

Review of the University of Victoria's Department of Electrical and Computer Engineering Graduate Programs

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Review Committee

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Executive Summary

This report contains a set of impressions and observations collected by the review committee through their study of the submitted written documents (principally a unit "self-study" document), as well as resulting from the committee's in-person visit of the unit, comprised of interviews with students, staff, faculty and University of Victoria administrators. Overall, this committee is pleased to report that the unit is strong on many facets, most importantly, in its research enterprise and graduate teaching and learning programs (format, content and delivery), as well as in its human resources. Nevertheless, a number of opportunities for improvement or strengthening emerged through this review. The context for these is discussed in more detail in the body of this report. These opportunities are also summarized and articulated through the following set of seventeen recommendations referenced to the numbered Sections of Unit Review Report Template provided by the University of Victoria.

Recommendation S1.1: The university should ensure that comprehensive unit reviews are conducted on a regular schedule (ideally every 5 years) and that the reviews not separate undergraduate and graduate programs, i.e., that the unit and all its activities be assessed as a whole. The CEAB reviews for accreditation of undergraduate programs should be independent exercises. If the university wishes to conduct reviews of graduate programs only, then a different set of review criteria, specifically focused on program outcomes, pedagogy, etc., should be established.

Recommendation S1.2: The unit should work towards a more definite plan to inform the decisions that it will want to make in the short and longer terms. The onus is not only on the unit to align its strategies and goals with that of the Dean's Office and the

University as a whole. The responsibility should also rest with senior leaders to work with unit members to dev

Recommendation S1.6: The unit should engage in developing a more comprehensive plan that connects technical areas of interest reported in the self-study document with the current and anticipated teaching needs at the undergraduate and graduate levels and tie in these technical areas with a vision and goals for their research enterprise. In regards to the latter, the technical areas pursued will result in large impacts on physical (lab space and equipment) and other resources. A holistic plan would be in order to capitalize on the current strengths and the opportunities available to the department.

Recommendation S2.1: To retain the ability to deliver a large and diverse graduate program within the constraints of the university's budget and resource models, the department should engage in revitalizing its electrical and computer engineering undergraduate programs with the objective of increasing student demand. This is a substantial and multifaceted undertaking with additional discipline-specific constraints from CEAB accreditation, which we expect to require both broad participation from unit members and sufficient time (we would estimate 1-2 years) for high-quality planning and implementation.

Recommendation S2.2: Implement more structured surveys (e.g., exit interviews) to collect industry, faculty and student inputs to inform steps to evolve the programs and their delivery.

Recommendation S3.1: Implement more formal and rigorous program review mechanisms to enable

