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**Programme Specification**

**Title of Course:** BEng (Hons) Electrical and Electronic Engineering,

Top-up Year

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| **Date first produced** | May 2020 |
| **Date last revised** | - |
| **Date of implementation of current version** | September 2020 |
| **Version number** | 1 |
| **Faculty** | Science, Engineering and Computing |
| **School** | School of Engineering and the Environment |
| **Department** | Mechanical Engineering |
| **Delivery Institution** | ESOFT College of Engineering and Technology, ESOFT Group |

This Programme Specification is designed for prospective students, current students, academic staff and employers. It provides a concise summary of the main features of the programme and the intended learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if they take full advantage of the learning opportunities that are provided. More detailed information on the teaching, learning and assessment methods, learning outcomes and content of each module can be found in the Course Handbook and in individual Module Descriptors.

**SECTION 1: GENERAL INFORMATION**

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| **Award(s) and Title(s):** | BEng (Hons) Electrical and Electronic Engineering |
| **Intermediate Awards:** | N/A |
| **FHEQ Level for the Final Award:** | Honours Degree Level 6 |
| **Awarding Institution:** | Kingston University |
| **Teaching Institution:** | ESOFT College of Engineering and Technology, ESOFT Group |
| **Location:** | Moratuwa, Sri Lanka |
| **Language of Delivery:** | English |
| **Modes of Delivery:** | Full Time |
| **Available as:** | Full field |
| **Minimum period of registration:** | 1 Year |
| **Maximum period of registration:** | 3 Years |
| **Entry Requirements:** | The minimum entry qualifications for the programme are from BTEC HND Levels: a pass in the relevant HND to include a pass in the nineteen units listed in Table below (or their equivalent) and achievement of an overall score of 300 credit points of which150 must be at Level 5.  ***Pearson BTEC HND in Electrical and Electronic Engineering***   |  |  |  |  | | --- | --- | --- | --- | | **Subject Details** | | **QCF Level** | **Credit Value** | | Unit 1: Engineering Design | | 4 | 15 | | Unit 2: Engineering Maths | | 4 | 15 | | Unit 3: Engineering Science | | 4 | 15 | | Unit 4: Managing a Professional Engineering Project | | 4 | 15 | | Unit 19: Electrical and Electronic Principles | | 4 | 15 | | Unit 20: Digital Principles | | 4 | 15 | | Unit 21: Electrical Machines | | 4 | 15 | | Unit 35: Professional Engineering Management | | 5 | 15 | | Unit 15: Automation, Robotics and PLCs | | 4 | 15 | | Unit 39: Further Mathematics | | 5 | 15 | | Unit 22: Electronic Circuits and Devices | | 4 | 15 | | Unit 118: Telecommunication Principles | | 4 | 15 | | Unit 47: Analogue Electronic Systems | | 5 | 15 | | Unit 46: Embedded Systems | | 5 | 15 | | Unit 54: Further Control Systems Engineering | | 5 | 15 | | Unit 52: Further Electrical, Electronic and Principles | | 5 | 15 | | Unit 44: Industrial Power, Electronics and Storage | | 5 | 15 | | Unit 34: Research Project | | 5 | 30 | | Unit 45: Industrial Systems | | 5 | 15 | |  | *QCF Level 5 units* | | | |   Applications with similar or equivalent qualifications will be considered on a case-by-case basis (including both HND from other providers, as well as mature applicants with industrial experience)  **English Language Requirements:**  IELTS–minimum 6.0 overall, with no element below 5.5;  Kingston University have also approved the following mapping as equivalent alternatives to IELTS requirements;   1. GCE O Level English Language: Credit, Distinction or Very good pass 2. ESOFT English for Academic Purposes modules in reading, writing, listening and speaking: results which equate to our normal entry conditions in the following ways (\*NB: The overall grade to be an average of the four skills module results.)  |  |  | | --- | --- | | IELTS | ESOFT | | 6.5 | 58+ | | 6.0 | 50-57 | |
| **Programme Accredited by:** | Non-accredited Programme |
| **QAA Subject Benchmark Statements:** | Engineering |
| **Approved Variants:** | N/A |
| **UCAS Code:** | H620(Full Time) |

**SECTION 2: THE COURSE**

1. **Aims of the Course**

The programme aims to provide opportunities for students to undertake a broad-based education in electrical and electronic engineering, and to acquire appropriate knowledge and understanding, of engineering skills and key skills, to become a professional Electrical and Electronic Engineer. It is also aimed for enabling graduates to follow careers in other professional disciplines where clear, logical, numerate skills in combination with the ability to solve problems, communicate solutions and work in teams are valued.

