leads by example and fosters outreach to students in all her activities.



Stefanie Fishman has been involved in ASCE on the local, regional, and national level. After being Younger Member Forum President in the San Francisco Section, Stefanie continued her leadership immediately after moving to Seattle, where she recently finished a year as the Seattle Section Younger Member Forum Past Executive. On a national level, Stefanie is a member of the Website Advisory Task Committee and has served as a corresponding member for the Committee on Younger Members, where she assists in a variety of ways, including filling the role of eRoom moderator. Stefanie is also a member of the Institute of Transportation Engineers (ITE). Stefanie is a senior transportation engineer for The Transpo Group in Kirkland, Washington. She has managed and conducted hundreds of transportation studies, advised public and private sector clients, and identified and developed feasible solutions to mitigate transportation impacts associated with development. She received her BS from the University of New Hampshire, Durham and her MS from the University of California, Berkley. Stefanie is licensed in three states. In addition, she received the 2005 Outstanding Younger Member Award from the San Francisco Section. Stefanie is a highly motivated professional making a difference through her career, her community service, and her involvement in ASCE.



Clay Forister is an active member of the Houston Branch of the Texas Section of ASCE. He currently serves as the Branch's Vice President of Administration, having previously filled a variety of roles ranging from Sand Castle Team Chair to Treasurer. He has also served on the Texas Section Planning Committee and is a corresponding member to ASCE's Committee on Leadership and Management. Clay is also a member of the Society of American Military Engineers, the Institute of Transportation Engineers (ITE), and has held many leadership positions with the Texas A&M

Howdy Club. Clay is currently a project manager for LJA Engineering & Surveying, Inc. He participates in business development, designer supervision, specification development, and cost estimating. His design experience includes roadway alignment and geometry, intersections, hydraulic design, pavement markings, and field investigations for a variety of roadway reconstruction and widening projects. Clay graduated from Texas A&M University and is a licensed professional engineer in the state of Texas. In addition, Clay has received repeated recognition for his essays on ethics (local and Society level Daniel Mead Prize for Younger Members). Clay has strong technical and management skills, a laudable work ethic, and a willingness to learn.



Peter Moore has been involved in all levels of ASCE. He was President of the Broward Branch in 2004-2005, he is the current Florida Section Secretary/Treasurer, and he has been both a member of and a corresponding member to the Committee on Younger Members. In addition, Peter has been a judge for Concrete Canoe – both for the Southeast Student Regional and the national competition. Peter is also a member of the Florida Engineering Society, where he has held a variety of positions, including President of the Broward Chapter, the Association of Floodplain Managers, the Florida Institute of Consulting Engineers, and Florida Water Environment

Association. Peter joined Chen and Associates in 1999, becoming the firm's President and Chief Executive Officer in 2008. He is responsible for day-to-day operations and the implementation of procedures for project management, human resources, and financial planning. His efforts are centered on an open book mentality and communication extending throughout all levels of the organization. He received both his BS and ME in Civil Engineering from the University of Florida and is licensed in Florida. Peter was published in proceedings from the Transportation Research Board and has given technical lectures for various organizations. Under his leadership, Chen and Associates has been recognized by ASCE, Zweig, the Environmental Business Journal, and several Chambers of Commerce. Peter is committed to the pursuit of improving both the engineering community and his local community.



Brian Udovich has been contributing to ASCE since his days as a student member. He served the Wisconsin Section Younger Member Group, and has completed the presidential rotation for the Southeast Branch. Brian is currently Section Director-At-Large. In addition, he is a former corresponding member to the Committee on Younger members and is a member of the Transportation and Development Institute's Transportation Safety Committee. Brian is also a member of the Institute of Transportation Engineers (ITE), Chi Epsilon, and Tau Beta Pi. He regularly assists in student outreach programs, from Project Lead the Way to Future City and

MathCounts. Brian is a project manager for R.A. Smith National, Inc. in the greater Milwaukee area. He specializes in transportation and traffic engineering, with experience in rural and urban roadways, traffic, subdivision/development, and a variety of studies. In addition, he is a guest lecturer at Marquette University. Brian received his BS from the University of Wisconsin-Platteville and his MS from Marquette University. He is licensed in the state of Wisconsin. In addition, he received the Martin Bruening Award from ITE for a published technical paper entitled "Managed Lanes: Managing to Improve our freeways" in 2005. Brian has been a leader in the Wisconsin Section, the Southeast Branch, and in community activities.

Samuel Arnold Greeley Award

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



Dvorak

The 2009 **Samuel Arnold Greeley Award** is presented to **Bruce I. Dvorak, Ph.D., P.E., M.ASCE, Matthew Morley, Ph.D., P.E., M.ASCE, and Patrick Denning, P.E.** for the paper, "Relative Impact on GAC Usage Rates of Operating Strategies for Treatment of Contaminated Groundwater." Practice Periodical of Hazardous, Toxic, and Radioactive Waste Management, April 2008. In this work, several operating strategies for GAC adsorption systems were explored, using the groundwater treatment systems at the former Nebraska Ordnance Plant as a case study. The alternative methods of operating the existing GAC columns to minimize GAC usage

rates were evaluated. A mathematical model was utilized to simulate alternative operating scenarios along with variable influent concentrations. It was found that blending effluent from parallel columns would result in the lowest GAC usage rate when the target effluent C/C_0 was > 0.3 . Lead-lag operation would be best when the target effluent C/C_0 was < 0.1 . Only between a targeted effluent C/C_0 of 0.1 and 0.3 did the percent of the mass transfer zone contained in the column become important. Decreasing the TCE influent concentration prior to the GAC treatment system by air stripping may reduce the GAC replacement costs but has significant new capital costs. Because contaminant levels in the extraction wells vary, influent segregation has the potential to reduce GAC usage rates by up to 65% with a relatively low capital expenditure. The results of the work are original, informative and are useful for engineering designs and operation of GAC treatment systems to be used for groundwater remediation.

Shortridge Hardesty Award

The Shortridge Hardesty Award is given to a member or members of the Society who have contributed substantially in applying fundamental results of research to the solution of practical engineering problems in the field of structural stability.



Jerome F. Hajjar, Ph.D., P.E., F.ASCE is the 2009 recipient of the **Shortridge Hardesty Award** for his distinguished engineering career and for outstanding research in the areas of composite behavior, seismic design and steel frame stability contributing to the standards for steel and composite construction. Dr. Hajjar has contributed substantially in applying fundamental results of research to solution of practical engineering problems in the field of structural stability. He was the lead author on the ASCE Task Committee's development of the book, *Effective Length and Notional Load Approaches for Assessing Frame Stability: Implications for American Steel Design*. His contribution has had a major impact on the profession. This

synthesis of the State-of-the-Art in 1997 led to the creation of an AISC-SSRC Ad Hoc Committee that studied the potential for implementation of improved ASIC stability design methods from 1999 to 2002. This effort was continued in 2002 by ASIC's Technical Committee on Stability and led to inclusion of the new Direct Analysis Method and First-Order Analysis Method provisions in the 2005 AISC Specifications. Dr. Hajjar was actively involved in all of these developments and has authored a number of informative journal papers on this topic. In addition, Dr. Hajjar has contributed substantially to the understanding of the stability and seismic behavior and design of composite beam-columns. His research in this area has provided key information leading to updates in the composite column design provisions of the 2005 AISC Specification. He has published extensively in this area, and his research has included analytical developments, numerical methods for member and system analysis and experimental testing. He is probably the most knowledgeable engineer on the subject of composite columns and their end connections.

