



Announcement and Call for Proposals for Professional Engineering Education- Short Course

The Education Committee of the IEEE Toronto Section has launched a series of Professional Education Short Courses for various disciplines of Engineering with a Mission to 'Bridge the Gap between Engineering Education and the Practical Workplace' and a Vision to uplift engineering education with a blend of theoretical knowledge and practical experience from industry using innovative and creative programs.

Objective: The Short Courses are proposed with an objective 'to make transformative advancements in engineering education and professional training by integrating classroom studies with ongoing cutting-edge research trends and latest workplace practices, for the best interest of the engineering community and society'.

Background: "Toronto's tech scene is so hot the city created more jobs than the San Francisco Bay area, Seattle and Washington, D.C., combined last year, while leapfrogging New York in a ranking of talent markets. Toronto was the fastest-growing tech-jobs market in 2017, according to CBRE Group Inc.'s latest annual [survey](#). The city saw 28,900 tech jobs created, 14 percent more than in 2016, for a total of more than 241,000 workers, up 52 percent over the past five years. (Bloomberg 2018). There will be more than 100,000 engineering jobs available in Canada leading up to the year 2020; however, the majority of the engineers entering the workforce will lack relevant industry specific expertise and skills; workplace requirements and knowledge to qualify for the available jobs. IEEE Toronto is committed to overcoming this challenge.

Proposal: Academics, Professionals and Industry Experts from all disciplines of Engineering are welcome to submit proposals to deliver short courses according to the provided guidelines.

Format: Each session will include 1) engineering topics with modules related to relevant engineering theory and principles by experienced and distinguished instructors; and 2) practical applications of the latest technologies in the relevant industries, delivered by experts with field knowledge and experience. Furthermore, this will include a module related to the relevant skills required for the particular field of engineering. Ideally, each Short Course should include at least 1 visit to the relevant industry sites, practical exercises and a networking session with industry experts, including resume building and career follow ups.

The anticipated format is 10-15 total hours of instruction (spread over 3-5 week-nights) in addition to site-visit.

A certificate regarding PDH / CEUs will be provided to trainees who pass the Short Course.

Timelines for Rounds: see IEEE Toronto Website:

<http://toronto.ieee.ca/training/>

Guidelines for Preparation Proposals:

- a. Brief Title / Subject for the suggested course
- b. A brief abstract of up to 200 words highlighting the contents of the Short Course
- c. Address the following questions explicitly:
 - 1) Who should attend this course (Students, fresh graduates, professionals, experienced engineers) and benefits to them)?
 - 2) Why is the selected topic important/valuable for IEEE Toronto Members?
 - 3) Where will the course be held (note that IEEE Toronto can provide space if needed, otherwise the instructor can suggest a location)?
 - 4) What is your requested budget for the course (should include instructor compensation plus any fees arising from the site visit and facilities)?
 - 5) Can you make arrangements for an industry site visit (strongly recommended)? Explain how this related to the course and what activities will be undertaken.
 - 6) Is there any hands-on aspect to the course? Are there any hardware/lab/material requirements that you do not already have access to?
 - 7) What is your method of evaluating/testing trainees and what is your metric for passing the Short Course?
- d. Detailed topic / module outlines of up to 2 pages each with estimated time for each Presenting speaker(s) contact information: Name, affiliation, mailing address, telephone number, and email address, a short biography (200 words) and a resume / CV

Procedure and Notes:

- a. All proposals and other material and arrangements will be reviewed by a Program Committee consisting of Chair of IEEE Toronto Section, Chair of Toronto Section Education Committee and others as set up by the Section.
- b. A fair treatment will be provided to all proposals and the acceptance will be based on the mission and vision of the Section, to maximize value for its members.
- c. Compensation will be provided for training session instructors.
- d. Instructors are responsible for their own expenses of preparing and presenting the modules including all travel, lodging, and meals. However light snacks will be provided during the sessions.
- e. Travel arrangements for the site visits will be coordinated by the IEEE Toronto Section.
- f. Session modules presentations are expected to be commercial free and must abide by copyright standards. Instructors are requested to follow their requisite ethics and business code of conduct for soliciting and any confidential information related to their affiliation, employer and business.
- g. Training session presentations will be distributed as protected Adobe PDF files (text and graphics copy protected) in the USB flash drives as well as printed handouts, which will be in color.
- h. Submission of your seminar proposal serves as your implicit agreement and consent to electronic distribution of your seminar presentation to attendees.

- i. All the above timelines and deadlines should be strictly followed to maintain quality of the course material and delivery
- j. The course is subject to cancellation if requisite number of attendees are not available
- k. For any questions or further information, please contact:

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