Doc. 300.3.1

# **External Evaluation Report**

(Departmental)

Date: 7&8 June 2021

- **Higher Education Institution:** University of Cyprus
- Town: NICOSIA
- School/Faculty: University of Cyprus/Engineering
- **Department:** Civil and Environmental Engineering
- Programme(s) of study Name (Duration, ECTS, Cycle)

<u>Programme 1 – BSc in Civil and Environmental Engineering</u>
In Greek:

Προπτυχιακό πρόγραμμα Πολιτικού Μηχανικού και Μηχανικού Περιβάλλοντος

# In English:

BSc in Civil and Environmental Engineering

Language(s) of instruction: Greek, English

**Programme 2** – MEng and MSc in Civil Engineering

### In Greek:

Μεταπτυχιακό (Μάστερ) Πρόγραμμα Σπουδών Πολιτικού Μηχανικού

### In English:

MEng and MSc in Civil Engineering

Language(s) of instruction: Greek, English

<u>Programme 3 – PhD in Civil Engineering</u>

### In Greek:

Διδακτορικό Πρόγραμμα Πολιτικού Μηχανικού

### In English:

PhD in Civil Engineering

Language(s) of instruction: Greek, English



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
Civil and	Bachelor of Science in Civil and Environmental Engineering
Environmental Engineering	Master of Engineering in Civil Engineering
	Master of Science in Civil Engineering
	Doctor of Philosophy in Civil Engineering

### A. Introduction

This part includes basic information regarding the onsite visit.

The committee members visited the University of Cyprus virtually during the period of June 7 and 8 2021 due to Covid-19 related travelling restrictions. Nonetheless, they were provided with a significant number of resources that helped with the evaluation.

During June 7 2021, the virtual site meeting featured a short briefing of the members of the EEC with the CYQAA officer, which was followed by (a) an introduction of the members of the external evaluation committee; (b) meetings with the Vice Rector for Academic Affairs, the head of the Civil Engineering department; (c) a thorough review of the Civil and Environmental Engineering Bachelor program. The EEC members had the opportunity to meet with various members of the teaching and administrative staff. This was followed by a virtual meeting with students and recent graduates. The EEC members were able to assess the premises of the institution through a virtual visit. During the exit discussion of the first day, the department Head had an opportunity to clarify additional questions that came up during the evaluation process. During the second day of the evaluation (June 8 2021), the ECC members assessed the graduate (MSc/MEng) and post-graduate academic programs in Civil Engineering.

The members of the Department gave extensive and detailed presentations and were very willing to answer questions asked by the committee and offer additional data and complimentary information. The committee believes that the following report has not been affected by the virtual nature of the visit. This is thanks to the efforts of all the parties involved.

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

Name	Position	University
Andrew Heath	Professor	University of Bath, UK
Emmanouil Chatzis	Associate Professor	University of Oxford, UK
Dimitrios Lignos	Associate Professor	École Polytechnique Fédérale de Lausanne, Switzerland
Konstantinos Noutsopoulos	Associate Professor	National Technical University of Athens
Georgios Nicolaou	Student	Cyprus University of Technology
Andreas Theodotou	Professional Civil Engineer	Scientific and Technical Chamber of Cyprus Representative - ETEK

### 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.

### **Strengths**

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)

# Sub-areas

- 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-compliant3: Partially compliant

4 or 5: Compliant

	Quality indicators/criteria		
1. Depa	1. Department'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.	4	
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.	4	

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

The Department mission is clear, and follows best international practice while still includes information relevant to Cyprus. Stakeholders are consulted about the course, but there is no formal advisory panel which should include recent graduates, employers and the Scientific and Technical Chamber of Cyprus.

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 of study provide a coherent set from undergraduate through to PhD in the Department. While this report is focussed only on the Civil Engineering courses, the Environmental Engineering courses run alongside the Civil Engineering ones and link together well

Provide suggestions for changes in case of incompatibility.