More specific aims of the programme are:

* To use their knowledge and understanding of electrical and electronic science to produce soundly based solutions to engineering problems, through the careful evaluation of available evidence, arguments and assumptions;
* To apply theoretical and practical techniques in a creative way to the analysis and solution of engineering problems;
* To provide a high level of technical leadership and extended experience of group activities;
* To use initiative, effective communication and interpersonal skills;
* To operate within the appropriate code of professional conduct, recognising obligations to society, the profession and the environment.

1. **Intended Learning Outcomes**

The course provides opportunities for students to develop and demonstrate knowledge and understanding specific to subject key skills and graduate attributes in the following areas. The programme outcomes are referenced to the QAA subject benchmarks for Engineering (2019) and the Framework for Higher Education Qualifications in England, Wales and NorthernIreland (2014), and relate to the typical student.

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| **Programme Learning Outcomes** | | | | | |
|  | **Knowledge and Understanding**  On completion of the course students will be able to: |  | **Intellectual Skills**  On completion of the course students will be able to: |  | **Subject Practical Skills**  On completion of the course students will be able to: |
| A1 | Demonstrate systematic, detailed and critical understanding of electrical and electronic science, ranging from the well-established principles to new techniques | B1 | Demonstrate ability to apply the concepts and principles of electrical and electronic engineering science to the solution of engineering problems in a number of commonly encountered engineering contexts | C1 | Employ a range of established and new techniques to review and critically analyze information concerning engineering problems, and to propose and implement solutions in a professional manner |
| A2 | Demonstrate the basic knowledge and understanding of practical technologies currently used in electrical and electronic engineering | B2 | Demonstrate ability to critically evaluate information in the form of arguments, assumptions and/or technical data (that may or may not be complete) in order to be able to produce solutions to problems in electrical and electronic engineering | C2 | Deal with complex engineering issues, both systematically and creatively, make sound judgments in the absence of complete data, and communicate their conclusions clearly to both specialist and non-specialist audiences |
| A3 | Demonstrate critical understanding of the uncertainty, ambiguity and limits of their knowledge, and how this may affect analyses of, and solutions to, engineering problems. | B3 | Use theoretical analysis, modelling and simulation to formulate and to solve problems in electrical and electronic engineering. | C3 | Undertake further continuing professional development and the development of new and advanced skills that will enable them to assume a high level of responsibility within an engineering organization. |
| A4 | Demonstrate awareness of the commercial and financial constraints that engineers may have to work under. | B4 | Manage projects, people, resources and time taking account of legal and statutory requirements, risk, safety, quality and reliability | C4 | Use appropriate industry-standard computer software in the solution of practical problems |
| A5 | Identify different electrical system structure and execution, design methods, and techniques. |  |  | C5 | Demonstrate ability to effectively present technical information in both written and spoken form. |

In addition to the programme learning outcomes identified overleaf, the programme of study defined in this programme specification will allow students to develop a range of Key Skills as follows:

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| **Key Skills** | | | | | | |
| **Self Awareness Skills** | **Communication Skills** | **Interpersonal Skills** | **Research and information Literacy Skills** | **Numeracy Skills** | **Management & Leadership Skills** | **Creativity and Problem Solving Skills** |
| Take responsibility for own learning and plan for and record own personal development | Express ideas clearly and unambiguously in writing and the spoken work | Work well with others in a group or team | Search for and select relevant sources of information | Collect data from primary and secondary sources and use appropriate methods to manipulate and analyse this data | Determine the scope of a task (or project) | Apply scientific and other knowledge to analyse and evaluate information and data and to find solutions to problems |
| Recognise own academic strengths and weaknesses, reflect on performance and progress and respond to feedback | Present, challenge and defend ideas and results effectively orally and in writing | Work flexibly and respond to change | Critically evaluate information and use it appropriately | Present and record data in appropriate formats | Identify resources needed to undertake the task (or project) and to schedule and manage the resources | Work with complex ideas and justify judgements made through effective use of evidence |
| Organise self effectively, agreeing and setting realistic targets, accessing support where appropriate and managing time to achieve targets | Actively listen and respond appropriately to ideas of others | Discuss and debate with others and make concession to reach agreement | Apply the ethical and legal requirements in both the access and use of information | Interpret and evaluate data to inform and justify arguments | Evidence ability to successfully complete and evaluate a task (or project), revising the plan where necessary |  |
| Work effectively with limited supervision in unfamiliar contexts |  | Give, accept and respond to constructive feedback | Accurately cite and reference information sources | Be aware of issues of selection, accuracy and uncertainty in the collection and analysis of data | Motivate and direct others to enable an effective contribution from all participants |  |

1. **Outline Programme Structure**

The final year, Level 6 Top-Up programme comprises four modules each worth 30 credits, and offered in the full-time mode. A student must complete all four modules (total 120 credits). All students will be provided with the University Regulations. Full details of each module will be provided in the module descriptors and student module guides.

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| **Level 6** (all core) | | | | |
| **Core modules** | **Module code** | **Credit**  **Value** | **Level** | **Teaching Block** | |
| Electrical Systems Design and Installation | EE6011 | 30 | 6 | 1&2 | |
| Instrumentation, Control and Group Project | EE6012 | 30 | 6 | 1&2 | |
| Renewable Energy Systems and Energy Management | EE6013 | 30 | 6 | 1&2 | |
| Individual Project\* | EE6014 | 30 | 6 | 1&2 | |
| *\* individual project dissertation will be of a technical nature in a field aligned to award title* | | | | |

Completion of Level 6 requires passes in all four modules to give 120 credits and qualify for BEng (Hons) Electrical and Electronic Engineering top-up. Full details of each module is provided in module descriptors.

1. **Principles of Teaching, Learning and Assessment**

This programme has been designed taking into account the Kingston University Curriculum Design Principles to help develop student learning from dependent to independent learning and encourage lifelong learners.

**Development of Independent learning through the course**

The learning, teaching and assessment strategy of the course is aimed at supporting progression in curriculum content and skills development through the duration of the course. At level 6 students will be expected to take greater ownership of their independent study with academics taking on more of a supervisory role of student independent study, this is exemplified in the group and individual project modules **EE6012Instrumentation, Control and Group Project and, EE6014Individual Project.**

Module guides set out clear expectations for guided independent learning. Students will be directed to reading to prepare for individual topics or sessions and also to problem sets or exercises to consolidate and test their learning afterwards. The Learning Management System (LMS) at ECET will support learning throughout the course through a variety of technology enhanced learning objects, including videos, screen casts, on-line MCQs, discussion boards and interactive teaching packages.

Lecture materials and required materials relevant to the programmes such as problems sets and worked examples will be provided.

A feature of the learning, teaching and assessment strategy in ECET, adopted from the SEC Faculty at Kingston University, is that many instructional lectures have been replaced by collaborative, problem solving or enquiry-based learning workshops and tutorials. These require students to prepare for, and participate in, the classroom activities, rather than passively listening to the lecturer. Students are expected to engage with the guided learning to prepare for these teaching sessions and consolidate their learning after the session. These interactive sessions also provide students with opportunities for peer learning, group work and presentation practice. Examples of interactive sessions can be found in all electrical and electronic modules throughout the course where students are offered a highly interactive enquiry-based environment to solve realistic electrical and electronic engineering problems. In these sessions the lecturer facilitates learning by supporting students in creating their own knowledge and understanding. Lecturers may also introduce and summarize key concepts with short mini-lectures. Project based Learning (PBL) is introduced in **EE6012 Instrumentation, Control and Group Project**. These collaborative activities encourage students to draw on their own set of experiences and cultural backgrounds when tackling real world challenges.

