

Doc. 300.3.2

Date: 5 July 2022

# Higher Education Institution's Response

(Departmental)

- **Higher Education Institution:**  
UNIVERSITY OF CYPRUS
- **Town:** Nicosia
- **School/Faculty:** Faculty of Engineering
- **Department:** Electrical and Computer Engineering
- **Programme(s) of study under evaluation**  
**Name (Duration, ECTS, Cycle)**

## Programme 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

### **In Greek:**

Μάστερ στη Επιστήμη Ηλεκτρολόγου Μηχανικού/Μάστερ Μηχανικής Ηλεκτρολόγου Μηχανικού (1.5 χρόνια/90 ECTS)

### **In English:**

Master of Science in Electrical Engineering/Master of Engineering in Electrical Engineering (1.5 academic years/90 ECTS)

Language(s) of instruction: Greek and English

## Programme 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

- **Department's Status:** Currently Operating



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. Guidelines on content and structure of the report

- *The Higher Education Institution (HEI) based on the External Evaluation Committee's (EEC's) evaluation report (Doc.300.3.1) must justify whether actions have been taken in improving the quality of the department in each assessment area.*
- *In particular, under each assessment area, the HEI must respond on, without changing the format of the report:*
  - *the findings, strengths, areas of improvement and recommendations of the EEC*
  - *the deficiencies noted under the quality indicators (criteria)*
  - *the conclusions and final remarks noted by the EEC*
- *The HEI's response must follow below the EEC's comments, which must be copied from the external evaluation report (Doc. 300.3.1).*
- *In case of annexes, those should be attached and sent on a separate document.*

## 1. Department's academic profile and orientation

### Sub-areas

- 1.1 Mission and strategic planning
- 1.2 Connecting with society
- 1.3 Development processes

### EEC's Comment 1:

Internationalisation of study programmes. The English MSc and DSc programmes will be started in the near future. This opens possibilities to recruit students but also professors from global talent pools. Recommendations here are to invest especially in the MSc programme development and student marketing to obtain a large number of good applicants. Also special care should be put into support services to avoid problems when international students start.

### HEI's response:

As highlighted in the recently crafted Strategic Plan 2021-2025 of the Department (submitted to the University in June 2021), the creation of new English-language Masters programmes is one of our priorities. A new Master programme in Key Enabling Technologies was approved by the Department in April 2022 and the official application documents will soon be submitted to the Graduate School of the University. Another new Master programme in Smart Grid Technologies was submitted in February 2022 for funding within the context of Erasmus Mundus Joint Master Degrees (EMJMD). The Faculty of Engineering is starting an effort to promote the English-language post-graduate programmes of all of its constituent Departments. Upon approval of the new English-language Masters programmes by the University, the ECE Department will market these programmes aggressively within Europe and the MENA (Middle East and North Africa) region, a region from where the Department can attract a significant number of students. Marketing efforts will include preparation of promotional material (flyers, brochures, etc.) and dissemination of this material within educational networks, fairs, university networks where UCY belongs to (e.g., YUFE) and through professional organizations (e.g., IEEE, ACM, OSA, etc.), as well as social media and websites dedicated to educational opportunities (e.g., educational portal Eduguide.gr, etc.). Finally, the University already provides adequate English-language support services to all incoming international students, and those services will surely be enhanced as more English-language Master programmes are created.

### EEC's Comment 2:

Diversity among faculty. While the current faculty is excellent and admits highly valuable international experience, they admit similar cultural background and gender balance is poor. Recommendation here is to invest in recruitment from the global pool of talents. Special emphasis should be used to recruit competent female professors whenever possible. Such role models may also help to obtain more female students.

### HEI's response:

The Department always actively tries to attract international academics. Nevertheless, the requirement to learn the Greek language (and be able to teach in Greek) naturally limits the number of international applicants. Regarding the gender imbalance among the faculty, we do recognize the issue and we will keep trying to attract female applicants to all our open positions.

### EEC's Comment 3:

Synergy between professors (and research groups). Currently there are many laboratories that seem to work independently (at least this was how it looked for the evaluation committee). Although laboratories work very well, it is recommended to increase collaboration inside the department to benefit from synergies between research groups. The sufficiency of the technical support for laboratories should be assessed.

### HEI's response:

While the number of laboratories within the Department is, indeed, high, most of those labs are already "grouped" under the 3 Research Centers of the Department (i.e., KIOS, FOSS, and EMPHASIS Research Centers). Hence, the different laboratories operating under the auspices of each Research Center are, of course, already collaborating closely within their respective Centers. In terms of technical support for the laboratories, the Department's laboratory personnel is also complemented by the aforementioned Centers' laboratory support personnel, ensuring that there is sufficient technical support for all of the Department's laboratories. Nevertheless, as the Department grows and new laboratories are created, the Department always assesses its needs and if required, will communicate any additional laboratory support personnel needs to the University.