No changes recommended

### 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.	4
1.2.3	The Department ensures that its operation and activities have a positive impact on society.	5
1.2.4	The Department has an effective communication mechanism with its graduates.	4

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

This activity is generally done very well, but as the Department acknowledges, more could be done in providing information to the public, and particular in schools to attract more students into Civil Engineering. The new buildings (when completed), and in particular the shaking table facility, will provide opportunities for outreach and may make the University of Cyprus more attractive as a study location - currently students effectively need a car to enable them to travel between sites. While the Department does communicate well with graduates the central University also does this but in a different way. The Department and central University could try to coordinate this more.

1. Department'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 improvement of the quality of its programmes of study are adequate and transparent.	3

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

Currently there are very few students from abroad (other than from Greece), and this is most likely because of language issues. The Department plans for potentially teaching postgraduate courses in English is likely to result in more high-level students from abroad, but care should be taken to ensure it does not turn away students from Cyprus. If postgraduate teaching moves to English 1.3.3 will move to a 4.

The funding process for the department is an area of concern. Civil Engineering and other laboratory / practical based subjects are more expensive to teach than non-laboratory subjects. In addition to the provision of laboratories and equipment for teaching and research, there needs to be suitably qualified technical staff and a funded maintenance programme for the equipment. It is concerning that one site with laboratories has no technical staff based there, and that some equipment does not receive regular maintenance because of lack of funding. This is not only preventing some research from being conducted as equipment breaks down, but is a potential health and safety concern as some of this equipment can become dangerous to operate if not regularly maintained, particularly if there are no technical staff in the location. While it may be possible for the Department to gain some technical staff support from including this as a cost in research proposals (if the particular funding source allows this), these staff will normally only be allowed to work on the research programmes and not assist with teaching activities.

#### Additionally, write:

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

Based on the average numbers from 2015, the following approximate numbers are expected (total number of students registered across all years, not number of new students each year):

- BSc in Civil and Environmental engineering: 140 from Cyprus, 20 from Greece, 1 from other countries (Bulgaria, Russia Ireland)
- MEng and MSc in Civil Engineering: 40 from Cyprus, 5 from Greece
- PhD in Civil Engineering: 15 from Cyprus, 5 from Greece, <1 from other countries (Lebanon)

In addition to these, there are students on the MEng and MSc in Environmental Engineering, and students on the PhD in Environmental Engineering

### **Findings**

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

The Department is well run and its teaching and research activities are well organised. It has a clear mission and has strategic plan in place for the short to long term, but some of those are being limited by factors outside their control (e.g. delays in completion of the new building, staff in key teaching areas not being replaced). There is difficulty caused by the Department operating on multiple sites, with teaching at a different location to laboratories, but this should be solved when the new building is completed (although this is delayed). Having multiple sites is likely to deter potential applicants who do not have a car.

The teaching staff body generally has a collaborative and supportive approach, although there were some minor concerns that need to be addressed. The staff have the expertise required for the programmes of study and embed research into the curriculum as appropriate. The curriculum includes topics of global and local importance and advice from alumni and industry is sought before making changes. They do engage with society but this could be strengthened, especially with schools, as a means to attract more to the profession of civil engineering.

There are good development processes in place for new teaching staff with all staff able to apply for start-up funds and with staff new to teaching having to complete a teaching development programme. This staff development along with the industry involvement helps to ensure that the programmes remain relevant and up to date.

#### Strengths

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

- 1. The good organisation and collaborative ethos is a strength of the department
- 2. The development processes for the staff and for the programmes allow teaching to remain relevant to the global and Cyprus society.

### Areas of improvement and recommendations

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

- 1. While there is little that can be done at this time, having the laboratories separated from teaching areas is an area that needs improvement, and all that can be done to speed the completion of the new building should be done.
- 2. Providing staffing (both teaching and technical staff) that allows the Department to meet its mission is important and needs to be considered by the Central university.
- 3. Ensuring there is funding for maintenance and technical staff to operate key equipment is important not only for the benefits of teaching and research in the Department, but also for the safety of students and staff who use the laboratories.

