ΦΟΡΕΑΣ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ ΠΙΣΤΟΠΟΙΗΣΗΣ ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΤΗΣ ΑΝΩΤΕΡΗΣ ΕΚΠΑΙΔΕΥΣΗΣ

CYQAA CYPRUS AGENCY OF QUALITY ASSURANCE AND ACCREDITATION IN HIGHER EDUCATION

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Doc. 300.3.1

Date: October 20<sup>th</sup> 2021

# **External Evaluation Report**

# (Departmental)

- Higher Education Institution: Cyprus University of Technology
- Town: Limassol
- School/Faculty: Faculty of Engineering and Technology
- Department: Electrical Engineering, Computer
  Engineering & Informatics
- Department's Status: Currently Operating
- Programme(s) of study under evaluation: Name (Duration, ECTS, Cycle)

# Programme 1

# In Greek:

Programme Name

# In English:

Electrical Engineering (4 academic years/ 240 ECTS, Bachelor)

# Programme 2 In Greek:

Programme Name

# In English:

Electrical Engineering (3 academic semesters/ 90 ECTS, MSc)

# Programme 3

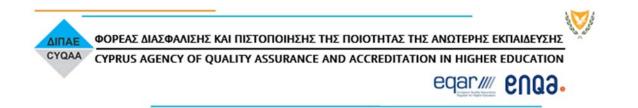
# In Greek:

Programme Name

# In English:

Electrical Engineering, Computer Engineering and Informatics (3 academic years/ 180 ECTS, Doctorate)

**REPUBLIC OF CYPRUS** 

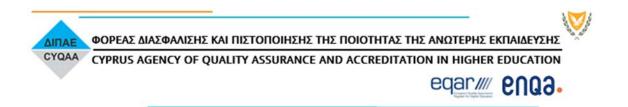


The present document has been prepared within the framework of the authority and competencies of the Cyprus Agency of Quality Assurance and Accreditation in Higher Education, according to the provisions of the "Quality Assurance and Accreditation of Higher Education and the Establishment and Operation of an Agency on Related Matters Laws of 2015 to 2019" [N. 136 (I)/2015 to N. 35(I)/2019].



# Department's programmes (to be filled by the CYQAA officer and verified by the EEC):

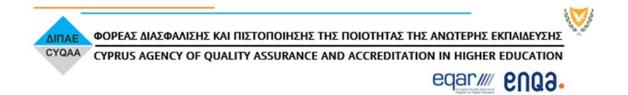
DEPARTMENT	PROGRAMMES OF STUDY
Electrical Engineering, Computer Engineering & Informatics	Electrical Engineering (4 academic years/ 240 ECTS, Bachelor)
	Electrical Engineering (3 academic semesters/ 90 ECTS, MSc)
	Electrical Engineering, Computer Engineering and Informatics (3 academic years/ 180 ECTS, Doctorate)



# A. Introduction

This part includes basic information regarding the onsite visit.

The onsite visit was carried out as an online evaluation during the days Wednesday September 29th and Thursday September 30th, 2021, which included various presentations, meetings and video tours all using Zoom. Before the online visit, the EEC members were provided with relevant program documents and videos to review. All arrangements were satisfactory, including documentation, presentations, and discussions. The members of the CUT gave extensive and detailed presentations and were very willing to answer questions asked by the committee. Additional complementary data and information were provided quickly to ensure a seamless evaluation procedure by the committee members. The committee firmly believes that this evaluation report has not been affected by the virtual nature of the visit. This is thanks to the efforts of all the parties involved. All in all, the EEC found that the CUT has provided comprehensive documentation and information for this evaluation process. The EEC would like to express its gratitude to the CUT colleagues for their efforts in accommodating and facilitating this evaluation of the department. The specific findings and suggestions for further improvement from the EEC are provided in the rest of this report.



# **B. External Evaluation Committee (EEC)**

Name	Position	University
Michael A. E. Andersen	Professor	Technical University of Denmark
Zhiguo Ding	Professor	University of Manchester
Emmanouil Kriezis	Professor	Aristotle University of Thessaloniki
Christos Charalambous	Representing ETEK	ETEK
Phivos Hatzilarkou	Student	University of Cyprus
Name	Position	University



# C. Guidelines on content and structure of the report

- The external evaluation report refers to the Department as a whole (programmes offered, teaching staff, administrative staff, infrastructure, resources, etc.).
- The external evaluation report follows the structure of assessment areas and sub-areas.
- Under each assessment area there are quality indicators (criteria) to be scored by the EEC on a scale from one (1) to five (5), based on the degree of compliance for the above mentioned quality indicators (criteria). The scale used is explained below:

1 or 2:	Non-compliant
3:	Partially compliant
4 or 5:	Compliant

- The EEC must justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.
- It is pointed out that, in the case of indicators (criteria) that cannot be applied due to the status of the Department, N/A (= Not Applicable) should be noted and a detailed explanation should be provided on the Department's corresponding policy regarding the specific quality indicator.
- In addition, for each assessment area, it is important to provide information regarding the compliance with the requirements. In particular, the following must be included:

### **Findings**

A short description of the situation in the Department based on evidence from the Department's application and the site - visit.

