

2 research scientist positions in the Global Water Futures program

The Global Water Futures (GWF) program is the largest university-led climate and freshwater research program in the world. GWF currently has several new employment opportunities to advance mechanistic model simulations of hydrological processes across Canada and the world. Current opportunities include **two research scientists**, six postdoctoral fellows, and three PhD students (see our other job postings).



USask's Peyto Glacier Research Site in Banff, AB

Successful candidates will have the opportunity to work for the largest water modelling project ever conducted in Canada, with global scope, working with GWF Director John Pomeroy, GWF Core Modelling Co-leads Al Pietroniro and Martyn Clark, and other faculty across the GWF partner universities. Even though these are primarily modelling positions, researchers will be encouraged to become involved in field studies in well-instrumented research basins that are located in the spectacular landscapes of western Canada. Work locations include the Canmore Coldwater Laboratory in the Canadian Rocky Mountains and Innovation Place on the University of Saskatchewan campus in Saskatoon.

Currently, the GWF program consists of more than 500 stakeholders/users, 190 funded faculties from 18 Canadian universities and over 900 research personnel working on 51 projects, and core teams, including modelling and forecasting, computerscience, knowledge mobilization, data and technical teams. Additional information is available at: <https://www.globalwaterfutures.ca/>

2 Research scientists.

Two research scientist positions are available to accelerate progress on continental-domain hydrological prediction capabilities. The first research scientist position is on **Next-generation Land Modelling Capabilities**, focussing on advanced modelling of biogeophysical and biogeochemical water processes. The second research scientist is on **New Capabilities for Continental-domain Hydrological Prediction**, focussing on advancing model representations of coupled thermodynamic and hydrological processes across land, rivers, and lakes. In addition to conducting their own research, it is expected that the incumbents will also have a role within GWF to help supervise postdoctoral fellows, including managing collaborative approaches to the development, review, and testing of new modelling capabilities. The incumbents will report to Prof. Martyn Clark; work locations could include the Canmore Coldwater Laboratory in the Canadian Rockies, University of Saskatchewan, Saskatoon and the University of Calgary.



USask PhD Candidate Caroline Aubry-Wake at the Marmot Creek Research Site in Kananaskis, AB

Expectations: The applicants should have experience and expertise with developing and applying complex process-based models, the use and analysis of big data, and comprehensive model evaluation. Applicants should have a background in physical hydrology, hydrometeorology, or water resources engineering. The applicants should also have experience with software configuration management (e.g. git, svn), experience with effective model testing protocols, experience with programming in multiple programming/scripting languages, experience with creating effective documentation, and experience with parallel computing. Successful applicants will be comfortable working in a team environment and highly engaged in collaborative model development activities. They will be expected to publish regularly in peer-reviewed international journals and present their work at international science meetings.

Duration: These are term positions up until August 31, 2023, commencing as soon as possible.

Application Procedure: To be considered for this opportunity, please submit the following documents to Dr. Prabin Rokaya, Manager, Core Modelling and Forecasting Team, GWF via email (prabin.rokaya@usask.ca), specifying in subject line which post you are applying to:

- a statement of purpose (3-5 pages) that details relevant academic excellence, research abilities, communication, interpersonal and leadership qualities
- an updated curriculum vitae (max. 10 pages)

- evidence of previous research productivity as demonstrated by authorship of refereed journal publications and conference presentations/publications
- names of three referee

Prospective candidates are encouraged to visit the following websites for details:

- Global Institute for Water Security: <https://water.usask.ca/>
- Global Water Futures: <https://gwf.usask.ca/>

The USask is located in Saskatoon, Saskatchewan, a city with a diverse and thriving economic base, a vibrant arts community and a full range of leisure opportunities. The University, a member of the U15 group comprising Canada's leading research-intensive universities, has a reputation for excellence in teaching, research and scholarly activities and offers a full range of undergraduate, graduate, and professional programs to a student population of over 23,000. Information about the University, and the City of Saskatoon can be found at www.usask.ca and <https://tourismsaskatoon.com>.

We thank all applicants for their interest; however, only candidates selected for an interview will be contacted.

Closing date: Open until all positions are successfully filled; review to begin by January 31, 2020

The University of Saskatchewan is strongly committed to a diverse and inclusive workplace that empowers all employees to reach their full potential. All members of the university community share a responsibility for developing and maintaining an environment in which differences are valued and inclusiveness is practiced. The university welcomes applications from those who will contribute to the diversity of our community. All qualified candidates are encouraged to apply; however, Canadian citizens and permanent residents will be given priority.



Researchers (l-r) Phani Adapa (USask), Joe Shea (UNBC), John Pomeroy (USask), and on the Athabasca Glacier Research Site in Jasper, AB

Contact Information:

Prabin Rokaya, PhD
Manager, Core Modelling and Forecasting Team
Global Water Futures Program
National Hydrology Research Centre
11 Innovation Blvd, Saskatoon, SK S7N 3H5
Phone: 306-966-7226; Email: prabin.rokaya@usask.ca