### 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)

### **Sub-areas**

- 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 Sys	tem and q	uality assurance strategy	1 - 5
2.1.1		rtment has a policy for quality assurance that is made public and forms Institution's strategic management.	5
2.1.2		takeholders develop and implement a policy for quality assurance appropriate structures and processes, while involving external ers.	5
2.1.3	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 qualit	y assurance system promotes a culture of quality.	5
2.1.6	Students'	evaluation and feedback	5

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

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2. Quality Assurance		
2.2 Qua	lity 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.	4
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 Depa	artment analyses and publishes graduate employment information.	5
2.2.13	The Department ensures adequate and appropriate learning resources in line 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		a student welfare service that supports students in regard to academic, problems and difficulties.	5
2.2.15	needs of a	artment's mechanisms, processes and infrastructure consider the a diverse student population such as mature, part-time, employed and nal students as well as students with disabilities.	3
2.2.16		g of each student is provided and the number of students per each nt teaching member is adequate.	5
2.2.17		ision of quality doctoral studies is ensured through doctoral studies as, which are publicly available.	5
2.2.18	teaching	ber of doctoral students, under the supervision of a member of the staff, enables continuous and effective feedback to the students and is with the European and international standards.	5
2.2.19		artment has mechanisms and funds to support writing and attending ces of doctoral candidates.	5
2.2.20	There is a	a clear policy on authorship and intellectual property.	5

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

The department has presented a clear and effective procedure for quality control and assurance, to the satisfaction of the evaluation committee and therefore the resulting score is high.

Regarding Section 2.2.4: it is common among faculty within the same department that the average evaluation from student assessment is distributed anonymously between faculty to see how they perform with respect to their peers. This offers opportunities between faculty to discuss effective ways of teaching to improve the overall teaching experience.

Regarding Section 2.2.6: While going through the information distributed regarding the course syllabus, the department should consider adopting the policy of incorporating the grading scheme

and assessment methods explicitly in all courses. This is a standard practice in other academic institutions worldwide. Moreover, students feel more informed in this case.

Regarding student diversity (section 2.2.15): it is noted that the school programs are not offered in English language; therefore, this does not help diversity in the student community.

### **Findings**

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

The applied procedures presented are fully satisfactory. We note the academic members' concern and interest in new and emerging trends in the fields of civil engineering and the efforts to follow these evolutions in order to adapt the department's curriculum.

### Strengths

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

We note the strong and effective connection of the faculty members and the students with industry and professional bodies, resulting in the effective transfer of knowledge through various channels, which assures a high quality of learning. Interesting course offerings at the masters level cover a variety of contemporary topics in civil engineering.

#### Areas of improvement and recommendations

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

It is suggested that the members of the Department engage in a more frequent communication with the representatives of the Scientific and Technical Chamber of Cyprus (ETEK) for potentially new course offerings of interest to the profession. Such an explanation and discussion with ETEK would be beneficial for both parties.

Moreover, the course offerings should be offered in English considering that this will definitely increase the diversity in the student community.

Finally, it is suggested that the department should adopt the policy of explicitly incorporating the grading scheme and assessment methods in all courses, which is a standard practice in most academic institutions from abroad.

# 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-compliant3: 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.	3
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.	4
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
3.11	Internalization of the Department and external collaborations.	5

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

The one area of concern is the low administrative staff numbers - both technical and secretarial staff. The issue around technical support staff is mentioned in section 1 of this report and elsewhere, but having a low number of secretarial staff can often result in academic staff having to perform many secretarial duties which is inefficient use of time. There is no longer dedicated IT support for the department.

### **Findings**

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

The Department follows the University administrative processes and structure which are clear and appropriate. The main university system integrates well with the departmental activities in supporting students in the non-technical side of their learning (for example information on plagiarism from the Library, and support from the Centre for Teaching and learning).

The Department can act with a certain degree of autonomy in setting its mission, but many funding decisions are dependent on the central University which does limit what can be done on a practical basis.