# <u>Strengths</u>

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

### Areas of improvement and recommendations

A list of problem areas 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.
- The report may also address other issues which the EEC finds relevant.



1. Department's academic profile and orientation

(ESG 1.1, 1.2, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9)

### <u>Sub-areas</u>

- 1.1 Mission and strategic planning (including SWOT analysis)
- 1.2 Connecting with society
- 1.3 Development processes

Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

1 or 2: Non-compliant

- 3: Partially compliant
- 4 or 5: Compliant

	Quality indicators/criteria		
1. Depa	rtment's academic profile and orientation		
1.1 Miss	sion and strategic planning (including SWOT analysis)	1 - 5	
1.1.1	The Department has formally adopted a mission statement, which is available to the public and easily accessible.	5	
1.1.2	The Department has developed its strategic planning aiming at fulfilling its mission.	5	
1.1.3	The Department's strategic planning includes short, medium-term and long- term goals and objectives, which are periodically revised and adapted.	5	
1.1.4	The programmes of study offered by the Department reflect its academic profile and are aligned with the European and international practice.	5	
1.1.5	The academic community is involved in shaping and monitoring the implementation of the Department's development strategies.	5	
1.1.6	Stakeholders such as academics, students, graduates and other professional and scientific associations participate in the Department's development strategy.	5	
1.1.7	1.1.7 The mechanism for collecting and analysing data and indicators needed to effectively design the Department's academic development is adequate and effective.		
Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.			



# N/A

Additionally, provide information on the following:

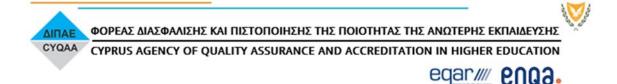
- 1. Coherence and compatibility among programmes of study offered by the Department.
- 2. Coherence and compatibility among Departments within the School/Faculty (to which the Department under evaluation belongs).

The programmes BScEE, MScEE, and PhDEECEI offered by the department are very well-structured and coherent

Provide suggestions for changes in case of incompatibility.

N/A

1. Department's academic profile and orientation			
1.2 Con	necting with society	1 - 5	
1.2.1	The Department has effective mechanisms to assess the needs and demands of society and takes them into account in its various activities.	5	
1.2.2	The Department provides sufficient information to the public about its activities and offered programmes of study.	5	
1.2.3	The Department ensures that its operation and activities have a positive 5 impact on society.		
1.2.4	2.4 The Department has an effective communication mechanism with its graduates.		
the defic Re. 1.2.2	ne numerical scores provided for the quality indicators (criteria) by specifying (if ciencies. 2: Consider a proactive strategy for attracting more MSc students be tellin ne very exiting research and education taking place at CUT.		
1. Depa	rtment's academic profile and orientation		
1.3 Dev	elopment processes	1 - 5	
1.3.1	Effective procedures and measures are in place to attract and select teaching staff to ensure that they possess the formal and substantive skills to teach, carry out research and effectively carry out their work.	5	
1.3.2	Planning teaching staff recruitment and their professional development is in line with the Department's academic development plan.	5	
1.3.3	The Department applies an effective strategy of attracting high-level students from Cyprus and abroad.	3	



# 1.3.4 The funding processes for the operation of the Department and the continuous 5 improvement of the quality of its programmes of study are adequate and transparent.

Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.

Re. 1.3.3: Consider a proactive strategy for attracting more MSc students be telling about the very exiting research and education taking place at CUT.

### Additionally, write:

- Expected number of Cypriot and international students
- Countries of origin of international students and number from each country

### Very low number of MSc students in the last 3 years.

### <u>Findings</u>

A short description of the situation in the Department based on evidence from the Department's application and the site - visit.

The research carried out at the department as well as the programmes BScEE, MScEE, and PhDEECEI offered by the department are very well-structured and coherent.

### <u>Strengths</u>

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

Excellent research carried out at the department.

### Areas of improvement and recommendations

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

Consider a proactive strategy for attracting more MSc students.

