

Doc. 300.3.1/1

External Evaluation Report

(Programmatic within the framework of Departmental Evaluation)

Date: Date.

- **Higher Education Institution:**

University of Cyprus

- **Town:** Nicosia

- **School/Faculty:** Πολυτεχνική Σχολή/Faculty of Engineering

- **Department:** Τμήμα Ηλεκτρολόγων Μηχανικών και Μηχανικών Υπολογιστών/Department of Electrical and Computer Engineering

- **Programme(s) of study - Name (Duration, ECTS, Cycle)**

Programme 1 – [Title 1]

In Greek:

Πτυχίο Ηλεκτρολόγου Μηχανικού (4 χρόνια/241 ECTS)

In English:

Bachelor of Science in Electrical Engineering (4 academic years/241 ECTS)

Language(s) of instruction: Greek

Programme 2 – [Title 2]

In Greek:

Μάστερ στην Επιστήμη Ηλεκτρολόγου Μηχανικού/Μάστερ Μηχανικής Ηλεκτρολόγου Μηχανικού (2 χρόνια/90 ECTS)

In English:

Master of Science in Electrical Engineering/Master of Engineering in Electrical Engineering (2 academic years/90 ECTS)

Language(s) of instruction: Greek and English

Programme 3 – [Title 3]

In Greek:

Διδακτορικό Ηλεκτρολόγου Μηχανικού (6 εξάμηνα/240 ECTS)

In English:

Doctor of Philosophy in Electrical Engineering (6 semester/240 ECTS)

Language(s) of instruction: Greek and English



ΦΟΡΕΑΣ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ ΠΙΣΤΟΠΟΙΗΣΗΣ ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΤΗΣ ΑΝΩΤΕΡΗΣ ΕΚΠΑΙΔΕΥΣΗΣ
CYPRUS AGENCY OF QUALITY ASSURANCE AND ACCREDITATION IN HIGHER EDUCATION



eqar /// enqa.

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 Laws” of 2015 to 2021 [L.136(I)/2015 – L.132(I)/2021].

A. Introduction

This part includes basic information regarding the onsite visit.

Members of the External Evaluation Committee (EEC) reviewed and examined the accreditation reports by the Department of Electrical Engineering and Computer Engineering at the University of Cyprus.

The committee members visited the University of Cyprus virtually via Zoom due to the COVID-19 pandemic. Nonetheless they were provided with a significant number of documents and resources that helped the evaluation. The committee believes that the following report has not been affected by the virtual nature of the visit. This is thanks to the efforts of all parties involved.

The reports were evaluated individually before the remote site visit on 9-10 March 2022.

The programmes under evaluation was :

- **Πτυχίο Ηλεκτρολόγου Μηχανικού/Bachelor of Science in Electrical Engineering**
- **Μάστερ στην Επιστήμη Ηλεκτρολόγου Μηχανικού/Μάστερ Μηχανικής Ηλεκτρολόγου Μηχανικού-Master of Science in Electrical Engineering/Master of Engineering in Electrical Engineering**
- **Διδακτορικό Ηλεκτρολόγου Μηχανικού/Doctor of Philosophy in Electrical Engineering**

During March 9 2022, the virtual site meeting featured a short briefing of the members of the EEC with the CYQAA officer, which was followed by an introduction of the members of the EEC, meetings with the Vice Rector for Academic Affairs and Chairwoman of the Internal QA Committee of the University, the head of the Electrical Engineering and Computer Engineering Department, the programme's Coordinator for BSc for a through out review of the Electrical Engineering Bachelor programme. The EEC has the opportunity to meet members of the teaching staff, administrative staff, library staff and students of the programme. The EEC members were able to assess the premises of the Institution and Department through a virtual visit. During the exit discussion of the first day additional questions were clarified and a briefing of the findings of the EEC was presented.

During March 10 2022, the members of EEC assessed the graduate (MSc/MEng) and PhD academic programmes in Electrical Engineering.

Based on the three accreditation reports and the remote site visit the EEC can conclude that the Department and the three programmes being evaluated have high standards and meet the quality expectations.

