

Doc. 300.1.1

Date: 12th June 2022

External Evaluation Report (Conventional-face-to-face programme of study)

- **Higher Education Institution:**
University of Cyprus
- **Town:** Nicosia
- **School/Faculty (if applicable):** Electrical and
Computer Engineering
- **Department/ Sector:** Faculty of Engineering
- **Programme of study- Name (Duration, ECTS, Cycle)**

In Greek:

Μηχανική Υπολογιστών

In English:

Computer Engineering (3 academic years, 240 ECTS, Doctorate
(PhD))

- **Language(s) of instruction:** Greek and English
- **Programme's status:** Currently Operating
- **Concentrations (if any):**

In Greek: Concentrations

In English: Concentrations



The present document has been prepared within the framework of the authority and competencies of the Cyprus Agency of Quality Assurance and Accreditation in Higher Education, according to the provisions of the “Quality Assurance and Accreditation of Higher Education and the Establishment and Operation of an Agency on Related Matters” of 2015 to 2021 [L.136(I)/2015 – L.132(I)/2021].



A. Introduction

This part includes basic information regarding the onsite visit.

The evaluation took place remotely as a result of the COVID pandemic. We met over a two day period (23-24th May). During this time, the four panel members met with University and Faculty leadership teams, academic staff from across the School, with administrative staff as well as representatives from the library and with a broad cross-section of students. We posed a wide range of questions which were answered promptly and in full. Additional clarifications were made in the final wrap-up session and we were also provided with additional statistics where these were not included within the original documentation.

We would also like to acknowledge and thank the support provided by the Cyprus Agency of quality Assurance and Accreditation in Higher Education.

B. External Evaluation Committee (EEC)

<i>Name</i>	<i>Position</i>	<i>University</i>
Name	Position	University
Prof. Christina Lioma,	Head of the Information Retrieval Lab,	University of Copenhagen
Professor Simon Gay	Professor and Head of Computing Science, Computing Science (Programming Language Foundations), University of Glasgow	University of Glasgow
Mr Ioannis Zapitis,	Member (Professional Body)	Cyprus Scientific and Technical Chamber (ETEK)
Mr. George Savva	Member (Student), Computers Engineering and Informatics,	Cyprus University of Technology
Prof. Chris Johnson	Pro Vice Chancellor, Engineering and Physical Sciences (Chair)	Queen's University, Belfast.

C. Guidelines on content and structure of the report

- *The external evaluation report follows the structure of assessment areas.*
- *At the beginning of each assessment area there is a box presenting:*
 - (a) sub-areas*
 - (b) standards which are relevant to the European Standards and Guidelines (ESG)*
 - (c) some questions that EEC may find useful.*
- *The questions aim at facilitating the understanding of each assessment area and at illustrating the range of topics covered by the standards.*
- *Under each assessment area, it is important to provide information regarding the compliance with the requirements of each sub-area. In particular, the following must be included:*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

Areas of improvement and recommendations

A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

- *The EEC should state the compliance for each sub-area (Non-compliant, Partially compliant, Compliant), which must be in agreement with everything stated in the report. It is pointed out that, in the case of standards that cannot be applied due to the status of the HEI and/or of the programme of study, N/A (= Not Applicable) should be noted.*
- *The EEC should state the conclusions and final remarks regarding the programme of study as a whole.*
- **The report may also address other issues which the EEC finds relevant.**

1. Study programme and study programme's design and development (ESG 1.1, 1.2, 1.7, 1.8, 1.9)

Sub-areas

- 1.1 Policy for quality assurance
- 1.2 Design, approval, on-going monitoring and review
- 1.3 Public information
- 1.4 Information management

1.1 Policy for quality assurance

Standards

- *Policy for quality assurance of the programme of study:*
 - *has a formal status and is publicly available*
 - *supports the organisation of the quality assurance system through appropriate structures, regulations and processes*
 - *supports teaching, administrative staff and students to take on their responsibilities in quality assurance*
 - *ensures academic integrity and freedom and is vigilant against academic fraud*
 - *guards against intolerance of any kind or discrimination against the students or staff*
 - *supports the involvement of external stakeholders*