Rudolph Hering Medal

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



Mayer

The 2009 **Rudolph Hering Medal** is presented to **Karen L. Endres, Alex Mayer, Ph.D., M.ASCE, and David W. Hand, Ph.D.** for the paper, "Equilibrium versus Nonequilibrium Treatment Modeling in the Optimal Design of Pump-and-Treat Groundwater Remediation Systems." Journal of Environmental Engineering, August 2007. The paper describes how to incorporate granular activated carbon (GAC) treatment model that accounts for nonequilibrium adsorption into the optimal design of pump-and-treat systems and why such incorporation would result in more realistic costs and better-engineered remediation systems.

The work indicates that when simpler equilibrium models are used for GAC adsorption, cleanup costs will be underestimated. The method developed by the work may help people to predict cost of remediation strategies and to optimize remediation designs.

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.



Socolofsky



Jirka

The recipients of the 2009 **Karl Emil Hilgard Hydraulic Prize** are **Volker Weitbrecht, Dr. Ing., Scott Socolofsky, Ph.D., M.ASCE, and Gerhard Jirka, Ph.D., F.ASCE** for authorship of “Experiments on Mass Exchange between Groin Fields and Main Stream in Rivers,” Journal of Hydraulic Engineering, Vol. 134, No. 2, February 2008, deemed by a select committee of the Editorial Board to be the best technical paper published in the journal in the twelve-

month period up to and including June 2008. The authors performed a thorough set of experiments that identify the key mechanisms for the exchange of tracer between the main channel of a river and a groin field. The measurements allow for exchange rates to be estimated in two ways and for a parameterization to be developed that applies well over a range of geometries. Deviations from the proposed relationship are explained.

Julian Hinds Award

The Julian Hinds Award is given to recognize the author or authors of that paper that is judged to make the most meritorious contribution to the field of water resources development. That 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 2009 **Julian Hinds Award** is presented to **Richard M. Vogel, Ph.D., M.ASCE** for his advancement of the practice and science of water resources planning and management by providing rigorous and needed statistical foundations for analysis of important problems and issues related to water quality, reservoir operation, low flows and extreme events. In the words of Dr. Nicholas Matalas, Dr. Vogel is recognized for “his advancement of the practice and science of water resource planning and management

through his hydrologic research, his extension of the results of hydrologic research to problems of other disciplines, his participation in the affairs of professional societies, notably the American Society of Civil Engineers and the American Geophysical Union, and his encouragement of students to pursue engineering careers.” Dr. Matalas notes that “Many threads run through Vogel’s research, but the two, blending historical perspective and currency and blending hydrologic research and its direct linkage to water resources planning and management suffice to illustrate the high caliber of his work.” Dr. Vogel’s work has addressed the regionalization of runoff parameters, the use of bootstrapping in climate change research, the correct interpretation of the storage-yield relationship in developing indicators, a global relation for storage-yield in estimating global needs for storage under climate change, and statistical analysis of water supply costs. Dr. Hirsch, formerly Chief Hydrologist of the USGS reports that, “He has been a great contributor to the hydrologic methods used by the USGS and has advised me and others who manage

and conduct the work of our agency.” Dr. Vogel has also been generous and dedicated to serving the profession. Some of these contributions include editorial positions in the Journal of Water Resources Management and Planning, committee leadership positions, and support for faculty and students entering the field.

Civil Engineering History and Heritage Award

The Civil Engineering History and Heritage Award is presented to those persons who, through writing, research or other efforts, have made outstanding contributions to a better knowledge of, or appreciation for, the history and heritage of civil engineering.

The 2009 recipients of the **Civil Engineering History and Heritage Award** are **Howard H. Newlon, Jr., P.E., F.ASCE** and **Ronald C. Cox, Ph.D., C.Eng.**



Newlon

Mr. Newlon is recognized for his pioneering initiative to document and preserve the history of transportation, including early roads and significant structures, and to recognize the many contributions of notable civil engineers in the development of our nation’s transportation system. Among his many contributions, Mr. Newlon served on ASCE’s Committee on History and Heritage of American Civil Engineering and chaired the Virginia Section’s History and Heritage Committee. He is also past chairman of American Concrete Institute’s Committee on History, and is a past chairman of the Transportation Research Board’s Subcommittee on Historic Preservation Related to Transportation and its Committee on Social, Economic, and Environmental Factors. He has received an Honor Award from the National Trust for Historic Preservation for his contributions to protecting and preserving the nation’s historic bridges, and has been designated as “Virginia’s Outstanding Civil Engineer” by the Virginia Section of the American Society of Civil Engineers.

Mr. Cox is recognized for his tireless promotion of civil engineering history in his home country of Ireland and the international engineering community through many books and papers in respected journals and his founding directorship of the Centre for Civil Engineering Heritage, Dublin.

Wesley W. Horner Award

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



Lo

The 2009 winners of the **Wesley W. Horner Award** are **Keith C. K. Lai, Ph.D., A.M.ASCE** and **Irene M. C. Lo, Ph.D., M.ASCE** for the paper, “Effects of Seepage Velocity and Temperature on the Dechlorination of Chlorinated Aliphatic Hydrocarbons.” Journal of Environmental Engineering, September 2007. Permeable reactive barriers (PRBs) packed with zero-valent iron (ZVI) are a promising technology for in situ remediation of groundwater contaminated with chlorinated aliphatic hydrocarbons. The rate of dechlorination, however, is affected by many factors, particularly seepage velocity and

groundwater temperature. This work investigated the influence of seepage velocity and groundwater temperature on the dechlorination rates of trichloroethylene (TCE) and tetrachloroethylene (PCE) by zero-valent iron using laboratory column tests. Experiments were implemented using laboratory ZVI-packed columns simulating the

field ZVI PRB systems and operating conditions. The results are original, informative and are useful for engineering designs of field ZVI PRBs.

Ernest E. Howard Award

The Ernest E. Howard Award is given to a member of the Society who has made a definite contribution to the advancement of structural engineering through research, planning, design or construction.



The **2009 Ernest E. Howard Award** is presented to **Thomas M. Murray, Ph.D., P.E., F.ASCE, NAE** for his sustained and notable contributions to the fundamental understanding and mitigation of floor vibrations due to human occupants in steel buildings. Professor Murray is best known as the world's foremost expert on the problems related to the vibration of building and bridge structures under human, industrial and environmental excitation. This is evidenced by his many awards, including election to the National Academy of Engineering in 2002 for leadership in developing criteria for floor serviceability and major contributions to structural-steel design engineering practice. Professor Murray has built and managed two successful structural engineering laboratories, one at the University of Oklahoma; the other at Virginia Tech. He assisted in the design of the first retractable playing field for football in the United States. In addition, Professor Murray has conducted extensive research in end plate moment connections. This research has led to practical guidelines on the design of this popular connection type, used extensively by practicing engineers in routine building design.

