



LETTERKENNY INSTITUTE OF TECHNOLOGY

PERIODIC PROGRAMME EVALUATION

Report of the External Expert Group

PART 1 **GENERAL INFORMATION**

SCHOOL/DEPARTMENT: School of Engineering

DATE OF VISITATION: 6 and 7 June, 2017

MEMBERS OF EXTERNAL EXPERT GROUP (EEG):

Stephen Mc Manus, Former Registrar Dundalk IT (Chair)

Maria Kyne, Head of Faculty, Faculty of Applied Science, Engineering & Technology Limerick IT

Dr Philip Owende, Head of Department, IT Blanchardstown / TU4Dublin Academic Quality Manager, IT Blanchardstown

Dr Seamus Gordon, Head of Department of Design and Manufacturing Technology, University of Limerick

Des O Reilly, Head of Department of Electronic & Electrical Engineering, Galway – Mayo IT

Joe Mc Hugh, Business Development Manager Engineering Division, IDA

Selina Kavanagh, Chief Assistant Technical Services Officer, Health Service Executive

Paul Leamy, PhD student in the School of Electrical and Electronic Engineering, DIT

Dr Stephen Nash, Lecturer Civil Engineering, NUI Galway

Robert Gillan, Chief Engineer, Jennings O' Donovan & Partners Ltd, Sligo

SECRETARY TO EEG: Dr Lynn Ramsey and Patricia Doherty

INSTITUTE STAFF: Denis McFadden, Anne Boner, Dr Jim Morrison, Louise Duggan, Dr Nick Timmons, John Hynes, Kenny Fahy, David Kavanagh, James McMonagle, Alfie O'Doherty, Dr. Charles Young, Ronan Gallagher, Antoin Mac Gabhann, Ken Brown, Tony Carr, Eleanor Diver, Finbarr Dunwoody, Martin Bradley, Dr Paddy Lennon, Dr Paddy Hannigan, Dr Nicola Anderson, Austin Sammon, Helena Quinn, Anna Meehan, Patrick Mangan, David Wylde, Rory Mc Shane, Eleanor Diver, Marie Kelly, Gerry Kelly, Noreen Durning, Attracta Mc Cay, Michael Carr, Brian Campbell, Derek Thornton.

Note: it is Institute policy that all New Programme Validations are published on the LYIT website.

PART 2 FINDINGS OF THE EXTERNAL EXPERT GROUP

The External Expert Group is satisfied that the self-study and revised programmes addresses the following criteria:

(1) Academic Processes

A fundamental review of the programmatic area is clearly set out in the self-study document.

The self-study demonstrates how the Institute's Quality Assurance procedures have been properly applied in the development of the self-study and in revising the programmes taking cognisance of the relevant QQI standards, and that satisfactory procedures exist for the ongoing monitoring of these programmes.

(2) Student Throughput

Enrolment and examination statistics are adequately addressed and details are presented of appropriate special initiatives in relation to admissions e.g. broadening access, mature students, facilitating gender equality. However, there is little evidence that the data collected was used to formulate responses to problems of retention. The recruitment and retention statistics showed and openness and the staff were clear about the difficulties. A benchmarking exercise against other colleges with similar intakes would have been useful. Similarly, an analysis of the module results would have identified particular difficulties. HEA statistics are a useful resource in identifying

(3) Review of Course Design

A sufficient description of the revision of each programme, highlighting any changes implemented or proposed, has been provided. In addition, the course schedules in operation at the time of the previous review together with course schedules proposed as part of the current PPE are presented. In the department of Electronics and Mechanical Engineering The changes were to modules with the occasional replacement of a module that had become less appropriate. There was not attempt to make structural changes to programmes.

(4) Assessment

Procedures in place for the assessment of learners are documented. The methods for assessment of learners (i) are fair and consistent and comply with standards determined by QQI, (ii) are in keeping with the National Framework of Qualifications, (iii) are effective in measuring the students' attainment of the intended learning outcomes, (iv) contribute to the total learning experience, and (v) encourage creativity and originality in demonstrating achievement of the intended learning outcomes. The major change to assessment was in the electronic and mechanical programmes. The balance of assessment in semester one of year one was shifted towards unseen written examinations. This goes against the trend of the practice in assessment.

(5) Employment and Further Studies of Awardees

Employment gained and further studies undertaken by awardees is appropriately detailed and analysed in comparative tabular format. This data was well presented and made a welcome contribution to the review

(6) National and International Transfers

Evidence of commitment to co-operation with inter-institutional linkages, both national and transnational, is set out, including the structures in place to facilitate these arrangements. The linkages are mainly European based.

