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:**

Summer Course: May 1, 2021 – July 31, 2021

Anticipated course enrolment: 50

**Course Description**

**ELEC 280 – Fundamentals of Electromagnetics**

Description

Lecture: 3
Lab: 0.25
Tutorial: 0.5

A study of the fundamental aspects of electromagnetic fields. The following topics are covered: the Maxwell’s equations and the 3-dimensional wave equation for transmission lines; vector analysis, including orthogonal coordinate systems, and the calculus of field quantities; electrostatic fields including the concepts of electric potential, capacitance, and current and current density; magnetostatic fields including inductance; time-varying fields and the complete form of Maxwell’s equations; basic transmission line phenomena including steady-state sinusoidal behaviour and standing waves, transient performance and impedance matching.

**Academic Units:**
Mathematics 0
Natural Sciences 27
Complementary Studies 0
Engineering Science 18
Engineering Design 0

**PREREQUISITE(S):** APSC 112 or APSC 114, APSC 171, APSC 172, APSC 174
Credit Breakdown

Lecture: Yes
Lab: Yes
Tutorial: Yes

The successful applicant will have 100 percent responsibility for the course and will be required to convert course materials to an accessible online format satisfactory to the Department Head.

Please be advised that due to the current COVID-19 Situation, the University currently requires all non-essential services staff to work remotely. Until the requirement to work remotely is lifted, you will be required and must be able to work from home, including having a high-speed internet connection.

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 Dijana Krstic, dbk2@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 Dijana Krstic, dbk2@queensu.ca. Applications should be submitted by emailed no later than April 2, 2021.

Electrical and Computer Engineering Appointments Committee c/o Dijana Krstic, Reception Department of Electrical and Computer Engineering Walter Light Hall, Room 416 Queen’s University Tel. 613 533-2925 Fax. 613 533-6615