Walter L. Huber Civil Engineering Research Prizes

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.

Tarek H. Abdoun, Ph.D., M.ASCE, Lori Graham-Brady, Ph.D., M.ASCE, Gregory V. Lowry, Ph.D., M.ASCE, Srinivas Peeta, Ph.D., M.ASCE, and Eric B. Williamson, Ph.D., P.E., M.ASCE are presented the 2009 **Walter L. Huber Civil Engineering Research Prizes**.



Tarek H. Abdoun, Ph.D., M.ASCE is honored for significant contributions to the study of soil and soil-structure systems subjected to extreme events using centrifuge modeling and advanced instrumentation. He has distinguished himself by his research on the behavior of soil and groundwater during earthquakes and hurricanes. His work has been innovative and highly creative, and has involved novel experiments with the geotechnical centrifuge as well as the development of specialized instrumentation for measuring interaction pressures between soil and structures, such as pile foundations and pipelines. His

centrifuge studies have improved our understanding and engineering approaches for soil liquefaction; liquefaction-induced ground deformation and its interaction with deep foundations; earthquake performance of waterfront structures; blast effects on

embankments, dikes and levees; fault rupture effects on underground pipelines; behavior of bridge foundations; advanced geotechnical sensors; and performance of tunnels. Representative of his achievements are the contributions he made to evaluating levee failure along the New Orleans drainage canals after Hurricane Katrina. Professor Abdoun was a member of the Interagency Performance Evaluation Task Force (IPET) investigation organized by the US Army Corps of Engineers to evaluate the causes of New Orleans hurricane protection system failures during Hurricane Katrina.



Lori Graham-Brady, Ph.D., M.ASCE is recognized for her advances in computational stochastic mechanics, in particular related to the development of models for random meso-scale constitutive properties, stochastic simulation of material microstructure, and buckling/post-buckling analysis of structures with random material properties. She has become one of the top researchers in the field of stochastic mechanics. She was one of the first to develop tools for micromechanics of materials with random microstructure. This focus on materials has been a new and very fruitful direction for probabilistic mechanics. She recognized that the accuracy of

stochastic finite element methods hinges on the appropriate modeling of the random material properties. The rigorous research on this issue was initiated by her when she began to delve into micromechanics and realized that the microstructure can be modeled for better understanding of the nature of random variations that occur naturally in many material properties. Micromechanics of random media is a new and highly important area in the field of stochastic mechanics. She co-founded and now serves as Vice-Chair of a new committee on Uncertainty and Probabilistics in the Applied Mechanics division of ASME; she is active in the Probabilistic Methods committee of the ASCE Engineering Mechanics Institute, and she participates in the activities of the International Association for Structural Safety and Reliability.



Gregory V. Lowry, Ph.D., M.ASCE is honored for development and deployment of novel engineered iron nanoparticles for in situ treatment of chlorinated contaminants in groundwater systems, and for evaluation of the fate, transport, and toxicity of nanomaterials released to the environment. He is recognized for his interdisciplinary research that has developed novel polyelectrolyte-coated functionalized reactive Fe^0 nanoparticles for groundwater remediation of chlorinated solvents and heavy metals. More specifically his group developed the fundamental understanding of the physico-chemical processes affecting the transport and reactivity of these particles. A combination of basic and applied

research has led to commercial Fe^0 nanoparticles with the optimal properties for emplacement, leading to more successful application of these materials in the field. It is noteworthy that Professor Lowry partnered with toxicologists and health specialists to examine the possible implications of these nanoscale materials to human health and organisms in the environment. He has made significant contributions to moving nanoremediation technology forward from the laboratory to practice application in the field.



Srinivas Peeta, Ph.D., M.ASCE is recognized for his outstanding research contributions to the advancement of transportation network modeling. He is known for the application of control theory, fundamental techniques in operations research and advanced computational methods to large scale transportation networks. He has conducted significant research contributing to the areas of dynamic traffic networks and driver behavior under route guidance. His seminal work in the area of dynamic traffic assignment represents a standard for research reference, and has guided the US Department of Transportation's development of a deployable architecture for real-time route guidance in large-scale transportation systems equipped with advanced information dissemination technologies. His work has made it possible to study interdependencies among critical infrastructure systems from a network perspective to generate holistic disaster response strategies. Dr. Peeta was part of a team that developed the DYNASMART series (DYNASMART-P and DYNASMART-X) software for the Federal Highway Administration, which provides state-of-the-art tools for transportation network planning and real-time traffic operations and control.



Eric B. Williamson, Ph.D., P.E., M.ASCE is honored for seminal research in the fields of blast-resistant structural design and progressive collapse. Results of his work have led to the first-ever AASHTO LRFD specifications for the design of bridge components subjected to blast. He is a highly-regarded researcher and has performed pioneering work in the area of dynamic and nonlinear response of structures subjected to severe loadings. The results of his research for blast-loaded bridge components have made a significant contribution to the state-of-the-art in vulnerability assessment and hardened design for these structures. Dr. Williamson has worked in developing requirements for the design of buildings to resist progressive collapse and his research has led to the first-ever introduction of blast-resistant design requirements in the AASHTO LRFD Specifications. He serves as a control group member on the ASCE Committee on Progressive Collapse of Structures, and he has recently become Chair of the ASCE Committee on Bridge and Tunnel Security, positions that demonstrate Dr. Williamson's stature in the fields of infrastructure security and progressive collapse.

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.



The 2009 **Hydraulic Structures Medal** is presented to **Duncan Hay, P.E., A.M.ASCE** for his career of more than 40 years in which he has been instrumental in the successful completion of numerous hydraulic structures, fish passage, physical model studies, and costal engineering projects and for his mentorship of those with whom he associates.

International Coastal Engineering Award

The International Coastal Engineering Award is given to an individual who has made significant contributions to the advancement of coastal engineering in the form of engineering design, teaching, professional leadership, research, planning, or a combination thereof.

Hans F. Burcharth is the recipient of the **2009 International Coastal Engineering Award** for his outstanding contributions to the design of coastal and port structures, and leadership and service to the profession.

Martin S. Kapp Foundation Engineering Award

The Martin S. Kapp Foundation Engineering Award recognizes contributions to design or construction of foundations, earthworks, retaining structures, or underground construction. Emphasis is placed on constructed works in which serious difficulties were overcome or substantial economies were achieved.



The 2009 recipient of the **Martin S. Kapp Foundation Engineering Award** is **Dan A. Brown, Ph.D., P.E., M.ASCE** for his contribution to improvements in the design and quality of drilled shaft construction through research in testing and construction, as well as extensive consulting experience on large scale foundation projects. Dr. Brown's extensive research experience has led to dozens of notable published works, among them the upcoming publication of the FHWA's *Drilled Shaft Foundations Design and Construction Manual* of which he is a co-author. This manual will serve as a standard in the profession for many years to come. Further, his years of service to several geo-professional organizations, including the Geo-Institute, demonstrates his dedication to advancing the profession, specifically in the area of deep foundations. He is currently the technical program chair of the upcoming International Foundations Congress and Equipment Exposition to be held in Orlando in March 2009. Further, Dr. Brown is a past recipient of the Walter L. Huber Civil Engineering Research Prize for his research on analysis, design and testing of deep foundations for highway bridges.

