

## **QIP Response of Department of Electronic Engineering (EE) to Peer Review Group's Addressing the Recommendations of the Peer Review Group**

### **Institutional/Strategic Recommendations**

In this section of the document, we outline the EE department's response to the Peer Review Group's institutional/strategic recommendations.

#### **S.1 The University should work with the Department to develop a strategic plan that ensures enhancement of its capabilities, sustainability and an improvement in its external profile.**

The University will support the Department in developing a strategic plan to enhance the Department's external profile, the sustainability of its programme offerings, and its capabilities. A preliminary plan on this will be completed by June 2021.

#### **S.2 The University should, as a matter of urgency, seek a new Head of Department to provide leadership through a time of change and add to the Department's research portfolio.**

A Head of Department has been appointed as of December 2020. In addition, a Professor level position has been advertised and an appointment is hoped for by Summer 2021. The objective is for this position to provide additional research capacity and contribute to the leadership of the Department. An executive committee has been set up in the department as well, which will enhance and streamline the decision making process.

#### **S.3 The University should review its many processes and their impact on Engineering to ensure compatibility and consistency with the requirements of external accrediting bodies.**

The University notes the successful re-accreditation of the engineering programmes. The Dean will work with the Department to ensure that any accreditation concerns are addressed through proposals for modifications of such processes to the University's Academic Programmes Committee.

#### **S.4 The University should introduce annual or biennial staff review processes.**

The University is currently developing a new staff performance management and development framework. This is expected to be deployed by September 2022.

**S. 5 The University should consider, as a matter of urgency, resourcing issues related to student experience and external perception of its current undergraduate degrees in Engineering.**

**In view of the current and planned teaching commitments, the Department appears to be under-resourced in terms of academic and support staff, space and teaching equipment, and learning tools. This is particularly relevant to the Robotics course, which for quality delivery will require more resources than were evident at the review.**

The university has supported the Department with two new positions in the area of Robotics. Additional posts can be requested by the Department through the University's Annual Staffing Review. Requests for additional space may be made to the Office for Estates and Capital Development.

The University supports the Department in its existing electronics and computer laboratory refresh cycle. It has supported the Department in provision of specialist learning tools and software (such as Matlab). The University notes the recent significant investment by the Department in new robotic platforms to support this work.

**S.6 The University should review its current plans for degree developments in Fuzhou, more fully inform Engineering staff of the current needs and expectations and assess the risks of failure on Departmental morale and workload and Institutional reputation.**

The Maynooth International Engineering College (MIEC) is a collaboration with Fuzhou University for the delivery of four academic programmes in Fuzhou, China. The MIEC coordinates academic contributions from a number of Departments in Maynooth University – Electronic Engineering, Computer Science, Mathematics & Statistics, Physics and Media Studies. The Departments provide academic content, quality assurance and oversight on the delivery of the programmes. As a newly launched initiative, the processes and requirements are not settled. The University is working with the Departments to clarify the expectations for support from each Department, and how the University may support the Department appropriately.

The MIEC operates independently to the Department. The academic staff hired by the MIEC have the opportunity to undertake research and some teaching in the Department most aligned to their discipline. This enhances the research capabilities and should ease the teaching burden of the Department. The University is cognizant of our Institutional reputation, and will work the MIEC in upholding the standards and principles that are expected from Maynooth University.

**S.7 The University should support Departments, including Engineering, to give access to software for remote study and project work via site licences for selected software packages.**

Matlab is the key software package for the Department. A site wide MATLAB license is now available so that students can obtain a copy of this license for their computers and therefore can work remotely, as opposed to having to login remotely on to university servers.

**S.8 The University should support, at a senior level, the creation of an Industrial Advisory Committee for Engineering to enhance contact with external stakeholders and provide regular external views and input.**

The University will support the Department in setting up an Industry Advisory Committee, including sharing best practice on the formation and operation of such a committee.

**S.9 The University should review and improve its liaison with Departments on matters to do with estates and building defects.**

The Office for Estates and Capital Development is responsible for the development and maintenance of buildings on campus. There is a periodic review of space requirements and these inform long term plans for the development of new space. There is also a process for requesting maintenance support. The Department has had substantial support in recent years and all future requests will be responded to appropriately.

## **An Update on Quality Improvement & Assurance for Engineering – Departmental Recommendations**

In this section, we provide an update on the progress regarding addressing the recommendations of the PRG 2019 for Electronic Engineering.