### Strengths

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

- 1. The central University systems and legislation, into which the Department fits, are well thought out and clear.
- 2. The links between the Departmental and central University systems works well in providing support for students and in dealing with disciplinary issues and complaints.
- 3. There is an appropriate degree of autonomy for decisions which only affect 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.

1. More clarity in some of the central University decisions which affect the department would be beneficial. In particular, it would be beneficial if Departments know if they are likely to get funding in a certain area, and when they are likely to get it. If funding in certain areas is limited or if it is delayed, the Department should be given information on what it can do to improve its chance of funding (such as needing to recruit more students or needing to obtain more external research funding). These funding decisions can affect whether the Department can deliver its mission.





# 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)

### **Sub-areas**

- 4.1 Planning the programmes of study
- 4.2 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		
<b>4.</b> Lea	rning and Teaching	
4.1 Pla	nning 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.

-the Department has correctly identified that meetings with Stakeholders should be official.

-See later suggestions on incorporating a practical course/placement/internship aspect to the course.

<b>4</b> lea	4. Learning and Teaching		
	ganisation of teaching	1 - 5	
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.	5	
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.	5	
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.	5	
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.

-The feedback mechanisms used by the Department towards students are appropriate, but can be further improved. E.g., through using online tools.

### **Findings**

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

There is an established student supporting welfare service. Career support service helps students in seeking a career. There is a psychological Support Centre helping students with issues of mental welfare. Each student is allocated to an academic advisor who monitors their progress. Lecturers follow an open doors policy for office hours.

Student centered learning: Computer related courses are taught in a computer room. The teaching rooms are good in size and in combination with the small number of students admitted per year, the rooms are very spacious. This helps the student centered teaching. An issue until recently was that the buildings of the Department were scattered. This is addressed with the new buildings to be erected. The new library of the University has received high praise. Ideally, that would be in the same campus as the Civil Engineering building. The students suggested that the existing labs were good, but were excited on the news that new labs are being created. The faculty also believes that the move to a new lab, which is planned, will also further improve laboratories and teaching and communication with other Departments. This move will also bring buildings of the Department closer together.

Students participate through representatives in committees that take decisions about the teaching programmes. There is an official scheme for students providing feedback to the Department about teaching and other matters. The classrooms are adequately large for the number of students.

The criteria for marking a course are known in advance and involve a combination of marking schemes, where the final exams, projects, midterm exams, and homework are weighted with the weighting scheme known to the students. Perhaps, the Department can consider the addition of a practical course or an optional summer internship/summer placement for which students would be receiving ECTS credits.

There are meetings with stakeholders which are currently unofficial but the Department plans to set up an official meeting with an advisory board to review the programmes. The revisions of the undergraduate course has been done in coordination with the technical chamber of Cyprus, ETEK, as the University and ETEK are in obviously very close collaboration: A member of the academic personnel from the Department of Civil and Environmental Engineering usually participates in the accreditation sub-committee of ETEK regarding Civil Engineering.

### Strengths

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

- -A new, state-of-the-art library, which serves as a point of reference for students and faculty.
- -A welfare service which is separated to a careers dedicated office and a psychological welfare office.
- -Spacious classrooms and laboratories are helping the student-centered learning. Those are expected to further improve with the relocation to the new buildings.
- -The members of faculty are following an open office policy with the students.

-The move to a new building where classrooms and laboratories are in the same building, which has been a major point of concern.

### Areas of improvement and recommendations

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

Points that can be improved are the following:

The meetings with the Academic advisor have been rendered optional recently. This is a University policy/decision. The members of the Department correctly indicated that their preference would be for such meetings to be mandatory for all students. This would be a constructive change. Perhaps the Department can consider some mechanism to help students who have been identified to struggle. This could be offered as a tutorial system, provided by a teaching assistant. This is likely to help struggling students in the first year and address the dropout rate.