### EEC's Comment 4:

Faculty workload. Although the faculty is highly committed and active, the evaluation committee got a feeling that the load of the faculty is increasing constantly. Recommendation here is that department leadership follows closely the wellbeing of faculty and key staff, and balances the workload if there are signs of overload.

### HEI's response:

The law of the University dictates the teaching load of all academics, so the Department has no control over the amount of teaching each colleague has to do; the teaching load is, in fact, exactly the same for all academics, irrespective of their rank. Regarding administrative duties, the Departmental Council always tries to balance the load and duties as evenly as possible to all academics during the formation of the various committees and whenever new obligations arise. In terms of research load, indeed the Department is one of the most active within the University (both in terms of attracting research funding and coordinating/participating in research projects, as well as in terms of publications). Nevertheless, the increased funding allows for the hiring of a large number of post-doctoral fellows, research associates, as well as research faculty that assist the Department's faculty with all research-related activities, thus considerably lightening their load.

### EEC's Comment 5:

Innovation culture. There is interest to make inventions and create spin-offs but current university level regulations on e.g. innovation transfer to start-up suppress the incentive for entrepreneurship. Recommendation: benchmark the university level policy against successful universities (in this aspect) in other countries.

### HEI's response:

This aspect (i.e., innovation, technology transfer, creation of spin-offs, intellectual property rights/licensing) is very important to the University, and there has been recently an increased effort



to make appropriate adjustments/corrections/additions to the current rules and regulations to improve the formal processes surrounding IRP protection and formation of spin-off companies. As pointed by the EEC, this is something that must be tackled at the University level and beyond (Cyprus Government and Parliament for the approval of the relevant laws), so the Department's role is limited in this regard.

Nevertheless, it should be pointed out that the Department has been participating through representatives in University-level committees related to IPR and spin-off creation, communicating past experiences and best-practices from previous employments at universities overseas, in an effort to benchmark the university level policy against successful universities in other countries.

## 2. Quality Assurance

### Sub-areas

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

### EEC's Comment 6:

It is suggested that the members of the Department engage in a more frequent communication with the students in order to guide them about the criteria and registration to the relevant field of the Scientific and Technical Chamber of Cyprus. Those criteria can also be published to be known by the students.

### HEI's response:

The criteria for registration to the relevant fields of the Scientific and Technical Chamber of Cyprus (either Electrical or Electronic Engineers) are communicated to the students right before the start of each Academic Year. Following the advice of the EEC, two detailed documents that precisely list said criteria are now posted on the Department's website at the links below and are easily and readily accessible to all students:

<https://newdev.ucy.ac.cy/ece/wp-content/uploads/sites/41/2022/06/ETEK-Requirements-ETEK-official-document.pdf>

<https://newdev.ucy.ac.cy/ece/wp-content/uploads/sites/41/2022/06/ETEK-Requirements-UCY.pdf>

### EEC's Comment 7:

The programmes should be offered also in English, considering that this will bring more international students and a high level of academic staff.

### HEI's response:

All the post-graduate programmes (Master and Ph.D.) have received approval by the University Senate to be offered in English, and we will start offering them **only in English** from the 2023-24 Academic Year. However, the undergraduate programmes must be offered in Greek, as per the law of the University. For that law to change, the Cyprus Government and Parliament must approve such change. Hence, a switch to English for the undergraduate programmes is a much more complex and difficult process as it requires approval at the country's Parliament level, where political opinions differ as regards to this issue.

### EEC's Comment 8:

Although the University has a well organised communication with graduates, the Department needs to obtain a mechanism of communication with the graduates and also analyse and publish graduate employment information.

### HEI's response:

The Department's view on this very important issue is that the mechanism to keep track and



analyze graduate employment information should be implemented at the University-level through the office responsible for the alumni.

Nevertheless, recognizing the importance of this issue, and in the absence of a mechanism at the university-level, the Department has made an effort in the past to create an archive with the contact and employment information of all its graduates. That document includes this information for all the graduates from 2007 (the Department's first graduates) to 2012. Based on the EEC's recommendation, we will now resume this documentation effort and we will gradually contact all the remaining graduates (from 2013 onward) to complete our archive. This archive will be updated periodically (every few years), in order to ensure that it remains as up-to-date as possible. It should be noted that the key impediment in maintaining contact with our graduates is the fact that they lose access to their university email address upon graduation. The Faculty of Engineering has recently initiate an effort to raise this issue at the University-level, in order to find a way to provide graduates with some form of "alumnus" email address.