1.2 Design, approval, on-going monitoring and review

Standards

- *The programme of study:*
 - *is designed with overall programme objectives that are in line with the institutional strategy and have explicit intended learning outcomes*
 - *is designed by involving students and other stakeholders*
 - *benefits from external expertise*
 - *reflects the four purposes of higher education of the Council of Europe (preparation for sustainable employment, personal development, preparation for life as active citizens in democratic societies, the development and maintenance, through teaching, learning and research, of a broad, advanced knowledge base)*
 - *is designed so that it enables smooth student progression*
 - *is designed so that the exams' and assignments' content corresponds to the level of the programme and the number of ECTS*
 - *defines the expected student workload in ECTS*

- *includes well-structured placement opportunities where appropriate*
- *is subject to a formal institutional approval process*
- *results in a qualification that is clearly specified and communicated, and refers to the correct level of the National Qualifications Framework for Higher Education and, consequently, to the Framework for Qualifications of the European Higher Education Area*
- *is regularly monitored in the light of the latest research in the given discipline, thus ensuring that the programme is up-to-date*
- *is periodically reviewed so that it takes into account the changing needs of society, the students' workload, progression and completion, the effectiveness of procedures for assessment of students, student expectations, needs and satisfaction in relation to the programme*
- *is reviewed and revised regularly involving students and other stakeholders*

1.3 Public information

Standards

- *Regarding the programme of study, clear, accurate, up-to date and readily accessible information is published about:*
 - *selection criteria*
 - *intended learning outcomes*
 - *qualification awarded*
 - *teaching, learning and assessment procedures*
 - *pass rates*
 - *learning opportunities available to the students*
 - *graduate employment information*

1.4 Information management

Standards

- *Information for the effective management of the programme of study is collected, monitored and analysed:*
 - *key performance indicators*
 - *profile of the student population*
 - *student progression, success and drop-out rates*
 - *students' satisfaction with their programmes*
 - *learning resources and student support available*
 - *career paths of graduates*

- *Students and staff are involved in providing and analysing information and planning follow-up activities.*

You may also consider the following questions:

- *What is the procedure for quality assurance of the programme and who is involved?*
- *Who is involved in the study programme's design and development (launching, changing, internal evaluation) and what is taken into account (strategies, the needs of society, etc.)?*
- *How/to what extent are students themselves involved in the development of the content of their studies?*
- *Please evaluate a) whether the study programme remains current and consistent with developments in society (labour market, digital technologies, etc.), and b) whether the content and objectives of the study programme are in accordance with each other?*
- *Do the content and the delivery of the programme correspond to the European Qualifications Framework (EQF)?*
- *How is coherence of the study programme ensured, i.e., logical sequence and coherence of courses? How are substantial overlaps between courses avoided? How is it ensured that the teaching staff is aware of the content and outputs of their colleagues' work within the same study programme?*
- *How does the study programme support development of the learners' general competencies (including digital literacy, foreign language skills, entrepreneurship, communication and teamwork skills)?*
- *What are the scope and objectives of the foundation courses in the study programme (where appropriate)? What are the pass rates?*
- *How long does it take a student on average to graduate? Is the graduation rate for the study programme analogous to other European programmes with similar content? What is the pass rate per course/semester?*
- ***How is it ensured that the actual student workload is in accordance with the workload expressed by ECTS?***
- *What are the opportunities for international students to participate in the study programme (courses/modules taught in a foreign language)?*
- *Is information related to the programme of study publicly available?*
- *How is the HEI evaluating the success of its graduates in the labor market? What is the feedback from graduates of the study programme on their employment and/or continuation of studies?*
- *Have the results of student feedback been analysed and taken into account, and how (e.g., when planning in-service training for the teaching staff)?*
- *What are the reasons for dropping out (voluntary withdrawal)? What has been done to reduce the number of such students?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

This is a well-organized and delivered programme. The programme was established with clear motivations, and the intended learning outcomes of the programme have been clearly defined. The department has provided good learning opportunities and facilities to the students involved in the programme. The department implements a flexible process of teaching and learning which ensures the quality of the provided programme. The programme helps the students who graduate from the programme for their future employment.