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

Sub-area	Non-compliant / Partially Compliant / Compliant
1.1 Mission and strategic planning	Compliant
1.2 Connecting with society	Compliant
1.3 Development processes	Compliant



### 2. Quality Assurance

(ESG 1.1, 1.2, 1.3, 1.4, 1.6, 1.7, 1.8)

# <u>Sub-areas</u>

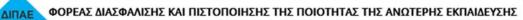
- 2.1 System and quality assurance strategy
- 2.2 Quality assurance for the programmes of study

Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

1 or 2: Non-compliant
 3: Partially compliant
 4 or 5: Compliant

# **Quality indicators/criteria**

2. Quality Assurance			
2.1 System and quality assurance strategy		1 - 5	
2.1.1	The Department has a policy for quality assurance that is made public and forms part of the Institution's strategic management.		5
2.1.2	2 Internal stakeholders develop and implement a policy for quality assurance through appropriate structures and processes, while involving external stakeholders.		5
2.1.3	3 The Department's policy for quality assurance supports guarding against intolerance of any kind or discrimination against students or staff.		5
2.1.4	The quality assurance system adequately covers all the functions and sectors of the Department's activities:		
	2.1.4.1	Teaching and learning	5
	2.1.4.2	Research	5
	2.1.4.3 The connection with society		5
	2.1.4.4	Management and support services	5
2.1.5	The quality assurance system promotes a culture of quality. 5		5
2.1.6	Students' evaluation and feedback 5		



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Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.

N/A

# 2. Quality Assurance

2.2 Quality assurance for the programmes of study		1 - 5
2.2.1	The responsibility for decision-making and monitoring the implementation of the programmes of study offered by the Department lies with the teaching staff.	5
2.2.2	The system and criteria for assessing students' performance in the subjects of the programmes of studies offered by the Department are clear, sufficient and known to the students.	5
2.2.3	The quality control system refers to specific indicators and is effective, which have been presented and discussed.	5
2.2.4	The results from student assessments are used to improve the programmes of study.	5
2.2.5	The policy dealing with plagiarism committed by students as well as mechanisms for identifying and preventing it are effective.	5
2.2.6	The established procedures for examining students' objections/ disagreements on issues of student evaluation or academic ethics are effective.	5
2.2.7	The Department publishes information related to the programmes of study, credit units, learning outcomes, methodology, student admission criteria, completion of studies, facilities, number of teaching staff and the expertise of teaching staff.	5
2.2.8	Names and position of the teaching staff of each programme are published and easily accessible.	5
2.2.9	The Department has a clear and consistent policy on the admission criteria for students in the various programmes of studies offered.	5
2.2.10	The Department flexibly uses a variety of teaching methods.	5
2.2.11	The Department systematically collects data in relation to the academic performance of students, implements procedures for evaluating such data and has a relevant policy in place.	5
2.2.12	The Department analyses and publishes graduate employment information.	5

### ΔΙΠΑΕ ΦΟΡΕΑΣ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ ΠΙΣΤΟΠΟΙΗΣΗΣ ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΤΗΣ ΑΝΩΤΕΡΗΣ ΕΚΠΑΙΔΕΥΣΗΣ

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2.2.13	The Department ensures adequate and appropriate learning resources in line with European and international standards and/or international practices, particularly:		
	2.2.12.1	Building facilities	5
	2.2.12.2	Library	5
	2.2.12.3	Rooms for theoretical, practical and laboratory lessons	5
	2.2.12.4	Technological infrastructure	5
	2.2.12.5	Academic support	5
2.2.14	There is a student welfare service that supports students in regard to academic, 5 personal problems and difficulties.		5
2.2.15	The Department's mechanisms, processes and infrastructure consider the 5 needs of a diverse student population such as mature, part-time, employed and international students as well as students with disabilities.		
2.2.16	Mentoring of each student is provided and the number of students per each 5 permanent teaching member is adequate.		
2.2.17	The provision of quality doctoral studies is ensured through doctoral studies 5 regulations, which are publicly available.		
2.2.18	The number of doctoral students, under the supervision of a member of the 5 teaching staff, enables continuous and effective feedback to the students and it complies with the European and international standards.		
2.2.19	The Department has mechanisms and funds to support writing and attending 5 conferences of doctoral candidates.		
2.2.20	There is a clear policy on authorship and intellectual property.5		5
Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.			

Click to enter text.

### <u>Findings</u>

A short description of the situation in the Department based on evidence from the Department's application and the site - visit.