The James Laurie Prize

The James Laurie Prize is made annually to a member of the American Society of Civil Engineers who has made a definite contribution to the advancement of transportation engineering, either in research, planning, design, or construction, these contributions being made either in the form of papers or other written presentations, or through notable performance or specific actions which have served to advance transportation engineering.



Fred L. Mannering, Ph.D., M.ASCE is this year's recipient of the **James Laurie Prize** for his outstanding contribution to the advancement of transportation engineering through his influential research and publication in the area of highway safety. Dr. Mannering is one of the most well-recognized academics in the transportation field. His scholarly research and publications are well known and have contributed greatly to advancements in civil engineering. His teaching has provided the next generation of civil engineering professionals with the knowledge and motivation to excel. He has made significant contributions in statistical analyses of safety hazards, travel demand modeling, transportation planning,

highway design and transportation economics. His co-authored book, “Principles of Highway Engineering and Traffic Analysis,” is one of the basic texts in highway engineering. He is also known for his role as editor-in-chief of Transportation Research Part B, one of the most prestigious journals in the transportation field.

Walter LeFevre Award

The Walter LeFevre Award recognizes academic institutions for their outstanding actions in promoting licensure, ethics and professionalism.



United States Military Academy



University of Evansville

The **Walter LeFevre Award for Large Program** is presented to the **United States Military Academy Civil Engineering Division** for exemplary promotion of licensure, ethics and professionalism in engineering education in a large program. The recipient for this year’s **Award for Small Program** is the **University of Evansville Civil Engineering Program**.

T. Y. Lin Award

The T. Y. Lin Award recognizes contributions to the field of prestressed concrete.



Breen



Kreger

Tanya Luthi, Jeffrey R. Diephuis, P.E, Juan Jose Icaza A., A.M.ASCE, John E. Breen, P.E., F.ASCE, and Michael E. Kreger, P.E., M.ASCE are presented the 2009 **T. Y. Lin Award** for original and significant contributions to the development of posttensioned construction described in “Effects of Duct Types and Emulsifiable Oils on Bond and Friction Losses in Posttensioned Concrete,” Journal of Bridge Engineering,

January/February 2008.” Emulsifiable oils are often used in posttensioned construction to reduce friction losses and provide temporary corrosion protection for tendons prior to grouting. This paper addresses the effects of two emulsifiable oils and threeduct types on bond and friction losses. Bond test results indicate that corrugated galvanized steel ducts provide better anchorage than corrugated HDPE ducts. Rigid steel pipes performed poorly because of failure at the duct-concrete or grout-duct interface. Bond test results also indicate that the ultimate strength of posttensioned specimens with oiled tendons is similar to or better than the ultimate strength of specimens with unoled tendons. However, specimens with oiled tendons experience greater slip at a given load than specimens with unoled tendons. Friction test results indicate that current recommended design values for the coefficient of friction for steel pipes and galvanized ducts are

accurate. However, the measured coefficient for HDPE ducts is significantly less than the AASHTO-recommended value. Friction tests also indicate that lubrication of the tendon reduces the friction coefficient by 15% in rigid steel pipes and HDPE ducts if stressing occurs while the oil is fresh.

Frank M. Masters Transportation Engineering Award

The Frank M. Masters Transportation Engineering Award is given to a member of the Society for the best example of innovative or noteworthy planning, design, or construction of transportation facilities.



Mitsuru Saito, Ph.D., P.E., F.ASCE is presented the 2009 **Frank M. Masters Transportation Engineering Award** for his innovative research and teaching in transportation planning and engineering. Through his research, teaching, and professional activities, Dr. Saito has advanced the field of transportation engineering. His continued efforts on innovative research and teaching have enriched the transportation engineering field.

He set up an innovative, interactive, practice oriented transportation laboratory teaching tool. His pioneering contributions using video images taken by traffic monitoring cameras to dynamically estimate delays at signalized intersections starting in 2000 led to other studies and techniques using video images. He also developed methods for the simultaneous optimization of land use and transportation system upgrades which showed the importance of merging land use planning and transportation planning. He also made major contributions in the area of work zone safety and operation. As an active volunteer, he has served in a number of roles in ASCE's Transportation and Development Institute as a member of the Infrastructure Systems and the Transportation Operations Committees. He has served as reviewer of papers for the T&DI journals. He is a Professional Engineer in Utah and New Jersey. Since serving at Brigham Young University since 1997, he has rejuvenated and re-established the transportation engineering program helping it evolve into an active center of transportation research and education.

Daniel W. Mead Prize for Students

The Daniel W. Mead Prize for Students is awarded to the author or authors of a paper on professional ethics. Each year the specific topic of the contest is selected by the ASCE Committee on Student Services.



The 2009 **Daniel W. Mead Prize for Students** is presented to **Roshani J. Patel, S.M.ASCE** for the paper "A Sustainable Future."

Daniel W. Mead Prize for Younger Members

The Daniel W. Mead Prize for Younger Members is awarded to the author or authors of a paper on professional ethics. Each year the specific topics, if any, of the contest for the forthcoming year will be selected by the Committee on Younger Members.



Howard Lubliner, P.E., A.M.ASCE is the recipient of the 2009 **Daniel W. Mead Prize for Younger Members** for the paper, “Is it Ethical for a Civil Engineer to Relax Design Standards to Achieve a Sustainable Design?” Howard’s winning paper “Taking the High Road” answers the question of whether it is ethical for a Civil Engineer to relax design standards to achieve a sustainable design. The paper does an excellent job of describing the challenges of considering sustainable design in the field of highway engineering. Howard is a highway designer for the Kansas Department of Transportation, where the issues of sustainability and context

sensitivity are increasingly at the forefront of dialog regarding the development of appropriate highway projects. He focuses on the difference between a policy document/guide and a design standard, describing how roadway designers weigh various aspects of design – such as cross section elements and mitigation measures – against environmental and safety concerns on a daily basis. Ultimately, Howard decides no answer can address every situation, but rather, it is the responsibility of engineers to “use their judgment to balance these interests and develop the appropriate solution” because engineers seeking to provide for public welfare should consider sustainability along with other elements.

In addition, a Letter of Commendation was conferred on **Jessica Keahey, A.M.ASCE**.

Thomas A. Middlebrooks Award

The Thomas A. Middlebrooks Award is made to the author or authors of a paper published by the Society judged worthy of special commendation for its merit as a contribution to geotechnical engineering. Papers written by young engineers are given preference.



Fox

The 2009 **Thomas A. Middlebrooks Award** is presented to **Patrick J. Fox, Ph.D., M.ASCE** and **Robert H. Kim** for the paper: “Effect of progressive failure on measured shear strength of geomembrane/GCL interface”, Journal of Geotechnical and Geoenvironmental Engineering, 134(4).

Raymond D. Mindlin Medal

The Raymond D. Mindlin Medal is awarded to an individual in recognition of outstanding research contributions to applied solid mechanics.