### **U.1 The Department should work constructively with the University in developing and implementing the recommendations to the University.**

U.1 – Dept of Electronic Engineering is committed to working closely and collaboratively with the university in implementing the 9 institutional recommendations of the Peer Review Group.

### **U.2 The Department should develop a ten-year strategic plan covering all aspects of its activities.**

### **U.3 The Department should actively seek a new Head of Department to lead it through the changes required.**

U.2 and U.3 – Prof Subhrakanti Dey has been appointed as the new HoD of EE for the time being, while a new Professor and Head of EE position is also advertised (applications have closed in January 2021). Depending on the outcome of this search, a new appointee may become the long term HoD. However, now that the HoD role is filled, a preliminary five-year strategic plan will be developed by June 2021. A departmental executive committee has been set up recently comprising of some of the senior people and program directors in the department. This committee, in consultation with the department staff and feedback from various other advisory groups within the department, as well as within the broader university, and an industry advisory group (to be established), will move forward towards such a goal.

### **U.4 The Department should review and establish more formal quality control methods where necessary.**

U.4 – The Department has a number of mechanisms for student feedback collection, quality control of examination quality and processes, and has recently undergone an accreditation (January 2020) for 5 years. In addition to the student feedback process organized by the University through Moodle, the department has its own specific committee (comprising of the Programme Directors, Administrative and Technical Support Personnel, and the HoD) to meet with student representatives for gathering feedback regarding teaching and learning.

All these processes regarding quality control will be reviewed at a Departmental level, to ensure that they are robust and structured. A formal role as a Director of Quality Control may also be established if needed, and can be accommodated within the departmental overall workload allocation model.

### **U.5 The Department should review and invigorate the processes and culture that support its research activity.**

### **U.6 The Department should widen its base of research funding.**

U.5 and U.6 – In going forward, there needs to be a more sustained effort in applying for research grants, including EU funding. Faculty members need more time and support in enabling them to maximize their efforts in grant applications.

There are a number of ways this can be achieved, for example, (i) through appropriate use of Research Incentivization Fund (RIF) in providing teaching buy-out/mini-sabbatical to deserving academic staff members, (ii) encouraging staff to engage in Horizon Europe related activities/forums to be part of large European consortiums in funding applications, (iii) seeking other European grant opportunities offered through schemes such as EUREKA etc.

The department has a few internationally recognized research groups in future communication networks and renewable energy for example. However, there needs to be a more concerted effort in collaborating between different groups to address inter-disciplinary challenges, and in reaching out to other suitable departments such as Physics and Computer Science in seeking additional collaborative opportunities.

### **U.7 The Department should review its marketing strategy and external engagement activities including the creation of an Industrial Advisory Committee.**

U.7 – The department will make it a priority to work with the University admissions office and its Science and Engineering representatives on enhancing the department's external profile, and marketing strategy concerning both undergraduate and postgraduate studies. An immediate task is to work towards a more profitable stand-alone Master's programme, which will be able to attract significantly larger enrolment numbers than currently achieved. This could be in the area of Robotics, which, however, is contingent on the appointment of a Senior Professor in this area through the most recent recruitment effort.

An industry advisory committee is now on the agenda to be set up. However, the department needs to be careful in choosing industry advisory board members – ensuring diversity across a number of areas within the department's research and teaching activities. This advisory group must also be able work with the department in a collaborative manner.

### **U.8 The Department should review its tutoring and student feedback procedures.**

The Department should introduce, monitor and record a student tutoring procedure and establish formal staff/student groups to provide feedback on teaching, resource provision and problems as they arise. This could, for example, include (i) formal training for tutors and demonstrators, collecting specific feedback from students on how tutoring and demonstrating experience can be enhanced in specific modules, (ii) provide current students (possibly module-wise) a summary of changes/processes (if any) to be implemented as a result of feedback received from previous students.

## **U.9 The Department should pro-actively promote gender diversity in its staff and its student body.**

U.9 – The Department will work closely with Human Resources and the University Admissions Office in creating strategies to increase enrolment numbers of female undergraduate students, and female academic staff by exploring future recruitment opportunities. The Department will also undergo Athena Swan accreditation in due course will start preparing towards this goal in the near future.

The Department has a number of existing outreach activities regarding women in engineering, and has a number of current PhD students and staff participating in Future Female in Technology Programme, promoting International Women in Engineering day, and also taking part in Engineering @MU RoboCup competition. The Intel scholarships for women is another activity which has seen a recent success in a Postgraduate scholarship award. These and other related activities will be enhanced as we go forward.