The panel has found that the Department of Electrical Engineering and Computer Engineering and Informatics has a clear and appropriate policy for quality assurance. Such a policy ensures that the department provides an excellent learning environment for students and an excellent platform for staff for their career development. In particular, the quality assurance activities carried out by the department include sufficient proactive internal quality review practice as well as various



mechanisms to take the students' feedback into consideration. These quality assurance activities indeed promote a culture of quality and ensure the quality of the programmes delivered by the department.

### **Strengths**

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

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

The department has implemented a few feedback mechanisms which ensure that the department is aware of the students' feedback and carries out student-oriented teaching. In particular, at the end of each term, each student has the opportunities to inform the department about her/his experience by filling a well-designed questionnaire, and teaching staff has the access to these feedback forms for further improving their teaching in the future.

The department has a clear quality assurance policy for decision-making and monitoring the implementation of the offered study programmes. In addition, the assessments and the workload as well as the associated credits are appropriate for the courses offered.

The information related to the study programmes offered by the department, such as credit units, learning outcomes, faculty members' expertise and background, teaching equipment and facilities, student admission criteria, etc, have been made available in the public domain.

The department has also ensured that the students on the study programmes receive adequate support in regard to academic, personal problems and difficulties, by assigning students to individual academic advisors.

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.

### Areas of improvement and recommendations

### A list of problem areas followed by or linked to the recommendations of how to improve the situation.

The panel was also informed that within the department, there exists informal support for junior faculty members for their career development. More formal performance dialogs, such as annual review meetings, between the faculty members and the management group of the department can also be useful for this purpose.

Another 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.



# Please $\sqrt{}$ what is appropriate for each of the following sub-areas:

Sub-area	Non-compliant / Partially Compliant / Compliant
2.1 System and quality assurance strategy	Compliant
2.2 Quality assurance for the programmes of study	Compliant



# 3. Administration

(ESG 1.1, 1.3, 1.6)

# Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

1 or 2: Non-compliant 3: Partially compliant

*4 or 5: Compliant* 

Quality indicators/criteria		
3. Admi	nistration	1 - 5
3.1	The administrative structure is in line with the legislation and the Department's mission.	5
3.2	The members of the teaching and administrative staff and the students participate, at a satisfactory degree and on the basis of specified procedures, in the management of the Department.	5
3.3	The administrative staff adequately supports the operation of the Department.	5
3.4	Adequate allocation of competences and responsibilities is ensured so that in academic matters, decisions are made by academics and the Department's council competently exercises legal control over such decisions.	5
3.5	The Department applies effective procedures to ensure transparency in the decision-making process.	5
3.6	Statutory sessions of the Department are held and minutes are kept.	5
3.7	The Department's council operates systematically and autonomously and exercise the full powers provided for by the law and / or the constitution of the Department without the intervention or involvement of a body or person outside the law provisions.	5
3.8	The manner in which the Department's council operates and the procedures for disseminating and implementing their decisions are clearly formulated and implemented precisely and effectively.	5
3.9	The Department applies procedures for the prevention and disciplinary control of academic misconduct of students, teaching and administrative staff, including plagiarism.	5
3.10	The Department has appropriate procedures for dealing with students' complaints.	5



# 3.11Internalization of the Department and external collaborations.5

Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.

Click to enter text.

# Findings

A short description of the situation in the Department based on evidence from the Department's application and the site - visit.

The panel agrees that the governance of the Department of Electrical Engineering and Computer Engineering and Informatics is well organized. There is clear structure and precise rules in place. Most of the administrative staff is very enthusiastic and the panel observed great support to the Department. Furthermore, the administration staff is well organized following established procedures. The only secretary of the Department seems highly committed to her duties.

# **Strengths**

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

Highly dedicated staff with efficient cooperation and clear communication. The decisions are made by the academics.

<u>Areas of improvement and recommendations</u> A list of problem areas followed by or linked to the recommendations of how to improve the situation.

The EEC suggest that the University Administration evaluates positively the request of the Department for more staff.