Jan D. Achenbach, Ph.D. is the recipient of the 2009 **Raymond D. Mindlin Medal** for his exceptional and lasting contributions in wave theory, vibration and dynamic analysis of materials and structural systems, non-destructive evaluations related to flaw and fracture detection in aging aircraft and civil and mechanical systems.

John G. Moffatt-Frank E. Nichol Harbor and Coastal Engineering Award

The John G. Moffatt-Frank E. Nichol Harbor and Coastal Engineering Award is given to a member of ASCE, who has made definite contribution in the field of harbor and coastal engineering in the form of either written presentations or notable performance, and serves to recognize new ideas and concepts that can be efficiently implemented to expand the engineering or construction techniques available for the harbor and coastal projects.



The recipient of the 2009 **John G. Moffatt-Frank E. Nichol Harbor and Coastal Engineering Award** is **Ronald M. Noble, P.E., L.S., F. ASCE** for consistent use of new concepts and innovation in the design and construction of coastal harbors, marinas and beach projects worldwide. His efforts have included studies, analysis, investigations, development, and calibration of new computer models for hydraulics, wave actions and testing. This award is presented to Ron Noble who has provided over 40 years of leadership in the ports and harbors industry. Mr. Noble has consistently demonstrated new concepts and innovation in the design and construction of costal harbors and marinas world wide in 35 countries. His efforts have included the studies, analysis, investigations, development, and calibration of new computer models for hydraulics, wave actions and testing. He has also been a leader in the profession through short courses and chairing ASCE specialty conferences. In addition, he has been responsible for the management and principle-in-charge of a marine division for a large international consulting firm and the owner and principle-in-charge of his own well recognized firm. Throughout his career, Mr Noble has been asked to provide leadership and expertise in the field of coastal waters and hydraulics including chairing the national standards for flooding at nuclear power plants through the American National Standards as well as the American Nuclear Society Committee and the International Atomic Energy Agency Committee. Additionally, he has been responsible for numerous technical papers and provided expert testimony and review for a number of local and state agencies.

Moisseiff Award

The Moisseiff Award is given to the author or authors of an important paper published by the Society dealing with the broad field of structural design, including applied mechanics, as well as the theoretical analysis or construction improvement of engineering structures, such as bridges and frames, of any structural material.



Barbato



Conte

The 2009 **Moisseiff Award** is presented to **Alessandro Zona, Ph.D., Michele Barbato, Ph.D., M.ASCE**, and **Joel Conte, Ph.D., M.ASCE** for the paper, "Nonlinear Seismic Response Analysis of Steel-Concrete Composite Frames," Journal of Structural Engineering, June 2008. The paper provides excellent insight into the natural vibration properties and nonlinear seismic response behavior of Steel-Concrete-Composite frame structures and how they are influenced by various modeling

assumptions. Among other important findings, it is demonstrated that a proper representation of the shear connection boundary conditions for all composite beams is crucial for accurate response simulation.

Nathan M. Newmark Medal

The Nathan M. Newmark Medal is bestowed upon a member of the Society who, through contributions in structural mechanics, has substantially strengthened the scientific base of structural engineering; these contributions having been made in the form of papers or other written presentations.



Chandrakant S. Desai, Ph.D., P.E., F.ASCE is the recipient of the 2009 **Nathan M. Newmark Medal** for outstanding and seminal contributions for development and application of new constitutive models, laboratory test devices, and computational methods in geomechanics, structural mechanics, and in other areas in engineering.” Dr. Desai’s main area of interest has been geomechanics with emphasis on constitutive modeling for complex geomaterials (soils and rocks) and interfaces and joints, laboratory testing and computational mechanics. His contributions in constitutive modeling based on the fundamental mechanics principles have led to innovative and generalized models. Consequently, in addition to mechanics of geomaterials, such unified models have found applications for other materials such as asphalt concrete in pavement engineering, alloys (lead and lead-free) and silicon with impurities in electronic packaging, and glacial till for motion of ice sheets and glaciers. Dr. Desai has worked actively and achieved a high level of success in the area of computational mechanics, with emphasis on the finite element and finite difference methods, and material modeling. He has developed a number of new procedures, which have found application in geomechanics, structural mechanics with static and dynamic soil-structure interaction, flow through deformable media, and pavement engineering within civil engineering.

Alfred Noble Prize

The Alfred Noble Prize recognizes a technical paper of exceptional merit accepted by the Committee on Publications of ASCE, AIME, ASME, IEEE, or WSE.



Ong



Fwa

The 2009 **Alfred Noble Prize** is presented to **Ghim Ping Ong, Ph.D., A.M.ASCE** and **Tien F. Fwa, P.E., M.ASCE** for the paper, “Wet-Pavement Hydroplaning Risk and Skid Resistance: Modeling,” *Journal of Transportation Engineering*, October 2007.” The paper on hydroplaning makes a major contribution, because it provides a rational method of designing pavements to ensure appropriate level of skid resistance. At present, there is no such procedure available. Consequently, the paper has the potential to save many lives lost in road accidents due to the lack of skid resistance in wet pavements caused by hydroplaning. The numerical simulation model developed by Ong and Fwa to evaluate hydroplaning risk is a significant improvement in the state of the art which mostly relies on experimental data.

Norman Medal

The Norman Medal is bestowed upon the author or authors of a paper that is judged worthy of special commendation for its merit as a contribution to engineering science.



Kramer



Mayfield

Steven Kramer, Ph.D., P.E., M.ASCE and **Roy T. Mayfield, P.E., M.ASCE** are the recipients of the **2009 Norman Medal** for the paper, “Return Period of Soil Liquefaction,” Journal of Geotechnical and Geoenvironmental Engineering, July 2007. The study described in this paper constitutes a significant contribution to the engineering science and practice of evaluating earthquake-induced liquefaction hazards. The authors developed a fully

probabilistic approach to evaluating liquefaction potential by integrating the probabilistic evaluations of seismic hazard and liquefaction potential into one procedure, whereas conventional practice uncouples these components. The rigorous merging of these components into one fully probabilistic analysis represents a significant contribution to advancing performance-based design methodologies in earthquake engineering practice. The authors’ application of the methodology further demonstrates that the conventional procedures for evaluating liquefaction hazards in practice produce inconsistent actual likelihoods for liquefaction, with the degree of inconsistency depending on the characteristics of the local seismic hazards. The new methodology provides the means for designers and regulatory agencies to arrive at improved evaluations of the likelihoods of soil liquefaction, and thereby arrive at rational implementations of performance based design procedures in engineering practice

John L. Parcel-Leif J. Sverdrup Civil Engineering Management Award

The John L. Parcel-Leif J. Sverdrup Civil Engineering Management Award is given to a member of ASCE who has made a definite contribution in the form of written presentations or notable performance to the field of civil engineering management.



