

## **Diplomates and Board of Trustees Members Receive ASCE Awards**

November 2005 – Reston, VA – The American Society of Civil Engineers' honors program has as its basic objective, the advancement of the engineering profession by noting exceptionally meritorious achievement. AAWRE recognizes the following four Diplomates and Board of Trustees members for their 2005 outstanding honors and achievements.

### **Arid Lands Hydraulic Engineering Award**

**Richard G. Allen**, Ph.D., P.E., D.WRE, M.ASCE, receives the Arid Lands Hydraulic Engineering Award for his research on the conjunctive management of groundwater and surface water, on evapotranspiration, and on the design and operation of irrigation systems. The Arid Lands Hydraulic Engineering Award is conferred in recognition of original contributions in hydraulics, hydrology, climatology, planning, irrigation, drainage, hydroelectric power development, or navigation that have special relevance to arid or semiarid climates. It also recognizes contributions to the elucidation and development of new technology applicable to river basins. Allen is recognized internationally for his work in hydrology and his research on evaporation and transpiration in irrigated agriculture. He was one of the editors of an ASCE manual on evapotranspiration, and he coauthored *Evapotranspiration and Crop Water Requirements*, published by the United Nations Food and Agriculture Organization. Allen has more than 200 research and professional publications to his credit and has served as a consultant to the United Nations, the World Meteorological Organization, the U.S. Agency for International Development, and the governments of Portugal and Spain. He has also participated in research and teaching missions to India, Pakistan, Jordan, Yemen, Morocco, Egypt, and Turkey. He currently represents the United States on the International Commission on Irrigation and Drainage, where he is a member of a working group on sustainable crops and water use. His research programs over the past 25 years have helped professional engineers assess and quantify problems by adopting physics-based approaches. By improving instrumentation and computation processes, Allen has advanced the design of irrigation systems and made the management of these systems easier. He has been a member of the engineering faculties at Iowa State University, Utah State University, and the University of Idaho. He was the recipient of ASCE's 2003 Royce J. Tipton Award, the Service to the Profession Award from the U.S. Committee on Irrigation and Drainage, also in 2003, and the Distinguished Service Award from Utah State University's College of Engineering in 2004.



### **Ven Te Chow Award**

**Vijay P. Singh**, Ph.D., D.Sc., P.E., P.H., D.WRE, F.ASCE, is honored with the Ven Te Chow Award for fundamental contributions in a range of areas, including kinematic wave theory, entropy theory, watershed modeling, pollutant transport, design of networks, frequency analysis, erosion and sediment transport, dam breach modeling, and hydraulic geometry. Established in 1995, the Ven Te Chow Award recognizes individuals who in their careers in hydrologic engineering have made significant contributions through research, education, or practice. Singh's publications in hydrology, irrigation, water resources management, stochastic hydrology, environmental engineering, entropy, and dam breach modeling include 12 textbooks, 362 journal papers, 214 conference proceedings papers, 70 technical reports, 49 book chapters, and 5 book reviews, and he has edited 41 reference works. His work on irrigation dynamics represented the first attempt to develop a comprehensive theory of flow over porous beds, and he has greatly helped to advance the mathematical modeling of watershed hydrology. Singh has also made seminal contributions to the development and application of



entropy-based hydrologic, geomorphologic, and hydraulic models. His recent work on pollutant dispersion is seen as groundbreaking, and he has clearly shown that dispersion occurs in response to a turbulent mechanism, shear mechanism, molecular mechanism, geometric mechanism, and boundary controlled mechanism. His major contributions in the area of flood frequency analysis deal with parameter estimation, nonstationary analysis, and the effect of the choice of flood distribution on the "goodness" of the parameter estimator. He has helped to organize 14 international conferences; has served on numerous editorial boards, association committees, and national and international panels; and has conducted seminars and lectured around the world. He has also done work for charity and the betterment of society. His numerous professional accolades include ASCE's 2002 Arid Lands Hydraulic Engineering Award.

### **Julian Hinds Award**

**Darryl W. Davis**, P.E., D.WRE, M.ASCE, is accorded the Julian Hinds Award for his national and international leadership in developing methods, software, and decision support systems for planning and managing water resources and his role in making the U.S. Army Corps of Engineers' Hydrologic Engineering Center a world-class center of excellence. The Hinds award recognizes the author or authors of a paper judged to embody the most meritorious contribution to the field of water resources development. The winner may also be chosen on the basis of notable performance, long years of distinguished service, or particular actions that have served to advance engineering as it relates to the planning, development, and management of water resources. Davis formulated and provided overall leadership for the center's "NexGen" project, which developed a new generation of the primary computer models the Corps uses for hydrology, hydraulics, and flood damage reduction. There have been nine releases of the NexGen software since 2000, including packages for watershed runoff, river hydraulics, reservoir systems, and flood damage analysis. The models are in the public domain, are regarded as standards around the world by those concerned with water resources, and are taught and supported by 22 public- and private-sector vendors. Keenly interested in floodplain management, Davis has helped to formulate policy, develop technical guidelines, and create methods and tools for analyzing risk so as to reduce flood damage. An exponent of risk analysis, he serves on several key advisory panels.



### **Royce J. Tipton Award**

**Albert J. Clemmens**, Ph.D., P.E., D.WRE, M.ASCE, wins the Royce J. Tipton Award for vision, research, leadership, and clarity that have led to significant technical advances in surface irrigation modeling, design and performance analysis, flow measurement and modeling, canal automation and control, water management, and irrigation hydrology and for his leadership in professional societies. The Royce J. Tipton Award recognizes contributions to the advancement of irrigation and drainage engineering through teaching, research, planning, design, construction, or management. Clemmens has more than 25 years of experience in all aspects of water conservation in irrigated agriculture through research, consulting work, and involvement in technology transfers. In addition to a strong research program in surface irrigation practices, flow measurement, and water delivery system operations, his experience has included multidisciplinary evaluations of irrigation project performance, the development and application of water conservation practices and policies, and the elaboration of criteria for water user organizations. Much of his research has focused on the use of computer technology in the design and operation of irrigation systems. Clemmens has more than 250 publications to his credit.