Please select what is appropriate for the following assessment area:

Assessment area	Non-compliant / Partially Compliant / Compliant
3. Administration	Compliant



4. Learning and Teaching

(ESG 1.2, 1.3, 1.4, 1.9)

### <u>Sub-areas</u>

4.1 Planning the programmes of study4.2 Organisation of teaching

Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

1 or 2: Non-compliant
 3: Partially compliant
 4 or 5: Compliant

Quality indicators/criteria			
4. Lea	4. Learning and Teaching		
4.1 Pla	anning the programmes of study	1 - 5	
4.1.1	The Department provides an effective system for designing, approving, monitoring and periodically reviewing the programmes of study.	4	
4.1.2	Students and other stakeholders, including employers, are actively involved on the programmes' review and development.	4	
4.1.3	Intended learning outcomes, the content of the programmes of study, the assignments and the final exams correspond to the appropriate level as indicated by the European Qualifications Framework (EQF).	5	
4.1.4	The programmes of study are in compliance with the existing legislation and meet the professional qualifications requirements in the professional courses, where applicable.	5	
4.1.5	The Department ensures that its programmes of study integrate effectively theory and practice.	4	
Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.			
Click or tap here to enter text.			
4. Learning and Teaching			

4.2 Organisation of teaching

1 - 5

ΑΕ ΦΟΡΕΑΣ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ ΠΙΣΤΟΠΟΙΗΣΗΣ ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΤΗΣ ΑΝΩΤΕΡΗΣ ΕΚΠΑΙΔΕΥΣΗΣ

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4.2.1	The Department establishes student admission criteria for each programme, which are adhered to consistently.	5
4.2.2	Recognition of prior studies and credit transfer is regulated by procedures and regulations that are in line with European standards and/or international practices.	4
4.2.3	The number of students in the teaching rooms is suitable for theoretical, practical and laboratory lessons.	5
4.2.4	The teaching staff of the Department has regular and effective communication with their students, promoting mutual respect within the learner-teacher relationship.	4
4.2.5	Student-centred learning and teaching plays an important role in stimulating students' motivation, self-reflection and engagement in the learning process.	4
4.2.6	The teaching staff of the Department provides timely and effective feedback to their students.	4
4.2.7	The criteria and the method of assessment as well as the criteria for marking are published in advance.	4
4.2.8	The assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved.	5
Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.		

Click or tap here to enter text.

# Findings

A short description of the situation in the Department based on evidence from the Department's application and the site - visit.

1. The students had a lot of ideas to improve their field of study

# Strengths

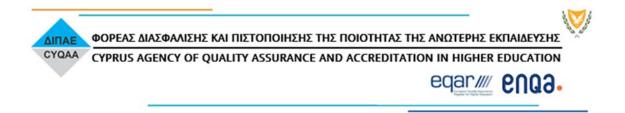
A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

- 1. Very helpful staff when it comes to administrative reasons
- 2. The student program meets the professional qualification requirements

### Areas of improvement and recommendations

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

- 1. Teachers pressure students to provide feedback.
- 2. Don't have a chance to re-take the exam in September and take it the following year instead →lose a year of studies (5 or 6 years instead of 4)



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

Sub-area	Non-compliant / Partially Compliant / Compliant
4.1 Planning the programmes of study	Compliant
4.2 Organisation of teaching	Compliant



# 5. Teaching Staff (ESG 1.5)

Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

1 or 2: Non-compliant
 3: Partially compliant
 4 or 5: Compliant

### **Quality indicators/criteria**

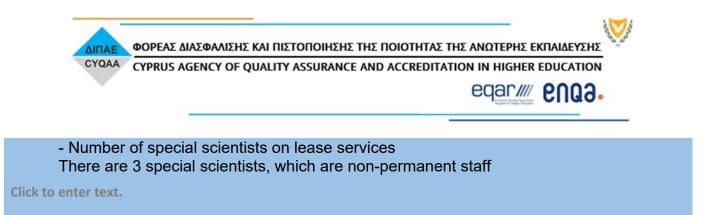
5. Tea	ching Staff	1 - 5
5.1	The number of teaching staff - full-time and exclusive work - and the subject area of the staff sufficiently support the programmes of study.	4
5.2	The teaching staff of the Department has the relevant formal and substantive qualifications for teaching the individual subjects as described in the relevant legislation.	5
5.3	The visiting Professors' subject areas adequately support the Department's programmes of study.	5
5.4	The special teaching staff and special scientists have the required qualifications, sufficient professional experience and expertise to teach a limited number of programmes of study.	5
5.5	The ratio of special teaching staff to the total number of teaching staff is satisfactory.	5
5.6	The ratio of the number of subjects of the programme of study taught by teaching staff working fulltime and exclusively to the number of subjects taught by part-time teaching staff ensures the quality of the programme of study.	5
5.7	The ratio of the number of students to the total number of teaching staff is sufficient to support and ensure the quality of the programme of study.	5
5.8	Feedback processes for teaching staff in regard to the evaluation of their teaching work, by the students, are satisfactory.	4
Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any)		

the deficiencies.

The teaching staff satisfies to a high degree the quality criteria set.