Frank R. Finch, P.E., M.ASCE is the recipient of the 2009 **John L. Parcel-Leif J. Sverdrup Civil Engineering Management Award** in recognition of a 30-year career in military and private and public sector service, dedicated to advancing the engineering profession through outstanding technical solutions, inspiring leadership, and expert management and business practices. Mr. Finch draws upon the depth of knowledge that he has acquired during his career. From his top-level training at West Point, to the leadership that he demonstrated during his service in Vietnam, he has the ability to view the market-

place and economy with clarity and guide the engineering practice accordingly. His confidence, experience, and foresight enable him to make difficult decisions with compassion and great leadership. Mr. Finch has had an illustrious, well-rounded 30-year career in the military and the public and private sector, which started with his graduation from the U.S. Military Academy at West Point. Among his professional accomplishments, he served as the top environmental officer in the U.S. Army at the Pentagon and later served as the Executive Director of a Florida agency, where he provided leadership of an Everglades Restoration Program. Finch’s expertise in environmental engineering led him to Greenhorne & O’Mara (G&O) as the market leader

of the Water & Environment division in 2002. His capacity for leadership and management was quickly recognized and he was appointed to G&O's Board of Directors, then advanced to the presidency of the firm, and was subsequently elevated to the position of Chief Executive Officer within a 7-year period. Mr. Finch was the driving force behind implementing the firm's newly-defined corporate vision and demonstrating that the core values of integrity, quality, teamwork, commitment, and growth are more than just words.

Ralph B. Peck Award

The Ralph B. Peck Award is presented for outstanding contributions to the geotechnical engineering profession through the publication of a thoughtful, carefully researched case history or histories, or the publication of recommended practices or design methodologies based on the evaluation of case histories.



The 2009 **Ralph B. Peck Award** is presented to **Edward Kavazanjian, Jr., Ph.D., P.E., M.ASCE** for the use of case histories to evaluate the static and dynamic properties of municipal solid waste and hazardous waste and illustrate their application in landfill engineering. Through the use of case histories documented in his peer-reviewed publications in refereed journals and conference proceedings, Dr. Kavazanjian has significantly advanced the state-of-the-practice and the state-of-the-art of geotechnical landfill engineering. As both a practicing engineer and an academic, Dr. Kavazanjian has made use of case histories to provide new insight into the mechanical properties of municipal solid waste (MSW), the static and seismic stability analysis of landfills, the design of geosynthetic liner and cover systems, and the performance of hazardous waste landfills. Dr. Kavazanjian's publication record, as it relates to carefully researched case histories and the publication of recommended practices and design methodologies based on the evaluation of case histories, is both substantial and impressive.

Peurifoy Construction Research Award

The Peurifoy Construction Research Award is made to an individual who has made an outstanding contribution to the advancement of construction engineering through research and development of new technology, principles or practice.



Photios G. Ioannou, Ph.D., P.E., M.ASCE is the recipient of the 2009 **Peurifoy Construction Research Award** for his research and development contributions which have advanced and defined the state of the art in construction engineering and management technologies, principles, and practices particularly in the areas of tunneling, bidding theories, innovative project delivery systems and construction simulation. In tunneling, professor Ioannou investigated the impact of structural design conservatism in underground construction and the economic value of geologic exploration as a risk mitigation strategy, which resulted in a series of major computer-based decision support systems, including a probabilistic geologic prediction model, an interactive graphics system for assessing tunnel design and construction decisions, a stochastic estimating model, and a reality-based evaluation model for future exploration programs. In the area of dynamic risk-sensitive Markov decision processes with discounted rewards, Professor Ioannou formulated and solved the

general decision problem using recursive algorithms for transient and steady-state optimal policies for time-varying and stationary processes, and he applied this model to the equipment-replacement and tunnel excavation and support selection during construction. His pioneering work in innovative project delivery systems developed multi-attribute models to evaluate private companies as promoters of large infrastructure projects using Build-Operate-Transfer (BOT) or Build-Operate-Own (BOO) arrangements, and the attractiveness of infrastructure projects for private promotion. Professor Ioannou's work in discrete-event simulation of construction operations has resulted in several systems that have had significant impact in construction graduate education and professional practice. In particular, the Stroboscope system is recognized as one that defines the state of the art in construction simulation today. Professor Ioannou has also made unique contributions in competitive bidding models.

Harold R. Peyton Award for Cold Regions Engineering

The Harold R. Peyton Award for Cold Regions Engineering is presented to a member of the Society who has made outstanding contributions to cold region engineering or to a basic understanding of cold environments, including dissemination of knowledge of cold climates technology, through publishing innovative technical or research papers.



The 2009 recipient of the **Harold R. Peyton Award for Cold Regions Engineering** is **Duane L. Miller, P.E., F.ASCE** for his exemplary 35-year career of Geotechnical Engineering practice, publications and teaching in Cold Regions Geotechnical Engineering and for his contributions to several state-of-the-art ASCE monographs by the Technical Council on Cold Regions Engineering. During his long career in engineering practice, Mr. Miller has been involved in geotechnical engineering work in almost all significant communities in Alaska, including work on roads, airports, power plants, water and sewer systems, housing, harbors, public buildings, fuel tank farms, and petroleum industry projects. From 1975 through 2002, he was an instructor in Geotechnical Engineering for Alaska's P.E. refresher course. In 1989, he was selected as the Anchorage ASCE Engineer of the Year.

The Professional Practice Ethics and Leadership Award

The Professional Practice Ethics and Leadership Award was instituted by the Board of Direction in 2005 to recognize an engineer practitioner's incident-specific or career-long application of ethics to achieve conspicuous success in a leadership role.



Barry K. Thacker, P.E., M.ASCE has been selected as the recipient of the **2009** for his professional skills and leadership in addressing the issues of health, safety and welfare of the people who live in Appalachia's Coal Creek Watershed. Mr. Thacker's technical expertise and contributions to the profession have been recognized by numerous organizations including ASCE, the Tennessee Department of Environment and Conservation, Federal Emergency Management Agency, and others. He is currently the president and principal engineer of Geo/Environmental Associates in Knoxville, Tennessee. In addition to Mr. Thacker's technical achievements, his commitment to professionalism and the community has truly changed the lives of many. In 1999, he founded the not-for-profit Coal Creek Watershed Foundation (CCWF).

Possibly the crowning achievement of his professional career, the foundation has addressed, through civil engineering, the social and physical problems in the Coal Creek Watershed, a former coal mining community. Through Mr. Thacker's efforts, the foundation has provided a clean drinking water supply to remote areas, completed flood abatement measures to address historical flooding of the watershed, and established a local health clinic. His Coal Creek accomplishments have captured local and national media attention. He has been featured in numerous newspaper and magazine articles, and he has been the subject of several television features. Mr. Thacker continues to improve the lives of others through civil engineering. He routinely speaks on the subject of leadership and professional responsibility to engineers and continuing education programs such as the ASFE Fundamentals of Professional Practice (FOPP) course.

Raymond C. Reese Research Prize

The Raymond C. Reese Research Prize is awarded to the author or authors of a paper that describes a notable achievement in research related to structural engineering.



