

Doc. 300.3.2

# Higher Education Institution's Response

(Departmental)

Date: Date

- **Higher Education Institution:**  
Cyprus University of Technology
- **Town:** Limassol
- **School/Faculty:** Engineering and Technology
- **Department:** Mechanical Engineering and Materials Science and Engineering
- **Programme(s) of study under evaluation**  
Name (Duration, ECTS, Cycle)

## Programme 1

**In Greek:**

Πτυχίο Μηχανολόγων Μηχανικών (4 έτη, 240 ECTS)

**In English:**

BEng in Mechanical Engineering (4 years, 240 ECTS)

## Programme 2

**In Greek:**

MSc Ενεργειακά Συστήματα (3 εξάμηνα, 90 ECTS)

**In English:**

MSC Energy Systems (3 semesters, 90 ECTS)

## Programme 3

**In Greek:**

MSc Μηχανολογική Μηχανική (3 εξάμηνα, 90 ECTS)

**In English:**

MSC Mechanical Engineering (3 semesters, 90 ECTS)

## Programme 4

**In Greek:**

Διδακτορικό Μηχανολογία (3 έτη, 240 ECTS)



**In English:**

PhD in Mechanical Engineering (3 years, 240 ECTS)

- **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 2019” [N. 136 (I)/2015 to N. 35(I)/2019].

## 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

### 1.1 "Mission and strategic planning"

#### **Comment:**

"The vision and the strategy are clear, but it would be helpful to elaborate short and medium-term goals and objectives, given that these were presented in the discussions with the faculty members."

#### **Response:**

Our vision is to develop and establish the Department as an international Centre of Research and Learning in the fields of Mechanical Engineering and Materials Science and Engineering. Our short and medium term objectives and goals include:

1. The continuous improvement and enrichment of our educational offering and to increase the attractiveness of our program for high quality students and to ensure that our students receive an internationally competitive education, addressing the needs of not just the local but also the European and International markets.
2. Academic excellence and innovation by carrying out high impact research attracting research funding from national, European and private organizations, feeding the research results in the academic programs, employing excellent researchers and attracting internationally competitive academic personnel.
3. Internationalization and Extroversion through the participation in international organizations, multinational consortia, and bilateral collaborations with researchers in universities abroad. Establishing bilateral MOU between interested research groups and the industry. Connection with the Society and Industry through targeted activities.
4. Maintain our competitiveness by imposing a high standard in research and education. Expand out infrastructures to accommodate the expansion of the Department. Ensure that the University's management structures are fully utilized to maximize the benefit to the Department.

#### **Comment:**

"There is good interaction with stakeholders, but a more structured way (regular meetings with stakeholders, an alumni association etc. could be some options)"

#### **Response:**

Currently academic personnel have regular interactions with stakeholders in their respective domains and there is a dedicated committee for connection with the industry. The creation of an alumni association, as suggested, will be in the agenda of the next Departmental meeting.

### 1.2 "Connecting with society"

#### **Comment:**

It would be a good idea to have a more structured way of maintaining links with alumni, interaction with stakeholders and dissemination of activities on a departmental (or perhaps school) level, although admittedly this is not easy given the rather small size of the Department.

**Response:**

See also our response to the previous issue. Dissemination of activities on a departmental level is currently done through the Department's social media channels and the University's web page. Also targeted departmental presentations are regularly carried out to high schools to attract potential new students. The Department has dedicated separate sub-committees to handle open days, departmental presentations to high schools and social media, respectively. Moreover the University has a dedicated administrative service for "Communication, Marketing and International Relations Services".

**1.3 "Development processes"**

**Comment:**

There is currently no option to enroll undergraduate students except over the national Cypriot examinations. Given the fact that courses are by law held in Greek, it is not feasible to attract students outside Cyprus and Greece. However, on an MSc and PhD level effort is made to attract high-level students.

**Response:**

In view of the EU+ opportunity the Department has requested through the formal University channels to be given the option of teaching its Master in Mechanical Engineering Programme in the English language.