(7) Review of Laboratory, Workshop, Studio and Other Facilities

The necessary facilities available in terms of accommodation, equipment, and library and information technology resources are satisfactory to support the revised programmes.

(8) Deployment and Development of Academic Staff

The staffing levels are appropriate and the levels of qualifications and competence of the staff is sufficient to deliver the programme. A notable feature of the staff development was the number of staff who have been trained in Teaching and Learning. This is a real resource that could be utilised to great effect in reforming curricula and teaching methods.

(9) Links with Industry, Business and the Wider Community

Evidence is presented that the School/Department actively engages with the world of work and the wider community in order to maintain a high degree of relevance in its programmes and in its research activity. The procedures and processes used to establish and maintain these links are described. The submission outlined meeting with industry and other contacts with stakeholders. However, the panel was disappointed that the meeting with industry was a meeting with graduates who were working in local industry. Whilst this meeting was useful it covered similar ground to the meeting with students. It would have been enlightening to meet managers or HR personnel who employed LYIT engineering graduates.

In particular the means by which School/Department elicits from industry, educational interests, public bodies and professional bodies how well the programmes meet their demands is included. The School/Department also examines its programmes against the relevant offerings of other higher education institutions. However, the benchmarking exercise mentioned above would have been useful.

(10) Research

The self-study documents postgraduate research carried out by learners in the previous five years together with School/Departments plans for the next five years.

Research conducted by staff since the previous review is also detailed together with plans for the next five years. The CVs of staff do not reflect the full engagement of staff in applied research and development. This underestimates the strength of the staff and does not reward ongoing engagement in innovative activities.

(11) Course Delivery Methodologies

There has been a gradual adoption of VLE systems in the School since the last PPE. Given the number of staff with modern teaching and learning skills it is surprising that additional innovation was not evident.

(12) Adult and Continuing Education

Mature student entry is a signal strength of the school. These learners are focused and usually progress steadily through the programmes. It would appear that these numbers are not

diminishing. The School evidently is an attractive place for mature learners and this addresses a clear social need in the region.

(13) Academic Regulations

The self-study sets out the form of regulations made by the Governing Body on the advice of the Academic Council.

(14) Development Plan

A coherent plan for the School/Department for the succeeding five years is included. The plan indicates an ambition to move to level 8 ab-initio programmes. And to strengthen the links with The University of Ulster. In addition, the school hope to provide programmes in BIM, 3-D Modelling and Robotics.

(15) Programme Documents

Revised programmes are fully justified in terms of their approach to teaching and learning, alignment with the relevant QQI standard, programme content, and assessment methods.

QQI Standards: QQI determines, for each named award, the specific standard of knowledge, skill and competence that must be acquired by the learner before that award can be made. The learning outcomes of the programme are stated in such a way that the compliance with the appropriate QQI standard is demonstrated.

Revised Programme Titles and Award Titles: Any revised award titles are consistent with the named awards determined by QQI. The programme titles are clear, accurate, succinct, and fit for the purpose of informing prospective learners and other stakeholders.

Access, Transfer and Progression: Revised programmes incorporate the procedures for access, transfer and progression that have been established by QQI and are consistent with the policy of QQI, awards accommodate a variety of access and entry requirements.

PART 3 RECOMMENDATIONS AND CONDITIONS

General commendations:

- The panel commends the programme team on the quality of the documentation, in particular the good use of supporting data, particularly on student feedback.
- The panel also commends the openness of staff, the productive internal review process and supportive engagement with the Heads of Department and the Head of School
- The panel commends the process which follows the requirements of QQI
- The panel commends the School's engagement with the National Student Engagement Pilot which has positively impacted student involvement with programme quality assurance

Recommendations

- In all future School reviews processes, internal mechanisms should produce specific action outcomes which can be reviewed and implemented.

Future reviews will ensure that more time is given to producing actionable outcomes from forums, such as the thematic groups and programme review groups, so that debate and implementation of proposals can involve the full School academic staff .
- The panel recommends strengthening and formalising industry engagement.

The School currently has multiple strands to its industry engagement and these will be developed and formalised as recommended, particularly by partnering with local engineering and construction related companies.
- The panel recommends the development of a School internationalisation strategy consistent with the Institute strategic goals

The continued development of level 8 ab-initio degrees and possible level 9 taught postgraduate degrees will contribute greatly to the School's ability to compete for international students and the School's strategy will be centred on these offerings and linked to the Institute's formal agreements and international partners.
- The panel strongly recommends that the School explores options to grow part time provision, including options for blended and on-line delivery.

