POST DOCTORAL RESEARCH ASSOCIATE - Watershed and Field scale Modeling

Job Description: A dynamic, innovative and highly motivated researcher to work on a challenging project to address a critical knowledge gap concerning the impact of land management practices on hydrological processes, soil properties, and phosphorus losses during the peak loading periods (winter and early spring) in agricultural watersheds in the Canadian Great Lakes basin by improving watershed and field scale models. The successful candidate is expected to make changes (in structure and code) to enhance the capability of a watershed model and a field scale model to improve simulation of the spring and winter conditions in Ontario, Canada, and subsequently calibrate and validate the model using gathered and collected data to identify factors (e.g. climate, topography, soil, crop management, etc.) associated with high phosphorus losses during the peak loading periods. The project is significant to address high phosphorus loading to the Great Lakes.

The candidate will be located in School of Engineering at University of Guelph, Guelph, Ontario, Canada and will have an opportunity to mentor graduate students and work with interdisciplinary teams which includes researchers at University of Guelph, and scientists/policy makers at various government agencies including Ontario Ministry of the Environment, Conservation and Parks (MECP). The candidate will also be part of multiple federal, state and local projects and will present scientific results at professional meetings and publish in reputed journals.

Qualifications: Ph.D. in Agricultural or Civil Engineering, Hydrology or related fields with proficient knowledge of watershed/water quality modeling. Basic knowledge of crops/agriculture production, urban and natural resource systems is desired. Experience in programming language (e.g., Fortran/Matlab) and capability to modify codes of process based hydrologic models to improve representation of various hydro-physiological processes within the model is highly needed. Successful candidate should have a demonstrated background in Geographic Information Systems (GIS), statistical analysis, hydrological/water quality models. Excellent oral and written communication skills are needed and should be able to work independently/collaboratively and communicate results to wide variety of audience. The candidate should have a strong academic background, excellent research capabilities, and ability to publish in high-quality journals.

Availability and Appointment: This is a full time position and is available immediately. The initial appointment period would be for 2 years and could be extended upon fund availability and satisfactory performance.

Contact: Please send a curriculum vitae, academic transcripts, statement of research interests and three references as email attachments to Dr. Ramesh P. Rudra at rrudra@uoguelph.ca and a copy to Dr. Prasad Daggupati at pdaggupa@uoguelph.ca and Dr. Pradeep Goel at Pradeep.Goel@ontario.ca

For more information on the position, please contact

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