Overall the programme meets the CYQAA standards with respect to quality assurance, the design, approval, reviewing and monitoring of the programme, public information and information management.

Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

The ECC has found that this programme has been offered to students at international standards for topics, quality of teaching, resources and infrastructures. The content and topics covered by the programme are consistent to the objectives of the programme, and appropriate to support the development of the students' general competencies, where the students not only get the chance to build their academic background, but also have the opportunity to build their communication and teamwork skills. In addition, the department maintains a national strength in research, and is capable of integrating their research activities into teaching. As a result, the department has been able to bridge the gap between research and teaching, where this programme has benefited a lot from those research activities.

Areas of improvement and recommendations

A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

Presently, there is an option for students taking this programme to spend some time at another research institute (for instance stay abroad). Some doctoral students have used this opportunity to spend time at top-tier UK universities, for instance. This is an excellent practice. The ECC recommends that this practice becomes an integral part of the programme, instead of it being an ad hoc option. This will strengthen both the research training and network of the students, but also the profile of the institute itself.

The ECC also recommends that more external members are involved in the assessment of the written PhD thesis and its oral defence. Presently, the majority of the members of the PhD assessment committee are internal. The ECC understands that this does not breach the local regulations of the university. However, the HEI may wish to consider raising the bar, according to international standards, and move towards the practice of having a majority of external members in the PhD assessment committee. This practice can benefit both the research experience of the doctoral students, but also the international profile of the programme and network of the institute.

Please select what is appropriate for each of the following sub-areas:

Sub-area		<i>Non-compliant/ Partially Compliant/Compliant</i>
1.1	Policy for quality assurance	Compliant
1.2	Design, approval, on-going monitoring and review	Compliant
1.3	Public information	Compliant
1.4	Information management	Compliant

2. Student – centred learning, teaching and assessment (ESG 1.3)

Sub-areas

- 2.1 Process of teaching and learning and student-centred teaching methodology**
- 2.2 Practical training**
- 2.3 Student assessment**

2.1 Process of teaching and learning and student-centred teaching methodology

Standards

- *The process of teaching and learning supports students' individual and social development.*
- *The process of teaching and learning is flexible, considers different modes of delivery, where appropriate, uses a variety of pedagogical methods and facilitates the achievement of planned learning outcomes.*
- *Students are encouraged to take an active role in creating the learning process.*
- *The implementation of student-centered learning and teaching encourages a sense of autonomy in the learner, while ensuring adequate guidance and support from the teacher.*
- *Teaching methods, tools and material used in teaching are modern, effective, support the use of modern educational technologies and are regularly updated.*
- *Mutual respect within the learner-teacher relationship is promoted.*
- *The implementation of student-centred learning and teaching respects and attends to the diversity of students and their needs, enabling flexible learning paths.*
- *Appropriate procedures for dealing with students' complaints regarding the process of teaching and learning are set.*

2.2 Practical training

Standards

- *Practical and theoretical studies are interconnected.*
- *The organisation and the content of practical training, if applicable, support achievement of planned learning outcomes and meet the needs of the stakeholders.*

2.3 Student assessment

Standards

- *Assessment is consistent, fairly applied to all students and carried out in accordance with the stated procedures.*

- *Assessment is appropriate, transparent, objective and supports the development of the learner.*
- *The criteria for the method of assessment, as well as criteria for marking, are published in advance.*
- *Assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved. Students are given feedback, which, if necessary, is linked to advice on the learning process.*
- *Assessment, where possible, is carried out by more than one examiner.*
- *A formal procedure for student appeals is in place.*
- *Assessors are familiar with existing testing and examination methods and receive support in developing their own skills in this field.*
- *The regulations for assessment take into account mitigating circumstances.*

