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Research Assistant Opportunity
Casual Position
Modelling the dynamics of the stakeholders' trust in university research projects

Position start date:
As soon as possible.

Overview:
This project is seeking for a Research Assistant to support the development, analysis and numerical simulations of a mathematical model for the dynamical evolution of trust that stakeholders have in a research project during its various phases. The model will aim at describing the dynamics of trust during the management and development of research projects and will ultimately serve as a tool to monitor the levels of trust of stakeholders during the projects.
This is part time position based in Alberta with flexibility to work remotely, with flexible hours, and the opportunity to contribute to this interdisciplinary research which involves the fields of applied mathematics and project management. The project is expected to last no more than ten months.

Specific activities include, but are not limited to:
1. Understand the concept of trust in collaborative relations.
2. Assist in the design of a deterministic mathematical model, based on differential equations, describing the dynamics of the stakeholders' trust in a university research project.
3. Carry out a stability analysis of the model to describe its qualitative and asymptotic behaviour.
4. Write a code in the programming language Python to implement and solve the model and run numerical simulations.
5. Collaborate with the other team members who will provide data to be analysed.
6. Assist in the writing of an article.

The successful candidate will work under the supervision of Dr. Gustavo Carrero, Associate Professor at Athabasca University, who will provide all guidance necessary during the project.

Qualifications:
1. Applied Mathematics and Management background.
2. Strong data science skills. Master or PhD in Modelling and Data Analysis preferably.
3. Research experience in developing mathematical models in real-world applications using differential equations.
4. Experience in coding and numerical simulations.
5. Experience in programming and developing visual interfaces.
6. Experience in writing academic articles for scholarly journals.

Compensation and hours:

This position would require approximately 150 hours over a maximum of a 10-month period. The number of weekly hours will vary. Rate of pay will be commensurate with experience and in accordance with the relevant collective agreement.

How to apply:

Interested candidates are encouraged to submit their application by email to Dr. Gustavo Carrero at gustavoc@athabascau.ca with the subject line "Modelling the dynamics of trust", including the following as a single PDF file: (i) A brief cover letter that summarizes your skills, experience and interest in the project; (ii) a current resume or curriculum vitae; and (iii) the contact information of 1 or 2 references.

Applications will be accepted until June 12, 2025, or until a suitable candidate is found. All applicants are thanked for their interest in this position; however, only candidates selected for an interview will be contacted.

Athabasca University and the researchers are committed and seek to support equity in employment and research opportunities. We strongly encourage applications from Indigenous people, people of colour, people with disabilities, 2SLGBTQ+ people, women, and other historically marginalized groups. Applicants are welcome, but not required, to self-identify in their letter of application.

For more information on this Research Assistant opportunity, please contact Dr. Gustavo Carrero at the coordinates below.

Gustavo Carrero, PhD
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Faculty of Science and Technology,
Athabasca University