**"Areas of improvement and recommendations"**

**Comment:**

The Department features some highly esteemed senior academic staff member, who will retire in a few years. Consideration should be given to their replacement, also perhaps with the expansion in topics like robotics, additive manufacturing etc.

**Response:**

One of the new hires Dr. Petros Siegkas is in the field of design and additive manufacturing. One of the new open positions' title has been modified to be in the industrial control field that is directly relevant to the robotics specialization and complementary to the field of robotics currently covered by Dr. Loizou.

**Comment:**

The Department covers, as expressed by its name, a quite broad scientific field, which is also mirrored in its Bachelor and Master's curricula. Depending on how the European University of Technology project will proceed, it would be worth re-assessing this structure.

**Response:**

The Department is looking into this option and opportunity, by considering the possibility of a stronger integration of the materials science and engineering components into the more traditional mechanical engineering courses. This is a slow process and needs careful planning over the next 5 years. This item is included in the agenda of the next Departmental meeting.



**Comment:**

Considering the option of Distance Learning and/or hybrid courses, this would also be an option worth examining. During the Covid pandemic experiences it was proven that is, at least considering the practical aspects, perfectly feasible.

**Response:**

This is an option that the Department is considering for its Masters courses, especially the Master in Mechanical Engineering that it has requested formal approval to be offered in the English language. This item is included in the agenda of the next Departmental meeting.

## 2. Quality Assurance

### Sub-areas

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

### 2.3 “Quality assurance for the programmes of study”

#### **Comment:**

- (a) considering the quality control system and the use of students’ assessment, issues with the GDPR have to be addressed, so that the outcomes of these assessments can be better utilized on a Departmental level.

#### **Response:**

Student assessments are handled centrally by the University. The Department will pass on the comment of the evaluators to the appropriate University officers for further actions. This item is included in the agenda of the next Departmental meeting.

#### **Comment:**

- (b) information on the employment of alumni could be monitored and presented in a more systematic way (perhaps in co-operation with ETEK)

#### **Response:**

This is handled centrally by the appropriate University administrative services. The Department will pass on the comment of the evaluators to the appropriate University officers for further actions. This item is included in the agenda of the next Departmental meeting.

#### **Comment:**

- (c) regarding student diversity, as already mentioned, given that the programmes offered a Greek, it is difficult for non-Greek speaking students to attend, which limits the diversity of students. Furthermore, these are full time programmes, hence there are no part-time students.



**Response:**

The Department plans to capitalize on the EU+ opportunity to offer some courses in English and expand student diversity

**Comment:**

(d) considering the building facilities, they may be sufficient and well equipped, but the dispersion in many buildings over the city does pose a problem for the smooth operation of academic life.

**Response:**

The University has plans to gradually move its operations to a campus over the next 10-year horizon

**“Areas of improvement and recommendations”**

**Comment:**

It is recommended to establish a way in which, whilst respecting the GDPR, it will be possible for the Department to utilize the assessments to improve weaknesses in the teaching process.

**Response:**

Student assessments are handled centrally by the University. The Department will pass on the comment of the evaluators to the appropriate University officers for further actions. This item is included in the agenda of the next Departmental meeting.

**Comment:**

Considering the contact with alumni, so as to be able to monitor their professional development, it would be useful to work together with ETEK or other professional associations.

**Response:**

Contact with alumni is currently handled by university services. Along with the proposition to establish an Alumni Association the Department will also investigate this opportunity. This item is included in the agenda of the next Departmental meeting.

### 3. Administration

**Comment:**

As mentioned before, the Department needs to add more administrative staff as currently there is only a sole person responsible for all administrative tasks. The Department has listed multiple committees and councils to ensure its proper operation. However, no administrative personnel is listed taking part in any committee/council. Therefore, the academic staff is burdened with keeping the minutes of these meetings and performing the necessary administrative tasks, which could be considered a waste of valuable research and teaching time.

