

ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ HELLENIC REPUBLIC



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ΑΠΟΦΑΣΗ ΠΙΣΤΟΠΟΙΗΣΗΣ

Το Συμβούλιο Αξιολόγησης και Πιστοποίησης της Εθνικής Αρχής Ανώτατης Εκπαίδευσης (ΕΘΑΑΕ)

Έχοντας υπόψη:

- Τις διατάξεις του Ν. 4653/2020 (ΦΕΚ 12/Α΄/24-01-2020) «Εθνική Αρχή Ανώτατης Εκπαίδευσης. Ειδικοί Λογαριασμοί Κονδυλίων Έρευνας Ανώτατων Εκπαιδευτικών Ιδρυμάτων, Ερευνητικών και Τεχνολογικών Φορέων και άλλες Διατάξεις», όπως ισχύει.
- Την υπ΄ αριθμ. 18135/Z1/7-2-2020 Απόφαση της Υπουργού Παιδείας και Θρησκευμάτων (ΦΕΚ 94/τεύχος ΥΟΔΔ/7-2-2020), περί διορισμού του Προέδρου του Ανώτατου Συμβουλίου της Εθνικής Αρχής Ανώτατης Εκπαίδευσης (ΕΘΑΑΕ).
- Την υπ΄ αριθμ. 15650/23-04-2020 Απόφαση του Προέδρου της ΕΘΑΑΕ (ΦΕΚ 329/τ.' ΥΟΔΔ/04-05-2020) «Ορισμός των μελών του Συμβουλίου Αξιολόγησης και Πιστοποίησης (ΣΑΠ) της Εθνικής Αρχής Ανώτατης Εκπαίδευσης (ΕΘΑΑΕ)».
- 4. Τη σχετική Έκθεση Πιστοποίησης της Επιτροπής Εξωτερικής Αξιολόγησης & Πιστοποίησης του ΠΜΣ Επιστήμη και Τεχνολογία Ηλεκτρολόγων Μηχανικών και Μηχανικών Υπολογιστών του Πανεπιστημίου Θεσσαλίας.
- 5. Την 34η/20-12-2023 συνεδρίαση του Συμβουλίου Αξιολόγησης και Πιστοποίησης, θέμα 2 «Έγκριση εκθέσεων πιστοποίησης ΠΠΣ και ΠΜΣ – Χορήγηση πιστοποίησης».

ΠΙΣΤΟΠΟΙΕΙ ΟΤΙ

το Πρόγραμμα Μεταπτυχιακών Σπουδών

Επιστήμη και Τεχνολογία Ηλεκτρολόγων Μηχανικών και Μηχανικών Υπολογιστών του Πανεπιστημίου Θεσσαλίας

συμμορφώνεται ικανοποιητικά με τις αρχές του Προτύπου Ποιότητας για την Πιστοποίηση των Προγραμμάτων Μεταπτυχιακών Σπουδών της ΕΘΑΑΕ και τις Αρχές και Κατευθυντήριες Οδηγίες για τη Διασφάλιση Ποιότητας στον Ευρωπαϊκό Χώρο Ανώτατης Εκπαίδευσης (ESG), για το επίπεδο σπουδών 7 του Εθνικού και Ευρωπαϊκού Πλαισίου Προσόντων.

Η διάρκεια ισχύος της πιστοποίησης ορίζεται για πέντε έτη, από 20-12-2023 έως 19-12-2028.











ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ

HELLENIC REPUBLIC



Εθνική Αρχή Ανώτατης Εκπαίδευσης Hellenic Authority for Higher Education

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Accreditation Report

for the Postgraduate Study Programme of:

Science and Technology of Electrical and Computer Engineering

Department: Electrical and Computer Engineering Institution: University of Thessaly Date: 8 July 2023







Report of the Panel appointed by the HAHE to undertake the review of the Postgraduate Study Programme of **Science and Technology of Electrical and Computer Engineering** of the **University of Thessaly** for the purposes of granting accreditation.

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PART A: BACKGROUND AND CONTEXT OF THE REVIEW

I. The External Evaluation & Accreditation Panel

The Panel responsible for the Accreditation Review of the postgraduate study programme of **Science and Technology of Electrical and Computer Engineering** of the **University of Thessaly** comprised the following five (5) members, drawn from the HAHE Register, in accordance with Laws 4009/2011 & 4653/2020:

- 1. Assoc. Prof. Konstantinos Kopsidas (Chair) The University of Manchester, Manchester, United Kingdom
- 2. Prof. George Papadopoulos University of Cyprus, Nicosia, Cyprus
- **3. Prof. Emeritus Nicolas Spyratos** Université Paris-Saclay, Paris, France
- **4.** Dr. Paraskevas Dalianis UniSystems S.M.S.A., Quest Group, Athens, Greece
- 5. Mr. Giorgos Kolipetris Department of ECE, Democritus University of Thrace, Xanthi, Greece

II. Review Procedure and Documentation

The External Evaluation and Accreditation Panel (EEAP) attended a series of videoconference meetings (zoom) with the Department of Electrical and Computer Engineering (ECE) of the University of Thessaly (UoT), and with the Director of the Science and Technology of Electrical and Computer Engineering (ST-ECE) Postgraduate Study Programme (PSP), the Head of the Department, QAU, and other Steering Committees. The External Evaluation & Accreditation Panel Review by Electronic Means was scheduled for two days of interviews on Monday the 3rd and the 4th of July 2023, with the 6th – 8th of July 2023 for drafting the Accreditation Report. On the 3rd of July, the Head of the Department (HoD), Prof. Michael Vassilakopoulos, introduced the academic and other supporting staff involved with the delivery and management of the ST-ECE PSP. A short overview of the postgraduate programme status was discussed, including a brief discussion on the strengths and possible areas of concern, however, no detailed SWOT analysis was presented. The discussion extended to the Standards for Quality Accreditation and the quality assurance procedures that are in place for the ST-ECE PSP. The follow-up session was a set for discussion of the learning materials, equipment and facilities adequacy and viability for the successful provision of the Programme. The EEAP had a private session to provide a synopsis of the findings and exchange their initial opinions on several aspects that were identified during the first day of the Accreditation review process.

The second day (July 4th, 2023) of the Accreditation review started with discussion between EEAP and a few academics and technical staff members from the Department, and met several students from different study modes, i.e., full-time (FT) and part-time (PT) and semesters. The discussion with the academics focused on assessing their opportunities for continuing professional development and progression and their involvement in quality assurance practices. The discussion with the students focused on their study experience, satisfaction with the Departments and Institution facilities provision, input in quality assurance and issues concerning welfare and on /off campus experience. The main focus of the EEAP was identifying the graduate student's integration into the industry and their opportunities for further studies and mobility options (i.e., International studentships and Job opportunities) and the processes they feed information from their personal experiences to the Department concerning their learning experience, provided facilities, infrastructure, and assessment approaches.

The Accreditation review concluded with several industrial collaborators, including representatives from private and public companies. The EEAP had an opportunity to explore the mechanisms/procedures, in place, facilitating their interactions with the Department, their view regarding the Programme of Studies, the quality of the students concerning the new technological advancements they learn and the Programme of Studies Specialisation level.

The final stage of the review was the EEAP chair to provide EEAP's draft list of findings and immediate feedback from summarising mainly, due to the time constraints, the aspects for improvement. The EEAP's view on this 15 minutes session was to provide the Departments IEG

with the areas that they should focus their discussions on their next internal evaluation group meeting.

The EEAP uses the remaining scheduled activities as an opportunity to collect additional evidence and clarifications on the Department's implementation of presented procedures (e.g., terms of reference and minutes of Working Groups like the IEG, any advisory boards, any specific actions allocated with timelines, etc.). Such evidence often indicates a well-established, well-documented, and systematic approach that allows the Department's continuous improvement and quality assurance in several aspects. For example, the effective implementation of a periodic Programme Study review, ensuring the inclusion of emerging topics and teaching material, the efficient use of facilities, and improving the processes that enable students' and industrial partners' feedback to the continuous review and development of the Department's activities.

The report hereafter presents the collective findings of the EEAP based on the two-day meetings, shared documentation provided by the Department, private discussions followed during the review with the different stakeholders, and email communication with the Department's staff.

III. Postgraduate Study Programme Profile

The Postgraduate Studies Program (PSP) in "Science and Technology of Electrical and Computer Engineering" leads to a Graduate Diploma of Specialization (GDS), equivalent to Master's Degree.

The duration of studies for awarding the ST-ECE Postgraduate Diploma, from the time of the initial enrolment to the Postgraduate Program, is a minimum two (2) semesters in FT mode and a maximum of six (6) semesters in PT mode¹. The PSP is equivalent of 60 ECTS and students are required to successfully complete either 6 courses, each of 7.5 ECTS units, and an MSc Dissertation/Thesis of 15 ECTS units. In the first semester, the Programme provides a totally 11 elective courses and students are required to select 4 courses, while in the second semester, there are 13 elective courses, of which students must select 2 and select their Dissertation topic. The successful completion of 6 courses and the Thesis/Dissertation is required to award the MSc in Science and Technology of Electrical and Computer Engineering degree.

 $^{^1\,\}text{A14}_KANONI\Sigma MO\Sigma\ \Sigma\Pi OY \Delta\Omega N.pdf,$ Section 4.

PART B: COMPLIANCE WITH THE PRINCIPLES

PRINCIPLE 1: QUALITY ASSURANCE POLICY AND QUALITY GOAL SETTING FOR THE POSTGRADUATE STUDY PROGRAMMES OF THE INSTITUTION AND THE ACADEMIC UNIT

INSTITUTIONS SHOULD APPLY A QUALITY ASSURANCE POLICY AS PART OF THEIR STRATEGIC MANAGEMENT. THIS POLICY SHOULD EXPAND AND BE AIMED (WITH THE COLLABORATION OF EXTERNAL STAKEHOLDERS) AT THE POSTGRADUATE STUDY PROGRAMMES OF THE INSTITUTION AND THE ACADEMIC UNIT. THIS POLICY SHOULD BE PUBLISHED AND IMPLEMENTED BY ALL STAKEHOLDERS.