#### **EEC's Comment 9:**

The Department needs to better document how it monitors its social impact and adoptions of its strategy as time passes, with a mechanism of analyse the needs of the industry.

#### **HEI's response:**

Our academic staff has strong connections with local industry (e.g., the Electricity Authority of Cyprus, various telecommunication companies, start-ups, etc.), mainly through numerous collaborative research efforts and internship programmes. We always ask our industrial partners for feedback regarding both our research and teaching activities, but this is done mostly in an ad-hoc manner. Based on the EEC's recommendation, we will formalize this process; we will start inviting all pertinent stakeholders to annual meetings held at the Department's premises, where we will ask for feedback regarding the needs of the industry and how those can be served by the activities of our Department.

### 3. Administration

#### EEC's Comment 10:

The EEC suggests that the university administration evaluates positively the request of the department for more staff.

#### HEI's response:

We appreciate this comment by the EEC. The Department will continue to submit requests to the University for additional academic and administrative positions. We sincerely believe that our requests to have additional staff are fully justified by the increasingly high volume of research activity within the Department (evidenced by both the attraction of large amounts of research funding and the high publication output of our staff).

#### EEC's Comment 11:

To improve internationalisation it is suggested that all educational programs are taught in English.

#### HEI's response:

As mentioned in the response to EEC's Comment 7, all the post-graduate programmes (Master and Ph.D.) have received approval by the University Senate to be offered in English, and we will start offering them only in English from the 2023-24 Academic Year. However, the undergraduate programmes must be offered in Greek, as per the law of the University. For that law to change, the Cyprus Government and Parliament must approve such change. Hence, a switch to English for the undergraduate programmes is a much more complex and difficult process that has political implications at the country's Parliament level.

#### 4. Learning and Teaching

##### Sub-areas

##### 4.1 Planning the programmes of study

##### 4.2 Organisation of teaching

#### EEC's Comment 12:

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

#### HEI's response:

The official policy of the University is to obtain the student evaluations/feedback at the **end** of each semester. The instructor of each course then uses the student feedback and makes appropriate (where needed) adjustments to the course syllabus/teaching the next time the course will be taught again. Students can provide feedback for any course during the semester through the course's designated office hours either in-person or anonymously through their student representatives. Further, to receive feedback **during** the semester, the Department has advised all faculty and teaching staff to periodically ask for unofficial student feedback during the semester and take appropriate action on-demand, if needed. To make this process (i.e., mid-semester feedback) official, the decision would have to be made at the University-level.

#### EEC's Comment 13:

Consider a proactive strategy for increasing the number of students.

#### HEI's response:

The Department is very active in outreach and promotional activities, but we intend to further increase our efforts in this domain. Specifically, every year we send academics on high-school visits to give presentations about the Department and we participate in all Open-Day and Summer School activities organized by the University for prospective students. We also host high-school students whenever they visit the university and provide laboratory/facility tours to them. With the switch to English-taught post-graduate programmes in Fall 2023, we also intend to embark on systematic advertising through all relevant online and physical channels that reach an international audience (see response to EEC's Comment 1). Finally, we also intend to progressively increase our presence on social media channels, which tend to be very effective advertising outlets.

#### EEC's Comment 14:

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

#### HEI's response:

Before the start of each semester, all students are actively encouraged to arrange one-on-one meetings with their Academic Advisor to discuss the various elective courses. Further, the grouping of elective courses in areas of specialization, as well as the description of each course are provided in the Department's undergraduate guide. Based on the EEC's recommendation, we

will also start to host a departmental annual meeting for all students to discuss specifically the various options for course electives.

#### **EEC's Comment 15:**

Consider offering all programmes in English.

#### **HEI's response:**

As mentioned in the responses to EEC's Comments 7 and 11, all the post-graduate programmes (Master and Ph.D.) have received approval by the University Senate to be offered in English, and we will start offering them only in English from the 2023-24 Academic Year. However, the undergraduate programmes must be offered in Greek, as per the law of the University. For that law to change, the Cyprus Government and Parliament must approve such change. Hence, a switch to English for the undergraduate programmes is a much more complex and difficult process that has political implications at the country's Parliament level.

#### **EEC's Comment 16:**

Failed students don't have a chance to retake the exam in September and must take it the following year instead, therefore they lose a year of studies leading to longer average completion times.

#### **HEI's response:**

Indeed, this is the official policy of the University, i.e., there is no second examination period in September. For this to change, the decision has to be made at the University-level. This issue has been raised several times in the past by the students, but no change has been agreed so far by the University Senate as it changes the University's approach for continuous assessment for each course, it affects the academic calendar, etc.