Active and collaborative learning are incorporated in traditional lectures including question-and-answer sessions and brief student discussions. These methods ensure that valuable contact time is focussed on the application and critical analysis of knowledge and the development of key skills such as problem solving, communication, and group-work.

The high percentage use of active learning sessions in the teaching hours is aimed at improving student engagement, creativity, confidence and self-reliance. The course endeavours to further secure student engagement by making students feel part of a community and increasing their sense of belonging which supports to improved retention and progression. This is achieved by providing opportunities to interact with staff and students both socially and academically. In addition, to the active learning sessions and group work, this is achieved through: the personal tutoring scheme, field work, industrial visits, extra-curricular seminars, research internships, course representative system, student ambassador work, peer mentoring and outreach opportunities.

**Developments of employability skills**

The progressive development of a range key employability skills is another feature of the course as exemplified in teamwork/group work discussed above. The design of the course provide skills for securing employment in different sectors; e.g. in modules **EE6015 and EE6013,** which include lab reports, presentations and group discussions. In the Individual Project module **EE6014** students will be taught how to synthesise and critical review information from a variety of sources and report this and their research results in a formal research report and an oral presentation.

**Information Technology skills** are developed through a variety of mechanisms, including library and internet searches, use of the ECET virtual learning environment (LMS) and specific training in Windows based packages, but also some other proprietary packages. Specific skills, such as graph drawing in excel, are taught as part of their laboratory report write up.MS Project and Mat lab tools are used by students.

ECET also offers a wide range of IT training and support facilities, to suit the varying needs of the individual students. Presentation of research report, formal presentation, analysing critical review and the uses of IT to do research analysis will be taught.

**Hands-on Practical work**

A hand on practical experience in workshops and laboratories is fundamental in developing practical skills as well as enhancing data collection and analysis skills. Students will have the opportunity to work in laboratories and workshops as well as other practical works in most of their modules. Practical work is closely related to the taught content to provide context for the theoretical work. Students are expected to select and apply requisite practical skills in their own independent research work in **EE6014** the individual project module.

**Research and Practice Informed Teaching**

The individual research project module will be introduced during induction week with a list of past project titles and individual staff expertise/ research interests for the students to prepare the initial ideas and develop a major piece of independent research. The module itself will be delivered through a series of timetabled workshops, one-to-one tutorials with guided laboratory facilities as well as commercial software, as well as covering the literature review, project planning, report writing and presentation. Students will receive consistent project supervision and guidance through scheduled regular one-to-one meetings with the project supervisor.

Many course team members are either engineering research active or are involved in industry related professional activities, and other direct involvement with industry. These activities played a major part in informing the course design and content, as did the direct input from industry through the activities of the Industrial Advisory Board.

Students are also able to and are encouraged to develop their own research skills which are a fundamental part of the curriculum throughout the duration of the programme. They are often encouraged, through project work, to work with research active staff on elements of live projects, and these research skills enable students to determine, distinguish and present appropriate evidentiary information in an argument, which are of great value to employers.

Staffs members are given an opportunity to widely engage in the research and development of ideas in the teaching and learning process. Different forms of student engagements are encouraged and wider pedagogical issues are taken into consideration in this process.

**Assessment for Learning**

The assessment strategy has been designed to help students to learn and prepare them for employment, rather than just a tool to measure their learning. The assessment is designed to be authentic, inclusive and transparent. The assessment tasks focus on the real world engineering activities that enhance students’ employability. All EE module assessments are related to real world problems. All modules have explicit formative assessments to provide opportunities for practice and the chance to use ‘feed forward’ to help students improve their work in subsequent summative assessments. For example in **EE6013**, formative assessment is provided in the form of quick, regular and detailed feedback on laboratory reports facilitating improvement of these reports throughout the academic year. Examinations are still used as they are an effective way of assessing basic knowledge and understanding, and professional bodies expect to see examination covering key curriculum content. However, the strategy recognises that other assessment methods are better suited to assessing higher level problem solving skills. The use of a well-balanced range of assessment methods is key part of our inclusive assessment strategy. Group and teamwork assessment is instrumental in developing and recognising this important employability skill. This demonstrates progressive skills and competences development – thus preparing employment ready graduates

**Engineering Curriculum**

**EE6011**is a core module in electrical and electronic engineering. This module is designed to develop, refine and apply the ideas and skills of electrical, ELV, industrial communication and active network systems, and lighting systems design and installation. It enables students to identify and develop skills in the solution of problems relating to electrical systems design and installation.