Also, write the following:

- Number of teaching staff working full-time and having exclusive work
- There are 16 full-time teaching staff members (TRS), on an exclusive occupation.
- Number of special teaching staff working full-time and having exclusive work
- There are 3 full time special teaching staff (STS), on an exclusive occupation.
- Number of visiting Professors



### **Findings**

A short description of the situation in the Department based on evidence from the Department's application and the site - visit.

The EEC reviewed the application material and the material provided at the evaluation time upon request and in addition had the chance to discuss with the members of staff and ask an extensive number of questions during the relevant sessions.

Currently the Department employs 16 full-time academic staff members (Teaching and Research Staff, TRS), out of which 11 have been appointed by election (4 Professors, 1 Associate Professor, 5 Assistant Professors, 1 Lecturer) and 5 were transferred (all at the Assistant Professor level). Though the above number of teaching staff is relatively small, the programmes of study are sufficiently supported. There are 4 academic positions in the selection process and once employed the new members of staff will significantly strengthen the programmes of study.

Almost all members of teaching staff hold a PhD degree, except for 3 "transferred" members that hold an MSc. There is a balance between staff members that hold a degree in Electrical Engineering to those in Computer Engineering & Informatics, thus supporting the offered programmes of study. Amongst staff members very few hold degrees in other disciplines, such as applied mathematics, serving the relevant courses. Advanced courses are taught by members who are specialized in the specific subject while basic/fundamental courses are also assigned to staff members.

The number of Special Teaching Staff (STS) is 3 and the same applies to Special Scientists (nonpermanent). All 3 STS members hold a PhD degree, together with extensive professional experience and expertise, publications in international journals and project involvement. In addition to their involvement in basic courses, they are also teaching courses up to the 4<sup>th</sup> year, which are specialized. The ratio of STS members to the Academic Personnel must be less than 30% according to the national legislation; in this Department it is almost 18%, thus well below the limit set. Most of the courses that are offered by the Department in its programmes are taught by full-time teaching staff, thus favourably ensuring the quality of study.

The Department enrols on average 45 new students per year considering the 13 years of its operation. During the last years, newly enrolled (1<sup>st</sup> year) students are close to 60. In total there are 201 active students in both BSc Degrees offered (Electrical Engineering and Computer Engineering & Informatics). Considering that the number of full-time permanent staff is 19 (16 TRS and 3 STS) the ratio of the number of students to the total number of teaching staff is 10.6, thus ensuring the quality of the programmes of study.

Upon completion of each semester, students are asked to complete a Questionnaire, which assesses both the course and the teaching staff member. It is noted that Questionnaire completion is compulsory, and students cannot declare next-semester courses unless it is completed. Student



assessment questionnaires are returned to the teaching staff for consideration and at the same time are monitored by the Chair of Department. In the case of unsatisfactory assessments, the Department Chair contacts the individual members of staff to resolve potential problems. It seems that there is no feedback from the Department back to students for the points raised in their assessments.

Based on all the above, EEC considers that members of the academic staff have high qualifications and scientific expertise, are enthusiastic for their work and follow teaching practices that are widely acceptable and appropriate. There is extensive usage of appropriate teaching tools such as Moodle and a friendly approach to students. Workload is split as 30% teaching, 50% research and 20% administration, which is aligned with international practices. Younger members of staff selected through the election process have excellent prospects for further development in their academic career.

Most members of staff have publication records and citation counts that are satisfactory. However, a limited number of staff members presents publication records and citations counts well below that anticipated for an ambitious university that competes at international level. Special provision should be considered to ameliorate such performance.

# **Strengths**

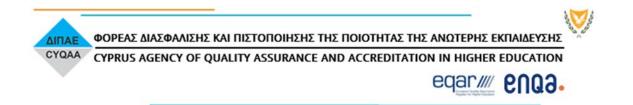
A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

- 1. Courses are taught by staff members that have the appropriate background and qualifications. Many of them have acquired their first as well as PhD degrees in well-known universities in USA or Europe and have been employed in academic environments abroad.
- 2. The small number of students allows for a friendly and more personal approach and also safeguards the teaching staff from unnecessary burden.
- 3. Vast majority of the teaching staff is very active in research and shows commitment to their mission.
- 4. Laboratory facilities for the students are excellent and involve the necessary number of stations in order to effectively serve the lab-oriented courses.
- 5. Teaching workload appears aligned to the anticipated levels, being at 180 hour/year.