The School will build on recent successes in attracting part-time students and seek to develop bespoke programmes for industry linked to important local partners such as the NW Regional Skills Forum. Existing online and blended programmes in other academic areas will be used to inform staff on successful delivery models. Dedicated online development resources at School and Institute level may be required to drive forward this agenda.
- The panel recommends that the School develop a staffing plan which identifies skills gaps and plans for staffing changes through retirements and recruitment.

This is an ongoing issue which has been monitored on an ongoing basis but a longer term plan would be very beneficial and will be developed as recommended.
- The panel recommends that the School explores opportunities for innovative programme development including opportunities through the new apprenticeships.

The School will engage with developments in the new apprenticeship scheme and will work with industry partners to identify opportunities for the generation of sustainable offerings based on existing academic strengths.
- The panel recommends that the School identifies target student numbers (with a plan to achieve target numbers/growth in student numbers).

The School has been developing and altering its programme offerings in response to the recessionary upheaval over the past decade but year to year fluctuations in demand for core programmes has made numbers unpredictable. With strength and consistency now returning to important elements of the economy, such as construction, it will be possible to set targets for growth in student numbers on programmes with greater confidence.
- The panel recommends that responses to student feedback are more clearly articulated in future review documentation.

Student feedback, including that from the ISSE and QA1/QA3 surveys, is an important influencing factor in programme delivery and development and the way in which the School responds through programme boards and management actions will be more clearly set out in future reviews.

- The panel recommends that the School reviews data on retention and recruitment, examining student throughput and variables which might impact student success (e.g. CAO points, mathematics ability, age etc.). This should be reviewed by the School with recommendations and actions identified.
The analysis of the correlation between pass rates and CAO intake points undertaken as part of this PPE review has provided useful insights and will be expanded to encompass the additional variables recommended.
- The panel recommends the spread of awards classification is kept under review by programme teams.
The balance of programme offerings across the NQF levels will be kept under review, particularly at level 6 and level 9 which are currently under-represented within the School.
- The panel recommends that programme teams review entry requirements and consider strengthening requirements in mathematics if justified by the evidence on progression and retention.
An analysis of student performance versus mathematics achievement on intake will be undertaken to determine if mathematics entry requirements need to be amended.
- The panel recommends that the School explores opportunities to strengthen the relationship between research and teaching e.g. through WISAR researchers.
The experience and expertise of research staff is recognised as an untapped asset in terms of the teaching of undergraduate students and an appropriate mechanism will be put in place to benefit both the students and research staff in this regard.
- The panel recommends that staff with teaching and learning training are brought together in a more formal grouping in reviewing teaching and learning within the School.
The school will work with the teaching and learning function within the Institute to involve staff with T&L qualifications into organised communities of practice.
- The panel recommends that the School should develop a policy setting targets for the development of on-line modules, identifying a number each year over a period of years.
The School will develop a policy and set targets for the development of online modules within current resource constraints.
- The panel recommends that there is ongoing evaluation of teaching and learning initiatives.
Innovation in teaching and learning is an important aspect of curriculum development and any such initiatives will be evaluated in terms of effectiveness for the student and best use of resources.
- The panel recommends that when a proposal by an external examiner is not accepted or cannot be accepted by the school the Academic council be informed of the proposal and the reasons that it will not be implemented.
This information will be included on the new pro-forma programme board reports that are submitted to academic council as part of the annual School report.
- That the School provide indicative costings for any Programme development in future reviews.

Currently, additional resources required for new programmes are either neutral or kept to a minimum, being built around existing physical assets, but any indicative costings will be included for programme development in future reviews.

There are additional conditions and recommendation that are specific to particular programmes or Departments below.