This evaluation report describes how the standards are met and provides additional suggestions for improving the programmes.



B. External Evaluation Committee (EEC)

<i>Name</i>	<i>Position</i>	<i>University</i>
Jyri Härmäläinen	Professor, Dean	Aalto University
Michael A. E. Andersen	Professor	Technical University of Denmark
Zhiguo Ding	Professor	University of Manchester
Vasilis Charalambous	Professional Electrical Engineer	Scientific and Technical Chamber of Cyprus (ETEK)
Angelos Pantazopoulos	Student member	Cyprus University of Technology
Name	Position	University

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:*
 - sub-areas*
 - standards which are relevant to the European Standards and Guidelines (ESG)*
 - 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 each 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.

Findings for Bachelor of Science in Electrical Engineering

Students are provided with world-class quality programmes of study and adequate infrastructures. It meets the standard expected at international universities.

Due to the fact that programmes are not offered in English language does not help diversity in the student community.

Low numbers of students due to the Greek language, as well as lack of international academic staff.

Findings for Master of Science in Electrical Engineering/Master of Engineering

Students are provided with world-class quality programmes of study and adequate infrastructures. It meets the standard expected at international universities.

Due to the fact that programmes are not offered in English language does not help diversity in the student community.

Low numbers of students due to the Greek language, as well as lack of international academic staff.

Findings for Doctor of Philosophy in Electrical Engineering

The ECC has found that the PhD programme is well structured, follows well-established principles, and reflects best practices. It meets the standard expected at international universities.

Low numbers of students due to the Greek-English language, as well as lack of international academic staff.

The graduation time is long.

The number of applicants for PhD is low.

Strengths

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

Strengths for Bachelor of Science in Electrical Engineering

The panel has found that the programmes delivered by the department have been well structured, where the content delivered by the department fits well to the desirable learning outcomes of the programmes.

The library provides excellent support to the students of the programme.

High level of academic staff with high activities in research.

There is a clear and consistent policy on the admission criteria for students of the programme.

Strengths for Master of Science in Electrical Engineering/Master of Engineering

The panel has found that the programmes delivered by the department have been well structured, where the content delivered by the department fits well to the desirable learning outcomes of the programmes.

The library provides excellent support to the students of the programme.

High level of academic staff with high activities in research.

There is a clear and consistent policy on the admission criteria for students of the programme.

Strengths for Doctor of Philosophy in Electrical Engineering

The PhD programme offered by the department has been particularly impressive, where the students benefit from the strong research activities carried out by the faculty members in the department.

The library provides excellent support to the students of the programme.

High level of academic staff with high activities in research.

There is a clear and consistent policy on the admission criteria for students of the programme.

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.

Areas of improvement and recommendations for Bachelor of Science in Electrical Engineering

The criteria for registration in the field of Electrical Engineering in the Scientific and Technical Chamber of Cyprus (ETEK) are not documented or published, although the students are informed by their advisor in the First Year of study. The suggestion is to document and publish information at all times of their four year study.

Although the University has a well organised communication with graduates and the Department helps graduates with their employment in organisations and big companies, it needs a mechanism of analysis and publishes graduate employment information as well as industry needs.

The completion in 2023 of the new building to house the Department and the activities of the programme will strongly enhance and improve the quality of the lectures, labs and research. Also new perspectives are offered to increase the programmes, number of students and academic staff. There are no official formal procedures for the career and promotion of the academic staff.

One potential improvement is to have more bi-directional communications between the students and the department, which is particularly important to quality assurance. Currently, the department has some mechanisms for students to feed their opinions back to the department, but the department may also want to introduce some mechanisms to allow students to be aware the changes made by the department. For such a purpose, regular staff-student meetings during the semesters can be quite useful.

Consider to switch to a fully English taught BSc programme.

Areas of improvement and recommendations for Master of Science in Electrical Engineering/Master of Engineering

Although the University has a well-organised communication with graduates and the Department helps graduates with their employment in organisations and big companies, it is suggested to have a mechanism of analysis and publish graduate employment information as well as industry needs.