#### **EEC's Comment 17:**

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

#### **HEI's response:**

The Department already sends Ph.D. students on external research stays through various EU schemes. For instance, our Ph.D. students have visited quite prestigious universities in the past through the Erasmus programme, collaborative agreements, COST Actions, and Marie Curie ITN projects. Indicative examples include Imperial College London (UK), NICT (Japan), the University of Duisburg-Essen (Germany), UCL (UK), and DTU (Denmark).

In addition to utilizing the various EU schemes to send students abroad, all academics are encouraged to send their Ph.D. students for short stays at their research collaborators' institutions in other countries. There are indeed many cases of such external stays by our Ph.D. students, especially when they are conducting research on collaborative EU/international research programs.

## 5. Teaching Staff

### EEC's Comment 18:

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.

### HEI's response:

Based on the EEC's recommendation, the Department will initiate annual meetings between the faculty and the management (Chair/Vice-Chair) to discuss all issues pertaining to career development. The issue of establishing a mentorship programme was discussed in the past, but it was not implemented due to questions regarding potential issues that may arise when the mentor's recommendation to the candidate faculty is not in agreement with the final formal evaluation of the faculty at the end of a promotion procedure.

### EEC's Comment 19:

While the number of faculty members is appropriate to the evaluated study programmes, 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.

### HEI's response:

As mentioned in the response to EEC's Comment 4, the law of the University dictates the teaching load of all academics, so the Department has no control over the amount of teaching each colleague has to do; the teaching load is, in fact, exactly the same for all academics, irrespective of their rank. However, we fully understand the concern regarding the creation of new Master programmes, which will, inevitably, increase the number of offered courses. We plan to address this issue by requesting additional academic and teaching staff, and not by increasing the teaching load of existing academics. This is also the current mode of operation of the Rectorship that has tied new faculty lines to new programmes offered by the Departments. The teaching load of all academics will never exceed the amount dictated by the law of the University.

## 6. Research

### EEC's Comment 20:

In order to support the faculty members' career development, the department may 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 make the teaching staff's career development more sustainable.

### HEI's response:

The criteria for promotion are very specific (are a part of the University's law) and are known to all academics. Nevertheless, as mentioned in the response to EEC's Comment 18, based on the EEC's recommendation, the Department will initiate annual meetings between the faculty and the management (Chair/Vice-Chair) to discuss all issues pertaining to career development. The issue of establishing a mentorship programme was discussed in the past, but it was not implemented due to questions regarding potential issues that may arise when the mentor's recommendation to the candidate faculty is not in agreement with the final formal evaluation of the faculty at the end of a promotion procedure.

## 7. Resources

### EEC's Comment 21:

The EU funding could be probably increased by driving (coordinating) large project proposals. Yet, this would require project manager type of resources since the administrative load from EU project coordination is high. The industry funding is in part limited by the volume of industry in Cyprus. Initiating collaboration with new partner companies outside Cyprus may require some support personnel for systematic networking with industry. There is also potential to increase income from student fees when international students are admitted to new MSc programmes. Recommendation: think whether current personnel structure support well enough the increased activity in EU and industry domain. Do you need new role players (e.g. a person that has strong industry connections and could systematically facilitate discussions with high level industry managers)?

### HEI's response:

We fully agree with the EEC that the coordination of large EU project proposals by academics of the Department would necessitate specialized administrative personnel (project managers), which would have to be provided by the University. While the University currently supports research proposal efforts, the capacity/ability to COORDINATE large project proposals needs improvement. Since this is a strategic issue that affects all Departments of the University, the decision to hire additional and more specialized administrative personnel has to be made at the University-level. The same applies to the employment (by the University) of new role players with industry connections. Such players would be immensely beneficial to the Department, because they would facilitate and coordinate our collaboration with industry, which is crucial for any Engineering Department. Nevertheless, such a decision must, again, be made at the University-level. The Department will certainly make these suggestions to the management of the University to investigate their feasibility.



## **B. Conclusions and final remarks**

### **EEC's Comment 22:**

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.

### **HEI's response:**

The Department will continue its effort to maintain and improve these quality levels.

### C. Higher Education Institution academic representatives

<i>Name</i>	<i>Position</i>	<i>Signature</i>
<b>Chrysostomos Nicopoulos</b>	Associate Professor, Chair of the Department of Electrical and Computer Engineering	
<b>Charalambos A. Charalambous</b>	Associate Professor, Vice-Chair of the Department of Electrical and Computer Engineering	
<b>Georgios Ellinas</b>	Professor, Department's Quality Assurance Evaluation Coordinator	GEllinas
FullName	Position	
FullName	Position	
FullName	Position	

Date: 5 July 2022

