



## **POST DOCTORAL RESEARCH ASSOCIATE - Watershed Modeling**

**Job Description:** A dynamic, innovative and highly motivated researcher is needed to conduct a systematic evaluation of the suitability of various watershed models (e.g., SWAT, AgNPS, etc.) to assess hydrological and water quality processes in selected agriculture/suburban dominated watersheds which contribute highest nutrient loads to the Great Lakes in the province of Ontario, Canada. The candidate will work on an exciting project aiming to develop innovative strategies to target and prioritize critical source areas (CSA's) within watersheds that contribute water quality impairments and design/recommend Best Management Practices (BMP's) for controlling emerging water quality issues. The successful candidate is expected to collect field data and integrate field observations and measurements with innovative practices in watershed modeling. The candidate is expected to develop, calibrate, and conduct uncertainty analysis of various watershed models.

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 McGill University, and scientists/policy makers at various government agencies including Ministry of the Environment and Climate Change (MOECC). 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.

**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 [rudra@uoguelph.ca](mailto:rudra@uoguelph.ca) and a copy to Dr. Prasad Daggupati at [pdaggupa@uoguelph.ca](mailto:pdaggupa@uoguelph.ca) and Dr. Pradeep Goel at [Pradeep.Goel@ontario.ca](mailto:Pradeep.Goel@ontario.ca)

For more information on the position, please contact

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