It is strongly recommended to assign more people in the administration of the Department and unburden the academic staff from performing excessive administrative tasks to ensure a proper balance of workload.

**Response:**

This is a major issue in the day-to-day operation of the Department. A new administrative person will be assigned to the Faculty of Engineering and Technology; however this is not expected to resolve the issues faced from the lack of administrative personnel in the 3 Departments of the Faculty. The recommendation will be formally forwarded to the appropriate University services for further action. This item is included in the agenda of the next Departmental meeting.

**Comment:**

During the evaluation, some students mentioned that they were unaware of the Department's proper mechanisms for complaint management. It is highly recommended that the Department will disseminate these mechanisms more. It is also recommended to offer newsletters and create a more active, online presence to inform the students of the appropriate communication channels for their complaints and which organizations they can reach to express their objections and general remarks.

**Response:**

The Department will ensure that all the necessary information is conveyed both during the orientation week, through the Department's undergraduate and graduate study guides and the Department's web site. This item is included in the agenda of the next Departmental meeting.

## 4. Learning and Teaching

### Sub-areas

#### 4.1 Planning the programmes of study

#### 4.2 Organisation of teaching

### 4.1 Planning the programmes of study

**Comment:**

There is a connection with industrial stakeholders but they are weakly involved on the programme's review and development

**Response:**

The Departmental programmes were developed by also taking into account input from industrial stakeholders. Suggestions by industrial stakeholders to create courses addressing specific fields are partially fulfilled by the new faculty positions that are opened, that have the capability to at least in part address the issues raised by the industrial stakeholders, while ensuring that they are in-line with the Department's strategic development guidelines. We agree that a stronger involvement is important for maximizing the impact of our department. A relevant Departmental committee for connection with industry is already active in this front but further actions will be considered. This item is included in the agenda of the next Departmental meeting.

**“Areas of improvement and recommendations”**

**Comment:**

The only weakness identified in this section reflects on point 4.1.2 because the industrial stakeholders are weakly involved in the review and development of the study programmes. It is, however, optimistic that there is a newly established industrial training programme that could enrich the collaboration with public and private companies in the future.

**Response:**

Please see our response to the previous comment.

## 5. Teaching Staff

### “Areas of improvement and recommendations”

#### Comment:

There are no female faculty members currently fully employed in the Department. In order to support equal opportunities in teaching, research, and outreach, the Department needs to use a strategy to recruit more women. A recommendation could be to create awareness events in the university and high schools where female researchers will present their perspectives in this academic sector.

#### Response:

A proposal for modification in the Departmental regulations for the setup of the external evaluation committee is in the agenda of the next department meeting to enforce the participation of at least one female professor in the committee. The Department will also try to mobilize its senior female masters and PhD students to participate in awareness campaigns. This item is also in the agenda of the next Department meeting.

## 6. Research

### “Areas of improvement and recommendations”

#### Comment:

The Department can think of ways for supporting PhD graduates in securing employment either in academia or industry as motivation, maybe through building a network or board of industrial advisors who can steer research in directions that meet demands and needs in current job markets and acting as mentors to current researchers.

#### Response:

PhD supervisors have strong interactions with the industry and already some PhD research directions are inspired from such interactions. The Department will further investigate this opportunity. This item is also in the agenda of the next Department meeting.

#### Comment:

It is not clear how the Department takes full advantage of their research facilities as several taught (not PhD) students commented that there was limited practical work in their studies. It is recommended to think of more ways on how to leverage research into attaining research-led teaching in all its programmes.

#### Response:

Feeding research into teaching is fundamental for maintaining an internationally competitive program and most faculty is embracing this approach. The Department will further investigate this opportunity. This item is also in the agenda of the next Department meeting.

## 7. Resources

**Comment:**

Some staff during interviews mentioned lack of administrative support in preparing grant funding applications.

**Response:**

This is handled centrally by the appropriate University administrative services. The Department will pass on the comment of the evaluators to the appropriate University officers for further actions. This item is included in the agenda of the next Departmental meeting.

