

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:

Διδακτορικό Μηχανικού Υπολογιστών (6
εξάμηνα/240 ECTS)

In English:

Doctor of Philosophy in Computer Engineering (6
semester/240 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>Presently, there is an option for students taking this programme to spend some time at another research institute (for instance stay abroad). Some doctoral students have used this opportunity to spend time at top-tier UK universities, for instance. This is an excellent practice. The ECC recommends that this practice becomes an integral part of the programme, instead of it being an ad hoc option. This will strengthen both the research training and network of the students, but also the profile of the institute itself.</p>	<p>We thank the EEC for this suggestion, which is, in theory, an excellent idea. However, making the practice of stay-abroad (or at another institution) a MANDATORY part of the PhD degree has substantial logistical and financial implications to the Program. The Department would then have to ensure that all PhD students have a GUARANTEED place at another institution (since this requirement would be part of the program), and this is not always possible. Not all PhD advisers can guarantee beforehand that they will definitely have a location for their advisee student at a facility abroad (or elsewhere) to fulfil this requirement. Moreover, there are salient issues related to the cost and who would be asked to cover it.</p> <p>Hence, we believe that the current practice of encouraging external stays as an OPTIONAL activity, funded through various EU schemes (e.g., through the Erasmus programme, collaborative agreements, COST Actions, and Marie Curie ITN projects, etc.), is the only feasible option for the sustainability of the PhD program. As mentioned by the EEC, the Department already sends PhD students on external research stays through externally funded schemes. In addition to utilizing the various EU schemes to send students abroad, all academics are encouraged to send their PhD 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.</p> <p>It is noted here that efforts are underway at the University level with institutions abroad on the possibility of offering joint PhD degrees. This is a significant effort that is undertaken by the University as these agreements cannot be made at the Department level. Nevertheless, the Department is currently assisting/supporting with such an effort for a possibility of a joint degree with a university at the UK.</p>	<p>Choose an item.</p>
<p>The EEC also recommends that more external members are involved in the assessment of the written PhD thesis and its oral defence. Presently, the majority</p>	<p>The rules/regulations pertaining to the assessment of PhD exams and theses are decided by the Graduate School, i.e., their modification is beyond the control of the Department. The composition of the evaluation committees is strictly dictated by these general</p>	<p>Choose an item.</p>

<p>of the members of the PhD assessment committee are internal. The EEC understands that this does not breach the local regulations of the university. However, the HEI may wish to consider raising the bar, according to international standards, and move towards the practice of having a majority of external members in the PhD assessment committee. This practice can benefit both the research experience of the doctoral students, but also the international profile of the programme and network of the institute.</p>	<p>rules/regulations that apply to all Departments of the University. Specifically, as per these rules, the PhD defense committee consists of 3 faculty from the Department, and two external faculty (one of which can be from another Department at the University of Cyprus). Of course this committee can also consist of additional external members, subject to approval by the Departmental Council. This is in line with our experiences/best practices from other universities abroad (i.e., this is the most common practice in all leading universities in the USA).</p> <p>For the suggested change to be made (i.e., “having a majority of external members in the PhD assessment committee”), this would have to be decided at the University-level by the Graduate School.</p> <p>It should also be noted here that there are very strict explicit criteria for obtaining the PhD degree with the most important being the originality of the research work and its acceptance within the scientific community through the publication of their work in high-quality international conference proceedings and high-impact journal publications prior to defending their work (this is in line with what is done in the vast majority of universities around the world).</p>	
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2. Student – centred learning, teaching and assessment (ESG 1.3)

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<p>The number of PhD students being admitted each year seems to be growing but is still relatively small. While several of the students we spoke to had spent time with other groups, for instance at Imperial College London, it is important that they are exposed to wider ideas and approaches so that they can build an independent research career. We would encourage staff to ensure that all PhD students either spend some time on appropriate exchanges or benefit from other schemes to ensure they are exposed to wider research ideas and opportunities.</p>	<p>We are currently one of the departments within the University of Cyprus with the highest number of PhD students (70 in total, 48 EE and 22 CE) as well as the highest number of international PhD students. Even though the Department is very active in outreach and promotional activities, we intend to further increase our efforts in this domain. With the switch to English-taught post-graduate programmes in the Fall semester of 2023, we also intend to embark on systematic advertising through all relevant online and physical channels that reach an international audience. Moreover, we also intend to progressively increase our presence on social media channels, which tend to be very effective advertising outlets. Finally, the Faculty of Engineering is starting an effort to promote the English-language post-graduate programmes of all of its constituent Departments.</p> <p>In terms of enhancing the skills/experiences of our PhD students, we fully agree with this suggestion/advice. 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).</p> <p>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.</p>	<p>Choose an item.</p>