The completion of the new building to house the Department and the activities of the programme will strongly enhance and improve the quality of the lectures, labs and research. Also new perspectives are offered to increase the programmes, number of students and academic staff. Low numbers of students as most of them are part-time.

There are no official formal procedures for the career and promotion of the academic staff.

The above suggestion for having more bi-directional communications between the students and the department is also applicable to this MSc/MEng programme.

Consider offering more courses in the evening for those students working in the daytime.

Consider to switch to a fully English taught MSc/MEng programme.

Consider attracting international MSc/MEng students.

Consider joint degrees with non-European universities.

Areas of improvement and recommendations for Doctor of Philosophy in Electrical Engineering

It seems to be a communication issue regarding the awareness of the students to the latest guidelines. The mechanism of communication of the students with the administration is suggested to be improved.

There are no official formal procedures for the career and promotion of the academic staff.

The completion of the new building to house the Department and the activities of the programme will strongly enhance and improve the quality of the lectures, labs and research. Also new perspectives are offered to increase the programmes, number of students and academic staff.

The requirements for graduating wrt. the expected number of publications and their quality/impact is unclear and is suggested to be continuously discussed with the students.

The programme of PhD is suggested to be advertised widely.

Consider to switch to a fully English taught PhD programme.

Consider some kind of internationalisation (e.g. external research stays) to improve international visibility of UCY.

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

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



1.4	Information management	<i>Compliant</i>	<i>Compliant</i>	<i>Compliant</i>
-----	------------------------	------------------	------------------	------------------

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 and 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)?*



ΦΟΡΕΑΣ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ ΠΙΣΤΟΠΟΙΗΣΗΣ ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΤΗΣ ΑΝΩΤΕΡΗΣ ΕΚΠΑΙΔΕΥΣΗΣ
CYPRUS AGENCY OF QUALITY ASSURANCE AND ACCREDITATION IN HIGHER EDUCATION



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.

Findings for BSc

The Department clearly benefits from an appropriate staff/student ratio, enabling a high-quality learning and teaching environment to operate in. But the small number of BSc students might call for actions to increase the number.

Teaching methodologies in use are appropriate. The course portfolio includes a mix of theory and practical work across various courses.

Student feedback suggests they find interactions between faculty members and students satisfactory.

Faculty members are readily available to students.

The process for student assessment is evaluated appropriately.

Findings for MSc/MEng

The Department clearly benefits from an appropriate staff/student ratio, enabling a high-quality learning and teaching environment to operate in. But the low number of MSc/MEng students might call for actions to increase the number. Teaching methodologies in use are appropriate. The course portfolio includes a mix of theory and practical work across various courses.

Student feedback suggests they find interactions between faculty members and students satisfactory.

Faculty members are readily available to students, including an open-door policy.

The process for student assessment is evaluated appropriately.

Findings for [PhD

The Department clearly benefits from an appropriate staff/student ratio, enabling a high-quality learning and teaching environment to operate in.

Student feedback suggests they find interactions between faculty members and students satisfactory.

Faculty members are readily available to students, including an open-door policy.

The process for student assessment is evaluated appropriately.

Strengths

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

Strengths for BSc

The educational outcomes of this study program are well defined. For each of the courses (compulsory and elective), there is a clear specification of a) course purpose and objectives, b) learning outcomes, c) prerequisites, course content, bibliography, teaching methodology, and assessment.

Student feedback on teaching is directly received and considered by faculty members to improve course delivery and exam.

Good staff/student ratio.

Commitment of staff to their programmes and students.

Commitment of staff in use of innovative teaching methods, including hybrid systems during the pandemic situation.

Strengths for MSc/MEng

The educational outcomes of this study program are well defined. For each of the courses (compulsory and elective), there is a clear specification of a) course purpose and objectives, b) learning outcomes, c) prerequisites, course content, bibliography, teaching methodology, and assessment.

Student feedback on teaching is directly received and considered by faculty members to improve course delivery and exam.

Good staff/student ratio.