Department of Civil Engineering and Construction

List of Programmes in the Department of Civil Engineering and Construction:

(Existing programmes with named exit awards)

BEng in Civil Engineering (Level 7)
HC in Engineering in Civil Engineering (Level 6)
BEng in Building Services & Renewable Energy (Level 7)
HC in Engineering in Building Services & Renewable Energy (Level 6)
BEng (Hons) in Fire Safety Engineering (Level 8)
BEng in Fire Safety Engineering (Level 7)
HC in Engineering in Construction and Fire Technology (Level 6)
BSc (Hons) in Fire Safety Engineering (Level 8)
BSc in Architectural Technology (Level 7)
HC in Science in Architectural Technology (Level 6)
BSc (Hons) in Quantity Surveying (Level 8)
BSc in Quantity Surveying (Level 7)
HC in Science in Quantity Surveying (Level 6)
BSc in Digital Construction (Management/ Sustainable Design) (Level 7)
BSc (Hons) in Sustainable Construction Management (Level 8)
BSc (Hons) in Construction Contracts Management (Level 8)
HC in Science in Construction Technology with BIM (Level 6)
Certificate in BIM (Revit) – Level 6 (10 Credit) Special Purpose Award
Certificate in Introductory Construction Economics and Land Surveying
Level 6 Minor Award (10 credit) of the BEng (Hons) in Fire Safety Engineering
Certificate in Renewable Energy and Physics Fundamentals
Level 6 Minor Award (10 Credit) of the BEng in Building services and Renewable Energy.
Certificate in Financial & Building Energy Management
Level 8 Minor Award (10 Credit) of the BSc (Hons) in Sustainable Construction Management

Proposed programmes with exit awards

BSc (Hons) in Construction Management (Level 8)
BSc in Construction Management (Level 7)
Certificate in 4D BIM (Navisworks) – Level 6 (10 Credit) Special Purpose Award

For the attention of the Academic Council:

The External Expert Group advises the Academic Council that re-approval of the programmes is recommended and request that the Institute and the School/Department should take cognisance of the following recommendations:

B. Eng. in Civil Engineering (Level 7) & HC in Engineering in Civil Engineering

1. The panel noted that there are 12 modules in each stage of the civil engineering level 6 and level 7 programmes. This exceeds the number of modules per stage outlined in the *Modularisation and Semesterisation Framework* document but the panel feels it is appropriate for these programmes on the basis that the number of contact hours remains the same.
2. For modules which are 100% continuously assessed, the panel recommends re-assessment opportunity should be provided for the autumn examinations.
A re- assessment opportunity will be provided in the autumn examinations.

B Eng. in Building Services and Renewable Energy (Level 7) and HC in Engineering in Building Services and Renewable Energy

1. The panel noted that there are 12 modules in each stage of the level 6 and level 7 programmes. This exceeds the number of modules per stage outlined in the *Modularisation and Semesterisation Framework* document but the panel feels it is appropriate for these programmes on the basis that the number of contact hours remains the same.
There are 12 modules in stage 1, 11 in stages 2 & 3.
2. For modules which are 100% continuously assessed, the panel recommends re-assessment opportunity should be provided for the autumn examinations.
A re- assessment opportunity will be provided in the autumn examinations.
3. The panel recommends that the programme team reviews the title and content of the modules to fully reflect the programme title in terms of the breadth of renewable energy topics.
Module titles & content of building services module stream have been revised to Building Services 1; Building Services 2 & Renewable Energy; Building Services 3; Building Services 4 & Renewable Energy; Building Services 5; Building Services 6 & Renewable Energy.
4. The panel recommends the contact hours for stage 3 semester 5 be reviewed to reduce the contact hours to existing provision.
Revision of content means that one additional hour is required in semester 5 for Building Services 5, the resulting average contact hours of 22.5 for stage 3 is lower than that of a comparable Engineering programme.

B.Sc. in Architectural Technology (Level 7) & HC in Science in Architectural Technology

1. For modules which are 100% continuously assessed, the panel recommends re-assessment opportunity should be provided for the autumn examinations.
A re- assessment opportunity will be provided in the autumn examinations but is not always recommended in the case of Architectural Project.
2. The panel strongly recommends the contact hours for the *Architectural Project* in semesters 3, 4, 5 and 6 be reviewed to reduce the contact hours to existing provision.
Proposed changes in the overall hours provision from 2012 PPE have been traded off within the programme by exchanging hours between modules or dropping programme specific modules in favour

of common modules. The proposed student contact hours allocation being applied to Architectural Project 1 - 6 were in keeping with that of another Institute of Technology with a leading programme in Architectural Technology and were as was originally validated (2007) and accredited by RIAI (2011) at LYIT; being 8 hours for a 10 credit module and 10 for a 15 credit module. The one hour now dropped from semester 1 programme schedule in replacing Graphic Communications 1 with (common module) Technical Writing & Communication plus one hour taken from Architectural Project 4 added to Architectural Project 3 means that the student contact hours for all Architectural Project Modules are now 8 (for 10 and 15 credit modules) apart from Architectural Project 4 where it will be 9, allowing for introduction of Integrated Project across all disciplines.