The quality assurance policy of the academic unit should be in line with the quality assurance policy of the Institution and must be formulated in the form of a public statement, which is implemented by all stakeholders. It focuses on the achievement of special goals related to the quality assurance of the study programmes offered by the academic unit.

Indicatively, the quality policy statement of the academic unit includes its commitment to implement a quality policy that will promote the academic profile and orientation of the postgraduate study programme (PSP), its purpose and field of study; it will realise the Programme's goals and it will determine the means and ways for attaining them; it will implement appropriate quality procedures, aiming at the Programme's improvement.

In particular, in order to implement this policy, the academic unit commits itself to put into practice quality procedures that will demonstrate:

- a) the suitability of the structure and organisation of postgraduate study programmes
- *b)* the pursuit of learning outcomes and qualifications in accordance with the European and National Qualifications Framework for Higher Education level 7
- c) the promotion of the quality and effectiveness of teaching at the PSP
- d) the appropriateness of the qualifications of the teaching staff for the PSP
- *e)* the drafting, implementation, and review of specific annual quality goals for the improvement of the PSP
- f) the level of demand for the graduates' qualifications in the labour market
- *g)* the quality of support services, such as the administrative services, the libraries and the student welfare office for the PSP
- *h)* the efficient utilisation of the financial resources of the PSP that may be drawn from tuition fees
- i) the conduct of an annual review and audit of the quality assurance system of the PSP through the cooperation of the Internal Evaluation Group (IEG) with the Institution's Quality Assurance Unit (QAU)

Documentation

- Quality Assurance Policy of the PSP
- Quality goal setting of the PSP

Study Programme Compliance

I. Findings

The Institution has established a Quality Assurance (QA) Policy which is aligned with the principles provided by HAHE. The Institution has in place an accredited Internal Quality Assurance System. It formulates and applies a QA Policy, which is part of its strategy,

specialises in the operation of the new academic units and the new study programs, and is accompanied by annual quality assurance goals for the continuous development and improvement of the academic units and the study programs.

The Department has established a mechanism for conducting internal evaluation based on feedback at the end of the year by the teaching staff regarding various aspects of the courses they teach, market trends, the development of the scientific fields covered by the courses, the course evaluations by students and communication with external stakeholders

The PSP under review has established a QA Policy, which includes a commitment towards continuous improvement and is communicated to all parties involved through the Programme's website and during annual meetings with the students.

The Programme is compliant with the ECTS system. It is a 60 ECTS program with learning outcomes appropriate for level 7, according to the EQF for Lifelong Learning. The Programme seems to have efficient secretarial services, a well-equipped library and modern technical infrastructure. Some of the Department's labs are directly related to the ST-ECE PSP, such as supporting master thesis projects.

For its continuous improvement, the Programme benefits from feedback it receives from external stakeholders as well as by linking and integrating faculty research activities and results in the curriculum.

One important source of feedback for monitoring and improving quality is student questionnaires. These Module/Course Evaluation Questionnaires (CEQ) are filled and submitted online. They concern course content and teaching methods. They are filled at the end of each semester and the results are taken into account in the annual revision of course contents. Participation in filling out the questionnaires is rather low - as in many institutions around the country (slightly above 50%).

Another important source of feedback for monitoring and improving quality comes from external stakeholders (industry and alumni). However, this feedback process is rather ad-hoc, based on personal contacts among Faculty and external stakeholders.

There is no evidence of feedback to the quality assurance process by administrative personnel.

The Programme has established a formal faculty advisor scheme to assist students throughout their studies, which is a very good practice. Students indicated that faculty members are helpful and always available when they need advice or assistance in their studies. Faculty members appear to care for and work closely with students to help them grow and succeed.

All course syllabi provide clear information on course structure and learning outcomes. The instructors set clear expectations for the courses and clarify the course assessment methods at the beginning of each semester.

During its discussions with industrial representatives, the EEAP was satisfied to hear that the curriculum of the Programme is in line with real market needs. It was also stressed that the qualifications of the Programme's graduates were well sought after by domestic and foreign employers. During its discussions with students, the EEAP heard that the students were extremely satisfied with the overall atmosphere in the Department and the help and guidance they get form their teachers.

II. Analysis

A number of weak points impacting Quality Assurance were identified, which need Department's attention. Most importantly:

Goal setting:

Setting as a unique goal for a new programme the increase of the number of students from 15 to 20 is certainly an immediate obvious goal which will require an increased effort in order to achieve it. However, additional immediate goals could be pursued in parallel. For example, the EEAP heard that the Programme is a research program. It is hard to believe that a 60 ECTS Programme whose majority of students hold a full-time job can adequately prepare them for a research career. Furthermore, taking into account the European and National Qualifications Framework for Higher Education, the PSP should have a minimum 90 ECTS in order to be internationally recognised.

Long-term strategic planning:

If the program plans to establish itself as a research program, then it has to strive to establish a distinct identity. During the meeting with the students, the EEAP heard as a motivation for registering for the program that it would "provide some additional knowledge to what they already learned during the integrated master". Extending the program by adding a third semester and providing a 90 ECTS for a more research-oriented diploma thesis could be a solution. Naturally, such long-term strategic planning should consider the identification of threats and opportunities.

III. Conclusions

The program is in its very early stage of operation and has room for improvement. Despite the aforementioned weak points, the EEAP is convinced that, given the high quality of the Faculty, all these weak points will be attended in the near future, in the best possible manner.

| Principle 1: Quality assurance policy and quality goal setting | | |
|--|---|--|
| for the postgraduate study programmes of the Institution and | | |
| the academic unit | | |
| Fully compliant | | |
| Substantially compliant | X | |
| Partially compliant | | |
| Non-compliant | | |

Panel Recommendations

R1.1 Although there is still a limited number of graduates, the Programme should aim to establish an alumni network to facilitate student links to professional networks and improve the visibility and reputation of the Programme.

R1.2 Establish an Advisory Board comprising Faculty members and external stakeholders with periodic activities (meeting, for example, annually) to give feedback to the Programme and discuss future development industrial engagement (and other long-term goals).

R1.3 As a long-term goal, consider extending the Programme by adding a third semester for a more research-oriented diploma thesis and include more units to deliver a 90 ECTS² for its international recognition. Such a long-term strategic planning should be based on a SWOT³ analysis.

R1.4 Improve the quality assurance process (a) by involving the administrative personnel in the internal evaluation process, (b) by trying to increase student participation in course evaluations and (c) by taking into account all issues raised by QAU, especially regarding KPIs and measurable objectives.

https://education.ec.europa.eu/education-levels/higher-education/inclusive-and-connected-higher-education/european-credit-transferand-accumulation-system#:~:text=A%20typical%20'short%20cycle%20qualification,90%20or%20120%20ECTS%20credits.
https://www.mindtools.com/amtbj63/swot-analysis

PRINCIPLE 2: DESIGN AND APPROVAL OF POSTGRADUATE STUDY PROGRAMMES

INSTITUTIONS SHOULD DEVELOP THEIR POSTGRADUATE STUDY PROGRAMMES FOLLOWING A DEFINED WRITTEN PROCESS WHICH WILL INVOLVE THE PARTICIPANTS, INFORMATION SOURCES AND THE APPROVAL COMMITTEES FOR THE POSTGRADUATE STUDY PROGRAMMES. THE OBJECTIVES, THE EXPECTED LEARNING OUTCOMES AND THE EMPLOYMENT PROSPECTS ARE SET OUT IN THE PRORAMME DESIGN. DURING THE IMPLEMENTATION OF THE POSTGRADUATE STUDY PROGRAMMES, THE DEGREE OF ACHIEVEMENT OF THE LEARNING OUTCOMES SHOULD BE ASSESSED. THE ABOVE DETAILS, AS WELL AS INFORMATION ON THE PROGRAMME'S STRUCTURE ARE PUBLISHED IN THE STUDENT GUIDE.

The academic units develop their postgraduate study programmes following a well-defined procedure. The academic profile and orientation of the Programme, the research character, the scientific objectives, the specific subject areas, and specialisations are described at this stage.

The structure, content and organisation of courses and teaching methods should be oriented towards deepening knowledge and acquiring the corresponding skills to apply the said knowledge (e.g. Course on research methodology, participation in research projects, thesis with a research component).

The expected learning outcomes must be determined based on the European and National Qualifications Framework (EQF, NQF), and the Dublin Descriptors for level 7. During the implementation of the Programme, the degree of achievement of the expected learning outcomes and the feedback of the learning process must be assessed with the appropriate tools. For each learning outcome that is designed and made public, it is necessary that its evaluation criteria are also designed and made public.

In addition, the design of PSP must consider:

- the Institutional strategy
- the active involvement of students
- the experience of external stakeholders from the labour market
- the anticipated student workload according to the European Credit Transfer and Accumulation System (ECTS) for level 7
- the option of providing work experience to students
- the linking of teaching and research
- the relevant regulatory framework and the official procedure for the approval of the PSP by the Institution

The procedure of approval or revision of the programmes provides for the verification of compliance with the basic requirements of the Standards by the Institution's Quality Assurance Unit (QAU).

