



Assistant Professor
Intelligent Mining Systems / Institute for Disruptive Technologies
The Robert M. Buchan Department of Mining
Queen's University at Kingston

The Robert M. Buchan Department of Mining, Faculty of Engineering and Applied Science at Queen's University, invites applications for a tenure-track faculty position at the rank of Assistant Professor, in the area of *Intelligent Mining Systems* affiliated with the *Institute for Disruptive Technologies*. The preferred starting date of the appointment is July 1, 2019.

The field of *Intelligent Mining Systems* encompasses machines, processes, systems, software, and related technologies that leverage, enhance, augment, and/or optimize the capabilities of existing elements, both human and machine, within the mining project life cycle – with the aim of enabling more sustainable raw materials extraction that is safer and more effective, and which further mitigates negative social, environmental, and economic impacts. Hence candidates for this position will be expected to conduct research which is relevant to one or more of: modelling, simulation, prediction, planning, process control, or optimization of processes / machines / systems within the overall mining project life cycle.

The *Institute for Disruptive Technologies* at Queen's University is a major new interdisciplinary engineering research initiative focused on the design and use of intelligent systems and robotic machines to enhance human productivity, creativity, safety, performance, and quality of life, for the benefit of society as a whole. Thanks to a major philanthropic gift and the generous support of Queen's alumni, as well as government, the *Institute* occupies over 1100 m² of world-class collaborative research space within the new *Mitchell Hall* building. Spanning technical competencies ranging from Artificial Intelligence and Machine Learning, Intelligent Sensors and Actuators, Human-Machine Systems, to Robotics, Mechatronics, and Autonomous Systems, the *Institute* aims to leverage relevant industry connections in order to deliver world class applied research.

The primary academic appointment for this position will be in the Robert M. Buchan Department of Mining (*Queen's Mining*), with membership in the *Institute*. Cross-appointment to other relevant academic departments will be encouraged, depending on the area of expertise and research focus of the appointee. We are looking for outstanding candidates who have either already engaged in research in *Intelligent Mining Systems*, or are eager to apply their relevant leading edge research

expertise in other engineering disciplines (e.g. Computer Engineering, Chemical Engineering, Electrical Engineering, Mechanical Engineering, etc.) to this exciting field.

Celebrating its 125th anniversary, *Queen's Mining* consistently ranks among the world's top Mining Engineering departments, with outstanding laboratory facilities and an unparalleled reputation for the quality of our graduates. In alignment with emerging societal and industry priorities, the department embraces an integrated systems approach to the mining project life cycle. Several established faculty members have active research programs on a variety of themes related to *Intelligent Mining Systems*, and are members of the *Institute for Disruptive Technologies*.

The successful candidate must hold at least one degree in Engineering and will have a PhD in a relevant discipline completed at the start date of the appointment. Registration as a Professional Engineer in Ontario, or eligibility to acquire registration in Canada, is a requirement. Relevant industrial experience is an asset.

The main criteria for selection are academic and teaching excellence. The successful candidate will provide evidence of high quality scholarly output that demonstrates potential for independent research leading to peer assessed publications and the securing of external research funding, as well as strong potential for outstanding teaching contributions at both the undergraduate and graduate levels within the Mining department, as well as elsewhere in the Faculty of Engineering and Applied Science, and an ongoing commitment to academic and pedagogical excellence in support of the department's programs. Candidates must also provide evidence of an ability to work in an interdisciplinary, collaborative environment. The successful candidate will be expected to make substantive contributions through service to the department, the Faculty, the University, and/or the broader community. Salary is commensurate with qualifications and experience.

Queen's University is a campus with a global reputation in the heart of the vibrant Kingston community, on the shores of Lake Ontario in the core of the Thousand Islands region of south-eastern Ontario. Kingston is conveniently located just a couple of hours away from Toronto, Ottawa, and Montreal by rail or road. Additional information about Queen's University, which may be of interest to prospective faculty members, can be found at <http://www.queensu.ca/facultyrecruitment/>.

The University invites applications from all qualified individuals. Queen's is committed to employment equity and diversity in the workplace and welcomes applications from women, visible minorities, Aboriginal peoples, persons with disabilities, and LGBTQ persons. All qualified candidates are encouraged to apply; however, in accordance with Canadian Immigration requirements, Canadian citizens and Permanent Residents of Canada will be given priority.

To comply with Federal laws, the University is obliged to gather statistical information about how many applicants for each job vacancy are Canadian citizens / permanent residents of Canada. Applicants need not identify their country of origin or citizenship, however, all applications must include one of the following statements: "I am a Canadian citizen / permanent resident of Canada"; OR, "I am not a Canadian citizen / permanent resident of Canada". Applications that do not include this information will be deemed incomplete.

A complete application consists of:

- a cover letter (including one of the two statements regarding Canadian citizenship / permanent resident status specified in the previous paragraph);
- a current Curriculum Vitae (including a list of publications);
- a statement of research interests;
- a statement of teaching interests and experience (including teaching outlines and evaluations if available); and,
- the names and contact information of three referees.

Applicants are encouraged to send their application package electronically (either as PDFs or MS Word files) to: wanda.badger@queensu.ca with the subject line “Application for the Intelligent Mining Systems Faculty Position”, although hard copy applications may be submitted to:

**Dr. Takis Katsabanis,
Associate Professor and Head
The Robert M. Buchan Department of Mining
Queen's University
Goodwin Hall, Room 354
Kingston, ON, Canada K7L3N6
Phone: (613) 533-2230**

Review of applications will begin on December 14, 2018, and applications will continue to be accepted until the position is filled.

The University will provide support in its recruitment processes to applicants with disabilities, including accommodation that takes into account an applicant’s accessibility needs. If you require accommodation during the interview process, please contact Wanda Badger in The Robert M. Buchan Department of Mining at wanda.badger@queensu.ca.

Academic staff at Queen’s University are governed by a *Collective Agreement* between the Queen’s University Faculty Association (QUFA) and the University, which is posted at <http://www.queensu.ca/facultyrelations/faculty-librarians-and-archivists/collective-agreement> and at <http://www.qufa.ca>.