You may also consider the following questions:

- *How is it monitored that the teaching staff base their teaching and assessment methods on objectives and intended learning outcomes? Provide samples of examination papers (if available).*
- *How are students' different abilities, learning needs and learning opportunities taken into consideration when conducting educational activities?*
- *How is the development of students' general competencies (including digital skills) supported in educational activities?*
- *How is it ensured that innovative teaching methods, learning environments and learning aids that support learning are diverse and used in educational activities?*
- *Is the teaching staff using new technology in order to make the teaching process more effective?*
- *How is it ensured that theory and practice are interconnected in teaching and learning?*
- *How is practical training organised (finding practical training positions, guidelines for practical training, supervision, reporting, feedback, etc.)? What role does practical training have in achieving the objectives of the study programme? What is student feedback on the content and arrangement of practical training?*
- ***Are students actively involved in research? How is student involvement in research set up?***
- *How is supervision of student research papers (seminar papers, projects, theses, etc.) organised?*
- ***Do students' assessments correspond to the European Qualifications Framework (EQF)?***
- *How are the assessment methods chosen and to what extent do students get supportive feedback on their academic progress during their studies?*
- *How is the objectivity and relevance of student assessment ensured (assessment of the degree of achievement of the intended learning outcomes)?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

There are strong synergies between teaching and PhD research, especially with the new focus on AI/ML, robotics and infrastructure. We noted some small issues in the transition between different versions of popular courses, e.g. in robotics, especially as new staff are recruited and this is understandable. The use of students on these courses as tutors will strengthen these links.

Students have the opportunity to take a number of elective courses associated with their PhD and are also expected to attend a number of seminars. Formative and summative assessment are supported through the proposal, defence and also the comprehensive examination. This comprehensive examination ensures adequate breadth with 6 subjects considered by 3 experts and there is an opportunity to retake this. The committee for the defence is appropriate – typically 3 from the Department, 1 from another University and 1 from another Department of the University.

Students can take up to 8 years to complete their PhD, most are expected to graduate in 4-5 years. This is comparable, if a little longer, than elsewhere in Europe.

Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

The opportunities for students to work as part of a Centre or in cooperation with a Centre provides additional exposure to leading ideas and infrastructure.

The opportunity for students to work as a TA also provides important teaching experience for those wanting to pursue a career in higher education.

The drop out rate of some 7% seems to be very commendable but might be hard to sustain as the number of students grows; particularly if self-funded overseas student numbers are to grow with slightly longer periods of study.

The use of PhD students on Ug and MSc courses as TAs will strengthen these links between teaching and research.

Staff and students mentioned the strong industrial involvement in PhD topics, although we would have welcomed some more detail on specific areas where PhDs support both local and international business.

We welcome the role of the Teaching and Learning Centre in delivering soft skills teaching as well as student support in “how to do research”.

Areas of improvement and recommendations

A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

The number of PhD students being admitted each year seems to be growing but is still relatively small. While several of the students we spoke to had spent time with other groups, for instance at Imperial College London, it is important that they are exposed to wider ideas and approaches so that they can build an independent research career. We

would encourage staff to ensure that all PhD students either spend some time on appropriate exchanges or benefit from other schemes to ensure they are exposed to wider research ideas and opportunities.