Documentation

- Senate decision for the establishment of the PSP
- PSP curriculum structure: courses, course categories, ECTS awarded, expected learning outcomes according to the EQF, internship, mobility opportunities
- Labour market data regarding the employment of graduates, international experience in a relevant scientific field
- PSP Student Guide
- Course and thesis outlines
- Teaching staff (name list including of areas of specialisation, its relation to the courses taught, employment relationship, and teaching assignment in hours as well as other teaching commitments in hours)

Study Programme Compliance

I. Findings

The Design and Approval process of a postgraduate programme of study involves several aspects that start from the Departmental and Institutional vision and strategy, teaching staff specialisation (so it can align with existing knowledge and research areas), the industry needs and feasibility/viability of the Programme. The latter often is linked with the student target group so the learning outcomes can be formulated to address these needs within the European Qualifications Framework (EQF) for Lifelong Learning.

Although the PSP for Science and Technology of Electrical and Computer Engineering seems to be a well-designed programme it is difficult to identify the processes used for its development. More specifically, the Programme's objectives, the expected learning outcomes of each module and the dissertation as well as the employment prospects, are not clearly set out. The PSP's Student Guide captures the courses and thesis outlines but in a very summative approach, it is difficult to identify the learning outcomes. The review process showed that the PSP for ST-ECE was developed based on the collective knowledge of the involved academics but without providing an overall strategic approach to how this Programme fits within the Institutional and Departmental Vision. The Program revision procedure was not in place and it was found that IEG for the PSP was not formally formulated (often available on the UG Programmes).

The data indicating student progression and participation in full-time or part-time were not very detailed. The Study guide also did not include information on how a student could change Programme (from FT to PT and vice versa) and under what circumstances a student is eligible to apply for that Programme change. Finally, there are other PSP on Computer Engineering within the same Institution and the EEAP find it difficult to identify the methodology used to ensure that this Programme differentiates from the other PSP within the Institution.

The feasibility/viability analysis of the Programme was not very detailed and was based on minimising the expenses to run the PSP instead of implementing a more systematic analysis that could combine resources from the UGT level 7 Programme courses. No minutes were provided indicating the QA practices are implemented systematically and periodically, and recorded decision-making, allocation and completion of any QA actions are in place.

II. Analysis

Considering the PSP ST-ECE is a level 7 EQF programme the learning outcomes should encompass, among various aspects, specialised problem-solving skills to solve complex problems required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields. Therefore, the PSP should mention how originality in developing and/or applying ideas, often within a research context, is achieved. The latter should have been detailed within the PSP dissertation's handbook and within the PSP Student Study Guide.

The ST-ECE PSP was found not to have a clear differentiation from other similar programmes within the same Institution. Forming an IEG to review the existing programmes (within the Institution and other competitive institutions) and approach the targeting industrial sector to gain better insights on the PSP graduates' employment prospects could

greatly help in achieving this differentiation and strengthening the PSP's future vision and viability.

There was no information management system to capture entry qualifications, working experience, and purpose for registration on the Programme as well as labour market data regarding the employment of graduates and international experience. The lack of alumni membership opportunities greatly limits the Department's opportunities for collecting such information and formulating records that could facilitate the Programme's review and quality assurance practices.

The PSP Student Guide mentions the maximum studying period of 6 Semesters. However, the diploma supplement⁴ mentions "two (2) years / four (4) semesters)". These are two very important documents for the description of the PSP and it seems that the internal QA practices (if applied) have not checked the provided information for accuracy.

While the provided documentation describes several procedures, there is no corroborating evidence demonstrating the systematic and recurring implementation of these procedures or the actions taken as a consequence of the existing QAA protocols. This is also evidenced by the 60 ECTS PSP that does not follow the international standards requiring a minimum of 90 ECTS Programme. No SWOT analysis was shared, justifying the reasoning of the 60 ECTS Programme.

III. Conclusions

The PSP ST-ECE seems to provide the academic profile and direction of the program, its research-oriented nature, scientific objectives, specific subject areas, and areas of specialisation. However, those could be captured in a more detailed way in the Student Study Guide and the Study Guide should be in agreement of the other official documentation.

The process of reviewing the postgraduate study programs within academic units does not adhere to a well-defined and clear procedure. Within the Department's QA policy mentions "the review of PSP on an annual base". There is no evidence that this is done in a systematic approach, so minutes and actions of the changes are not kept indicating evidence of the direction of the Programme that is based on the institution and department vision as well as research topics/projects and industry needs. In addition, the documentation describing the PSP is misleading, with some documents mentioning the maximum duration as 6 semesters and others as 4 semesters. This is another indication of inadequate QA implementation in the PSP. It would have also been appropriate to share the SWOT analysis performed during the development of the PSP, justifying the 60 ECTS and the vision to make the PSP 90 ECTS and an internationally recognised Degree.

 $^{^{4}}$ A15_ΠΑΡΑΡΤΗΜΑ ΔΙΠΛΩΜΑΤΟΣ.pdf

| Principle 2: Design and approval of postgraduate study | | |
|--|---|--|
| programmes | | |
| Fully compliant | | |
| Substantially compliant | | |
| Partially compliant | Х | |
| Non-compliant | | |

Panel Recommendations

R2.1 The EEAP strongly advises the PSP ST-ECE to form an IEG and provide a report on "an annual base" that includes an executive summary capturing the changes implemented to improve the PSP and vision of the Programme as well as basic information that evident its viability (indicating student numbers and strategies to increase/reduce expenses as required).

R2.2 The proposed (formed for the ST-ECE PSP) IEG should also review existing documentation, including Thesis format submission and assessment details, as well as regulation/procedure for converting the mode of attendance/study from FT to PT in the Guide of Studies (and/or other related documentation).

R2.3 The proposed IEG should process data ideally in tabulated form for the CEQs student participation, conversion from FT-to-PT, and their progression following similar quality practices with the UGT programme. Qualitative data should capture the reasoning of any student deliverable extension dead-lines in a systematic approach promoting transparency and equality.

R2.4 The proposed IEG should develop a strategic roadmap for developing a PSP that is 90 ECTS and achieve international recognition of Level 7 Postgraduate Degree. It should also ensure that all PSP documentation is reviewed systematically and timely to ensure that important information is correct.

R2.5 A well-defined process must be established for the review of a course/module. This procedure should encompass academic insights from those directly engaged in course delivery, providing targeted suggestions and recommendations for modifications. Additionally, it should outline the necessary adjustments to hardware and software infrastructure, elucidating how these changes align with the key observations derived from Student CEQs and contribute to enriching the student experience and address the seamless integration of emerging research domains.

PRINCIPLE 3: STUDENT-CENTRED LEARNING, TEACHING, AND ASSESSMENT

INSTITUTIONS SHOULD ENSURE THAT POSTGRADUATE STUDY PROGRAMMES PROVIDE THE NECESSARY CONDITIONS TO ENCOURAGE STUDENTS TO TAKE AN ACTIVE ROLE IN THE LEARNING PROCESS. THE ASSESSMENT METHODS SHOULD REFLECT THIS APPROACH.

Student-centred learning and teaching plays an important role in enhancing students' motivation, their self-evaluation, and their active participation in the learning process. The above entail continuous consideration of the Programme's delivery and the assessment of the related outcomes.

The student-centred learning and teaching process

- respects and attends to the diversity of students and their needs by adopting flexible learning paths
- considers and uses different modes of delivery, where appropriate
- flexibly uses a variety of pedagogical methods
- regularly evaluates and adjusts the modes of delivery and pedagogical methods aiming at improvement
- regularly evaluates the quality and effectiveness of teaching, as documented especially through student surveys
- strengthens the student's sense of autonomy, while ensuring adequate guidance and support from the teaching staff
- promotes mutual respect in the student-teacher relationship
- applies appropriate procedures for dealing with the students' complaints
- provides counselling and guidance for the preparation of the thesis

In addition

- The academic staff are familiar with the existing examination system and methods and are supported in developing their own skills in this field.
- The assessment criteria and methods are published in advance. The assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved. Students are given feedback, which, if necessary is linked to advice on the learning process.
- Student assessment is conducted by more than one examiner, where possible.
- Assessment is consistent, fairly applied to all students and conducted in accordance with the stated procedures.
- A formal procedure for student appeals is in place.
- The function of the academic advisor runs smoothly.

Documentation

- Sample of a fully completed questionnaire for the evaluation of the PSP by the students
- Regulations for dealing with students' complaints and appeals
- Regulation for the function of academic advisor
- Reference to the teaching modes and assessment methods

Study Programme Compliance

I. Findings

The available courses cover a wide spectrum of the PSP's applied field. Most of them include multiple assessment methods, equally contributing to a student's final assessment.

However, the assessment criteria could not be evaluated since they become available during lectures or after enrolment in the corresponding Course. Furthermore, personal attendance on university grounds is required for the delivery of all available courses.

Students are encouraged to develop individual skills, by participating both in individual and group assessments as well as in the compulsory assistance of the undergraduate Programme. The assistance Programme takes into consideration the academic background of the enrolled students to enable them to complete it successfully and it operates under defined regulations. The large availability of elective courses also contributes to the students' individual growth.

Students report excellent relations with the Faculty, both during the delivery and evaluation of the available courses. Evaluation is performed annually, as directed by QAU, however it could not be established whether further attempts to evaluate the quality of the provided courses are conducted. It should be noted though that such actions remain at the discretion of the Faculty, who are solely responsible for conducting such assessments according to the University's regulations.

Lastly, the availability of formal procedures for student appeals, as well as the successful application of a student advisor was confirmed.

II. Analysis

The PSP seems to comply with the major directives of student-centered learning and teaching by promoting interaction among students and Faculty, as well as developing students' individual skills. The teaching processes are also open to correction and constant improvement through regulated and systematic evaluations, as well as the excellent interaction of the Faculty with the student body. However, improvements could be made in the availability of multiple learning paths to successful completion of a course, as well as in raising the participation of the student body in the annual evaluations.

III. Conclusions

The PSP's compliance is satisfactory. The directives of the Principle are mostly followed, but there are minor issues that can be effectively addressed. The criteria for assessment of Thesis are not publicly available. The provided Course summaries in the Guide of Studies and the description of the Courses⁵ do not include these details.

