

Name	<b>Gary P. Merkley</b>
Academic rank	Associate Professor
Specialization area	Irrigation engineering: Irrigation engineering principles, irrigation system design and evaluation; hydraulic modeling of irrigation delivery systems, water management, operation & maintenance of irrigation systems, international project management
Education	Ph.D. in Irrigation Engineering, USU (1988) M.S. in Irrigation Engineering, USU (1983) B.S. in Agricultural Engineering, California Polytechnic State University, San Luis Obispo (1981)
Languages	English (native language); Spanish (fluent); Thai (fluent); Portuguese (fair); Arabic (fair)
Professional membership	American Society of Civil Engineers (ASCE) U.S. Committee on Irrigation and Drainage (USCID) Phi Kappa Phi Honor Society Tau Beta Pi Honor Society
Professional registration	Civil Engineer (Utah #0781709117)
Experience highlights	Principal Investigator & technical specialist in water management for two concurrent irrigation projects (IDB & World Bank), Dominican Republic. Long-term irrigation project assignments in Egypt and Ecuador. Short-term consulting in irrigation engineering in Egypt, Ecuador, Mexico, Honduras, Panama, Bolivia, Brazil, Thailand, Sri Lanka, Vietnam, Morocco, Turkey. Consulting on canal hydraulic modeling (Chicago, Arizona and Mexico). President of the Northern Utah Branch of ASCE (1995-96). Management of irrigation and other farming operations on two-thousand acres of row crop production in California (1984).
Teaching & research	<i>Teaching:</i> Irrigation Engineering Principles; Sprinkle & Trickle Irrigation Design; Surface Irrigation Design; Flow Measurement; Conveyance System Design; and Numerical Modeling of Hydraulics (1983 - present). Short-course instructor in the International Irrigation Center: pressurized pipe and open-channel hydraulics, pumps, irrigation system design and evaluation, irrigation delivery system scheduling irrigation district operation and maintenance, canal automation, computer programming, and economics. Spanish-English translator and lecturer for short courses in the USA and Mexico (1983-present). <i>Research:</i> Hydraulic modeling of unsteady open-channel flow; water management simulation models; flow measurement devices and calibration; canal gate automation.
Publications	Refereed publications: 16. Books, Chapters in Books, Reports and Technical Papers: 32.
Principal publications of last five years	<i>Establishing Sustainable Farmer-Managed Irrigation Systems.</i> G.V. Skogerboe, G.P. Merkley, and R.F. Rifenburg. 270 pp. (to be published in the Fall of 2002). <i>Fundamentos del Riego,</i> G.H. Hargreaves and G.P. Merkley. 2000. Water Resources Publications, Englewood, Colorado, 182 pp. <i>Application of the Simulated Annealing Method to Agricultural Water Resource Management,</i> Sheng-Feng Kuo, Chen Wuing Lui, and G.P. Merkley. 2001. J. Agric. Engrg. Res. 80(1): 109-124. <i>Decision Support for Irrigation Project Planning Using a Genetic Algorithm,</i>

S.F. Kuo, G.P. Merkley and C.W. Liu. 2000. *Ag Water Management*. Elsevier. Aug, 45(2000): 243-266.

*Irrigation Fundamentals*, G.H. Hargreaves and G.P. Merkley. 1998. Water Resources Publications, Englewood, Colorado, 182 pp.

*Comparison and Calibration of Canal Gate Automation Algorithms*, K. Pongput and G.P. Merkley. 1997. *J. Irrig. and Drain. Engrg.*, ASCE, 123(3): 222-225.

*Decision Support Model for Irrigation Water Management*, S. Prajamwong, G.P. Merkley, and R.G. Allen. 1997. *J. Irrig. and Drain. Engrg.*, ASCE, 123(2):106-113.

Awards

Outstanding Teacher Award, Biological & Irrigation Engineering Department, USU (1997 & 2001)

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