The module is primarily delivered through lectures, supported by practical laboratory work, with additional support material available on blackboard. The assessment is through mini project, practical home assignments and final exam.

**EE6012** Instrumentation, Control and Group Project module is designed to give students an opportunity to work as a member of design team on an electrical, electronics, and communications engineering design project with strong application of ideas and skills of measurement, instrumentation, control and automation engineering. It enables students to identify and collectively develop skills in the solution of problems relating to systems automation, control and monitoring. On the one hand the students develop skills to plan and team work to solve, model, design and implement an engineering system to meet an industrial need.

**EE6013**this module is designed to develop, refine and apply the ideas and skills of renewable energy systems and energy management. It enables students to identify and develop skills in the solution of problems relating to renewable energy systems and energy management. On the one hand, the students develop skills to solve, model and interpret and more importantly gain practical skills in renewable energy systems and energy management.

**EE6014** the Individual Project module combines the technical and academic facets of the programme and provides students with an opportunity to complete a capstone project applying the knowledge and skills learnt during the programme to achieve agreed deliverables. It enables students to develop their research skills using and applying information from the technical literature

**Inclusive Teaching Practice**

The ECET is committed to the Inclusive Curriculum. Students will be encouraged to see themselves as belonging to a professional community. A set of employability criteria will be identified using insight from employers. Skills will be identified that employers think are needed from invited industrial experts and professional engineering institutions networking. Personal Tutors will enhance student engagement with these opportunities. Learning and teaching staff will highlight opportunities within their sessions that enable students to acquire the employability skills. Personal Tutors include employability criteria and reflective questions in first meeting and record on system.

Staff Student Consultative Committees and Boards of Study provide further opportunities for students to suggest further areas for inclusion, primarily based on their specific circumstances of the student body. The variety of teaching activities also takes account of the student’s different learning preferences and experiences and there is a careful balance of individual and group based activities.

Marking criteria are provided for all assessments as part of the assessment booklet at the beginning of the year for each module and care is taken to ensure that the language used is clear**.** Assessment and marking criteria for all substantial assessments are discussed in class so all students have an opportunity to interrogate the criteria.

In the programme, various methods of teaching and learning are used throughout, but not exclusively, as follows:

***Lectures***

Lectures are formal staff-led sessions designed to introduce new topics and material or provide an overview of a topic for further student study. Lectures make use of various media, supplemented by material uploaded to “Learning Management System”. The academic staff is convinced that students learn better through active participation and hence lectures would generally overlap with tutorials in expecting students to be actively involved in sketching, designing and calculating.

***Tutorials***

Academic tutorials are provided where lecturers assist students in solving typical engineering problems and in discussing lecture material. In many modules the tutorials and lectures will be integrated as described above.

***Design workshops***

Workshops may be staff-led or student-led where students participate in group design work emphasising the need for effective oral communication. Design classes, case studies and workshops often integrate material from different academic areas and would include a practical real-world emphasis.

***Practical sessions***

Practical sessions are designed to enable students to acquire practical and analytical skills through the application of theory. The sessions will include data collection, analysis, presentation and reporting. Practical work will generally be carried out in small groups, requiring the production of individual or group reports depending on the nature of the activity.

***Group work***

Good team-working skills are an essential skill for graduates aspiring to work in any engineering industry; hence, teamwork plays an important role in the academic development of Electrical and Electronic Engineering undergraduate. Group work projects throughout the program illustrate the value of team work, developing interpersonal skills and fostering cooperation and supportive peer relationships.

***Individual project***

A fundamental element of level 6 is the individual capstone project allowing students to integrate material from their course in an independent study of a research topic. A student’s research skills will be developed with the assistance of targeted lectures, as well as an assigned supervisor, encouraging students to work effectively independently, communicating their findings clearly and succinctly through oral and written presentation. The expertise of the academic team members and their research activities are commonly utilised by students during this final year project.