Commitment of staff to their programmes and students.

Commitment of staff in use of innovative teaching methods, including hybrid systems during the pandemic situation.

Strengths for PhD

The educational outcomes of this study program are well defined. For each of the courses (compulsory and elective), there is a clear specification of a) course purpose and objectives, b) learning outcomes, c) prerequisites, course content, bibliography, teaching methodology, and assessment.

Student feedback on teaching is directly received and considered by faculty members to improve course delivery and exam.

Good staff/student ratio.

Commitment of staff to their programmes and students.

Commitment of staff in use of innovative teaching methods, including hybrid systems during the pandemic situation.

t.

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.

Areas of improvement and recommendations for BSc

Consider getting student feedback during the term/semester to benefit the students and courses in the ongoing term/semester.

Consider a proactive strategy for increasing the number of BSc students.

Consider how the process can be made easier when the students have to choose elective courses for a given semester.

Areas of improvement and recommendations for MSc/MEng

Consider getting student feedback during the term/semester to benefit the students and courses in the ongoing term/semester.

Consider a proactive strategy for increasing the number of MSc/MEng students.

Consider how the process can be made easier when the students have to choose elective courses for a given semester.

Areas of improvement and recommendations for PhD

Not many areas of improvement were detected for this program.

Please see section 6.

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

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

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.

Findings for BSc in Electrical Engineering

The evaluation committee has found that the faculty members of the Department of Electrical and Computer Engineering at Cyprus University are highly competent for the evaluated BSc programme. In particular, the faculty members' research expertise and education qualifications are appropriate and adequate for the objectives and learning outcomes for the courses provided in this study programme. It is also important to point out that those provided elective courses clearly reflect the research themes of this department.

Findings for Master (MSc/MEng) in Electrical Engineering

The evaluation committee has found that the evaluated master programmes have been well delivered by the teaching staff. Recall that there are two types of master programmes which have been offered by the department at Cyprus University, namely, MSc and MEng programmes. In particular, the MSc programme provides the students a chance to spend a whole year and participate in research-based projects, where the teaching staff has ensured that the MSc students are well included in their research activities. The MEng programme is closer to a fully taught course, i.e., students do not choose thesis projects but a few elective courses, where the expertise of the teaching staff is appropriate to these elective courses.

Findings for PhD in Electrical Engineering

Because of their strong track record in research, the faculty members of the Department of Electrical and Computer Engineering at Cyprus University are highly competent for the evaluated PhD programme.

Strengths

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

Strengths for BSc in Electrical Engineering

The faculty members of the department have strong track records of achievements on their research, and they have ensured a strong interaction between their research and teaching. For example, the faculty members have integrated the students' thesis projects with their research, which means that students on the programme had the chance to participate in the professors' research projects and benefit significantly from the outcomes of those research activities in the department.

Strengths for Master (MSc/Meng) in Electrical Engineering

The faculty members of the department have diverse research background in electrical engineering; as such, they can provide a huge number of diverse post-graduate courses for their master students.

The faculty members are fully aware of the fact that many postgraduate students are part-time students, and hence provide a lot of flexibility to ensure the experience of these part-time students.

The active research activities from the faculty members in the department also provide a lot of opportunities to postgraduate students for potential exchanging and visiting.

Strengths for PhD in Electrical Engineering

The active research activities from the faculty members in the department also provide a lot of opportunities to PhD students for potential exchanging and visiting. For example, a few faculty members mentioned that they have H2020 ITN and research exchanging programmes which support the PhD students to visit various academic and industrial partners.

The faculty members have been fully engaged with their research communities and organized various conferences and workshops, which are also beneficial to students on this PhD programme.

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.

Areas of improvement and recommendations for BSc in Electrical Engineering

The department may want to recruit more technicians in order to provide better support for the teaching labs and facilities.

In order to support the teaching staff's career development, the department may also want to provide regular (e.g., annual) meetings between the faculty members and the management group of the department. Such meetings provide more dialogues between the staff and the department, and help the staff to better understand the departmental policies, such as the criteria for promotion. Setting up mentorship could be another possible way to support the teaching staff's career development.