Another point that the committee felt that there could be some improvement was that of a practical course/summer placement. It is indeed true that the 4<sup>th</sup> year course offered resembles the experience in an office, but the option of a summer placement/internship could be helpful to the students. Perhaps the Department can have an organized mechanism to help students seeking for such an option and recognizing the corresponding credits.

# 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. Teaching 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.	NA
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.	4
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.	5

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

- 5.1 and 5.5:The Department lacks some permanent academic personnel for few key subjects.
- 5.3. There are no visiting professors at the Department this period.

### Also, write the following:

- Number of teaching staff working full-time and having exclusive work: 15
- Number of special teaching staff working full-time and having exclusive work: 1

- Number of visiting Professors: 0
- Number of special scientists on lease services: 6

### **Findings**

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

The status of teaching staff is very good. The permanent staff is well selected and qualified. The teaching procedure is implemented by 15 faculty members, 1 special teaching staff and 6 special scientists who provide high quality teaching for a large number of undergraduate and postgraduate courses. According to the strategic plan of the Department, a target value of 18 faculty members for the next few years has been set. The EEC highlights the enthusiasm and the collegial environment of the faculty members towards delivering high status undergraduate and postgraduate programmes of study. Based on the last five years data, the ratio of undergraduate students per faculty is around 11, while after considering the graduate students this value goes up to 16. For the same period, the ratio of PhD students per faculty is around 1.5-2.

Teaching staff get feedback regarding the status of their teaching work directly from the evaluation forms of the students (along with the Head of the Department). Both faculty members and students confirm that the results of the evaluation are very carefully regarded and teaching is progressively improved.

### Strengths

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

The teaching staff present excellent qualifications for implementing the programmes of study offered by the Department. The publication track record of the faculty members is satisfactory confirming the strong research orientation of the department. On average, academic staff publish around 4-5 peer reviewed journal papers annually and get more than 200 scopus-indexed citations. There is also a strong presence of the faculty members in international networks, committees and editorial boards.

### Areas of improvement and recommendations

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

A matter of concern for the EEC is the shortage of academic personnel for some key scientific areas which are of major importance for the discipline of civil engineer. The lack of some academic personnel is also evidenced when regarding the high number of laboratories (12) which hardly have more than two faculty members each. This issue has been fully recognized by the Department and actions have been undertaken.

EEC believes that areas needing new faculty members are: i) hydrology and water resources management, ii) energy technology and iii) transportation engineering.

EEC strongly encourages the Department to establish a committee of both senior and junior staff for the development of a strategic plan for the future recruitment.

The Department must set up procedures to attract visiting professors who can efficiently aid the teaching effort.

The EEC fully agrees with the Department's intention to deliver some courses in English. This way well reputed non-Greek speaking academic personnel (either visiting professors from foreign universities or permanent staff) may be attracted.

The EEC encourages faculty members to transfer findings of their research activities into the capstone design project.

# 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-compliant3: 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 research activity, which promote the set out research policy and ensure compliance with the regulations of research projects financing programmes.	4	
6.3	The Department provides adequate facilities and equipment to cover the staff and students' research activities.	4	
6.4	The Department has the appropriate mechanisms for the development of students' research skills.	5	
6.5	The results of the teaching staff research activity are published to a 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.	5	
6.6	The Department ensures that research results are integrated into teaching and, to the extent applicable, promotes and implements a policy of transferring know-how to society and the production sector.	5	
6.7	The Department provides mechanisms which ensure compliance with international rules of research ethics, both in relation to research activity and the rights of researchers.	5	
6.8	The external, non-governmental, funding of research activities of teaching staff is similar to other Departments in Cyprus and abroad.	5	
6.9	The policy, indirect or direct of internal funding of the research activities of the teaching staff is satisfactory, based on European and international practices.	5	

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

6.3 Lack of resources for the regular maintenance of the existing lab equipment.

### **Findings**

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

Research is one of the main three pillars of development of the university. The research policy of the university regulates the financing of internal and external research activities, the employment in research programs, the data protection and IPR, the code of ethics etc. The University Research Committee is responsible for the research policy.

