TIMOTHY F. RADATZ, E.I.T.

AGRICULTURAL/WATER RESOURCE ENGINEER

Montgomery Associates
Resource Solutions, LLC

EXPERIENCE SUMMARY

Tim brings his strong background in agricultural and water resources engineering with a focus on hydrology, erosion control, stormwater management, and agricultural waste management.

EXPERTISE

Non-Point Source Pollution
Hydraulics and Hydrology
Watershed Planning
Agricultural Waste Management
Stormwater Management Analysis and Design

REGISTRATION

Engineer in Training (E.I.T.)
Minnesota #131764

EDUCATION

MS Biological Systems Engineering, 2009
University of Wisconsin – Madison
Madison, WI

BS Biosystems and Agricultural Engineering, 2006
University of Minnesota – Twin Cities
Minneapolis, MN

PROFESSIONAL HISTORY

Montgomery Associates: Resource Solutions, LLC
Agricultural/Water Resources Engineer, 2009 – Present

University of Wisconsin – Madison
Department of Biological Systems Engineering
Research Assistant, 2007 – 2009

Conestoga-Rovers and Associates
Engineering Intern, summer 2006

University of Wisconsin Discovery Farms Program
Student Intern, 2004 – 2006

PROFESSIONAL AFFILIATIONS

American Society of Agricultural and Biological Engineers

Soil and Water Conservation Society

SOFTWARE USED

ArcGIS with Spatial and 3-D Analyst Extensions, ArcSWAT, SWAT Editor, HEC-RAS, HEC-GeoRAS, Microsoft Office

PUBLICATIONS AND PRESENTATIONS

Misra, D., T. Oommen, T. Radatz, and A. Thompson. 2009. *Using support vector machines to characterize runoff-triggering in small watersheds*. Poster presentation at the 2009 American Geophysical Union (AGU) Fall Meeting.

Radatz, T.F. 2009. *Soil Moisture and Rainfall-Runoff Response of Agricultural Basins in Southwestern Wisconsin During Non-Frozen Ground Periods.* Master's thesis, University of Wisconsin – Madison.

Crowe, A., A.M. Thompson, F. Madison and T. Radatz. 2008. *Nutrient and sediment losses from overwintering areas in grazing systems in Wisconsin*. Presentation at the 2008 USDA-CSREES National Water Conference.

Oommen, T., T. Radatz, A. Thompson, and D. Misra. 2008. *Developing runoff-triggering characteristics in small watersheds using artificial intelligence models*. Poster presentation at the 2008 American Society of Agricultural and Biological Engineers (ASABE) International Meeting.

SELECTED PROJECT EXPERIENCE

Yahara CLEAN Non-Point Source Modeling, Dane County, WI (MARS Staff Engineer)

- Developed modeling strategies for agricultural management in Dane County, including cropping rotations, tillage operations, manure management scenarios, and conservation practices
- Assembled a SWAT model to analyze nutrient and sediment delivery to the Yahara chain of lakes
- Utilized monitoring data within watershed to calibrate and validate SWAT model for flow and sediment and phosphorus delivery
- Evaluated future agricultural management scenarios to assess potential changes in sediment and phosphorus delivery

Masters of Science Thesis Work, University of Wisconsin – Madison, 2007 – 2009

- Operated, maintained, and repaired agricultural surface-water runoff monitoring stations

- Analyzed water quality data from agricultural surface-water runoff monitoring stations
- Created and conducted soil moisture sampling programs to assess spatial variability of surficial soil moisture conditions and their relation to surface runoff generation in agricultural basins

Engineering Intern, CRA, summer 2006

- Monitored groundwater levels and collected groundwater samples
- Updated health and safety plans and created confined space entry plans
- Conducted environmental file reviews

University of Wisconsin Discovery Farms Program, 2004 – 2006

- Assisted with installation, maintenance, and sampling of agricultural surface-water runoff monitoring stations
- Aided with agricultural odor emission sampling