IOWA STATE UNIVERSITY
Agricultural and Biosystems Engineering

Amy Leigh Kaleita

Assistant Professor

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Education

Ph.D. Agricultural Engineering, 2003
University of Illinois at Urbana-Champaign
M.S. Civil Engineering, 1999
University of Illinois at Urbana-Champaign

B.S. Agricultural Engineering, 1997
The Pennsylvania State University

Honors and Awards

Early Achievement in Teaching Award, Iowa State University, 2006

Outstanding Early Achievement in Teaching, Iowa State University College of Agriculture, 2006

Newcomer of the Year, Iowa Section ASAE, 2005

Teaching Excellence Award, Department of Agricultural Engineering, University of Illinois, 2003

USDA National Needs Fellowship, 2000-2003

NSF Graduate Fellowship, 1998-2000

Recent Publications

Kaleita, A.L., L.F. Tian and M.C. Hirschi. 2005. Relationship between soil moisture content and soil surface reflectance, Trans. ASAE, vol. 48(50), pp. 1979-1986.

Kaleita, A.L., J.L. Heitman, and S.D. Logsdon. 2005. Field calibration of the Theta Probe for Des Moines Lobe soils, App. Eng. in Ag., vol. 21(5), pp. 865-870.

Steward, B. L., R. P. Ewing, D. A. Ashlock, A. L. Kaleita, S. M. Shaner. 2004. Range operator enabled genetic algorithms for hyperspectral analysis. In Intelligent Engineering Systems Through Artificial Neural Networks: Smart Engineering Systems Design: Neural Networks, Fuzzy Logic, Evolutionary Programming, Complex Systems and Artificial Life, Vol. 14. eds. C. H. Dagli, A. L. Buczak, D. L. Enke, M. J. Embrechts, and O. Ersoy, 295-300. New York. ASME Press.

Kumar, P. and A. L. Kaleita. 2003. Assimilation of near-surface temperature using extended Kalman Filter. Advances in Water Resources, vol. 26, pp. 79-93.

Kumar, P., and A.L. Kaleita. 2001. Assimilation of surface temperature in a land-surface model, Remote Sensing and Hydrology 2000 (proceedings of a symposium held at Santa Fe, New Mexico, USA, April 2000). IAHS Publ. No. 267, pp. 197-202.

Kaleita, A.L. and P. Kumar. 2000. AVHRR estimates of surface temperature during SGP97, J. Geophys. Res., vol. 105 No. D16, pp. 20, 791-20,801.

Teaching

Dr. Kaleita teaches courses in soil and water conservation management and engineering. She is particularly interested in the role of globalization in engineering and technology education, and in enhancing written and verbal communication experiences for students in soil and water conservation.

Research

Dr. Kaleita's research focuses on information technology for precision conservation. Primary interests are remote sensing, crop and hydrologic modeling, precision farming, and advanced analytical methods for understanding the influence of spatiotemporally variable soil and hydrologic properties.

Other Professional Interests

Dr. Kaleita is a member of ASABE, IAHS, Alpha Epsilon, and Tau Beta Pi.