The Department provides adequate and well-equipped laboratories (both experimental and computational) to support faculty members and students research needs.

The results of teaching staff research work are published in international journals thus being available to the students through the library's electronic systems. The Department has set a clear target towards transferring research-based know-how to the production sector and the society. This target is served through a series of actions (e.g. consulting services, research cooperation with industry and governmental bodies, agreements with several national organizations, public events, specialized lectures, cultural events workshops, etc).

The faculty members present a very good research record as evidenced by their satisfactory (profound in some cases) publications track record.

The results of the research activities are well integrated in the teaching procedure especially in the graduate and PhD programme of study.

Besides the high international research standing of many of the academic personnel, the Department's total budget from research projects is rather moderate.

# **Strengths**

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

The publication track record of the faculty members is very good confirming the strong research orientation of the Department. There is also a strong presence of the faculty members in international networks, committees and editorial boards.

The Department provides internal start-up funding for new faculty members to help them organize their research work.

The Department issues every year some internal funding programs for basic research.

### Areas of improvement and recommendations

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

The addition of new faculty members is expected to strengthen the research potential of the Department.

EEC believes that a more concrete and well-structured strategy for the Department's research opportunities and promotion is needed.

The EEC encourages the Department to consider mechanisms to support the faculty members in proposal writing. An advisable solution is to provide a specific budget internally for professional proposal writing.

It is also recommended to consider expansion to some 'emerging' research areas (e.g. renewable energy and energy efficiency of buildings) that might trigger synergies with other European active research groups.

As the national funding is low, the EEC encourages the faculty members to orient their research funding questing towards international (e.g. European) funding instruments and to establish some synergies with other European and international institutions. This will possibly provide, among others, the Department with appropriate resources to support the regular maintenance of equipment.

# 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-compliant3: Partially compliant

4 or 5: Compliant

Quality indicators/criteria		
7. Resources		1 - 5
7.1	The Department has sufficient financial resources to support its functions, managed by the Institutional and Departmental bodies.	4
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.	N/A
7.4	The Department's budget is appropriate for its mission and adequate for the implementation of strategic planning.	4
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.

With regard to 7.1 and 7.4: While a number of facilities are about to be delivered to the department, a coherent plan with regard to financial resources should be discussed with the university to ensure that these facilities should be operational including a proper maintenance plan. This should be of course complemented with external competitive funding (e.g., EU or other financial resources from the national level).

Regarding 7.3: based on the available information that was distributed, it appears that donations are not available to the department or at least they are not so common.

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

The department receives funding from the central University, and this includes the significant funding recently received for a new building and large shaking table. There has been an increase in staff numbers but there are, however, some positions which have not been immediately replaced when staff have left the University.

### Strengths

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

The funding of a new building, including a new shaking table is a strength, provided there are also plans to invest in the maintenance of these new facilities.

### Areas of improvement and recommendations

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

Complementary funding could be provided through research contracts and industry contracts that could offer support salaries of privately hired personnel.

# 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 performed a remote assessment of the Department. The Department's policies were found to be compliant for all the above categories. The members of the EEC were largely satisfied with several of the practices followed by the Department.

The Department has a clear mission and strategy is implementing it with policies that have received high marks in the corresponding sections. The move of the Department to new buildings is serving laboratories and faculty offices. The committee felt that the University should help the Department in completing this move fairly soon. There is a supportive and collaborative ethos between members of the Department which support its mission. On the other hand the EEC members felt that there should be a greater clarity from the University's side in terms of how internal sources are distributed amongst Departments. For example the funding available to maintain laboratories, administrative lab and technicians should be made known to the Departments and it should take into account the needs, especially in terms of teaching, of each Department.

