

Doc. 300.1.2

Date: 15 September 2022

Higher Education Institution's Response

- **Higher Education Institution:**
UNIVERSITY OF CYPRUS

- **Town:** Nicosia

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

In Greek:

Μάστερ στην Επιστήμη Μηχανικού

Υπολογιστών/Μάστερ Μηχανικής Μηχανικού

Υπολογιστών (1,5 χρ /90 ECTS)

In English:

Master of Science in Computer Engineering/Master of Engineering in Computer Engineering (1,5 academic years/90 ECTS)

- **Language(s) of instruction:** Greek and English
- **Programme's status:** Currently Operating
- **Concentrations (if any):** None



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.300.1.1 or 300.1.1/1 or 300.1.1/2 or 300.1.1/3 or 300.1.1/4) must justify whether actions have been taken in improving the quality of the programme of study in each assessment area. The answers' documentation should be brief and accurate and supported by the relevant documentation. Referral to annexes should be made only when necessary.*
- *In particular, under each assessment area and by using the 2nd column of each table, the HEI must respond on the following:*
 - *the areas of improvement and recommendations of the EEC*
 - *the conclusions and final remarks noted by the EEC*
- *The institution should respond to the EEC comments, in the designated area next each comment. The comments of the EEC should be copied from the EEC report **without any interference** in the content.*
- *In case of annexes, those should be attached and sent on separate document(s). Each document should be in *.pdf format and named as annex1, annex2, etc.*

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

Areas of improvement and recommendations by EEC	Actions Taken by the Institution	For official use Only
<p>The involvement of external stakeholders is not currently part of the formal quality assurance policy. The policy for quality assurance should be modified to support the involvement of external stakeholders in a structured way.</p>	<p>The formal policy for quality assurance is decided and modified at the University-level. Thus, the University should decide the details/logistics of how to formally involve external stakeholders (e.g., industry representatives) in the quality assurance process. Nevertheless, regarding the probing of industry needs, 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.</p>	<p>Choose an item.</p>
<p>The process of designing this programme, or any new programme, should include students. It is not clear to the EEC if this is the case, formally and in a structured way. Similarly, it is not clear if and how external stakeholders are directly involved in the reviewing and revision of this programme, in a structured way, rather than in an ad hoc way.</p>	<p>Any changes to the Program of Study must be discussed and approved by the Departmental Council. Currently, there are 6 student representative members in the Council (out of a total of 25 members). Hence, we believe that there is sufficient student involvement in all decisions pertaining to the Program of Study. Regarding the formal (as opposed to ad-hoc) involvement of external stakeholders, this is a decision that must be made at the University level (as stated in our response above). In any case, our Department is always in contact with industry stakeholders as part of our extensive research activities, and their opinion regarding our Program of Study is always taken into consideration.</p>	<p>Choose an item.</p>
<p>The descriptions of the courses of this programme define student workload in terms of the number of hours planned for lectures and labs, but not in terms of the number of hours students should dedicate to preparation, self-study and so on. This should be amended, so that course</p>	<p>In all course descriptions of all the Departments at the University of Cyprus, the information given is with regard to so called "contact hours," i.e., hours spent in lectures, laboratories, and tutorials. The hours required for self-study and self-preparation by the students can be obtained by the ECTS credits of each course. As per the European Credit Transfer System, each ECTS credit corresponds to between 25 to 30 hours of TOTAL study (i.e., including both contact hours and self-study). Thus, we believe that the</p>	<p>Choose an item.</p>

<p>descriptions define the overall expected student workload.</p>	<p>way the information is currently presented includes all information mentioned by the EEC.</p>	
<p>Information about graduate employment is not always up to date or readily accessible. The HEI is keen on collecting and monitoring this information, but is currently facing difficulties in doing so. The EEC recommends that the HEI intensifies its efforts to collect and monitor this information efficiently. A mixture of traditional methods (emailing or calling graduates) and more recent methods (using LinkedIn or similar social networking platforms) is encouraged.</p>	<p>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.</p> <p>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 initiated 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.</p>	<p>Choose an item.</p>
<p>Overall, student intake is very low for the masters programme. This compromises the sustainability but also delivery of the programme. The HEI is aware of this and is taking initiatives to address this. The same goes for the low numbers of female students. The EEC recommends that the HEI continues to work in the direction of improving these points.</p>	<p>We agree with the EEC that the number of students enrolled in our Master program is low, and we recognize this is a problem that we must tackle. We believe that the primary reasons for the low numbers are (1) the part-time nature of most Master students, (2) the fact that the current Master program is "general", i.e., it does not focus on a specific domain, and (3) the language of instruction is Greek (which limits the pool of applicants). We definitely intend to address the last two reasons. 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 Master 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 additional new programmes will increase both the number of students and,</p>	<p>Choose an item.</p>