# Areas of improvement and recommendations

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

- 1. There should be provision to improve publication records for some faculty members, in order to align with the expectations for a modern university.
- 2. Staff members should be encouraged to target high-impact journals that provide visibility and prestige to the Department. This will also improve the citation counts, in total.
- 3. Though the programs of study are for the current period sufficiently supported, the Department should be considered as understaffed. New hirings (4 positions) are in the selection process, but this expansion in academic staff should continue in the coming years to counterbalance anticipated retirements.



4. Positions of visiting professors (for instance one every year or semester) with high qualifications and international reputation should be considered for teaching specific topics, in-line with the Department's needs.

# Please $\sqrt{}$ what is appropriate for the following assessment area:

Assessment area	Non-compliant / Partially Compliant / Compliant
Teaching staff number, adequacy and suitability	Compliant
Teaching staff recruitment and development	Compliant
Synergies of teaching and research	Compliant



### 6. Research

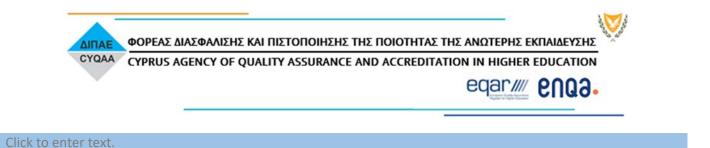
(ESG 1.1, 1.3, 1.5, 1.6)

# Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

1 or 2: Non-compliant 3: Partially compliant

4 or 5: Compliant

#### **Quality indicators/criteria** 6. Research 1 - 5 6.1 The Department has a research policy formulated in line with its mission. 5 6.2 The Department consistently applies internal regulations and procedures of 5 research activity, which promote the set out research policy and ensure compliance with the regulations of research projects financing programmes. 6.3 The Department provides adequate facilities and equipment to cover the staff 5 and students' research activities. 6.4 The Department has the appropriate mechanisms for the development of 5 students' research skills. The results of the teaching staff research activity are published to a 6.5 5 satisfactory extent in international journals which work with critics. international conferences, conference proceedings, publications, etc. The Department also uses an open access policy for publications, which is consistent with the corresponding national and European policy. 6.6 The Department ensures that research results are integrated into teaching 5 and, to the extent applicable, promotes and implements a policy of transferring know-how to society and the production sector. 6.7 The Department provides mechanisms which ensure compliance with 5 international rules of research ethics, both in relation to research activity and the rights of researchers. 6.8 The external, non-governmental, funding of research activities of teaching 5 staff is similar to other Departments in Cyprus and abroad. 6.9 The policy, indirect or direct of internal funding of the research activities of the 5 teaching staff is satisfactory, based on European and international practices. Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.



# Findings

A short description of the situation in the Department based on evidence from the Department's application and the site - visit.

The panel has found that the department recognised the importance of research activities, and has made many positive contributions to scientific research, industry and society. In particular, the department has carried out various research activities, which result in high-quality scientific publications, close international collaborations, and high-impact knowledge and technology transfer. These research outcomes promote and foster high value interdisciplinary research. The department has built clear regulations and procedures for research works to be carried out in the department, provided adequate research facilities and equipment, developed clear compliance mechanisms with international research ethics, and secured various international external research funding. The department has also built state-of-the-art research facilities, and the faculty members have ensured that the students are informed by the carried-out research results.

### Strengths

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

The research is the key strength of the evaluated department. For example, since 2016, the department has secured 77 research projects funded by external funding agencies, such as EU FP7/H2020, and the total funding is worth of 14.9 million Euro, which are very impressive.

The outcomes of the research activities carried out by the department are also fruitful. For example, over the past 7 years, the department staff has published 410+ articles in international journals and 400+ articles in international conferences, 56 book chapters and 6 patents. These outcomes have already attracted more than 36000 citations, which demonstrates the high impact of these research activities carried out by the department.

The department has been successful in bridging the gap between teaching and research. In particular, the latest findings and results from the research projects have been fed back to the teaching activities carried out in the department, where the MSc students and the final year BSc students benefit these particularly. Furthermore, such research informed teaching also brings additional research outcomes.

# Areas of improvement and recommendations

A list of problem areas followed by or linked to the recommendations of how to improve the situation. The department may want to establish a formal series of departmental seminars, where distinguished speakers from industry and academia can be invited to physically visit the department (or via a remote manner during the pandemic) and provide talks and seminars. Such seminars are important to students, particularly those on MSc and PhD programmes, to know the latest development in their fields of studies. In addition, such extracurricular activities are also important for staff development as they provide an effective way to improve the research visibility of the department.