**Assessment**

The programme is designed to develop the students’ academic and technical knowledge and understanding, their academic and professional skills, and their personal qualities, and ultimately prepare them for employment. The assessment strategy has been designed in the same way: to develop the students rather than simply assess them to make sure they satisfy learning outcomes. The assessment is designed to be authentic, engaging and transparent that contributes to helping students to learn and develop effective attributes. The assessment tasks focus on the real world-engineering activities that enhance students’ employability.

Assessment and feedback are regarded as integral parts of learning and teaching strategy and incorporated in all modules. Assessment methods are adopted in each module to enable students to demonstrate their acquisition of knowledge and skills as outlined in the module learning outcomes. The assessment regime for each module has been designed to provide ample formative opportunities that allow students to improve their performance, following feedback, in preparation for summative assessment. For example, students are assessed from their submission and their presentation according to the modules. Final grade is given after the analysis of their work and their submission. The development of skills is threaded through the programme and assessed both formatively and summatively. A wide range of assessment methods is used to ensure that students with diverse backgrounds are not disadvantaged for example individual coursework and project themes are selected to fit individual backgrounds. The methods of assessment have been selected so as to be most appropriate for the nature of the subject area, teaching style and learning outcomes in each module and priority is given to authentic assessments based on real world engineering challenges

In the programme as a whole, the following components are used in the assessment of the various modules:

* Practical exercises: to assess students’ understanding and technical competence
* Individual and group-based case project work: to assess ability to understand requirements, to provide solutions to realistic problems and to interact and work effectively with others as a contributing member of a team. The outcomes can be:
* Written reports, where the ability to communicate the relevant concepts, methods, results and conclusions effectively will be assessed.
* Oral presentations, where the ability to summarise accurately and communicate clearly the key points from the work in a brief presentation will be assessed.
* Multiple choice or short answer questions: to assess competence in basic techniques and understanding of concepts.
* Long answer structured questions in coursework assignments: to assess ability to apply learned techniques to solve simple to medium problems and which may include a limited investigative component
* Long answer structured questions in end-of-module examinations: to assess overall breadth of knowledge and technical competence to provide concise and accurate solutions within restricted time
* Project: The individual project module represents an opportunity for students to draw together different aspects of their learning on the programme and to apply the techniques learned in an extended study. As such the assessment here will place a greater emphasis on ability to plan work, manage time effectively, and research background information, culminating in a written report and interview.
* Individual and group practical laboratory reports
* Posters: The group project is presented in posters to and assessed by academic staff as well as members of the industrial advisory board.
* Short in-class tests and on-line assessments: throughout a number of modules.

At the beginning of each academic year deadlines for submission and feedback are planned carefully and a full **assessment timeline calendar** is constructed to ensure that there is no summative assessment bunching and thus student workloads are managed. In addition, this calendar offers a synchronised and coherent delivery of the programme that is clearly understood by staff and students who can appreciate the integrated nature of their learning emanating from various module assessments.

**Employability**

Initially students are guided towards learning about employability skills and career pathways, but as they move through the programme they are expected to become more independent and take ownership of their career development by engaging with classes provided by Career Service, including; Professional Communication, Time and Self-Management and Identifying and Articulating Skills. There are also opportunities to perfect skills required to gain employment such as; CV writing, Psychometric Test and Using LinkedIn. A student’s development and career options are discussed in personal tutor meetings and guidance given as appropriate. This is in liaison with the Careers Service.

1. **Support for Students and their Learning**

Student support recognises that the student experience is unique to each student. A key part of our approach to an inclusive curriculum is that we acknowledge and where possible accommodate their individual circumstances. The personal tutor scheme is central to the efforts to provide a personalised learning experience. (See PTS section of programme specification below). These cover the whole curriculum for a particular level. Students are required to work through these formative assessment problems as they cover the relevant curriculum. This allows students to test their learning and measure their progress. Discussion of progress on these problem sets will be a key part of the personal tutor scheme. Students are required to upload their progress on these activities onto the **Learning Log** created on the ECET VLE system. The Learning Log will be available to the relevant personal tutors for further discussion during one-to-one meetings. There will be milestones for students to meet throughout the program, and it will be one of the personal tutor’s roles to monitor the students’ progress and give appropriate advice. Where difficulties are encountered PTS will be able to help or direct students to available support including peer mentoring schemes, Maths aid and on-line resources etc.