B.Eng. (Hons) in Fire Safety Engineering (Level 8 ab initio), B.Sc. (Hons) in Fire Safety Engineering (Level 8 add-on), B. Eng. in Fire Safety Engineering (Level 7) and HC in Construction in Fire Technology

1. The panel noted that there are 12 modules in some stages of the level 6, 7 and 8 programmes. This exceeds the number of modules per stage outlined in the *Modularisation and Semesterisation Framework* document but the panel feels it is appropriate for these programmes on the basis that the number of contact hours remains the same.
There are 12 modules in stage 1, 11 in stage 2, 8 in stages 3 & 4.
2. For modules which are 100% continuously assessed, the panel recommends re-assessment opportunity should be provided for the autumn examinations.
A re- assessment opportunity is provided in the autumn examinations where appropriate.
3. The panel welcomes the *work placement* and the additional contact hours could be used to support the management and successful achievement of learning outcomes in this module. The programme team should review the timing of the *work placement* to ensure it is completed within the academic year. *The work placement element is completed before the end of Academic Year (20th June) but marks are not normally available in time of the June exam board and are therefore processed in the Autumn exam board before students progress to year 4. Timing of examinations is considered to allow work placements to start and be completed as early as possible to allow students to take up other summer work opportunities.*

BSc (Hons) in Sustainable Construction Management (Level 8 – add on)

1. The panel recommends that the legislation around, construction, waste management, health and safety and planning should be covered as part of the programme.
This legislation is covered in Statutory Approvals, Construction Law, Construction Management 1 & 2 (health and safety).

BSc (Hons) in Quantity Surveying (Level 8)

1. The panel noted that there are 12 modules in some stages of this level 8 programme. This exceeds the number of modules per stage outlined in the *Modularization and Semesterisation Framework* document but the panel feels it is appropriate for these programmes on the basis that the number of contact hours remains the same.
There are 11 modules in stage 1, 10 in stage 2, 4 (year-long) in stage 3 and 8 in stage 4.
2. For modules which are 100% continuously assessed, the panel recommends re-assessment opportunity should be provided for the autumn examinations.

A re- assessment opportunity is provided in the autumn examinations.

3. The panel recommends that the programme team include some *Financial Management* in year 2 modules.

Measurement & Estimating 2 will specify more detail on Financial Management

BSc Quantity Surveying (Level 7) and HC in Science in Quantity Surveying

1. The panel notes a significant change to stage 3 as a 60-credit active learning year. In order to facilitate this change the panel recommends that a significant proportion of the *Financial Management* module is incorporate into the *Management Practice in the Built Environment* module.

Financial management is being added to the Management Practice module as appropriate.

BSc (Hons) in Construction Contracts Management (Level 8 – add on)

1. The panel welcomes the *work placement* and the additional contact hours could be used to support the management and successful achievement of learning outcomes in this module. The programme team should review the timing of the *work placement* to ensure it is completed within the academic year. The workplacement element is completed before the end of Academic Year (20th June) but marks are not normally available in time of the June exam board and are therefore processed in the Autumn exam board. Timing of examinations is considered to allow work placements to start and be completed as early as possible.

B. Sc. in Digital Construction (Level 7 – add on)

No changes recommended.

HC in Science in Construction Technology with BIM

Recommended changes are given in the Validation Report for the B.Sc. (Hons) in Construction Management to ensure consistency between programmes.

Certificate in Renewable Energy and Physics Fundamentals

1. The panel recommends that the *Fundamentals of Physics* module is replaced by the *Physics 1* module.

This has been done.

Certificate in BIM (Revit)

No changes recommended.

Certificate in Introductory Construction Economics and Land Surveying

No changes recommended.

Certificate in Financial and Building Energy Management

No changes recommended.

A Validation Panel report has been prepared separately for the **BSc (Hons) in Construction Management and the Certificate in 4D BIM (Navisworks)**.

Post panel visit the programme team propose the following:

1. Construction Technology 3 (BSc (Hons) Construction Management, BSc/ BSc (Hons) in Quantity Surveying) has been re-titled Advanced Construction Technology as it is deemed appropriate and avoids any confusion with the Construction Technology 3 module on the BSc in Architectural Technology.
2. On the BSc (Hons) in Construction Management and embedded award HC in Science in Construction Technology with BIM, Building Services 1 is moved to semester 2 in place of Fire Technology 2 and Fire Technology 1 is inserted in semester 1. This allows for better placing of shared modules and Fire Technology 1 is considered to be a better fit to the construction programme as it is the introductory module of the series on the BEng (Hons) in Fire Safety Engineering.