Please select what is appropriate for each of the following sub-areas:

Sub-area		<i>Non-compliant/ Partially Compliant/Compliant</i>
2.1	Process of teaching and learning and student-centred teaching methodology	Compliant
2.2	Practical training	Compliant
2.3	Student assessment	Partially compliant

3. Teaching staff (ESG 1.5)

Sub-areas

- 3.1 Teaching staff recruitment and development**
- 3.2 Teaching staff number and status**
- 3.3 Synergies of teaching and research**

3.1 Teaching staff recruitment and development

Standards

- *Institutions ensure the competence of their teaching staff.*
- *Fair, transparent and clear processes for the recruitment and development of the teaching staff are set up.*
- *Teaching staff qualifications are adequate to achieve the objectives and planned learning outcomes of the study programme, and to ensure quality and sustainability of the teaching and learning.*
- *The teaching staff is regularly engaged in professional and teaching-skills training and development.*
- *Promotion of the teaching staff takes into account the quality of their teaching, their research activity, the development of their teaching skills and their mobility.*
- *Innovation in teaching methods and the use of new technologies is encouraged.*
- *Conditions of employment that recognise the importance of teaching are followed.*
- *Recognised visiting teaching staff participates in teaching the study programme.*

3.2 Teaching staff number and status

Standards

- *The number of the teaching staff is adequate to support the programme of study.*
- *The teaching staff status (rank, full/part time) is appropriate to offer a quality programme of study.*
- *Visiting staff number does not exceed the number of the permanent staff.*

3.3 Synergies of teaching and research

Standards

- *The teaching staff collaborate in the fields of teaching and research within the HEI and with partners outside (practitioners in their fields, employers, and staff members at other HEIs in Cyprus or abroad).*
- *Scholarly activity to strengthen the link between education and research is encouraged.*
- *The teaching staff publications are within the discipline.*

- *Teaching staff studies and publications are closely related to the programme's courses.*
- *The allocation of teaching hours compared to the time for research activity is appropriate.*

You may also consider the following questions:

- *How are the members of the teaching staff supported with regard to the development of their teaching skills? How is feedback given to members of the teaching staff regarding their teaching results and teaching skills?*
- *How is the teaching performance assessed? How does their teaching performance affect their remuneration, evaluation and/or selection?*
- *Is teaching connected with research?*
- *Does the HEI involve visiting teaching staff from other HEIs in Cyprus and abroad?*
- *What is the number, workload, qualifications and status of the teaching staff (rank, full/part timers)?*
- *Is student evaluation conducted on the teaching staff? If yes, have the results of student feedback been analysed and taken into account, and how (e.g., when planning in-service training for the teaching staff)?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

There are currently 19 permanent full-time faculty members in the department. Some expansion is expected - several positions were being advertised at the time of the visit - with an anticipated increase to at least 25 staff. This is a relatively small department from which to offer complete degree programmes at the undergraduate and masters level, with a good range of optional courses, as well as ensuring that faculty members have enough research time to work with and supervise PhD students. Typically each academic teaches 3 courses per year, which is towards the upper limit for also allowing a reasonable amount of research time. The teaching capacity is supplemented by the use of adjunct and visiting faculty members, which helps to reduce the teaching pressure on faculty members and maintain time for research.

Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

All faculty members have PhDs, usually from highly reputable international institutions. They have the research background, connections and international community involvement to be able to successfully supervise PhD students.

Areas of improvement and recommendations



A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

The plan to increase the academic staff to 25 or more is welcomed, as that will provide a broader and richer research environment for PhD students, and increase the likelihood that students can find other faculty members to informally discuss and advise on their projects. Our assessment of teaching staff number and status as partially compliant indicates the importance we attach to completing the planned increase in staff numbers.

Please select what is appropriate for each of the following sub-areas:

Sub-area		<i>Non-compliant/ Partially Compliant/Compliant</i>
3.1	Teaching staff recruitment and development	Compliant
3.2	Teaching staff number and status	Partially compliant
3.3	Synergies of teaching and research	Compliant

4. Student admission, progression, recognition and certification (ESG 1.4)

Sub-areas

- 4.1 Student admission, processes and criteria
- 4.2 Student progression
- 4.3 Student recognition
- 4.4 Student certification

4.1 Student admission, processes and criteria

Standards

- *Pre-defined and published regulations regarding student admission are in place.*
- *Access policies, admission processes and criteria are implemented consistently and in a transparent manner.*