Students are supported by:

* A **Module Leader** for each module
* A **Course Leader** to help students understand their programme structure and provide academic support
* A **Personal Tutor** (PT) to provide academic support
* **Student Support and Engagement Officers** provide additional pastoral and practical advice and support, especially to students encountering difficulties
* A dedicated **Course Administrator**
* An **induction programme** and study skills sessions at the start of each academic year
* **Academic Success Centre** is a one-to-one drop-in Study Skills session for students every weekday. Help is available on a range of academic skills from writing reports, note-taking, to exam revision, referencing, programming and mathematical skills.
* **Learning Management System Environment** – a versatile on-line interactive intranet and learning environment accessible both onsite remotely. LMS, the ECET’s virtual learning environment, is used extensively in all modules as a communication tool and means of dissemination of learning and reference materials, formative worksheets, assignments, links, videos and lecturer-annotated slides. In this way it acts as a dynamic study guide in each module and going further it provides a structured learning space to support students for independent study, facilitate discussion, and in addition, for formative and summative tests and surveys.
* A **Staff Student Consultative Committee with student Course Representatives** for each level
* **Careers and Employability Service** support systems including the provision of advice on finance, regulations, legal matters, accommodation, international student support, disability and equality support.
* **An Academic Team** that seeks to maintain an open door policy in the spirit of supporting students.
* **Kingston University Students Reunion in Sri Lanka**

**Personal Tutor Scheme (PTS) at ECET**

The following provides the aims and structure of the Personal Tutor Scheme (PTS) followed by the Esoft Collage of Engineering and Technology, adopted from KU. It is envisaged that the PTS be followed as closely as possible by the validated body and be embedded within the provision of the BEng (Hons) Top-Up programme.

**Aims**

* To build a rapport between staff and students and contribute to personalising students’ experience within the ECET.
* To support students in the development of their academic skills providing appropriate advice and guidance to students throughout their time on the Top-Up programme while monitoring their progress, helping to identify individual needs and referring students to other University or Provider services as appropriate.
* To help students to develop their ability to be self-reliant and confident self-reflective learners who use feedback to their best advantage
* To encourage students to reflect on how their learning relates to a wider context and their personal career progression

**Allocation of Personal Tutors**

* Personal tutors will be allocated during induction week
* Personal tutors will be allocated during induction week
* Tutors will be allocated on a course basis where appropriate with student numbers being equally divided amongst the staff at the ECET
* Students will keep the same tutor throughout their course of study

In addition to your assigned personal tutor, you may contact, via email and WhatsApp, the following resource persons for support with module tasks

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| --- | --- | --- |
| Module Name | Contact person | Contact |
| EE6011 | Dr Asanka Rodrigo, Ms Nuwani | asanka.rodrigo@gmail.com |
| EE6012 | Dr Kumara Jayawickrama | kumara.kjc@gmail.com |
| EE6013 | Prof. Sisil Kumarawadu, Mr. Chathura Gamage | [sisilkuma@gmail.com](mailto:sisilkuma@gmail.com); vgcpriyanka@gmail.com |
| EE6014 | Prof Sisil Kumarawadu, Ms Nuwani | sisilkuma@gmail.com |
| EE6015 | Dr. Nishan Dharmaweera | nishanmd@gmail.com |

**Assessment**

The PTS is embedded in core curriculum modules in this program for this undergraduate study: Level 6 – EE6012 Instrumentation, Control and Group Project

There are specific aims and outcomes in this program that will be assessed according to their performances. Formative assessment will be provided in the form of regular feedback during meetings when the student will be able to put forward draft assignments for evaluation. The summative assessment will comprise 30 credits at each level.