Fahnestock



Sause

The 2009 **Raymond C. Reese Research Prize** is presented to **Larry A. Fahnestock, Ph.D., P.E., M. ASCE, Richard Sause, Ph.D., P.E., M. ASCE, and James M. Ricles, Ph.D., P.E.** for the paper "Seismic Response and Performance of Buckling-Restrained Braced Frames," Journal of Structural Engineering, Vol. 133, No. 9, September 2007, pages 1196-1204. Buckling restrained braces (BRBs) are used to economically meet seismic design requirements,

but the experimental verification of these brace systems have been based upon tests of isolated BRB elements with limited tests of single bay systems. This concept is inherently flawed in that it does not capture the boundary conditions and full system performance and may provide a misleading image of system performance. The authors of this paper have performed a comprehensive full scale experimental evaluation of a buckling restrained braced frame (BRBF). These experiments included a hybrid pseudo-dynamic simulation of BRBF behavior under different seismic excitation levels. The resulting research provides the clearest indication of the seismic performance of the BRBF system, and this result is of considerable value to the engineering profession. However, this award winning paper carries this experimental research one step further. By combining analytical studies with the experimental research results, the authors develop guidelines and recommendations that are directly useful to the engineering profession. They provide confirmation of some current design limits, and they show where future changes or improvements in current design provisions are needed. These recommendations are frequently correlated to seismic hazard and performance levels, and hence the results are directly useful for performance-based design. In view of these observations, the award winning paper is viewed as a substantial contribution to both the science and practice of structural engineering.

Robert Ridgway Student Chapter Award

The Robert Ridgway Student Chapter is made to the single most outstanding student chapter of the American Society of Civil Engineers.



California Polytechnic State University, San Luis Obispo ASCE Student Chapter is the winner of the 2009 **Robert Ridgway Student Chapter Award** for excellence in the effective and meritorious conduct of its affairs as a Student Chapter of ASCE through the ability and professional diligence of the Chapter officers, members, and faculty advisors. The Chapter's mission to enhance civil engineering education by promoting the educational, communal, and social development through professional interaction, civil servitude, and inter-

relational communications was achieved through a well-rounded slate of activities, including collaboration with the Chapter's collaboration on special projects and activities with other organizations – ASME, SWE, SEENVE, Architectural Engineering (ARCE), Construction Management (CM), ASCE San Luis Obispo Branch, and EWB.

Hunter Rouse Hydraulic Engineering Award

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.



Joseph Hun-Wei Lee, Ph.D., F.ASCE is the recipient of the 2009 **Hunter Rouse Hydraulic Engineering Award** for outstanding contributions to environmental hydraulics, in particular, the study of jet flows and their application to outfall, design, and for exemplary service to the international hydraulic engineering community. Prof. Lee's work has focused on the study of discharges, buoyant and non-buoyant, in the form of jets, into an aquatic environment, that may be flowing and/or stratified. Of special practical importance is the characterization of the mixing processes that may result in substantial dilution of the discharge. The results of Prof. Lee's studies have been applied, in particular, to the hydraulic design of ocean outfalls for waste disposal.

Thomas Fitch Rowland Prize

The Thomas Fitch Rowland Prize recognizes papers whose author describes in detail accomplished works of construction or which are valuable contributions to construction management and construction engineering.



The 2009 **Thomas Fitch Rowland Prize** is presented to **John E. Taylor, Ph.D., A.M.ASCE** for an outstanding research paper that extends innovation theory, expands methodological approaches, and provides critical new strategic guidelines for design and construction industry practitioners implementing boundary-spanning, productivity-enhancing innovations. The paper, titled "Antecedents of Successful 3D CD Implementation in Design and Construction Networks," published in the *ASCE Journal of Engineering and Management*, is path-breaking in its examination of how technological change that spans organizational boundaries is implemented. Previous research on CAD technological change focused on challenges within a design or construction firm. Numerous publications over the past two decades have reported on investigation of the

evolution from paper-based designs to 2D CAD designs and how it impacted the work of designers in individual firms. This paper examined a related evolution from 2D CAD to 3D CAD. However, this paper extends the level of analysis to the inter-organizational design and construction network. It examines how technological changes in advancing to 3D CAD impacted task interdependent firms across organization boundaries in a design and construction network. Introducing an organizational boundary into the analysis revealed a number of new constructs that impact technological change and must be addressed to successfully implement this technology and reap the full productivity benefits. It also revealed the limitations in existing theoretical constructs that in this paper have been extended to the inter-organizational level.

Robert H. Scanlan Medal

The Robert H. Scanlan Medal is awarded to an individual in recognition of distinguished achievement in engineering mechanics based upon scholarly contributions to both theory and practice. The areas of achievement will generally be structural mechanics, wind engineering and aerodynamics.

The 2009 **Robert H. Scanlan Medal** is presented to **Prof. Ing. Giorgio Diana Ph.D.** for his fundamental contributions to experimental analysis, modeling and simulation of dynamic load effects and their applications to structures under wind and other loads.

Wilbur S. Smith Award

The Wilbur S. Smith Award is made to the person who, during the fiscal year preceding the year of the award, shall be judged worthy of special commendation for his or her contribution to the enhancement of the role of the civil engineer in highway engineering.



Nicholas J. Garber, Ph.D., P.E., F.ASCE, NAE is the 2009 recipient of the **Wilbur S. Smith Award** for his contributions to the enhancement of the role of the civil engineer in highway engineering through research, teaching, practice, and service. Dr. Garber is recognized nationally and internationally for his work in traffic operations and highway safety. He coauthored the textbooks, “Traffic and Highway Engineering” and “Transportation Infrastructure Engineering: A Multi-Modal Integration” are well known. His research and scholarly publications, include work in passing and no-passing zones in mountainous areas, improved traffic volume data collection methods, guidelines for interchange design, work zone safety, highway geometric characteristics and truck safety, speed management and large truck safety, and traffic and geometric characteristics related to crash occurrence. His contributions in these areas advanced transportation engineering practice and enhanced highway safety. While much of his career has been devoted to teaching, he has also worked in private practice in consulting and for the Sierra Leone Ministry of Works. He currently serves as the Henry L. Kinnier Professor of civil engineering at the University of Virginia. Dr. Garber is a member of the Executive Committee of the Transportation Research Board where he has also served on a number of committees. He has served ASCE as president of the Blue Ridge Branch, faculty adviser of the University of Virginia Student Chapter, book editor of the Journal of Transportation Engineering, and a member of several ASCE national committees.

Karl Terzaghi Award

The Karl Terzaghi Award is presented for outstanding contributions to knowledge in the fields of soil mechanics, subsurface and earthwork engineering, and subsurface and earthwork construction.



Richard Finno, Ph.D., P.E., M.ASCE is the recipient of the 2009 **Karl Terzaghi Award** for pioneering an adaptive management framework for excavation deformations and the application of inverse techniques to ground movements from excavations allowing optimization of parameters in a finite element situation that when coupled with autonomously collected field data automates the observational approach. Dr. Finno is an exemplary researcher with one of his most noted accomplishments being the development of an adaptive management framework that has advanced the state-of-the-art in predicting, monitoring, and controlling deformations associated with excavation support systems. Throughout his career at Northwestern University, Dr. Finno has proven his dedication to his students having overseen 25 Ph.D. students as well as 38 M.S. students. He is a two-time winner of the Thomas Middlebrooks Award and has been awarded the Walter L. Huber Civil Engineering Research Prize and the Arthur Casagrande Professional Development Award.

