

KEITH ELLIOT DENNETT

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University of Nevada, Reno
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EDUCATION

Ph.D. in Environmental Engineering, Georgia Institute of Technology, 1995
Minor in Fluid Mechanics and Hydraulics

Master of Science in Environmental Engineering, Georgia Institute of Technology, 1990

Bachelor of Civil Engineering, Georgia Institute of Technology, 1988

WORK EXPERIENCE

Department of Civil and Environmental Engineering, University of Nevada, Reno (UNR)

Assistant Professor, July 1996 to July 2003

Associate Professor, July 2003 to Present

Courses Taught at UNR

CEE 140: Introduction to Civil Engineering; CEE 364: Engineering Hydrology; CEE 367L: Fluid Mechanics Laboratory; CEE 390: Fundamentals of Environmental Engineering; CEE 404/604: Open Channel Flow; CEE 456/656: Design of Water Treatment Facilities; CEE 457/657: Design of Wastewater Treatment Facilities; CEE 413/613: Water Resources Engineering; CEE 496/696: Environmental Engineering Design; CEE 751: Biological Unit Operations; CEE 771: Wastewater Treatment in Small Rural Communities

PROFESSIONAL REGISTRATION

- Professional Engineer in California (Civil Engineering License Number 65665)
- Professional Engineer in Nevada (Civil Engineering License Number 016006)

RECENT CONFERENCE PRESENTATIONS/PROCEEDINGS

1. Chavan, P.V., Dennett, K. E., Marchand, E. A., and Gustin, M.S., World Environmental & Water Resources Congress 2008, Environmental and Water Resource Institute (EWRI) of American Society of Civil Engineers (ASCE), Non-Academic, "Implementation of a Pilot-Scale Constructed Wetlands for Water Quality and Mercury Methylation Assessment", Honolulu, Hawaii , USA, May 12-16, 2008.
2. Chavan, P., Dennett, K. E., and Marchand, E. A., New England Water Environment Association 2008 Annual Meeting – Asset Management Helps Sustain Infrastructure, Non-Academic, "Behavior of Pilot-Scale Constructed Wetlands in Retention of Total Nitrogen", Boston, MA, USA, January 27-30, 2008.
3. Chavan, P., Dennett, K. E., and Marchand, E. A., Fourth International Conference on Remediation of Contaminated Sediments, Non-Academic, "The Effectiveness of Constructed Wetlands in Retaining Nutrients under Varying Environmental Conditions", Savannah, GA, January 22-25, 2007.
4. Chavan, P., Dennett, K. E., Marchand, E. A., International Congress of Environmental Research, Non-Academic, "Potential Use of Constructed Wetlands to Improve Water Quality from a Highly Polluted Creek", Bhopal, India, December 28-30, 2007.
5. Chavan, P., Dennett, K. E., Marchand, E. A., Gustin, M. S., Stamenkovic, J., Protection and Restoration of the Environment VIII, "Evaluation of Water Quality and Mercury Transformation in Constructed Wetlands", Technical University of Crete, Chania, Greece, July 5, 2006.
6. Mohansingh, R., Dennett, K. E., Fernandez, G. C., Third Biennial International Conference, Young Water Professionals Program, Non-Academic, "Statistical Modeling of Nutrient Removal and Correlations to Water Quality Parameters in a Small-Scale Constructed Wetlands", International Water Association, Nanyang Technological University, Singapore, May 24, 2006.

7. Mohansingh, R., Fernandez, G. C., Dennett, K. E., SAS Users Group International (SUGI) 31, Non-Academic, "Using SAS for Statistical Modeling of Nutrient Removal and Water Quality Aspects from Constructed Wetlands", Statistical Analysis Software (SAS) Users Group International, San Francisco, CA, March 26, 2006.
8. Chavan, P.V., Gustin, M.S., Dennett, K.E., and Marchand, E.A., "Assessment of Methyl Mercury Production and Water Quality Parameters in Constructed Wetlands", Annual Conference of the American Geological Society, San Diego, CA, May 2005.
9. Chavan, P.V., Gustin, M.S., Stamenkovic, J., Ericksen, J., Brown, S., Saito, L., Dennett, K.E., Marchand, E.A., Donaldson, S., "The Potential for Methylmercury Production in Constructed Wetlands and Riparian Setting", Annual Goldschmidt Conference, Moscow, ID, May 2005.
10. Chavan, P.V., Dennett, K.E., Marchand, E.A., and Gustin, M.S., "Assessment of Water Quality and Mercury Transformation in Constructed Wetlands", Eighth International Symposium on In-Situ and On-Site Bioremediation, Baltimore, Maryland, June 6-9, 2005.