⁵ A6_new Περιγράμματα μαθημάτων.pdf

| Principle | 3: | Student-centred | le | earning, |
|--------------|--------|-----------------|----|----------|
| teaching, a | ind as | ssessment | | |
| Fully comp | liant | | | |
| Substantia | lly co | mpliant | | Х |
| Partially co | mplia | ant | | |
| Non-comp | liant | | | |

Panel Recommendations

R3.1 The PSP should make the assessment criteria of each Course publicly available, before students' registration or attendance at delivered lectures, given their compulsory nature. It is also recommended that an indicative program of all delivered lectures, compulsory and/or elective assignments, as well as possible laboratory exercises, be made available before students' registration or attendance so students can have a better understanding of each Course's expectations and effectively decide on their capability to meet said expectations. The Dissertation/Thesis marking criteria should also be provided in more detail.

R3.2 The PSP's Faculty should include more learning paths (i.e., FT/PT) leading to the successful completion of the PSP. All the procedures on delivery options (FT/PT), eligibility regulations, and applications should be clearly established and reported and publicly available.

R3.3 The Faculty should develop the procedures to allow the "full cycle" of PSP assessment (collection of the CEQ data \rightarrow processing and presenting the key findings – to all stakeholders \rightarrow making decisions/actions to improve the programme \rightarrow assessing their effectiveness from the new CEQ data). This will strengthen PSP's student-centered learning approaches and improve current QA practices aiming towards the continuous development of the PSP.

R3.4 The Faculty is encouraged to develop a more structured procedure for assessing the background knowledge for entry requirements. This could be a set of tests or a qualitative interview to assess the prerequisite knowledge of the applied/newly admitted students that advise students on elective courses and extra-curriculum courses (from the UG Programme in the Institution) that could provide individualized assistance when required. Courses could also examine the possibility of providing distance learning options, whenever and wherever such options are applicable.

PRINCIPLE 4: STUDENT ADMISSION, PROGRESSION, RECOGNITION OF POSTGRADUATE STUDIES, AND CERTIFICATION.

INSTITUTIONS SHOULD DEVELOP AND APPLY PUBLISHED REGULATIONS COVERING ALL ASPECTS AND PHASES OF STUDIES (ADMISSION, PROGRESSION, THESIS DRAFTING, RECOGNITION AND CERTIFICATION).

All the issues from the beginning to the end of studies should be governed by the internal regulations of the academic units. Indicatively:

- the student admission procedures and the required supporting documents
- student rights and obligations, and monitoring of student progression
- internship issues, if applicable, and granting of scholarships
- the procedures and terms for the drafting of assignments and the thesis
- the procedure of award and recognition of degrees, the duration of studies, the conditions for progression and for the assurance of the progress of students in their studies
- the terms and conditions for enhancing student mobility

All the above must be made public in the context of the Student Guide.

Documentation

- Internal regulation for the operation of the Postgraduate Study Programme
- Research Ethics Regulation
- Regulation of studies, internship, mobility, and student assignments
- Degree certificate template

Study Programme Compliance

I. Findings

Documentation was provided detailing regulations on student admissions, operation of the Postgraduate Study Programme and mode of study (FT and PT studies), and the prerequisites⁶. From the documentation and review process, EEAP found some basic missing elements on the procedures and details for drafting assignments and writing up the Thesis (e.g., no page number or word number is indicated and the criteria for assessing the Thesis) were not published to the students. Such documentation⁷ should be provided to the students so they can be aware of the assessment procedures. Furthermore, some significant errors have been identified in critical documentation and differences between Greek and English versions of the Postgraduate Study Programme and mode of study.

Another observation was that no clear regulations for the mode of study and criteria for shifting from FT to PT were published. From the accreditation Review, it was identified that the academics always provide flexibility to the students. However, this seemed to be on an adhoc and as-needed basis and not with a systematic approach published to the students. EEAP had difficulty identifying the current student registration and their mode of study. No detailed records were presented during the review process and the interviews from the students

⁶ Provided documentation (among others): A14_KANONIΣΜΟΣ ΣΠΟΥΔΩΝ.pdf, A15_ΠΑΡΑΡΤΗΜΑ ΔΙΠΛΩΜΑΤΟΣ.pdf ⁷ Example of assessment criteria: <u>https://www.sbsaob.soton.ac.uk/wp-content/uploads/sites/140/2016/10/Masters-</u> <u>Dissertation-assessment-criteria.pdf</u>

indicated that was not clear the process of converting from FT to PT (i.e., the students did that by communicating with their tutor but not following a formal procedure).

II. Analysis

It is critical that the Department formulates, applies, and publishes its PSP ST-ECE regulations covering all aspects and phases of studies, including admission, progression, thesis drafting, recognition and certification.

The EEAP had difficulty identifying the procedure for study mode and how the student can shift from FT to PT. Other regulations were found to be different from the Greek and English versions (e.g., "4.2 Programme requirements") or lacking details on the assignment and assessment methods (e.g., length of Thesis and criteria of assessment). Some procedures seemed to be in place but were not implemented systematically (semester and annually). An example is the regulation for recoding student progression or the review of the courses, which, from the review process, did not seem to be executed systematically and regularly based on the findings of the review process.

Research ethics regulations are in place but there should be a training course on ethics, academic misconduct and research methods as a part of the diploma thesis to ensure that students are educated on such practices (a learning requirement for the EQF level 7 degrees)^{8,9}. In addition, EQF level 7 degrees requires a minimum of 90 ECTS for the PSPs. Perhaps reviewing the current PSP and increasing its duration to 1.5 years (from 1) could help achieve this requirement.

III. Conclusions

The PSP on ST-ECE seems to have most of the regulations in place. However, several published regulations seemed to lack detail and clarity and the PSP quality assurance practices to review in an annual approach and improve them seem to not be functioning properly. Such practices could be adopted from the UGT Programmes, which are often more detailed, documented and systematically implemented due to the increased number of students and feedback to CEQ. The academics involved with the development of the program should ensure that IEG is in place for achieving this annual review of the Programmes' procedures/regulations.

⁸ Explaining the EQF for Lifelong Learning - Link: <u>https://europa.eu/europass/system/files/2020-05/EQF-Archives-EN.pdf</u>
⁹ Commission Staff Working Document "Towards A European Qualifications Framework For Lifelong Learning" – Link:

https://www.engineerseurope.com/sites/default/files/EQF-EN-final_version_-PDF.PDF

| Principle 4: Student admission, progression, recognition | | |
|--|---|--|
| of postgraduate studies and certification | | |
| Fully compliant | | |
| Substantially compliant | | |
| Partially compliant | Х | |
| Non-compliant | | |

Panel Recommendations

R4.1 Formulate an IEG for reviewing existing study regulations, documentation and assessment methods to ensure they are detailed, informative and publicly available.

R4.2 Formulate and implement a more systematic mechanism to record and present data with a more detailed per-semester and study mode student progress throughout the Programme. This should include student admissions, progression, and thesis drafting/submission, allowing for a year-on-year comparison of this information.

R4.3 The PSP should include formal training on ethics, academic misconduct and malpractices, research methods, and academic writing and presentation skills. In addition, EEAP strongly advises revising the PSP towards a 90 ECTS and aligning the Programme with the EQF.

PRINCIPLE 5: TEACHING STAFF OF POSTGRADUATE STUDY PROGRAMMES

INSTITUTIONS SHOULD ASSURE THEMSELVES OF THE LEVEL OF KNOWLEDGE AND SKILLS OF THEIR TEACHING STAFF, AND APPLY FAIR AND TRANSPARENT PROCESSES FOR THEIR RECRUITMENT, TRAINING AND FURTHER DEVELOPMENT.

The Institution should attend to the adequacy of the teaching staff of the academic unit teaching at the PSP, the appropriate staff-student ratio, the appropriate staff categories, the appropriate subject areas, the fair and objective recruitment process, the high research performance, the training- development, the staff development policy (including participation in mobility schemes, conferences, and educational leaves-as mandated by law).

More specifically, the academic unit should set up and follow clear, transparent and fair processes for the recruitment of properly qualified staff for the PSP and offer them conditions of employment that recognise the importance of teaching and research; offer opportunities and promote the professional development of the teaching staff; encourage scholarly activity to strengthen the link between education and research; encourage innovation in teaching methods and the use of new technologies; promote the increase of the volume and quality of the research output within the academic unit; follow quality assurance processes for all staff (with respect to attendance requirements, performance, selfassessment, training, etc.); develop policies to attract highly qualified academic staff.

Documentation

- Procedures and criteria for teaching staff recruitment
- Employment regulations or contracts, and obligations of the teaching staff
- Policy for staff support and development
- Individual performance of the teaching staff in scientific-research and teaching work, based on internationally recognised systems of scientific evaluation (e.g. Google Scholar, Scopus, etc.)
- List of teaching staff including subject areas, employment relationship, Institution of origin, Department of origin

Study Programme Compliance

I. Findings

The Department currently has a 23 strong faculty comprising 11 Professors, 11 Associate Professors and 1 Assistant Professor. The Faculty is further strengthened with a number of other teaching and research staff, such as Emeritus and Adjunct Professors, lab teaching staff, and teaching collaborators. Their research expertise spans many areas of Computer and Electrical Engineering, such as Algorithms, Databases, Networks, Distributed Systems, Software Engineering, VLSI/CAD, Modelling and Simulation, etc.

The Faculty is quite active in research, with an h-index ranging between 12-66 (average 25) for Professors and between 10-42 (average 22) for the rest of the Faculty. The output of the Faculty's research is published in various scientific forums, including conferences and workshops. Furthermore, the Faculty has participated or is currently participating in nearly 60 projects (according to the information available on the Department's website), externally funded by national sources or EU programs.