	<p>correspondingly, the number of academic staff. They will also expand the courses available to the PhD students, further enhancing their theoretical/experimental background. Moreover, all our existing graduate programs (Master and Ph.D.) will switch to the English language starting in Fall 2023. Finally, the new School of Engineering building that will house the Department will strongly enhance the quality of our Department and allow us to increase the number of our offered programmes. Specifically, new laboratory facilities and new equipment will enhance teaching through the development of new teaching laboratories as well as research activities through the development of additional research laboratories and testbeds.</p> <p>The issue of gender imbalance is definitely an issue that we must also tackle. The Faculty of Engineering has recently created a new committee on “Women in Engineering” and this committee has already started exploring various actions/events/activities to attract more female students to all fields of engineering. The Department will, of course, actively participate in this effort.</p>	
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2. Student – centred learning, teaching and assessment (ESG 1.3)

Areas of improvement and recommendations by EEC	Actions Taken by the Institution	For official use Only
<p>As with the BSc, without a formal process of moderation there is a concern that some students may be disadvantaged by taking modules where the mean mark is significantly lower than other options. We were told that the Departmental Chair would keep an eye open for such differences but would welcome a more open process for conducting such a review.</p>	<p>The issue of implementing a formal process of exam/grading moderation is something that cannot be taken individually by the Department, since it involves the Law/Rules of the University. Hence, such a major change must be made at the University-level and applied to all Departments. We understand that formal processes for exam/grading moderation are part of (for instance) the UK system, but they are not part of every tertiary education system. The logistics involved in having other academics moderate the exams/grading of each course are quite substantial and would have to be formally supported by the University.</p>	<p>Choose an item.</p>
<p>Some of the students were concerned that courses often did not attract sufficient students to run, we note that the specialised Masters (not considered in our review) account for a growing number of students and this may lead to a situation where the courses that interest this cohort are more likely to take place than those selected by the small more general MSc/MEng cohort.</p>	<p>We are fully aware of this potential problem. Of course, one of the main reasons why the specialized Master program attracts more students is because it is an English-language program (thereby attracting foreign students). Our general MSc/MEng programs will switch to English in Fall 2023, which will substantially increase the pool of applicants. The anticipated increased student intake will alleviate the problem of having too few students in courses.</p> <p>The switch of our graduate programs to English will be heavily advertised to ensure the attraction of foreign students. The Faculty of Engineering is starting an effort to promote the English-language graduate programs of all of its constituent Departments. Independently, the Department also intends to embark on systematic advertising through all relevant online and physical channels that reach an international audience. Finally, we also intend to progressively increase our presence on social media channels, which tend to be very effective advertising outlets.</p> <p>Specifically, 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</p>	<p>Choose an item.</p>

	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.).	
We agree with the Department that support for English language teaching would significantly increase the number of overseas students especially from North Africa and throughout the Mediterranean - however, these students will often require significant additional support where English is not their first language.	<p>Student support is currently handled at the University-level. The University already provides English-language support services to all incoming international students. Specifically, starting from their admission to the University the international student office provides support to the students regarding their visa applications, accommodation upon arrival to Cyprus, etc. Once at the University the foreign students are extensively supported and all services available to local students are available to them as well.</p> <p>Since internationalization is one of the key goals of the University, the student support services will continue to be expanded and enhanced to accommodate the needs of the increasing numbers of international students with diverse cultural backgrounds.</p>	Choose an item.
Some students have pointed out that there is an imbalance between the electrical and computer engineering courses offered. This, combined with the overall low numbers of master students, may limit the choice of courses that students may have at a given semester.	We currently offer approximately 8-10 graduate-level courses per semester, out of which at least 3-4 are targeting Computer Engineering students. This small imbalance is dictated by the fact that there are more students enrolled in the Electrical Engineering programs than the Computer Engineering ones. Offering more Computer Engineering courses at this point will exacerbate the problem of having too few students in each course. Once the program switches to the English language in the Fall Semester 2023, we expect that our student intake will increase sufficiently to enable us to offer even more courses to Computer Engineering students.	Choose an item.

