2. RATIONALE, AIMS AND INTENDED LEARNING OUTCOMES OF THE PROGRAMME

2.1. Rationale and Aims

The followings are the rationale and aims of the Programme:

(i) This programme aims at producing graduates with the professional knowledge and skills that are relevant for a professional engineer to contribute to the electronic and information engineering profession.

(ii) The curriculum enables the students to develop a deep understanding of sound scientific principles, and to gather experience in practical applications.

(iii) The learning and teaching environment is flexible and relevant to support both professional and all-rounded developments of the students.

(iv) The graduates will be able to develop abilities in effective communication, problem-solving, inquisitiveness, critical and creative thinking, and life-long learning.

(v) The graduates are expected to be equipped with professional competence, all-rounded attributes and transferable skills, and be able to meet challenges from the rapidly changing engineering profession.

2.2. Intended Learning Outcomes of the Programme*

On successful completion of the BEng(Hons) in Electronic and Information Engineering Programme, students will be able to:

Category A   Professional/academic knowledge and skills

1. Apply knowledge of mathematics, science, and engineering appropriate to electronic and information engineering.

2. Design and conduct experiments, as well as to analyse and interpret data.

3. Design a system, component or process to meet desired needs within realistic constraints, such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability.

4. Function on multi-disciplinary teams.

5. Identify, formulate and solve engineering problems.

6. Understand professional and ethical responsibility.

7. Communicate effectively.

8. Understand the impact of engineering solutions in a global and societal context, especially the importance of health, safety and environmental considerations to both workers and the general public.

9. Stay abreast of contemporary issues.

10. Recognize the need for, and to engage in life-long learning.

11.   Use the techniques, skills, and modern engineering tools necessary for engineering practice appropriate to electronic and information engineering.

12.   Use the computer/IT tools relevant to electronic and information engineering along with an understanding of their processes and limitations.

Category B   Attributes for all-roundedness

13.   Understand the creative process.

14.   Exercise leadership when working in a team.

* The University aspires to develop all its students as all-round graduates with professional competence, and has identified a set of highly valued graduate attributes as the learning goals for students. While many of these graduate attributes can be developed through the curricular activities of this programme, some (including interest in local and international affairs, interpersonal skills, sense of social and national responsibility, cultural appreciation, biliteracy and trilingualism, and entrepreneurship) will be primarily addressed through co-curricular activities offered by faculties, departments, and various teaching and learning support units of the University. Students are encouraged to make full use of such opportunities to develop these attributes.