The Faculty have been appointed and promoted through the ranks following the established Greek framework of an appointments committee that includes members from other universities and follows a rigorous evaluation of the research and teaching credentials of the Faculty under consideration. A number of awards related to excellence in teaching and research have been established, in order to strengthen the incentives of the Faculty to excel.

While interviewing the Faculty, it became evident that they take advantage of the mechanism of sabbatical leaves with around 50%-70% of the Faculty having taken a sabbatical leave at some stage or another of their career.

The workload of the Faculty involved in offering the program in question is, on average, around 7-8 hours per week.

The Department has a total of 8 established labs, some of which are directly related to the graduate program that is being assessed for accreditation. Some of the labs are involved in activities related to the graduate program that is being assessed for accreditation, such as supporting master thesis projects.

The Faculty are evaluated regularly by the students, by means of online questionnaires that can be filled and submitted online. As is the case with other institutions, the percentage of students actually participating in this faculty assessment exercise is, at best around 50%.

II. Analysis

The strength of the Faculty is appropriate and sufficient to offer the graduate program that is being assessed for accreditation. The level of research quality is similar to that of other institutions nationally and internationally. The level of external funding is not clearly stated in the submitted documentation. Compared to other institutions at a national level, the percentage of faculty members taking sabbatical leaves and in general taking advantage of mobility mechanisms is above average. The workload is appropriate for academic staff. The feedback from students is overall positive but the level of student participation needs to be increased. The involvement of the Department's labs in the activities of the graduate program that is being assessed for accreditation needs to be strengthened. External funding from national or international sources can be increased. It is unclear what sort of opportunities the Department or the University offers for further strengthening the improvement of the teaching staff in teaching and learning.

III. Conclusions

Overall, the Faculty is well qualified to offer the postgraduate program that is being assessed for accreditation. There are some rather minor weaknesses that are being suggested for improvement below.

| Principle 5: Teaching staff of postg | raduate |
|--------------------------------------|---------|
| study programmes | |
| Fully compliant | Х |
| Substantially compliant | |
| Partially compliant | |
| Non-compliant | |

Panel Recommendations

R5.1 Develop periodic events to promote the PSP and further identify methods to increase external funding.

R5.2 Provide additional Initiatives to increase the level of student participation in teaching staff assessment.

R5.3 Develop mechanisms to increase the level of involvement of the Department's labs in the graduate Programme's activities, such as offering support for master thesis projects.

R5.4 Offer opportunities to the teaching staff to further improve their teaching and learning abilities.

R5.5 Develop a few KPIs that facilitate improvement in teaching delivery performance, laboratory and other infrastructure utilisation, industrial participation in seminars and CPD schemes.

PRINICPLE 6: LEARNING RESOURCES AND STUDENT SUPPORT

INSTITUTIONS SHOULD HAVE ADEQUATE FUNDING TO COVER THE TEACHING AND LEARNING NEEDS OF THE POSTGRADUATE STUDY PROGRAMME. THEY SHOULD –ON THE ONE HAND- PROVIDE SATISFACTORY INFRASTRUCTURE AND SERVICES FOR LEARING AND STUDENT SUPPORT, AND – ON THE OTHER HAND- FACILITATE DIRECT ACCESS TO THEM BY ESTABLISHING INTERNAL RULES TO THIS END (E.G. LECTURE ROOMS, LABORATORIES, LIBRARIES, NETWORKS, NETWORKS, CAREER AND SOCIAL POLICY SERVICES ETC.).

Institutions and their academic units must have sufficient resources and means, on a planned and longterm basis, to support learning and academic activity in general, so as to offer PSP students the best possible level of studies. The above means include facilities such as the necessary general and more specialised libraries and possibilities for access to electronic databases, study rooms, educational and scientific equipment, IT and communication services, support and counselling services.

When allocating the available resources, the needs of all students must be taken into consideration (e.g. whether they are full-time or part-time students, employed students, students with disabilities), in addition to the shift towards student-centered learning and the adoption of flexible modes of learning and teaching. Support activities and facilities may be organized in various ways, depending on the institutional context. However, the internal quality assurance proves -on the one hand- the quantity and quality of the available facilities and services, and -on the other hand- that students are aware of all available services.

In delivering support services, the role of support and administration staff is crucial and therefore this segment of staff needs to be qualified and have opportunities to develop its competences.

Documentation

- Detailed description of the infrastructure and services made available by the Institution to the academic unit for the PSP, to support learning and academic activity (human resources, infrastructure, services, etc.) and the corresponding firm commitment of the Institution to financially cover these infrastructure-services from state or other resources
- Administrative support staff of the PSP (job descriptions, qualifications and responsibilities)
- Informative / promotional material given to students with reference to the available services
- Tuition utilisation plan (if applicable)

Study Programme Compliance

I. Findings

The academic unit provides several services to the ST-ECE PSP, namely access to the university library, IT infrastructure, and classrooms to deliver the PSP. Given the fact that the current building on which the Department is housed is newly built, the quality of the infrastructure is expected to be optimal, as indicated by the video presentation provided. However, a full inspection of the premises could not be facilitated due to the nature of the current assessment.

The PSP students have access to the same infrastructure and services of the Department as the undergraduate ones. As such, facilities like boarding services, career counselling, student welfare, as well as sports and cultural facilities and student groups are available. The University also provides free meals to students, provided they meet well-defined income criteria. These services are well known to the student body, who make regular use of these services. Furthermore, through the Department's cooperation with external stakeholders, access to further services and equipment specific to the purposes of the PSP is also provided. Lastly, the PSP provides scholarships based on academic performance and income criteria.

While the student body was aware of the facilities and services available to them, it was not clear how these were made known to them. Despite the fact that many of the PSP's students obtained their Bachelor's degree through the Department's undergraduate Programme, there is no mention of a formal presentation to the newly admitted student body.

The administration of the PSP is satisfactory. The Department has included regulations that ensure the uninterrupted availability of staff for the administration of the PSP. A catalogue with the names of the secretariat staff tasked with the duties of the PSP was also provided.

Lastly, the PSP requires tuition for its duration, with the plan of its utilisation being included in the Study Guide of the PSP.

II. Analysis

The Department provides all the necessary facilities and services for the PSP needs. The student body is well aware of the facilities and services available, as well as the management of the tuition fees. The administration staff is also adequate and ensures the smooth operation of the PSP. The availability of a scholarship by the University is a welcome service in assistance of low-income students.

III. Conclusions

The ST-ECE PSP provides adequate infrastructure and support to the students for their successful completion. Further efforts for improvement should be put to ensure that information provided to the students for assessment and programme delivery is updated and correct, as errors could lead to confusion and unfair treatment of the students.

| Principle 6: Learning resources and | student |
|-------------------------------------|---------|
| support | |
| Fully compliant | Х |
| Substantially compliant | |
| Partially compliant | |
| Non-compliant | |

Panel Recommendations

R6.1 The ST-ECE PSP Faculty could organise a formal presentation or a series of newsletters to inform newly admitted students of the available facilities and services of the University.

R6.2 Create a procedure that systematically and periodically reviews available information provided to the students and the public (potential students). Many serious mistakes associated with the Programme study have been identified in the shared (to the EEAP) and online available documentation.

PRINCIPLE 7: INFORMATION MANAGEMENT

INSTITUTIONS BEAR FULL RESPONSIBILITY FOR COLLECTING, ANALYSING AND USING INFORMATION, AIMED AT THE EFFICIENT MANAGEMENT OF POSTGRADUATE STUDY PROGRAMMES AND RELATED ACTIVITIES, IN AN INTEGRATED, EFFECTIVE AND EASILY ACCESSIBLE WAY.

Institutions are expected to establish and operate an information system for the management and monitoring of data concerning students, teaching staff, course structure and organisation, teaching and provision of services to students.

Reliable data is essential for accurate information and decision-making, as well as for identifying areas of smooth operation and areas for improvement. Effective procedures for collecting and analysing information on postgraduate study programmes and other activities feed data into the internal system of quality assurance.

The information collected depends, to some extent, on the type and mission of the Institution. The following are of interest:

- key performance indicators
- student population profile
- student progression, success, and drop-out rates
- student satisfaction with their programmes
- availability of learning resources and student support

A number of methods may be used to collect information. It is important that students and staff are involved in providing and analysing information and planning follow-up activities.

Documentation

- Report from the National Information System for Quality Assurance in Higher Education (NISQA) at the level of the Institution, the Department, and the PSP
- Operation of an information management system for the collection of administrative data for the implementation of the PSP (Students' Record)
- Other tools and procedures designed to collect data on the academic and administrative functions of the academic unit and the PSP

Study Programme Compliance

I. Findings

The University of Thessaly has established a set of QA principles for the collection of data regarding students, teaching staff, course structure, annual monitoring, periodic assessments, etc. and operates centralised information systems (such as, SIS-Web, eClass), providing effective academic services and tools to its Programmes for their administrative and QA purposes.

The ST-ECE PSP Steering Committee, in close cooperation with QAU, the Department and IEG, utilise the available centralised tools to collect, organise, manage, and analyse information towards the continuous improvement of their PSP.

QAU, in its recent internal evaluation report¹⁰, recognises that several preventive/ corrective actions must be taken toward improving the PSP. Nevertheless, the material shared

 $^{^{10}}$ A8_new Apotel edw af PMS MODIF.pdf

with EEAP did not provide associated documented goals, objectives, actions, and KPIs that lined with the ST-ECE PSP.

Based on provided data, the number of admitted students in the PSP declined, with admitted students covering less than 30% of PSP's capacity. PSP has identified this issue, setting up one of its two existing quality targets for evaluation by the end of 2023 as described in the provided documentation¹¹. The second target is related to the number of students graduating each year.

Evidently, there are no established mechanisms for eliciting feedback and QA support from PSP's graduates.