3. Teaching staff (ESG 1.5)

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<p>The plan to increase the academic staff to 25 or more is welcomed, as that will make it much easier to maintain a good range of optional courses. Our assessment of teaching staff number and status as partially compliant indicates the importance we attach to completing the planned increase in staff numbers. It would be worth considering a more systematic approach to sharing ideas and best practices for teaching among the academic staff, for example by organising an annual teaching away-day for the department.</p>	<p>The planned increase of academic staff to 25 is well under way. We have very recently hired 3 new academics, reaching a total staff number of 22. It is up to the University to allocate the additional remaining positions (to reach the number of 25) in a timely manner. We request new positions every year, but the ultimate decision is made at the University-level, as a number of Schools/Departments compete for the faculty positions allocated annually to the University by the government.</p> <p>Regarding the organization of a teaching away-day, we have been holding Departmental Annual Retreats , whereby all academic staff meet over a weekend to discuss all strategic issues related to the Department, including the Department’s vision, strategic planning, and steps ahead. During those meetings issues related to teaching, research, and administration are regularly discussed amongst the Department’s faculty in an effort to develop and follow best practices.</p>	<p>Choose an item.</p>

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

Areas of improvement and recommendations by EEC	Actions Taken by the Institution	For official use Only
<p>We asked on several occasions about soft-skills development and about team-work - the opportunities for which must have been quite restricted by the low numbers admitted each year on the general MSc/MEng programme. We assume that in many cases these teams must have been formed with others from the specialist MSc programmes. If so, it might have been useful to determine what safeguards are in place to ensure that students from both backgrounds meet the prerequisites so they are not disadvantaged on joint modules. This would be especially important without any formal processes of mediation and moderation.</p>	<p>The point raised by the EEC is excellent. In fact, all the student applications for all of the Department’s graduate programs are evaluated by the same committee: the Graduate Studies Committee. The Committee’s mandate is that all admitted students (regardless of the specific Master/PhD program they have applied for) must meet the same minimum prerequisites to ensure consistency in their skill-set and expertise. If students are deemed to have deficiencies (e.g., due to a different undergraduate background), the Committee asks the students to take additional specific courses as a condition of their acceptance into the program. Hence, as a result of this safeguard, we believe that no student is disadvantaged due to lack of basic background knowledge.</p>	<p>Choose an item.</p>

5. Learning resources and student support (ESG 1.6)

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We share the hope of the department that the new Engineering building will be available in the near future.	We are also eagerly awaiting our re-location to the new SOE buildings that will significantly enhance our programs of study (with new, modern facilities, laboratory equipment, etc). Based on the latest information provided to us by the University, the new Faculty of Engineering building is on course to be completed by the end of 2023.	Choose an item.
The evaluation committee recommends periodic review of the program by taking into consideration feedback from academic staff, students, external local industry experts and professional bodies.	We thank the EEC for this suggestion. Indeed, we plan to have periodic reviews of our Programs of Study to assess any potential changes that may be needed. These periodic reviews will be done as a part of the preparation for the accreditation of the Department's programs of study (i.e., every five years). All pertinent stakeholders (staff, students, industry, professional bodies) will all be asked for their extensive feedback prior to the periodic reviews in order to incorporate their feedback to the revised programs of study.	Choose an item.



6. Additional for doctoral programmes (ALL ESG)

Not applicable.



7. Eligibility (Joint programme) (ALL ESG)

Not applicable.

B. Conclusions and final remarks

Conclusions and final remarks by EEC	Actions Taken by the Institution	For official use Only
<p>Overall we are broadly happy with the MSc/MEng programme. There are significant strengths and the caveats we have noted remain a locus for improvement. We thank all the staff and students who helped in this exercise and wish you well for the future.</p>	<p>The Department will continue its effort to maintain and improve the quality levels of all of its Programs of Study.</p>	<p>Choose an item.</p>

C. Higher Education Institution academic representatives

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

Date: 15 September 2022