4.2 Student progression

Standards

- *Pre-defined and published regulations regarding student progression are in place.*
- *Processes and tools to collect, monitor and act on information on student progression, are in place.*

4.3 Student recognition

Standards

- *Pre-defined and published regulations regarding student recognition are in place.*
- *Fair recognition of higher education qualifications, periods of study and prior learning, including the recognition of non-formal and informal learning, are essential components for ensuring the students' progress in their studies, while promoting mobility.*
- *Appropriate recognition procedures are in place that rely on:*
 - *institutional practice for recognition being in line with the principles of the Lisbon Recognition Convention*
 - *cooperation with other institutions, quality assurance agencies and the national ENIC/NARIC centre with a view to ensuring coherent recognition across the country*

4.4 Student certification

Standards

- *Pre-defined and published regulations regarding student certification are in place.*
- *Students receive certification explaining the qualification gained, including achieved learning outcomes and the context, level, content and status of the studies that were pursued and successfully completed.*

You may also consider the following questions:

- *Are the admission requirements for the study programme appropriate? How is the students' prior preparation/education assessed (including the level of international students, for example)?*
- *How is the procedure of recognition for prior learning and work experience ensured, including recognition of study results acquired at foreign higher education institutions?*
- *Is the certification of the HEI accompanied by a diploma supplement, which is in line with European and international standards?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

Previous sections have urged the use of more formal criteria to support the informal process by which students with slightly lower grades might be accepted if their first degree(s) come from a world leading institution. As the numbers of students grow, it may also be possible to consider appropriate periods of industrial or commercial experience especially in areas such as robotics or autonomous systems within the admissions process.

Courses are shared between the MSc/MEng students and those on a PhD - this is entirely appropriate. With this in mind, we were surprised that no formal process existed whereby a Masters student might carry forward partial credit onto a PhD programme.

Previous sections have reiterated the importance of peer assisted learning and of cohort development - we understand that the University Teaching Centre addresses some of these needs through the provision of "soft skills" courses and material on an introduction to research. There are other areas across Science and Engineering that might also benefit from a Faculty approach to advanced teaching in areas such as Data Science and Statistics -

Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

The Departmental Graduate Committee reports directly to the Departmental Council and is an effective forum for staff and students. We were slightly surprised that no administrative or professional service staff were included in

these groups - as they would be in many European countries to ensure that Academic staff and Students have prompt access to their help and that they also understand the loading that professional service colleagues are often working under.

Areas of improvement and recommendations

A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

The Comprehensive exam seems like a significant strength in developing a broad understanding or research topics as do the non-compulsory courses. However, where oral examinations are used to assess higher-levels of knowledge in research topics it is important to have an independent observer who can support the student and ensure fairness across a cohort of similar exams. In the final defence this can be assumed because they are open to the public - in the future if the number of students rises it is likely that greater transparency may be needed to support students through the comprehensive exam. In terms of examination procedure, we might expect that the general areas are pre-scripted even if the specific questions are not so that different students would face questions of equivalent difficulty or that they demonstrate the same level of knowledge to receive a pass.

Please select what is appropriate for each of the following sub-areas:

Sub-area		<i>Non-compliant/ Partially Compliant/Compliant</i>
4.1	Student admission, processes and criteria	Compliant
4.2	Student progression	Partially compliant
4.3	Student recognition	Compliant
4.4	Student certification	Compliant

5. Learning resources and student support (ESG 1.6)

Sub-areas

5.1 Teaching and Learning resources

5.2 Physical resources

5.3 Human support resources

5.4 Student support

5.1 Teaching and Learning resources

Standards

- *Adequate and readily accessible teaching and learning resources (teaching and learning environments, materials, aids and equipment) are provided to students and support the achievement of objectives in the study programme.*
- *Adequacy of resources is ensured for changing circumstances (change in student numbers, etc.).*
- *All resources are fit for purpose.*
- *Student-centred learning and flexible modes of learning and teaching, are taken into account when allocating, planning and providing the learning resources.*

