



**DEPARTMENT OF ELECTRICAL & COMPUTER ENGINEERING  
FACULTY OF ENGINEERING AND APPLIED SCIENCE**

**Teaching Fellow Position  
Academic Year 2020-21**

**Posting Date: 15 June 2020  
Closing Date: 15 August 2020**

The Department of Electrical and Computer Engineering in the Faculty of Engineering and Applied Science at Queen's University requests applications from suitably qualified candidates interested in teaching the following undergraduate course in the 2020-21 session.

***Qualifications:***

Minimum of an M.A.Sc. Degree (or equivalent industry design experience) in Electrical & Computer Engineering or a related field, expertise in the field relevant to the course, and appropriate teaching experience. Previous educational background and/or experience must be suited to teaching the course described below. Candidates must have excellent communication and presentation skills, as well as be capable of working as a member of a teaching team. Prior teaching experience in project based engineering courses and lecture-based engineering courses would be a strong asset. Preference will be given to candidates who are registered as professional engineers in the province of Ontario.

**Teaching requirement:**

Fall & Winter Terms Course: September 1, 2020 – April 30, 2021

Anticipated course enrolment: 230

**Course Description**

**ELEC 490 – Electrical Engineering Project**

**Description**

The main objectives of the ELEC 490 project courses are either: (a) to propose, design, build, test, and present a project that deals with hardware and/or software and that produces a tangible result; or (b) to propose and study a thesis topic and then prepare a detailed thesis on the application or suitability of a particular device, technique, software artefact, or system to solve a significant, well-defined industrial or research problem.

The course features group projects in which both independent work and co-operative effort are required. A supervised working environment is established for the course where progress and long term goals (i.e., project milestones) are evaluated on a continuing basis by the student groups themselves and also by the faculty supervisors associated with the project groups and the ELEC 490 course instructors.

For the implementation-oriented projects, the emphasis is placed on systems and design methodology, which includes proposal and specification writing, subsystem design, testing, evaluation, and documentation. For a thesis-oriented effort, the emphasis is placed on research methodologies, ability to analyze and compare research results, degree of understanding of underlying theories and experimental methodologies, reporting, and documentation.

Throughout the course, students gain an appreciation of (a) the industrial or research context for the discipline and (b) the demands that might be placed on a junior engineer in the workplace or in postgraduate studies. This course relies on the technical and non-technical skills acquired in any of the courses taken before and concurrently with the project activity. The course is also intended to further develop relevant skills such as project management, documentation, and presentation.

Given the academic weight assigned to the project course, it is expected that each student in a group devote an average of 6 to 8 hours per week across the total of 24 weeks for the Fall and Winter terms.

### Course Learning Outcomes (CLOs)

- Approach and solve problems in somewhat unfamiliar areas.
- Enhance their knowledge of practical hardware and/or software implementation techniques, or increase their familiarity with research methodologies.
- Increase their awareness of the tools and techniques related to prototype testing, evaluation, and documentation
- Improve their team-oriented work skills.
- Refine their skills in report writing and technical presentations.

### Credit Breakdown

Lecture: Yes

Lab: Yes

Tutorial: Yes

<https://www.ece.queensu.ca/undergraduate/courses/elec-490.html>

The above advertised course will be taught on campus. The successful applicant will have 100 percent responsibility for the course.

Queens University is committed to employment equity and diversity in the workplace and welcomes applications from women, visible minorities, aboriginal people, persons with disabilities, and persons of any sexual orientation or gender identity. All qualified candidates are encouraged to apply; however, Canadians and permanent residents of Canada will be given priority. Teaching Fellows at Queen's University are governed by a collective agreement between Public Service Alliance of Canada (PSAC), <http://www.queensu.ca/humanresources/employees/unions.html> and Queen's University.

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 Mary Gillespie, [mary.gillespie@queensu.ca](mailto:mary.gillespie@queensu.ca).

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.

Applications should include a complete and current curriculum vitae, a statement of teaching experience, the names and contact details of two referees who may be contacted, and any relevant other materials the candidate wishes to submit for consideration. **Applications can be submitted to the ECE Appointments**

**Committee** by e-mail to Mary Gillespie, [mary.gillespie@queensu.ca](mailto:mary.gillespie@queensu.ca). Applications should be submitted by emailed no later than **August 15, 2020**.

Electrical and Computer Engineering Appointments Committee  
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