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 provide a broader and richer research environment for PhD students, and increase the likelihood that students can find other faculty members to informally discuss and advise on their projects. Our assessment of teaching staff number and status as partially compliant indicates the importance we attach to completing the planned increase in staff numbers.</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>Choose an item.</p>

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

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<p>The Comprehensive exam seems like a significant strength in developing a broad understanding or research topics as do the non-compulsory courses. However, where oral examinations are used to assess higher-levels of knowledge in research topics it is important to have an independent observer who can support the student and ensure fairness across a cohort of similar exams. In the final defence this can be assumed because they are open to the public - in the future if the number of students rises it is likely that greater transparency may be needed to support students through the comprehensive exam. In terms of examination procedure, we might expect that the general areas are pre-scripted even if the specific questions are not so that different students would face questions of equivalent difficulty or that they demonstrate the same level of knowledge to receive a pass.</p>	<p>The Comprehensive Exam is, indeed, an oral examination, so we understand the concern of the EEC regarding fairness across a cohort of similar exams. The Department already has a two-pronged safeguard in place to precisely address this concern. Before any Comprehensive Examination takes place, the detailed contents of the exam (including the relevant bibliography) are submitted to the Graduate Studies Committee of the Department for approval. The Committee has a mandate to investigate and ensure that the contents of each exam are appropriate and consistent with the area of specialization of the student. Moreover, since the Committee approves ALL Comprehensive Examinations for ALL students, it has the complete picture to ensure consistency and fairness across the board.</p> <p>Further, these exams are given by the faculty members (3 faculty members for each exam) and as faculty members participate in a number of different exams for different students the questions being asked in those exams are of the same difficulty level.</p> <p>Most importantly, the recommendation of the Graduate Studies Committee for each Comprehensive Examination is ultimately approved (or rejected) by the entire Departmental Council. So, the role of the independent observer is further fulfilled by the 25-member Departmental Council that views the contents of all Comprehensive Examinations and decides whether they are appropriate and fair.</p>	<p>Choose an item.</p>

5. Learning resources and student support
 (ESG 1.6)

Areas of improvement and recommendations by EEC	Actions Taken by the Institution	For official use Only
<p>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.</p>	<p>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.</p>	<p>Choose an item.</p>

6. Additional for doctoral programmes (ALL ESG)

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<p>Previous sections have described how candidates are expected to attend a number of seminars and that these seminars will, for instance, help with the Comprehensive Examination. We noted that credits were obtained for attendance rather than delivery or levels of engagement with the seminar and perhaps this creates wider opportunities to ensure that participants made the most of these valuable learning opportunities.</p>	<p>The philosophy of the Graduate Seminars is to expose the students to various areas of research across the entire spectrum of Electrical and Computer Engineering domains. Unlike other courses, the goal of this seminar course is not for the students to learn specific technical details, but to be informed of various areas/domains of research activity. Given this overarching goal and the fact that each seminar is given by a different speaker and covers totally different research activities, the Department believes that the students' attendance is a sufficient requirement to ensure fulfillment of the Seminar's purpose.</p> <p>It should be noted that the practice of requiring only attendance to fulfil the Seminar requirement is also followed in other leading institutions around the world.</p>	<p>Choose an item.</p>
<p>Admin staff associated with research can occasionally become overloaded with knock-on effects for PhD students and their supervisors - this is especially true when central staff have to look after multiple projects with similar deadlines. We noted the opportunity for some overheads on grants to be pooled at Faculty level to bring in additional administrative support that might help coordinate at the interface between PhD students and research projects that they might indirectly support.</p>	<p>We thank the EEC for this suggestion/recommendation. We fully agree that the load on administrative staff can be quite high with regard to PhD students and the projects that fund them. In fact, this load is expected to increase as the number of PhD students increases in the next few years. We will convey this suggestion to the Faculty of Engineering to explore the feasibility/viability of using overheads to fund additional administrative support for PhD students and their research projects.</p>	<p>Choose an item.</p>



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

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