5.2 Physical resources

Standards

- *Physical resources, i.e. premises, libraries, study facilities, IT infrastructure, are adequate to support the study programme.*
- *Adequacy of resources is ensured for changing circumstances (change in student numbers, etc.).*
- *All resources are fit for purpose and students are informed about the services available to them.*

5.3 Human support resources

Standards

- *Human support resources, i.e. tutors/mentors, counsellors, other advisers, qualified administrative staff, are adequate to support the study programme.*
- *Adequacy of resources is ensured for changing circumstances (change in student numbers, etc.).*

- *All resources are fit for purpose and students are informed about the services available to them.*

5.4 Student support

Standards

- *Student support is provided covering the needs of a diverse student population, such as mature, part-time, employed and international students and students with special needs.*
- *Students are informed about the services available to them.*
- *Student-centred learning and flexible modes of learning and teaching, are taken into account when allocating, planning and providing student support.*
- *Students' mobility within and across higher education systems is encouraged and supported.*

You may also consider the following questions:

- *Evaluate the supply of teaching materials and equipment (including teaching labs, expendable materials, etc.), the condition of classrooms, adequacy of financial resources to conduct the study programme and achieve its objectives. What needs to be supplemented/ improved?*
- *What is the feedback from the teaching staff on the availability of teaching materials, classrooms, etc.?*
- *Are the resources in accordance with actual (changing) needs and contemporary requirements? How is the effectiveness of using resources ensured?*
- *What are the resource-related trends and future risks (risks arising from changing numbers of students, obsolescence of teaching equipment, etc.)? How are these trends taken into account and how are the risks mitigated?*
- *Evaluate student feedback on support services. Based on student feedback, which support services (including information flow, counselling) need further development?*
- *How is student learning within the standard period of study supported (student counselling, flexibility of the study programme, etc.)?*
- *How students' special needs are considered (different capabilities, different levels of academic preparation, special needs due to physical disabilities, etc.)?*
- *How is student mobility being supported?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

The committee has observed that students in the program are supported adequately, and have available all necessary facilities. The Department provides an excellent environment for PhD study. This is backed up by university facilities - for example, the new university library is an outstanding resource for PhD students as well as undergraduate and masters students. We share the Department's hope that the new Engineering Faculty building will be completed in the near future, as this will provide an exciting and inspiring environment for research students.

Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

The committee has observed a high level of satisfaction among students, regarding the program and the support they receive.

Teaching processes and practices are in line with the expected world-standards in this sector.

Areas of improvement and recommendations

A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

The evaluation committee recommends periodic review of the program by taking into consideration feedback from academic staff, students, external local industry experts and professional bodies.

Please select what is appropriate for each of the following sub-areas:

Sub-area		<i>Non-compliant/ Partially Compliant/Compliant</i>
5.1	Teaching and Learning resources	Compliant
5.2	Physical resources	Compliant
5.3	Human support resources	Compliant
5.4	Student support	Compliant

6. Additional for doctoral programmes (ALL ESG)

Sub-areas

6.1 Selection criteria and requirements

6.2 Proposal and dissertation

6.3 Supervision and committees

6.1 Selection criteria and requirements

Standards

- *Specific criteria that the potential students need to meet for admission in the programme, as well as how the selection procedures are made, are defined.*
- *The following requirements of the doctoral degree programme are analysed and published:*
 - *the stages of completion*
 - *the minimum and maximum time of completing the programme*
 - *the examinations*
 - *the procedures for supporting and accepting the student's proposal*
 - *the criteria for obtaining the Ph.D. degree*