Published information on the progress of its QA processes and results of the periodic internal evaluation of PSP is very limited -if any- on PSP's website. Furthermore, significant inconsistencies and/or lack of details are found in the provided online material associated with essential aspects of the ST-ECE PSP, such as the delivery of the Programme and the compulsory elective assessment material.

II. Analysis

Data collected from various sources provides a holistic -although limited- view of PSP's performance and student experience. Formal and systematic processes for eliciting extended data from all internal and external stakeholders may provide thorough input for periodic review of the Programme and QA purposes and facilitate a decision-making approach upon further actions toward PSP's effectiveness.

Further efficiency measurements using quantitative and qualitative indicators through KPIs, should be identified, providing valuable and reliable information to support higher-level decision-making.

Regular data collection from students at the end of each teaching semester allows for periodic evaluations and identification of trends for improvement. Nevertheless, persistent low response rates in CEQ raise concerns about QA data adequacy and effective decision-making.

Performing dedicated regular surveys involving other stakeholders (in addition to the students), for example, alumni and the existing industrial network, may enhance the incorporation of useful feedback for the continuing review and development of the PSP.

The EEAP acknowledges that the PSP is making an effort to collect feedback from various external stakeholders (including staff's extended network of regional and national social partners and industry experts). However, it appears that this has been done so far with an adhoc and uncoordinated approach. Establishing formalised and documented processes for eliciting input from external stakeholders may enhance academic offerings through systematic external collaboration. It could also improve the publicity of PSP's offering, increasing the number of potential candidate students for the Programme.

The PSP must benefit from all external stakeholders' cooperative spirit and willingness, which became apparent to EEAP during the review meetings.

¹¹ A3_new Στοχοθεσία Ποιότητ ΠΜΣ.pdf

III. Conclusions

The PSP must further elaborate on using the institutional information systems and ensure the comprehensive data management and quality assurance processes contribute to its effectiveness and success. Further KPIs need to be established, analysed, and documented for all preventive and corrective actions identified by QAU. Additionally, it is essential to clearly outline long-term objectives and expand upon them as necessary through periodic internal quality review processes to promote continuous improvement. For example, no KPI is defined for students' low response rates to CEQs and actions to resolve this. Such low student participation in CEQ affects the data's importance/accuracy. Perhaps different CEQs should be formulated for the Courses with very low student participation, focusing more on the student text responses.

The PSP should consider extending and formalising external stakeholders' active participation in its QA processes, including, among others, alumni. An alumni association's absence hinders valuable feedback for continuous program improvement and visibility to the industry. ST-ECE PSP needs to enhance the information provided on its website and increase its public dissemination activities.

| Principle 7: Information management | |
|-------------------------------------|---|
| Fully compliant | |
| Substantially compliant | Х |
| Partially compliant | |
| Non-compliant | |

Panel Recommendations

R7.1 Additional KPIs should be adopted, such as (but not only) those associated with students' participation in CEQ, expanding the breadth of periodic QA goals reviewed towards PSP continuous improvement.

R7.2 The PSP should develop a formal (independent from the Institution) procedure for collecting, processing and presenting data from CEQ, aiming to ensure QA practices are in place to review the PSP. This procedure should be aligned with any Internal/External evaluations of the PSP.

R7.3 Develop a formal procedure to update, refine and review the information provided on the website and to students.

R7.4 A formal procedure should be created to systematically promote the active participation of external stakeholders, capitalising on staff's wide network of external relations in PSP QA processes.

R7.5 The formation of an Alumni membership that also includes participation in periodic activities (e.g. an industrial open day), aiming to actively engage its members towards strengthening the PSP's visibility/promotion and QA processes towards its continuous improvement.

PRINCIPLE 8: Public Information Concerning The Postgraduate Study Programmes

INSTITUTIONS SHOULD PUBLISH INFORMATION ABOUT THEIR TEACHING AND ACADEMIC ACTIVITIES RELATED TO THE POSTGRADUATE STUDY PROGRAMMES IN A DIRECT AND READILY ACCESSIBLE WAY. THE RELEVANT INFORMATION SHOULD BE UP-TO-DATE, OBJECTIVE AND CLEAR.

Information on the Institutions' activities is useful for prospective and current students, graduates, other stakeholders, and the public.

Therefore, Institutions and their academic units must provide information about their activities, including the PSP they offer, the intended learning outcomes, the degrees awarded, the teaching, learning and assessment procedures applied, the pass rates, and the learning opportunities available to their students. Information is also provided on the employment perspectives of PSP graduates.

Documentation

- Dedicated segment on the website of the Department for the promotion of the PSP
- Bilingual version of the PSP website with complete, clear and objective information
- Provision for website maintenance and updating

Study Programme Compliance

I. Findings

The Department maintains a webpage¹² named, MSc Studies in "Science and Technology of ECE", providing introductory information for the PSP, including:

- Brief description of the PSP
- Graduate Studies Rules Handbook.
- Courses offered, organized per Semester or Subject Area, with some key information for each Course.
- Graduate Program Coordinating Committee Members with contact details and links to their web pages.
- Involved secretariat staff and contact details.
- Links to student services.

The Greek version of this website provides far more details than its English version. The Handbook¹³ seems to be different in Greek and English versions and the website information (in English) differs from the Handbook pdf version provided to EEAP. All detailed information for the Courses is provided only in the Greek language. In some courses, its English version provides a link to the main course page in eClass; an example is the "PGS616 Parallel and Internet Programming" Course¹⁴. However, most of the courses do not provide such a link. Access to eClass contents (if such exists for a course) is allowed only to the staff and the registered students in each Course. It also includes a link to a separate website (<u>https://ece-msc.e-ce.uth.gr/</u>), which is only in Greek and is fully dedicated to the PSP, providing almost all information expected for that, including its structure, courses, learning objectives, guides, assessment details, QA policy, etc. Within this website, one may find links to all Courses, with

¹² Page link at the time of QAA Review: <u>https://www.e-ce.uth.gr/studies/postgraduate/science-and-technology-of-ece/</u>

 $^{^{13}}$ A14_KANONΙΣΜΟΣ ΣΠΟΥΔΩΝ.pdf

¹⁴ PGS616 Parallel and Internet Programming Course Link <u>https://courses.e-ce.uth.gr/CE616</u>.

full details. Details for the Faculty are accessible only through each Course's tutor link. In some cases, there are some discrepancies or broken links (i.e., for "ΜΔΕ602 Προχωρημένα Θέματα Σχεδιασμού Λογισμικού", the link to course contents redirects to the English webpage of the course "PGS602 Advanced Software Engineering").

Thus, complete and detailed information about the Programme is currently provided only in Greek.

Following EEAP's request, the Department provided some additional information on the website's maintenance and updating process. It was reported, that any maintenance or updating action, is implemented following a request from the PSP Chairman whenever such a need arises. Updating takes place, every time the Department General Assembly comes to a decision on any matter related to the Programme, such as changes to the PSP guide, its courses, its regulations, the handling of any complaints or objections upon its contents, etc. Such requests are handled by technical support (<u>https://www.e-ce.uth.gr/technical-support/</u>), as needed. Due to the limited availability of human resources, there is currently no electronic process for managing these activities (such as registration of requests, workflow mechanisms, activity logs or monitoring, etc.). This also means that there is no statistical information for these activities.

II. Analysis

The website should be the main source of information about the PSP, providing all the information needed. There is currently a root page within the main website of the Institution / Department, which provides basic information (guides, courses, links to departmental social media pages, detailed information on Faculty and their research, etc.) in Greek and English. In its Greek version (only), there is a redirection link to another Greek website dedicated to the Programme.

The latter Greek website is well organised, user-friendly, and easily accessible. It is informative and comprehensive, with information about the Program of Study, the academic and administrative personnel and procedures, research programs, student-related issues and services, facilities, etc. Since there is no specific presence of the Programme on social media, there are no such links. There is also no information on alumni and graduates, as no alumni exist for the postgraduate Programme, as is the case for the whole Department.

Information for prospective external stakeholders, such as social partners, regional organisations, companies or even professionals, such as previous graduates, is also not provided. There is also limited information at Programme level for any participation or support of the PSP to open activities, events, and conferences, if any. The web visitor should search within the Faculty's material for research details, research activities and projects, etc.

The Departmental office and the PSP' secretariat staff provide updates and public announcements via relevant electronic platforms, such as personalised emails, and important announcements on PSP in the aforementioned central pages (main website and vertical Greek site).

All PSP guides and regulations are available as PDF files in Greek and some basic info on the QA policy may also be found on the site. However, for any additional info on the QA system, the web visitor should search on the Institutional and/or departmental website. It is often necessary for the PSP Faculty to publicly provide information about their activities, the intended learning outcomes, mode of studies, degrees awarded, teaching, learning and assessment procedures applied, and the learning opportunities available to their students. However, EEAP, find no details¹⁵ on the Thesis format (indication of the work expected to be submitted) and assessment criteria. Furthermore, no details were found indicating the criteria and procedures in place for the students to change their study mode from FT to PT.

III. Conclusions

The PSP website is the main channel of communication for both students and staff, as well as the outside world. It must be bilingual to its full depth, providing all required content in two languages (Greek & English) in an organized, easily accessible approach. The financial viability should capture the required support to review/revise, check for coherency and errors and update the PSP's information (Pdf documentation, links and webpages).

The PSP website should incorporate information relevant to the interests of different visitor profiles, such as students, graduates, potential students and partners, including external researchers and professors. The website could be enhanced by providing information for incoming ERASMUS+ students, although the PSP does not yet participate in it. It is also apparent that there is no information for non-Greek speaking students.

The PSP is being promoted with the distribution of information leaflets, announcements in public media, presentations at events and conferences, etc. However, evidence of such activities is too limited on its website.

As the PSP has no presence on social media, such links do not appear on the website (apart from the departmental links). There is also no information on alumni and graduates, as no alumni exist for the postgraduate Programme, as is the case for the whole Department.