Areas of improvement and recommendations for Master (MSc/Meng) in Electrical Engineering

While the number of faculty members is appropriate to the evaluated study programme, the committee feels that the workload of each teaching staff might be slightly higher than the expected. The committee was informed that a few new MSc programmes are to be created in order to increase the number of master students, which means that the workload of the teaching staff could be further increased. The department needs to find a tradeoff between the number of delivered courses and the staff's workload.

Areas of improvement and recommendations for PhD in Electrical Engineering

The faculty members of the department need to ensure that their PhD students have better understandings about the criteria for their graduation. While it is understandable that there is a lot of uncertainties for research outcomes, PhD supervisors need to have continuous discussions with their PhD students for clearly defining and reshaping the ultimate goal of students' PhD projects.

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

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

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.

Findings for [BSc programme]

The BSc programme seems to be in a very good shape. Department obtains excellent students and study progression is very good. All rules and practices seem to work. The student feedback is collected quite systematically but it was left unclear whether student feedback is effectively used. Student drop-out rate is quite small.

Findings for [MSc/MEng programme]

In the MSc programme there is a lack of students. Basic admission process, rules and regulations seem to work. Student progression seems to be relatively slow but this results mainly from the fact that students are typically part time. Since many students work in parallel with their studies, they value teaching in the evening time. This might be in conflict with the expectations of full-time students that are planned to be admitted to new programmes. Tracking of employment of graduates could be improved.

Findings for [DSc programme]

Department has obtained good doctoral students even though recruitment is done among Cyprian students and programme language is Greek. Yet, the number of applicants for doctoral programmes could be higher. Time of studies is typically even years longer than nominal study time. This results from heavy requirements for thesis (number of publications in top tier venues expected) and, on the other hand, experienced doctoral students are also efficient project workers that may create a negative incentive for graduation. Some DSc students indicated that updates of rules and regulations are not communicated well enough.

Strengths

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



Strengths for [BSc programme]

An advisor is nominated to all new students. This is a very good practice and probably impacts on the drop-out rate that is relatively small. Student laboratories seem to be in good shape and support education for experimental research. The student feedback that committee received in discussions was very positive in general.

Strengths for [MSc/MEng programme]

MSc students can take many different elective courses although the number of MSc students is small. Since many MSc students work in parallel with their studies, they may bring in some practical competences. Department has invested a lot of effort while planning the new English MSc programme. There is clearly an excellent spirit to drive the change and open a new page in MSc education. Especially the planned cross-departmental MSc programmes can create an effective opportunity to admit new students.

Strengths for [DSc programme]

While high standards for DSc thesis make study times longer, the department brand for graduates is strong and graduates are obtaining good career opportunities after graduation. Excellent DSc students also can effectively contribute to external projects. The excellent DSc graduates also will in the long run raise the value of DSc education in the surrounding society.

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.

Areas of improvement and recommendations for [BSc programme]

No notable challenges were identified in the BSc programme. Since the applicant pool is limited in Cyprus, it is recommended that in the long term an English BSc programme is established in parallel with the current Greek BSc programme. This may require changes in local laws/regulations. We also recommend more systematic use of student feedback to further improve courses and the BSc programme.

Areas of improvement and recommendations for [MSc/MEng programme]

The number of students is small. Department should continue the planning of the English MSc programme with various specialisations. Herein new cross-departmental/cross-disciplinary study options may form an excellent attraction for new students. It is recommended that the department invest in student marketing and prepare for an increasing amount of support work once students with diverse backgrounds arrive. We also recommend that the department try to avoid creating a large number of very small programmes. The communication of rules and regulations (to students) should be improved.

Areas of improvement and recommendations for [DSc programme]

With the forthcoming English DSc programme it is expected that international student recruitment becomes more viable - currently the number of applicants to the programme is not high (the programme has attracted excellent students though). Department should revisit the admission procedure to make it smooth when the number of applicants increases notably. The department faculty should also carefully consider the requirements set for the doctoral thesis (in terms of publications). Now it looks that due to heavy requirements graduation in nominal 4 year time is an exception. Supervisors should communicate to students the requirements for the thesis as clearly as possible. Supervisor could also give career planning support for DSc students. In general the communication of rules and regulations (to students) could be improved.