6.2 Proposal and dissertation

Standards

- *Specific and clear guidelines for the writing of the proposal and the dissertation are set regarding:*
 - *the chapters that are contained*
 - *the system used for the presentation of each chapter, sub-chapters and bibliography*
 - *the minimum word limit*
 - *the binding, the cover page and the prologue pages, including the pages supporting the authenticity, originality and importance of the dissertation, as well as the reference to the committee for the final evaluation*
- *There is a plagiarism check system. Information is provided on the detection of plagiarism and the consequences in case of such misconduct.*
- *The process of submitting the dissertation to the university library is set.*

6.3 Supervision and committees

Standards

- *The composition, the procedure and the criteria for the formation of the advisory committee (to whom the doctoral student submits the research proposal) are determined.*
- *The composition, the procedure and the criteria for the formation of the examining committee (to whom the doctoral student defends his/her dissertation), are determined.*
- *The duties of the supervisor-chairperson and the other members of the advisory committee towards the student are determined and include:*
 - *regular meetings*

- *reports per semester and feedback from supervisors*
- *support for writing research papers*
- *participation in conferences*
- *The number of doctoral students that each chairperson supervises at the same time are determined.*

You may also consider the following questions:

- *How is the scientific quality of the PhD thesis ensured?*
- *Is there a link between the doctoral programmes of study and the society? What is the value of the obtained degree outside academia and in the labour market?*
- *Can you please provide us with some dissertation samples?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

Staff described how admission criteria might be varied according to the ranking and reputation of the University where the applicant had completed their first degree. This is entirely appropriate, however, as numbers increase it might be useful to adopt a more systematic approach where an entry tariff is associated, for instance, with a first degree or masters from particular Departments within the QS World rankings but also with - for instance, post-degree industrial experience as more staff look to return to Higher Education.

The duration of a PhD is expected to be from 4 to 8 years, although it might be possible to complete within 3 nobody we spoke to could cite an example of this. This is broadly in-line with other institutions however there is increasing pressure on many European countries to ensure that students complete within 4 years as a maximum. This is partly due to financial pressures but especially within Computer Engineering the increasing pace of change in some areas makes it difficult to defend a thesis that has its roots almost a decade before any defence.

Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

The examination committee is drawn both from within the Department, from other Universities and also from other Departments within the University. This provides excellent coverage and different perspectives during the defence providing that the voice of the domain specialists is not compromised by a majority of participants with a more general knowledge of the specific area.

We noted the active involvement of library staff provide a constructive environment for research but also supporting Open Science initiatives. The process by which supporting data is archived by information services was clearly described but we did not have time to assess whether the students felt well supported by these facilities.

Areas of improvement and recommendations

A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

Previous sections have described how candidates are expected to attend a number of seminars and that these seminars will, for instance, help with the Comprehensive Examination. We noted that credits were obtained for attendance rather than delivery or levels of engagement with the seminar and perhaps this creates wider opportunities to ensure that participants made the most of these valuable learning opportunities.

Admin staff associated with research can occasionally become overloaded with knock-on effects for PhD students and their supervisors - this is especially true when central staff have to look after multiple projects with similar deadlines. We noted the opportunity for some overheads on grants to be pooled at Faculty level to bring in additional administrative support that might help coordinate at the interface between PhD students and research projects that they might indirectly support.

Please select what is appropriate for each of the following sub-areas:

Sub-area		<i>Non-compliant/ Partially Compliant/Compliant</i>
6.1	Selection criteria and requirements	Compliant
6.2	Proposal and dissertation	Partially compliant
6.3	Supervision and committees	Compliant





D. Conclusions and final remarks

Please provide constructive conclusions and final remarks which may form the basis upon which improvements of the quality of the programme of study under review may be achieved, with emphasis on the correspondence with the EQF.

Overall we are broadly happy with the PhD programme. There are significant strengths and the caveats we have noted remain a focus for improvement. We thank all the staff and students who helped in this exercise and wish you well for the future.



E. Signatures of the EEC

Name	Signature
Christina Lioma	
Simon Gay	Simon J Gay
Chris Johnson	
Ioannis Zapitis	
George Savva	
Click to enter Name	

Date: 12th June 2022