**Level 6: Maximising success and moving on**

**Aims and Learning Outcomes**

* To support students with the planning necessary to maximise success in their final undergraduate year
* To encourage students to reflect on the employability skills they have developed and be proactive in moving towards a professional life and/or further study
* To help students to make best use of the feedback they have received so that they can build on their strengths and take steps to address any weaknesses

**Contact:**

* One-to-one meeting in week 1
* Email contact at the end of teaching block 1
* Individual ‘wrap up’ email at end of academic year

**Embedded Module: EE6012 Instrumentation, Control and Group Project**

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| **Outcome:** | **Assessment** |
| To support students with the planning necessary to maximise success in their final undergraduate year | Formative (one to one meetings) |
| To encourage students to reflect on the employability skills they have developed and be proactive in moving towards a professional life and/or further study | Formative (one to one meetings, along with the preparation and oral presentation of their Individual Project, the university Employability and Careers Service also provides activities which need to be signposted to students) |
| To help students to make best use of the feedback they have received so that they can build on their strengths and take steps to address any weaknesses | Formative (one to one meetings) |

1. **Ensuring and Enhancing the Quality of the Course**

The University has several methods for evaluating and improving the quality and standards of its provision. These include:

* External examiners
* Boards of study with student representation
* Annual review and development
* Periodic review undertaken at subject level
* Student evaluation
* Moderation policies

1. **Employability and work-based learning**

This curriculum embeds the development of employability skills throughout the Course and is designed to equip students with the ability to relate the knowledge and skills that they have learnt to the real world contexts in which they may work in the future.

Most graduates will aspire to careers in Electrical and Electronic Engineering related industries and to becoming Incorporated Engineers. Graduates develop careers in all branches of Electrical and Electronic and related engineering industries both in the Sri Lanka and throughout the world; as contract and consulting engineers, within local authorities, utility, manufacturing and transport companies, government organisations and the defence industry. In many cases, students taking an industrial placement are able to secure employment with the placement organisation following graduation. The academic and key skills developed throughout an engineering course also allow graduates to follow careers in other professions such as System development, Information technology and communications in the IT sector and communications and entertainment industries. In addition, a number of graduates will progress to MSc courses in Electrical and Electronic Engineering and related specialist areas before continuing their career in industry or research.

Professional practice is embedded into the curriculum and ensures that the curriculum is industry driven, the students are industry ready and academic staff are engaged in professional practice of their discipline. Professional practice is introduced in**EE6012** Instrumentation, Control and Group Project and **EE6014** Individual project.

1. **Other sources of information that you may wish to consult**

Engineeringsubjectbenchmark:

<https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-engineering.pdf?sfvrsn=1f2c881_4>

UK Quality Code for Higher Education

<https://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf>

KU SchoolWebsite:

<https://www.kingston.ac.uk/faculties/science-engineering-and-computing/about/schools/engineering/>

ECET Website: [www.esoft.lk/engineering](http://www.esoft.lk/engineering)

**Development of Course Learning Outcomes in Modules**

This map identifies where the field/course learning outcomes are summatively assessed across the modules for this field/course. It provides an aid to academic staff in understanding how individual modules contribute to the field/course aims, a means to help students monitor their own learning, personal and professional development as the field/course progresses and a checklist for quality assurance purposes.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Module code** | | **Level 6** | | | |
| EE6011 | EE6012 | EE6013 | EE6014 |
| **Knowledge & Understanding** | A1 | SF | S | S | S |
| A2 | S | F | F | S |
| A3 | SF | SF | S | S |
| A4 | SF | F | SF | S |
| A5 | S | SF | SF | S |
| **Intellectual Skills** | B1 | SF | SF | F | S |
| B2 | F | SF | SF | F |
| B3 | SF | SF | S | F |
| B4 | SF | SF | SF | S |
| B5 | F | S | S | F |
| **Practical Skills** | C1 | F | SF | F | S |
| C2 | S | SF | SF | F |
| C3 | S | F | SF | F |
| C4 | F | SF | SF | F |
| C5 | F | SF | SF | S |

**S** indicates where a summative assessment occurs.

**F** where formative assessment/feedback occurs.

Students will be provided with formative assessment opportunities throughout the course to practise and develop their proficiency in the range of assessment methods utilised.