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

Sub-area		<i>Non-compliant/ Partially Compliant/Compliant</i>		
		[BSc]	[MSc/MEng]	[DSc]
4.1	Student admission, processes and criteria	Compliant	compliant	compliant
4.2	Student progression	Compliant	Partially compliant	Partially compliant
4.3	Student recognition	Compliant	Compliant	Compliant
4.4	Student certification	Compliant	Compliant	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?*



ΦΟΡΕΑΣ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ ΠΙΣΤΟΠΟΙΗΣΗΣ ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΤΗΣ ΑΝΩΤΕΡΗΣ ΕΚΠΑΙΔΕΥΣΗΣ
CYPRUS AGENCY OF QUALITY ASSURANCE AND ACCREDITATION IN HIGHER EDUCATION



eqar Ευρωπαϊκό Σύστημα Πιστοποίησης
Regulator for Higher Education enqa.

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.

Findings for [BSc programme]

The resources for BSc education seem adequate and the programme is in good shape. Programme attracts very good students and the number of students is feasible. The fraction of female students is tolerable considering the situation in this field everywhere. Yet, work is needed to attract more female students. The teaching load for faculty is quite high and advising work may put more load on them. On the other hand, a personal advisor is a great asset for a student, and small group teaching supports efficient learning. Facilities and physical resources seem adequate in general. The new facilities will further improve the situation. Library services look excellent. Student laboratories look very good. The learning materials are good but it is not clear how much digital materials teachers have made. Such material could be used to scale the teaching volume in certain topics.

Findings for [MSc/MEng programme]

Similarly as in the BSc programme case, teaching and learning resources seem adequate. The number of planned study specialisations is high that may attract more students but will increase teachers' already notable teaching load. Facilities and physical resources seem adequate in general. The new facilities will further improve the situation but on the other hand, the increasing number of MSc students may require inventive use of buildings and teaching spaces. Student laboratories look very good and may also support more demanding student projects. Special care of international students in future may require investments in student support.

Findings for [DSc programme]

Teaching and learning resources seem adequate. The number of doctoral students per faculty is good and can be even increased slightly if the funding situation allows. Faculty could invest more of their resources on student career advising. Facilities and physical resources seem adequate in general. Research laboratories support experimental work that is important in many fields. Special care of international students in future may require investments in student support.

Strengths

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

Strengths for [BSc programme]

Teaching resources for the BSc programme are good and the student faculty ratio is feasible. BSc programme is developed systematically and rules/regulations are clear. Guidance for e.g. continuous assessment is good. New buildings and facilities are expected to impact positively on the student and teacher community. It is great that all students have personal advisors from faculty. Library resources looked excellent. Laboratory facilities for students are very good and there were some very clever laboratory working practices adopted during the covid time.

Strengths for [MSc/MEng programme]

The number of MSc students is so small that there is now definitely enough teaching resources. Department is planning for new very fascinating programmes that will likely attract a number of new MSc students. Facilities and physical resources seem adequate and as previously noted, new facilities will further improve the situation. Student laboratories look very good and may also support more demanding student projects.



Strengths for [DSc programme]

Teaching and learning resources are adequate since the number of doctoral students per faculty is good. Faculty could invest more of their resources on student career advising. From results it is evident that doctoral students obtain excellent research supervision. Research laboratories support experimental work that is important in many fields.

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.

Areas of improvement and recommendations for [BSc programme]

Work is needed to identify factors that attract more female students. Since gender balance is a challenge in many engineering fields, joint work could be done with other departments to fix the problem. It is recommended that faculty are also in future assigned to the student advisory work. Yet, due to increasing workload it is proposed that the department check whether more support resources for students are needed. It is also recommended that faculty workload in general is monitored. While new facilities are taken into use, department should consider whether there are enough places for informal social interaction between student and faculty to facilitate the feeling of togetherness. The development of digital teaching materials is recommended. Herein the learnings from the Covid-19 time could be utilised.