It currently seems that the funding received by the Department for administrative staff, technicians and laboratory maintenance is below what it should be. Currently those members are ensuring the proper administration and operation of the labs by putting in extra hours of work. The result is that the related staff are unsatisfied with being overloaded and the machinery in the laboratories will gradually degrade. It is to the Department's praise that the labs are nonetheless working properly, with students feeling that they are very well organized and researchers being able to nonetheless use them for research. This last comment is one of the very few weaknesses and points of improvement that is repeated in different sections. The committee believes that the University should take into account that technical subjects require the corresponding funding for lab maintenance. especially when those labs are used for teaching. The committee believes that the procurement of a new state-of-the-art shake table will help the Department attract more projects and partnerships which will benefit this new lab and existing labs. Finally, the committee suggests that the Department members incorporate a greater ratio of proposals to European funding bodies than the national funding body, as that would allow some additional resources for maintaining the labs (especially for equipment mainly used for research).

The above seems to be one of the few weaknesses of the Department. The Department otherwise scores very highly in the questions related to Administration. Nonetheless the previous suggestion will further improve the autonomy of the department. The department also scores very highly in the questions related to quality assurance. The only minor suggestion of the committee is for the Department to consider more frequent formal meetings with the technical chamber, or in general to convert the informal meetings with stakeholders to formal.

In terms of teaching the Department is scoring very highly. Student-centred teaching is the focus of the Department which uses very good practises to achieve that. The courses offered and the related quality support the vision and role of the Department. The committee believes that the move to the new buildings will further improve the current strong position of the Department. The committee has noted the intention of the Department to provide some courses in English which should also improve the position of the Department in attracting good international (non-Greek speaking) students and international faculty. The EEC notes that the students should have mandatory meetings with the Academic Supervisor, suggests that the Department considers offering some further form of help to struggling students (e.g., tutorials) and perhaps adding a practical course/internship module to the syllabus. An additional comment further explained in the other form filled by the committee, has to do with the Department considering a minimum threshold for the number of students attending a

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direction of the MSc. When there are less admitted students than that threshold in a direction the Department should consider merging such directions in the following year.

The teaching staff have a strong background that allows them to teach the related courses, with several options being offered. The Department has correctly identified an existing gap in hydrology and is actively trying to recruit a related expert. Perhaps further expansion with addition of faculty in the fields of energy and transportation may help the expansion of the syllabus.

A potential point that should be revised is the following: it should be ensured that none of the faculty members are overloaded with teaching. While from the syllabus it appears that the teaching responsibilities have been allocated reasonably, the committee cannot distinguish for example the size of the classroom corresponding to different courses, which can indeed impact the lecturer. Especially for tenure-track academics, the Department should ensure that they are not overloaded in their first years of the Department. The paths for a successful tenure should also be clear to all tenure-track faculty and all faculty in that position need to have a contact point that can inform them on the process and their progression. The EEC members note very positively the startup awarded to newly appointed faculty.

In terms of research the Department members are doing well. The staff have a good track record with publications in international journals of high quality and actively participate in conferences and editorial boards of committees and journals. In terms of funding the members have attracted reasonable resources. The number of PhD students is currently low, and efforts should be made to increase those numbers in the future, especially as the number of faculty members is increasing. This is an area that can be improved, the EEC members recognize the effect of the decreased national resources over the last period and suggest that the Department mitigates this risk in the future by increasing the ratio of proposals submitted to European funding agencies. Strengthening the collaborations with other European research groups will further strengthen the research position of the Department, which is nonetheless good. The EEC members note that the new experimental facilities and the move to the new buildings will further help in attracting more resources including industrial contracts that could be leveraged to support administrative staff and technicians to support the facilities.

Finally in terms of resources it certainly appears that the Department has managed to operate well and has supported its main pillars of research and teaching excellence. But as noted in previous sections, there need to be more research funds made available to laboratories, technicians and administrative personnel.

# E. Signatures of the EEC

Name	Signature
Andrew Heath	
Emmanouil Chatzis	
Dimitrios Lignos	
Konstantinos Noutsopoulos	
Georgios Nicolaou	
Andreas Theodotou	

**Date:** 11 June 2021