RECENT REFEREED JOURNAL PUBLICATIONS

1. Dennett, K., Chavan, P., Marchand, E., Spurkland, L., "Potential of Constructed Wetland in Reducing Total Nitrogen Loading into the Truckee River", *Wetlands Ecology and Management* (2008), 16: 189-197.
2. Chavan, P., Dennett, K., "Wetland Simulation Model for Nitrogen, Phosphorus, and Sediments Retention in Constructed Wetlands", *Water, Air, and Soil Pollution* (2008), 187: 109-118.
3. Chavan, P., Dennett, K. E., Marchand, E., "Potential Use of Constructed Wetlands to Improve Water Quality from a Highly Polluted Creek", accepted in *Journal of Environmental Research and Development*, 2008.
4. Chavan, P., Dennett, K. E., Marchand, E. A., "Efficacy of Constructed Wetlands in Removing Nutrients and Sediments under Varying Environmental Conditions", tentatively accepted for publication in *Wetlands*, 2008.
5. Holloway, R., Childress, A. E., Dennett, K. E., Cath, T. Y., "Forward Osmosis for Concentration of Anaerobic Digester Centrate", *Water Research*, 41:17 (2007), 4005-4014.
6. Chavan, P., Dennett, K. E., Marchand, E. A., Gustin, M. S., "Evaluation of Small-scale Constructed Wetland for Water Quality and Hg Transformation", *Journal of Hazardous Materials*, 149:3 (2007), 543-547.
7. Mortensen, E., Cath, T., Brant, J., Dennett, K., Childress, A., "Evaluation of Membrane Processes for Reducing Total Dissolved Solids Discharged to the Truckee River", *Journ. Environ. Engr.*, 133:12 (2007), 1136-1144.
8. Gustin, M., Chavan, P., Dennett, K., Marchand, E., Donaldson, S., "Evaluation of Wetland Methyl Mercury Export as a Function of Experimental Manipulations", *Journal of Environ. Qual.*, 35 (2006), 2352-2359.
9. Gustin, M. S., Chavan, P., Dennett, K. E., Marchand, E. A., Fernandez, G. C., "Use of Constructed Wetlands with Four Different Experimental Designs to Assess the Potential for Methyl and Total Mercury Outputs", *Applied Geochemistry*, 21 (2006), 2023-2035.
10. Stamenkovic, J., Gustin, M.S., and Dennett, K.E., "Net Methyl Mercury Production and Water Quality Improvements in Constructed Wetlands at Steamboat Creek, Nevada", *Wetlands*, 2005, 25, 748-457.

RECENT FUNDED RESEARCH PROJECTS

1. "Development of a Hydraulic Computer Model to Quantify Sediment Transport within the Walker River Watershed", United States Bureau of Reclamation, \$193,014. Keith E. Dennett (PI) and Eric A. Marchand (Co-PI), March 2007 through September 2008.
2. "Evaluation of Arsenic Removal from Groundwater in Battle Mountain, Nevada, and Bento, California, using Rapid Small-Scale Column Testing Procedures", United States Public Health Service, \$27,580. Keith E. Dennett (PI), August 2008 through March 2009.
3. "Evaluation and Enhancement of Sediment Retention and Trapping Devices", Nevada Division of State Lands, \$58,034. Keith E. Dennett (PI) and Eric A. Marchand (Co-PI), April 2005 through September 2007.
4. "Innovative Treatment Technologies for Natural Waters and Wastewaters at the University of Nevada, Reno", United States Department of Energy, \$974,000. A.E. Childress, K.E. Dennett, Eric A. Marchand, and Tzahi Cath, July 2005 through June 2007.
5. "Monitoring the Concentration of Polycyclic Aromatic Hydrocarbons (PAHs) in Runoff from Seal-Coated Surfaces", Pavement Coatings Technology Center, \$47,074. Eric A. Marchand (PI), Keith E. Dennett (Co-PI), and Peter Sebaaly (Co-PI), November 2004 through December 2005.
6. "Reduction of Nutrient Loading and Impacts of Mercury Contamination from Nonpoint Source Pollution through Wetland Management, Steamboat Creek Watershed, Nevada", \$365,000. Mae S. Gustin (PI), Keith E. Dennett (Co-PI), Sue Donaldson (Co-PI), and Laurel Saito (Co-PI), United States Department of Agriculture, September 2003 through August 2006.