Updates and public announcements are distributed via relevant electronic platforms, such as personalised emails, to students, staff, etc., and only some important PSP announcements appear on the website.

PSP guides and regulations are provided, while the Greek website offers only fundamental information about the Quality Assurance (QA) policy. The website should provide all QA-related documentation and results, not restricted by GDPR or other reasons.

Details about the Thesis format, regarding the work expected to be submitted (indicating length and/or words) and the assessment criteria were not found in the provided documentation, nor the regulation for eligibility of potential students to change from FT to PT studies.

¹⁵ Relevant provided Documentation to the EEAP: A14_new Οδηγός σπουδών.pdf, A6_new Περιγράμματα μαθημάτων.pdf, A5_new Οδηγός σπουδών_gel_en.pdf, A14_new Οδηγός σπουδών.pdf

| Principle 8: Public information concerning the postudy programmes | ostgraduate |
|---|-------------|
| Fully compliant | |
| Substantially compliant | |
| Partially compliant | Х |
| Non-compliant | |

Panel Recommendations

R8.1 Develop a formal procedure to update, refine and review the information provided on the website and to students (including links and pdf documentation) to ensure quality and coherency. This mechanism should also document its information dissemination processes, website maintenance tasks/activities, and their allocations/responsibilities for completion.

R8.2 Ensure the mechanism is in place to provide PSP information on the website must be consistent across both sections (Greek and English).

R8.3 The PSP should consider maintaining an autonomous presence on social media platforms.

R8.4 The PSP should support the creation of alumni membership and the provision of related information and services on its website. Alumni members may potentially support PSP's presence in social media.

R8.5 The Information on research topics and labs related to the PSP should be more straightforward on the website and the information on infrastructure used for the delivery of the PSP should be within the PSP webpages.

R8.6 The PSP should enhance the information dissemination for its mission and activities and include such information on its website.

PRINCIPLE 9: ON-GOING MONITORING AND PERIODIC INTERNAL EVALUATION OF POSTGRADUATE STUDY PROGRAMMES

INSTITUTIONS AND ACADEMIC UNITS SHOULD HAVE IN PLACE AN INTERNAL QUALITY ASSURANCE SYSTEM FOR THE AUDIT AND ANNUAL INTERNAL REVIEW OF THEIR POSTGRADUATE STUDY PROGRAMMES, SO AS TO ACHIEVE THE OBJECTIVES SET FOR THEM, THROUGH MONITORING AND POSSIBLE AMENDMENTS, WITH A VIEW TO CONTINUOUS IMPROVEMENT. ANY ACTIONS TAKEN IN THE ABOVE CONTEXT SHOULD BE COMMUNICATED TO ALL PARTIES CONCERNED.

The regular monitoring, review, and revision of postgraduate study programmes aim at maintaining the level of educational provision and creating a supportive and effective learning environment for students.

The above comprise the evaluation of:

- a) the content of the Programme in the light of the latest research in the given discipline, thus ensuring that the PSP is up to date
- b) the changing needs of society
- c) the students' workload, progression and completion of the postgraduate studies
- d) the effectiveness of the procedures for the assessment of students
- e) the students' expectations, needs and satisfaction in relation to the Programme

f) the learning environment, support services, and their fitness for purpose for the PSP in question Postgraduate study programmes are reviewed and revised regularly involving students and other stakeholders. The information collected is analysed and the Programme is adapted to ensure that it is up-to-date.

Documentation

- Procedure for the re-evaluation, redefinition and updating of the PSP curriculum
- Procedure for mitigating weaknesses and upgrading the structure of the PSP and the learning process
- Feedback processes concerning the strategy and quality goal setting of the PSP and relevant decision-making processes (students, external stakeholders)
- Results of the annual internal evaluation of the PSP by the Quality Assurance Unit (QAU), and the relevant minutes

Study Programme Compliance

I. Findings

In the documentation provided, the Department describes an established mechanism for undertaking internal evaluation. According to this description, the internal evaluation is based on the feedback that the teaching staff provides at the end of each academic year to the Department with respect to any aspects of the courses they teach that may need to be modified. This feedback takes into consideration the market trends, the development of the scientific field that a course covers, the course evaluations by students and communication with external stakeholders.

Based on this feedback, any needed changes to the current program are submitted to the Department council, which makes the final decision. Any agreed changes to the current program are communicated to the students through the updated set of course notes that are distributed to the students and the distribution of relevant scientific articles and websites.

The accreditation panel was provided with the minutes of the 2023 internal evaluation exercise that was undertaken by the University's QAU, the KPI tables that are used as measurable objectives for monitoring continuous improvement of the program, as well as the feedback of students in course evaluations.

II. Analysis

It is evident that a quality control process for continuous improvement of the offered program is in place and involves the major internal stakeholders (notably teaching staff and students). However, it is less evident that the administrative staff is also involved in this exercise; this is important in order to assess that the infrastructure and support services provided to students are at the appropriate level of quality.

The number of students who actually fill out the questionnaires and participate in the internal evaluation exercise is around 50%. Furthermore, there is no established mechanism to involve external stakeholders, such as the local industry or past students who have graduated and joined the workforce. The Department asserts that in its internal evaluation exercise, it consults the Technical Chamber of Greece as well as other external stakeholders, but no relevant evidence has been provided to the panel.

Based on the report of the University's QAU, a number of issues were identified that need to be improved, notably: extroversion and strengthening the links with the society, increasing the intake of students, strengthening collaboration with other institutions nationally and internationally, and a few others. Yet, the KPIs set up by the Department (document A3) cover only the issue of increasing the intake of students.

Overall, although there is evidence of the undertaking of regular internal evaluations, there is not much evidence of a consistent annual analysis and reflection on the findings of the internal evaluation exercises. Furthermore, there is no systematic documented response from the PSP as a reply to the QAU evaluation¹⁴. EEAP find it challenging to identify measures and specific actions taken to address the QAU points for improvement.

III. Conclusions

The internal quality assurance process should be strengthened and improved by involving in a more systematic way all the internal stakeholders (including administrative staff) as well as the major external stakeholders. Furthermore, the list of KPIs and measurable objectives needs to be expanded to include all the issues that are mentioned in QAU's internal assessment report. Any actions/measures with delivery times (as a response to QAU's and other reviews) should be documented and feedback to QAU via a systematic and recorded process.

| Principle 9: On-going monitoring and period evaluation of postgraduate study programmes | ic internal |
|--|-------------|
| Fully compliant | |
| Substantially compliant | Х |
| Partially compliant | |
| Non-compliant | |

Panel Recommendations

R9.1 Provide incentives to increase the participation of students in CEQ as well as other stakeholders involved with the design and delivery of the PSP (e.g., graduates, alumni, industry, external/internal academics outside the Faculty).

R9.2 Establish a formalised procedure for involving relevant external stakeholders that allows capturing information and recommendations for the continuous improvement of the PSP. Any actions/measures with delivery times (as a response to QAU's and other reviews) should be documented and feedback to QAU via a systematic and recorded process.

R9.3 Expand the list of KPIs and measurable objectives to fully reflect all the points of concern raised by QAU and perform a year-to-year comparative performance analysis.

R9.4 Establish a mechanism that clearly involves the administrative staff in the internal evaluation exercises.

PRINCIPLE 10: REGULAR EXTERNAL EVALUATION OF POSTGRADUATE STUDY PROGRAMMES

THE POSTGRADUATE STUDY PROGRAMMES SHOULD REGULARLY UNDERGO EVALUATION BY PANELS OF EXTERNAL EXPERTS SET BY HAHE, AIMING AT ACCREDITATION. THE TERM OF VALIDITY OF THE ACCREDITATION IS DETERMINED BY HAHE.

HAHE is responsible for administrating the PSP accreditation process which is realised as an external evaluation procedure, and implemented by panels of independent experts. HAHE grants accreditation of programmes, based on the Reports delivered by the panels of external experts, with a specific term of validity, following to which, revision is required. The quality accreditation of the PSP acts as a means for the determination of the degree of compliance of the Programme to the Standards, and as a catalyst for improvement, while opening new perspectives towards the international standing of the awarded degrees. Both academic units and Institutions must consistently consider the conclusions and the recommendations submitted by the panels of experts for the continuous improvement of the Programme.

Documentation

 Progress report of the PSP in question, on the results from the utilisation of possible recommendations included in the External Evaluation Report of the Institution, and in the IQAS Accreditation Report, with relation to the postgraduate study programmes

Study Programme Compliance

I. Findings

There has been no external evaluation of the program. However, there has been an external evaluation of the Department in December 2019. Following this evaluation, the IEG of the Department monitors the satisfaction of the EEAP recommendations and releases an annual progress report.

II. Analysis

PSP should regularly undergo evaluation by panels of external experts set by HAHE, aiming at the accreditation of the PSP. The internal quality assurance processes and IEG should be in place to enforce involvement in a more systematic of all parties engaging with the delivery/development of the PSP to prepare documentation and appropriate outputs for such QAA reviews. Often, academics confused (during the review) the QAA practices with the quality of PSP, indicating a lack of awareness about QAA role and the value of the procedures.

III. Conclusions

Establishing internal quality assurance processes and IEG is essential to ensure the systematic participation of all stakeholders involved in developing/reviewing the PSP. These internal QA processes are crucial for preparing the existing data gathering, data processing and presentation, as well as any documentation and suitable outcomes required for the periodic QAA reviews and other QA practices.

| Principle 10: Regular external evaluation of po study programmes | ostgraduate |
|---|-------------|
| Fully compliant | |
| Substantially compliant | Х |
| Partially compliant | |
| Non-compliant | |

Panel Recommendations

R10.1Establish a mechanism that clearly engages all stakeholders involved with developing and delivering the PSP to facilitate the awareness and preparation for internal/External evaluation exercises and QAA reviews.