Karl Terzaghi Lecture

The Karl Terzaghi Lecture is awarded, upon the recommendation of the Board of Governors of the Geo-Institute, to a distinguished engineer who will deliver the Terzaghi Lecture at an appropriate meeting of the Society.



Clyde N. Baker, Jr., P.E., Hon.M.ASCE presented the 2009 **Karl Terzaghi Lecture**. He was selected in recognition of his significant contributions in the design, analysis and construction of deep foundations for high-rise structures around the world.

Royce J. Tipton Award

The Royce J. Tipton Award recognizes contributions to the advancement of irrigation and drainage engineering in teaching, research, planning, design, construction or management.



The 2009 **Royce J. Tipton Award** is presented to **Marshall J. English, Ph.D., P.E., M.ASCE** for valuable contributions to the science, understanding, and application of irrigation engineering, including, optimization of irrigation system design and management, surface irrigation hydraulic modeling, crop evapotranspiration, crop-water-soil modeling, and irrigation scheduling with full and limited water supplies. Dr. English has worked as a researcher, designer, teacher and consultant in irrigation engineering for over 30 years. Dr. English is

recognized around the world for analysis and modeling of irrigated systems for optimization. His approach toward optimization focuses on maximization of net returns rather than only on maximum yield. In addition, he is leading efforts to develop and improve irrigation advisory services apply the principles he has developed over several decades of research. Dr. English has worked in Zimbabwe as a Fulbright Fellow and in New Zealand as a Senior Research Fellow with the Ministry of Agriculture and Fisheries. He has been invited and worked in many other countries as well. In addition to his professional accomplishments, Dr. English has served the profession in many leadership activities including: Chair of the Irrigation and Drainage Council, Awards Committee, and On-Farm Committee; a founding member of EWRI; editorial board member Agricultural Water Management journal.

Theodore von Karman Medal

The Theodore von Karman Medal is presented to an individual in recognition of distinguished achievements in engineering mechanics that are applicable to any branch of civil engineering.



The winner of the 2009 **Theodore von Karman Medal** is **Thomas J.R. Hughes, Ph.D., F.ASCE** for his outstanding contributions to computational solid mechanics, particularly in computational plasticity and finite element methods. Professor Hughes has been selected to receive the 2009 Theodore von Karman Medal in recognition of a number of outstanding contributions to theoretical and applied mechanics over his distinguished career as a university professor, author, and researcher. The many articles written by Professor Hughes have been cited extensively in engineering, computer science, and the physical sciences, and he has had a profound impact on the way engineering is applied in a number of industries. His work on new theories and algorithms for computational fluid dynamics and turbulence is being used extensively in airframe design both in the U.S. and Europe. His work on modeling high-speed flows was a major contribution to the redesign of bullet trains in Japan. His books have had a significant impact on graduate education in engineering and span the gamut from monographs on inelastic materials to elasticity, structural dynamics, and finite elements. He has also been among the pioneers in the application of mechanics to cardiovascular surgery. His work on modeling human blood flow and in predicting the effects of various by-pass surgical procedures is transforming the way physicians approach heart surgery. Professor Hughes is given this high recognition for outstanding theoretical and applied contributions during a long and continuing scholarly career.

Arthur M. Wellington Prize

The Arthur M. Wellington Prize is awarded to the author or authors of a paper on transportation on land, on the water, in the air or on foundations and closely related subjects.



Aydilek



Kutay

The **2009 Arthur M. Wellington Prize** is presented to **M. Emin Kutay, Ph.D., M.ASCE** and **Ahmet H. Aydilek, Ph.D., M.ASCE** for the paper, “Seismic Effects on Moisture Transport in Asphalt Concrete,” *Journal of Transportation Engineering*, July 2007. The paper integrates advanced microstructure characterization, computational flow

dynamics modeling, and engineering mechanics of dynamic flow in asphalt concrete. In their study, Drs. Kutay and Aydilek utilized the real three-dimensional internal structures of asphalt specimens obtained from the X-ray compute tomography technique, conducted rigorous image analysis, and introduced a new parameter called dynamic permeability. The original contributions of this paper can be highly valuable for pavement engineers and researchers, as, for the first time, the moisture transport in asphalt concrete is defined under real traffic conditions.

Younger Member Group Award

The Younger Member Group Award recognizes the most outstanding Younger Member Groups of the previous year.



The 2009 **Younger Member Group Award for Large Groups** is presented to the **Phoenix Branch Younger Member Forum** for outstanding professional, technical, social outreach, and community service activities on behalf of the Phoenix Branch. The Phoenix Branch Younger Member Forum (PBYMF) hosted a variety of events throughout the course of the year, including professional and technical presentations, tours, outreach activities, and community service. Monthly meetings are social in nature, but often involve guest speakers on community and professional development topics. For one special event, over 50 PBYMF members and 10 Arizona State University (ASU)

students attended the technical tour of the city of Tempe’s METRO Light Rail Operation and Maintenance Facility. Student Chapter involvement continues through many of the PBYMF activities, including the end of semester BBQ, where over 50 ASU students had an opportunity to network and play volleyball. The PBYMF continued to offer their five-week / ten-class P.E. Review Courses twice a year. In addition, they engage elementary and middle school students in outreach activities such as Zoom into Engineering and Building Big once a month throughout the course of the school year. The PBYMF also hosts an annual Golf Tournament to raise funds for the PBYMF Foundation, which awarded over \$8,000 this year to “promote the civil engineering profession through the distribution of funds towards engineering education and public awareness in the state of Arizona.” They are also involved with Future City, Mathcounts, Canstruction, the Ronald McDonald House, and Project Cure.



The **West Virginia Section Younger Member Forum** is this year's winner of the **Younger Member Group Award for Small Groups**. The West Virginia Younger Member Forum (WV YMF) has been a driving force behind the success of the West Virginia Section and its Branches. Many Younger Members serve as Section/Branch officers and committee members. Each year, the WV YMF provides new events and activities for their members while continuing their already established traditions. One activity which particularly exemplifies the hard work, dedication, and enthusiasm of the group is the Statewide West Point Bridge

Design Contest. The WV YMF runs the student outreach effort, touching nearly every middle and high school in the state. With increased financial support, the WV YMF was able to bring more students to the state finals and provide larger prizes. Also, ASCE Student Chapters throughout the state are encouraged to work with schools by WV YMF grants, which can only be received by attending the Annual Section meeting. The WV YMF also aims to strengthen the bond and continuity between students and professionals in ASCE, and has found social activities to be a great way to accomplish this. This year, the WV YMF sponsored a trip to King's Island Amusement Park, several West Virginia Power baseball games, a Super Bowl party, a softball team, and other events – all of which were open to students, Younger Members, and Section/Branch members. The WV YMF also participates in events such as Rebuilding Together and Relay 4 Life. Their volunteer efforts, commitment, and enthusiasm continue to be an example for all members.

In addition, Letters of Commendation were conferred on the **Seattle Section Younger Member Forum** and the **Hawaii Section Younger Member Forum**.

Nominations for the 2010 awards cycle are now being accepted. Please visit www.asce.org/awards for further information and to download nomination forms.