Areas of improvement and recommendations for [MSc/MEng programme]

The number of MSc students admitted annually is low but it is expected to increase with new programmes. The study progress of MSc students is slow. Yet, this problem is not easy to fix since many students are part-time. In new programmes the number of planned study specialisations is high, which may lead to increasing administrative load. The increasing number of MSc students may require more teaching spaces especially if the number of courses is increasing with new programmes. Increasing amount of student support will be needed when the number of students is increasing. The diverse backgrounds of international students may also lead to a need for further support.

Areas of improvement and recommendations for [DSc programme]

The number of yearly admitted DSc students could be higher. Situation is expected to improve when the English DSc programme is introduced and international students can be admitted. Yet, the department should advertise itself to potential doctoral students (the department has excellent role models among students that can give testimonials and participate in student marketing). While the faculty is doing an excellent job in research supervision, there seems to be more need for career development support and support with requirements that students should fulfil in order to complete a doctoral degree (especially regarding required volume and quality of research). As noticed previously, a special care of international students in future may require investments in student support.

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

Sub-area	<i>Non-compliant/ Partially Compliant/Compliant</i>
----------	--



		[BSc]	[MSc/MEng]	[DSc]
5.1	Teaching and Learning resources	Compliant	Compliant	Compliant
5.2	Physical resources	Compliant	Compliant	Compliant
5.3	Human support resources	Compliant	Compliant	Compliant
5.4	Student support	Compliant	Compliant	Partially 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.

The evaluated PhD programme consists of 4 years, where each PhD student needs to choose seven elective courses as well as complete the final defence with a written PhD dissertation. Because of their strong track record in research, the faculty members of the Department of Electrical and Computer Engineering at Cyprus University are highly competent for the evaluated PhD programme. In addition, the procedure and the criteria for the formation of the advisory and examination committees are fair and appropriate.

Strengths

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

The PhD students on the programme have been well trained and the outcomes of these PhD projects are impressive. For example, the students have published numerous high-quality articles

in international leading journals and flagship conferences. In addition, the students on the evaluate PhD programme have also won many prestigious best paper awards and research prizes.

The active research activities from the faculty members in the department also provide a lot of opportunities to PhD students for potential exchanging and visiting. For example, a few faculty members mentioned that they have H2020 ITN and research exchanging programmes which support the PhD students to visit various academic and industrial partners.

The faculty members have been fully engaged with their research communities and organized various conferences and workshops, which are also beneficial to students on this PhD programme.

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 department needs to ensure that all the essential information about the PhD programme is publicly available and made clear to the students on the programme. If there is any change which has been made to the students' guidelines or handbooks, such changes should be informed to the students clearly and timely.

The faculty members of the department need to ensure that their PhD students have better understandings about the criteria for their graduation. While it is understandable that there is a lot of uncertainties for research outcomes, PhD supervisors need to have continuous discussions with their PhD students for clearly defining and reshaping the ultimate goal of students' PhD projects.

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

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



ΦΟΡΕΑΣ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ ΠΙΣΤΟΠΟΙΗΣΗΣ ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΤΗΣ ΑΝΩΤΕΡΗΣ ΕΚΠΑΙΔΕΥΣΗΣ
CYPRUS AGENCY OF QUALITY ASSURANCE AND ACCREDITATION IN HIGHER EDUCATION





D. Conclusions and final remarks

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

The members of the EEC committee found the academic programmes to be compliant in all examined aspects. The existing course offerings provide a balance between engineering fundamentals and practice. Moreover, active learning is encouraged through lab work and other means presented by the faculty.

More detailed recommendations can be found from previous sections.



E. Signatures of the EEC

<i>Name</i>	<i>Signature</i>
Jyri Hämäläinen	
Michael A. E. Andersen	
Zhiguo Ding	
Vasilis Charalambous	
Angelos Pantazopoulos	
Click to enter Name	

Date: 23.3.2022