In addition, the department may also want to organize annual/biannual workshops, which can introduce interactions among staff and students, and provide students, particularly PhD students, a chance to build their presentation skills.

# Please $\sqrt{}$ what is appropriate for the following assessment area:

Assessment area	Non-compliant / Partially Compliant / Compliant
Research mechanisms and regulations	Compliant
External and internal funding	Compliant
Motives for research	Compliant
Publications	Compliant



# 7. Resources (ESG 1.6)

Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

1 or 2: Non-compliant

3: Partially compliant

4 or 5: Compliant

### **Quality indicators/criteria**

7. Reso	urces	1 - 5
7.1	The Department has sufficient financial resources to support its functions, managed by the Institutional and Departmental bodies.	5
7.2	The Department follows sound and efficient management of the available financial resources in order to develop academically and research wise.	5
7.3	The Department's profits and donations are used for its development and for the benefit of the university community.	4
7.4	The Department's budget is appropriate for its mission and adequate for the implementation of strategic planning.	5
7.5	The Department carries out an assessment of the risks and sustainability of the programmes of study and adequately provides feedback on their operation.	5
7.6	The Department's external audit and the transparent management of its finances are ensured.	5
7.7	The fitness-for-purpose of support facilities and services is periodically reviewed.	5
Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.		

Available resources are sufficient and meet the quality criteria.

### <u>Findings</u>

A short description of the situation in the Department based on evidence from the Department's application and the site - visit.

The Department has the necessary financial resources to support its operation, which comes from the government contribution. The budget shows an increase in 2019 with respect to previous years. Management of financial resources is sound and in line with the applicable legislation. It involves decisions at departmental, university and ministerial level, which are all clearly defined and accordingly followed. The budget is sufficient for the Department's mission and the implementation



of the strategic planning, though higher government contribution is essential for maintaining over the coming years the infrastructure at the expected levels. Programmes of study are closely monitored by the Department and are assessed for their sustainability, with correction measure taken when necessary. Support facilities are periodically assessed at the departmental level.

Overall, the Department's budget together with the available resources and infrastructure are sufficient to serve its mission and guarantee its smooth operation in the coming years, as long as the size of the Department and the number of students roughly stays at the current numbers. Resources appear to improve over time, though there is much room for a more generous government contribution that can fund major investments in infrastructure and buildings. Management in efficient and assessment procedures for the risks and sustainability of the programmes of study are periodically conducted.

# <u>Strengths</u>

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

- 1. The total amount of research projects is around 14.9 ME, in all years of operation, out of which 75% comes from European projects. A percentage of the research funds is returned to the Department and thus supports its mission.
- 2. A share of the Department's budget around 10% goes to teaching assistantships, which are very welcomed by the PhD students. This is a good practice as the academic staff is helped and can devote more time in research activities, whereas PhD students are offered a valuable opportunity to develop their own teaching skills.
- 3. A supercomputing facility / datacenter with an investment of around 3 ME was recently acquired and this very much strengthens the available resources.
- 4. Laboratory facilities for BSc and MSc students are very well equipped (many stations with modern setups). Research laboratories are mainly funded by research projects. Lab infrastructure and resources should be considered appropriate and adequate for the Department's mission.

### Areas of improvement and recommendations

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

- Available space is limited, and this is considered as one of the biggest issues. The university lacks a campus, and the Department is fragmented between several rather small buildings, spread in the city. The lack of space is a serious obstruction for the future development of the Department if it is to expand to other research directions and admit more students.
- 2. The number of academic staff is rather low and advertisement of new positions should continue in the coming years.
- 3. Administration is also understaffed. Though various IT system are available for administrative purposes (portal for students, financial IT system), there are also IT systems that are missing or need further development. Possibly reorganize administration personnel in such a way that many departments can be served from the same team of employees; this can better utilize their time and provide more efficient services in peak periods.



4. More actions should be taken to attract excellent students, national as well as international. There is competition at national level between the Cypriote universities for attracting the topstudents, and in this direction the Department in collaboration with the university should improve its marketing strategy, advertise its strengths and convince top-students to enroll. For attracting international students, a prerequisite is to fully teach in English.

# Please $\sqrt{}$ what is appropriate for the following assessment area:

Assessment area	Non-compliant / Partially Compliant / Compliant
7. Resources	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 Department under review may be achieved.

The members of the EEC committee found the department 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.



# E. Signatures of the EEC

Name	Signature
Michael A. E. Andersen	
Zhiguo Ding	
Emmanouil Kriezis	
Christos Charalambous	
Phivos Hatzilarkou	
FullName	

Date: October 20th 2021



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