**Comment:**

Also the single administrator of the Department was responsible for procuring and purchasing technical equipment in research laboratories.

**Response:**

This is a major issue in the day-to-day operation of the Department. A new administrative person will be assigned to the Faculty of Engineering and Technology; however this is not expected to resolve the issues faced from the lack of administrative personnel in the 3 Departments of the Faculty. The recommendation will be formally forwarded to the appropriate University services for further action. This item is included in the agenda of the next Departmental meeting.

### “Areas of improvement and recommendations”

**Comment:**

Some funding for technical support staff to run and maintain the equipment in the research laboratories would be a good idea and is the norm in several universities.

**Response:**

This is a major issue in the day-to-day operation of the Department’s laboratories. The recommendation will be formally forwarded to the appropriate University services for further action. This item is included in the agenda of the next Departmental meeting.

**Comment:**

Also more administrative support for academic staff in preparing grant applications and managing larger research programmes. Perhaps consider proof reading research grant applications by experienced academic staff for clarity and presentation, as well as offering mock interviews to applicants could improve future research funding success rates.

**Response:**

Thank you for this observation. Please see our previous response on this issue.

## B. Conclusions and final remarks

### Comment:

The EEC members believe that there should be greater support considering the administrative staff: the existing do a very good job but there should be more people, in order to reduce administrative workload of the academic staff. This applies to some extent also to the need to have better administrative support for the preparation of research proposals.

### Response:

This is a major issue in the day-to-day operation of the Department. A new administrative person will be assigned to the Faculty of Engineering and Technology; however this is not expected to resolve the issues faced from the lack of administrative personnel in the 3 Departments of the Faculty. The recommendations will be formally forwarded to the appropriate University services for further action. This item is included in the agenda of the next Departmental meeting.

### Comment:

With respect to the educational operation ... There are some margins for improvement, as mentioned in the report, in particular in the support of students, in their information on policies and regulations and in the organization of structured communication channels, both in the university's areas and on a social level, between students and faculty. Also, there is some margin for improvement in having a more visible and formalized pattern in dealing with students' complaints and problems.

### Response:

The Department will ensure that all the necessary information is conveyed both during the orientation week, through the Department's undergraduate and graduate study guides and the Department's web site. This item is included in the agenda of the next Departmental meeting.

### Comment:

In the meantime, and especially for the MSc courses the EEC members would like to recommend considering an adaptation of the number of courses offered to the number of students enrolled and, in that sense, also a more even distribution of teaching load. The teaching staff have a strong background that allows them to teach the related courses, with several options that can be utilized, to ensure that none of the faculty members are overloaded with teaching.

### Response:

University regulations require MSc programs with very low enrollment be suspended ensuring that teaching load is more effectively allocated. The Department considers the introduction of a new MSc program that is of high interest to both the students and the stakeholder on the topic of robotics and AI in the coming years.

### Comment:

One recommendation by the EEC members, is to consider how the retirement of some senior staff members will be dealt with, in terms of scientific areas covered.

### Response:

This issue is already being considered in the Strategic Development Departmental committee. The Department's approach is to hire new faculty that will fill in the retiree positions, whereas the

Department will seek to establish Emeritus Professorships for some of its retired faculty with major research contributions.

**Comment:**

In terms of funding the members have attracted significant resources, keeping in mind the size and the age of the Department. One suggestion on research is to try to attract more European funding, compared to national funding, as that would allow some additional resources for maintaining and expanding the labs.

**Response:**

This is already happening for our more senior faculty. For junior faculty, it was more easy to attract national funding that helped them create a track record and serve as a means to enter the more competitive and more demanding EU funding area. All faculty are encouraged to pursue national, European and private funding opportunities.

**Comment:**

As mentioned earlier, it would be positive, if more research funds could be made available to support laboratories, technicians and administrative staff.

**Response:**

Thank you for this observation. The appropriate University services will be formally notified on the recommendations.