Department of Electronic and Mechanical Engineering

List of Programmes in the Department of Electronic and Mechanical Engineering:

(Existing programmes with named exit awards)

- B. Eng. in Computer Engineering (level 7)
- HC in Engineering in Computer Engineering (level 6)
- B. Eng. in Electronic Engineering (level 7)
- HC in Engineering in Electronic Engineering (level 6)
- B. Eng. in Mechanical Engineering (level 7)
- HC in Engineering in Mechanical Engineering (level 6)
- B. Eng. (Hons) in Embedded Systems Design (level 8, 60 credits)
- B. Eng. (Hons) in Mechanical Engineering (level 8, 60 credits)

Conditions

The External Expert Group advises the Academic Council that approval of the programmes subject to general conditions of approval together with the following additional condition:

The Department should supply the panel with documentation for the exit awards in the current programmes and including any Minor Awards to be offered in the department.

Appendix A.5 in the PPE Part B document provides the Programme Schedules, programme outcomes and mappings of module learning outcomes to programme outcomes for Level 6 exit/embedded awards in Computer Engineering, Electronics and Mechanical Engineering.

Two minor/subsidiary awards were submitted for approval to the evaluation panel of the ab-initio Level 8 programmes. The relevant material will now be included in the final version of the PPE Part B document.

General recommendations

The programmes in the department are well integrated. The recommendations below address issues that, in the main, are common to all programmes in the department.

1. The assessment strategies in individual modules should be more detailed, and specifically so for the modules that are weighted to 100% CA.

This will be addressed in drawing up the Semester 1 and Semester 2 CA schedules and then incorporated into the relevant module syllabuses.

2. That over assessment be minimised by avoidance of multiple assessment for the same learning outcome.

This will be addressed in drawing up the Semester 1 and Semester 2 CA schedules and then incorporated into the relevant module syllabuses.

3. Stage 4 be re-examined to ensure that needless repetition in assessment of some learning outcomes is avoided.

Learning Outcomes in Stage 4 will be reviewed to address this recommendation.

4. The number of learning outcomes were deemed excessive in some modules, and the department should adopt a policy to address it.

Initial work on reducing learning outcomes has started and will continue in the coming academic year.

5. The department should establish a policy for ensuring timely feedback for all modules.

The revised CA Schedules will indicate associated feedback dates for CA elements.

6. The panel notes that a critical achievement by learners in Year 1 of study is in their integration into third level education. It recommends strongly that semester one assessments be considered as formative and that success in Semester 1 be on fostering engagement and commitment rather than exclusively on meeting academic targets.

While the department is of the same opinion this is an institute policy matter and will need to be raised as a proposal at academic council.

7. Thermodynamics module should be revised to ensure that there is sufficient time to cover the material and to carry out a number of experiments or demonstrations.

This will be addressed in 2017/2018 academic year.

8. The panel recommends for a transition arrangement into the new curriculum to ensure accommodation of any repeating students.

Repeating students will be accommodated as appropriate either through provision of exam papers based on previous syllabuses or through individual guidance in new modules.

9. The panel recommends that the transition from stage 3 to stage 4 be re-examined to ensure that all students are sufficiently prepared for the rigours of stage 4.

This recommendation arose from feedback from existing students who had raised the issue at internal department/school meetings and was central to redesign of programmes as part of this PPE. The revised Year 1 to Year 4 workload has been revised to make progression smoother. This will be reviewed during implementation.

10. The panel recommends that the retention issues in Stage 4 are analysed with a view to developing a more effective recruitment policy.

This will be addressed in 2017/2018 academic year.

11. The panel recommends that the department should consider whether the balance between independent learning and contact hours is appropriate for stage 4 of programmes.

Two of the Year 4 modules have 1 contact hour each week with students expected to provide their own learning to achieve module outcomes. Dedicated project contact hours will also be reduced to 1 hour per week.

Revalidation

The panel agrees that the following programmes in the Department of Electronics and Mechanical Engineering should be revalidated subject to consideration of the recommendations made above.

B. Eng. in Computer Engineering

B. Eng. in Electronics

B. Eng. in Mechanical Engineering

B. Eng. (Hons) in Embedded Systems (60 credits)

B. Eng. (Hons) in Mechanical Engineering (60 credits)