

Brief Backgrounder Thanos Papanicolaou

Thanos Papanicolaou is professor of civil and environmental engineering at the University of Iowa as well as Donald E. Bently Faculty Fellow of Engineering and research engineer with the Iowa Institute of Hydrosience and Engineering. Prior to joining the faculty at the University of Iowa in 2003, he held several academic and research positions at Washington State University.

Education and honors

Papanicolaou has an undergraduate degree in civil engineering from Aristotle University in Greece and both an M.S. and a Ph.D. in civil and environmental engineering from Virginia Tech. In April 2011, he received the Distinguished Iowa Scientist Award from the Iowa Academy of Science. He also has received a number of awards for teaching, advising and research, and served three years as the Robert and Virginia Wheeler Faculty Fellow in Engineering at the University of Iowa.

Research, extension and teaching focus

His research interests include best management practices to lessen the impact of soil erosion and nutrient transport on water quality; soil carbon sequestration; use of sensor technology in agricultural landscapes; and remote measurements and modeling related to soil movement. He currently has a competitive grant from the Leopold Center for Sustainable Agriculture for research on multifunctional agriculture and rural communities. Since 2006 he has served on the advisory board of the Iowa Water Center at Iowa State University. At the University of Iowa, he is a member of the water sustainability curriculum, the Iowa Public Policy Center, the Center for Global and Regional Environmental Research and the Geoinformatics for Environmental and Energy Modeling and Prediction (a National Science Foundation program). He has taught eight different courses and currently advises eight graduate students (34 previous graduate students). He initiated the Clear Creek Watershed Initiative in eastern Iowa and has served as scientific advisor for numerous efforts outside Iowa.

Research funding

His annual external research grant expenditures have surpassed \$1.2 million. Funding agencies include the National Science Foundation, Iowa Department of Agriculture and Land Stewardship, U.S. Department of Transportation, U.S. Department of Agriculture, NASA, U.S. Department of Defense and U.S. Geological Survey. He has been principal investigator or collaborator on more than 45 research projects from 2004 to 2011.

Recent scholarly publications

Papanicolaou lists 66 peer-reviewed publications in 33 different journals and 34 technical reports as primary author.

- Papanicolaou, A.N., Tsakiris, A.G. and Strom, K. 2011. A fractal methodology to describe sediment patches in gravel bed streams, *Geomorphology*, John Wiley & Sons, Ltd (in press).
- Papanicolaou, A.M., Dermis, D. and Elhakeem, M. 2011. Investigating the role of clasts on the movement of sand over gravel bed rivers, *Journal of Hydraulic Engineering* 137(9):871-883.
- Papanicolaou, A.N., Wilson, C., Abaci, O. and Skopec, M. 2010. SOM loss and soil quality in the Clear Creek, IA experimental watershed, *Journal of Iowa Academy of Sciences* 116(1-4):13-16, article identifier ISCI_30312.

Website: <http://old.iuhr.uiowa.edu/~apapanic/>