R10.2Establish a systematic procedure involving the IEG of the ST-ECE PSP delivery Faculty that prepares the relevant KPIs and documentation (including minutes and other relevant evidence of QA procedure implementation) in a more transparent and year-on-year comparative manner, indicating actions in place to address any feedback from QAU, IEG and QAA Reviews.

PART C: CONCLUSIONS

I. Features of Good Practice

- The facilities and infrastructure the Department offers to support student education and well-being.
- The mentorship/tutoring program they provide and the strong interactions between students and academic advisors.
- The expertise and commitment of the Department's Faculty towards a student-focused learning curriculum.

II. Areas of Weakness

- Lack of documented Thesis handbook detailing assessment practices and requirements for submission (format and structure etc.).
- Lack of providing an internationally recognised (EQF) Level 7 PSP programme that is a minimum of 90 ECTS. Also, there is no formal teaching with a type of assessment on a training course regarding ethics, academic integrity, and research methodologies to be incorporated into the diploma thesis process.
- There is an inadequate and disorganised approach to involving research activities, industrial partner contributions, and recommendations in Programme and Module Review.
- Measurable Departmental KPIs for Strategic Planning and comparative assessments with national and international competitors are absent.
- The procedure for systematically capturing and processing Module/Course Evaluation Questionnaires (CEQs) to generate meaningful qualitative and quantitative KPIs and documenting Module Review actions and their impact/effectiveness is incomplete.
- Communication and dissemination of CEQ results and corresponding actions to students are insufficient.
- The existence of a documented task force and its activities to ensure the review, update, and consistency of Departmental webpages and provided materials between the Greek and English versions is inefficient.

III. Recommendations for Follow-up Actions

 Although there is still a limited number of graduates, the Programme should aim to establish an alumni network to facilitate student links to professional networks and improve the visibility and reputation of the Programme.

- Establish an Advisory Board comprising Faculty members and external stakeholders with periodic activities (meeting, for example, annually) to give feedback to the Programme and discuss future development industrial engagement (and other long-term goals).
- As a long-term goal, consider extending the Programme by adding a third semester to deliver a 90 ECTS for its international recognition. Such long-term strategic planning should be based on a SWOT analysis and develop a strategic roadmap to achieve international recognition of Level 7 Postgraduate Degree.
- Improve the quality assurance process (a) by involving the administrative personnel in the internal evaluation process, (b) by trying to increase student participation in course evaluations and (c) by taking into account all issues raised by QAU, especially regarding KPIs and measurable objectives.
- The ST-ECE PSP should form an IEG and provide a report on "an annual basis" that includes an executive summary capturing the changes implemented to improve the PSP and vision of the Programme as well as basic information that evident its viability (indicating student numbers and strategies to increase/reduce expenses as required).
- The proposed (formed for the ST-ECE PSP) IEG should also review existing documentation, including Thesis format submission and assessment details, as well as regulation/procedure for converting the mode of attendance/study from FT to PT in the Guide of Studies (and/or other related documentation). IEG should ensure that all PSP documentation is reviewed systematically and timely to ensure the quality and accuracy of important information provided to the students (English/Greek and on the website).
- The proposed IEG should process data ideally in tabulated form for the CEQs student participation, conversion from FT-to-PT, and their progression following similar quality practices with the UGT programme. Qualitative data should capture the reasoning behind any student deliverable extension deadlines in a systematic approach promoting transparency and equality.
- A well-defined process must be established for the review of a course/module. This procedure should encompass academic insights from those directly engaged in course delivery, providing targeted suggestions and recommendations for modifications. Additionally, it should outline the necessary adjustments to hardware and software infrastructure, elucidating how these changes align with the key observations derived from Student CEQs and contribute to enriching the student experience and address the seamless integration of emerging research domains.
- The PSP should make the assessment criteria of each Course/Module publicly available before students' registration or attendance at delivered lectures. It is also recommended that an indicative program of all delivered lectures, compulsory and/or elective assignments, as well as possible laboratory exercises, be made available before students' registration or attendance so students can have a better understanding of each Course's

expectations and effectively decide on their capability to meet said expectations. The Dissertation/Thesis marking criteria should also be provided in more detail.

- The Faculty should develop the procedures to allow the "full cycle" of PSP assessment (collection of the CEQ data → processing and presenting the key findings – to all stakeholders → making decisions/actions to improve the programme → assessing their effectiveness from the new CEQ data). This will strengthen PSP's student-centered learning approaches and improve current QA practices aiming towards the continuous development of the PSP.
- The Faculty is encouraged to develop a more structured procedure for assessing the background knowledge for entry requirements. This could be a set of tests or a qualitative interview to assess the prerequisite knowledge of the applied/newly admitted students that advise students on elective courses and extra-curriculum courses (from the UG Programme in the Institution) that could provide individualized assistance when required. Courses could also examine the possibility of providing distance learning options, whenever and wherever such options are applicable.
- Formulate an IEG for reviewing existing study regulations, documentation and assessment methods to ensure they are detailed, informative and publicly available.
- Develop a more systematic mechanism to record, process and present data with a more detailed per-semester and study mode student progress throughout the Programme, including student admissions, progression, and thesis drafting/submission, allowing for a year-on-year comparison of this information.
- The PSP should include formal training on ethics, academic misconduct and malpractices, research methods, and academic writing and presentation skills. In addition, EEAP strongly advises revising the PSP towards a 90 ECTS and aligning the Programme with the EQF.
- Develop periodic events to promote the PSP and further identify methods to increase external funding.
- Provide additional Initiatives to increase student participation in teaching staff assessment (CEQ).
- Increase the involvement of the Department's relevant lab(s) in the graduate programme's activities, such as offering support for master thesis projects.
- Offer opportunities to the teaching staff to improve their teaching and learning abilities further.
- Develop a few KPIs that facilitate improvement in teaching delivery performance, laboratory and other infrastructure utilisation, industrial participation in seminars and CPD schemes.
- The ST-ECE PSP Faculty could organise a formal presentation or a series of newsletters to inform newly admitted students of the available facilities and services of the University.

- Create a procedure that systematically and periodically reviews available information provided to the students and the public (potential students). Many serious mistakes associated with the Programme study have been identified in the shared (to the EEAP) and online available documentation.
- Additional KPIs, such as (but not only) those associated with students' participation in CEQ, should be adopted, expanding the breadth of periodic quality goals reviewed towards PSP continuous improvement.
- The PSP should develop a formal (independent from the Institution) procedure for collecting, processing and presenting data from CEQ, aiming to ensure QA practices are in place to review the PSP. This procedure should be aligned with any Internal/External evaluations of the PSP.
- Develop a formal procedure to update, refine and review the information provided on the website and to students. The website should also allow Alumni and PSP's active presence on social media.
- A formal procedure should be created to systematically promote the active participation of external stakeholders, capitalising on staff's wide network of external relations in PSP QA processes.
- The formation of an Alumni membership that also includes participation in periodic activities (e.g. an industrial open day), aiming to actively engage its members towards strengthening the PSP's visibility/promotion and QA processes towards its continuous improvement.
- Develop a formal procedure to update, refine and review the information provided on the website and to students (including links and pdf documentation) to ensure quality and coherency. This mechanism should also document its information dissemination processes, website maintenance tasks/activities, and their allocations/responsibilities for completion.
- Ensure the mechanism is in place to provide PSP information on the website must be consistent across both sections (Greek and English).
- The Information on research topics and labs related to the PSP should be more straightforward on the website and the information on infrastructure used for the delivery of the PSP should be within the PSP webpages.
- The PSP should enhance the information dissemination for its vision, mission and activities and include such information on its website.
- Provide incentives to increase the participation of students in CEQ as well as other stakeholders involved with the design and delivery of the PSP (e.g., graduates, alumni, industry, external/internal academics outside the Faculty).
- Establish a formalised procedure for involving relevant external stakeholders that allows capturing information and recommendations for the continuous improvement of the PSP.

Any actions/measures with delivery times (as a response to QAU's and other reviews) should be documented and feedback to QAU via a systematic and recorded process.

- Expand the list of KPIs and measurable objectives to fully reflect all the points of concern raised by QAU and perform a year-to-year comparative performance analysis.
- Establish a mechanism that clearly involves the administrative staff in the internal evaluation exercises.
- Establish a mechanism that clearly engages all stakeholders involved with developing and delivering the PSP to facilitate the awareness and preparation for internal/External evaluation exercises and QAA reviews.
- Establish a systematic procedure involving the IEG of the ST-ECE PSP delivery Faculty that prepares the relevant KPIs and documentation (including minutes and other relevant evidence of QA procedure implementation) in a more transparent and year-on-year comparative manner, indicating actions in place to address any feedback from QAU, IEG and QAA Reviews.

IV. Summary & Overall Assessment

The Principles where full compliance has been achieved are: 5 and 6.

The Principles where substantial compliance has been achieved are: 1, 3, 7, 9, and 10.

The Principles where partial compliance has been achieved are: 2, 4, and 8.

The Principles where failure of compliance was identified are: **None.**

| Overall Judgement | |
|-------------------------|---|
| Fully compliant | |
| Substantially compliant | Х |
| Partially compliant | |
| Non-compliant | |

Name and Surname

Signature

- 1. Assoc. Prof. Konstantinos Kopsidas (Chair) The University of Manchester, Manchester, United Kingdom
- 2. Prof. George Papadopoulos University of Cyprus, Nicosia, Cyprus
- **3. Prof. Emeritus Nicolas Spyratos** Université Paris-Saclay, Paris, France
- 4. Dr. Paraskevas Dalianis UniSystems S.M.S.A., Quest Group, Athens, Greece
- 5. Mr. Giorgos Kolipetris Department of ECE, Democritus University of Thrace, Xanthi, Greece