

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:

Renewable Energy Utilisation Systems Department: Mechanical Engineering Institution: International Hellenic University Date: 1 June 2024









Report of the Panel appointed by the HAHE to undertake the review of the Postgraduate Study Programme of **Renewable Energy Utilisation Systems** of the **International Hellenic University** for the purposes of granting accreditation

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Accreditation Report - Renewable Energy Utilisation Systems, International Hellenic University

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 **Applied Automation Engineering Systems (EEAP)** of the **International Hellenic University** comprised the following five (5) members, drawn from the HAHE Register, in accordance with Laws 4009/2011 & 4653/2020:

- 1. Prof. Marios Mavronicolas (Chair) University of Cyprus, Nicosia, Cyprus
- 2. Dr. Konstantinos Banitsas Brunel University, London, UK
- 3. Professor Costas Iliopoulos King's College London, London, UK
- 4. Dr. Vasilis Friderikos King's College London, London, UK
- 5. Ms. Despoina Boulogiorgou University of West Attica, Athens, Greece

II. Review Procedure and Documentation

The External Evaluation and Accreditation Panel (henceforth EEAP) was formed in late April 2024 and received the accreditation support material concerning the Postgraduate Study Programmes (henceforth PSPs) in Renewable Energy Utilisation Systems as well as in Applied Automation Engineering Systems a few days before the online visit to the PSPs began on May 13th. Most but not all documents (coded A1 – A17) were well-crafted and presented in a decent state. During the visit, all the participants involved (MODIP, Teaching and Administrative staff) were very prompt to provide us with all the information we asked for. All meetings were conducted online utilising ZOOM, on Monday May 13th and on Wednesday May 15th, in a friendly and cooperative spirit.

The meetings during the visit were scheduled as follows:

At the welcome meeting, the EEAP met with the Directors of the two PSPs, the Head of the Department of Mechanical Engineering of International Hellenic University (henceforth IHU), MODIP, Steering Committees/OMEA members to discuss the compliance of the PSP to the Quality Standards for Accreditation. At the same time, the department provided us with access to a video of the facilities and grounds. After the end of this meeting, the EEAP members met in a separate zoom meeting to discuss and reflect on their first impressions and prepare for the next day.

On May 14th at 15:00 the EEAP started a sequence of online meetings that lasted until (around) 20:30. The teleconferences started with the teaching staff members of the PSP, followed by students, graduates and ended with employers/social partners. At the end of this day, EEAP had its last follow-up meeting with the OMEA and MODIP representatives during which additional comments and clarifications were brought up. The EEAP gave a short preliminary verbal report about their impressions and findings of the virtual visit. The EEAP thanked everyone for their participation, cooperation, and virtual hospitality.

III. Postgraduate Study Programme Profile

The PSP in Renewable Energy Utilisation Systems was established in 2021 and was included into the newly established International Hellenic University. The establishment of the PSP took place with the Greek Law, which can be found in the official Government Gazette (ΦΕΚ) 3624/B/2019.

The PSP aims to strengthen or update the knowledge and skills of young professionals wishing to be employed in the field of Renewable Energy Sources, so as to enable them to face the challenges of such an international and rapidly changing work environment. and provide them with a well-educated work-force in order to meet the demands of the technological society. The PSP can be completed in 3 (full-time) academic semesters with 8 courses plus a mandatory Thesis for a total of 90 ECTS.

The objective of the PSP is the production and advancement of knowledge in the scientific field of Renewable Energy Utilisation Systems and the successful transmission of such knowledge to its participants. In particular, the PSP aims to train high-level executives who meet the demands of the public and private sector and of business organisations.

The Thesis is written during the third semester of studies, counts for 30 ECTS, and is defended in front of a committee of three members, one of which is the Thesis Advisor. The academic titles are awarded by the Department of Mechanical Engineering of the IHU. The graduates of the PSP can occupy various professional positions in the local industry and in the private and/or public sector.

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 PSP is supported by sufficient academic and administrative structures that enable a teaching and learning provision according to the institution's quality framework.

Although these structures are neither sufficiently clear nor close enough to formal, the procedures followed in planning, delivering, and assessing the components of the PSP appear to be rather effective in enabling consistency across the various modules.

The single graduate of the PSP that we got the opportunity to meet expressed his satisfaction regarding the level of teaching and learning. This may be taken to indicate that the PSP meets the objectives of delivering capable and well-prepared graduates that address the needs of the workplace and its aims and objectives are met at a basic level of satisfaction. We remain, however, puzzled with the omission of the leading faculty members to invite graduates of the PSP (instead of graduates of the PSP precursors, which were previously offered at Technological Educational Institutions, henceforth TEIs). The EEAP feels that interaction with graduates of the PSP would have been more beneficial to its evaluation.

Employers and other social partners have a high regard for the PSP and its precursors offered at previous TEIs and for the respective graduates

II. Analysis

The team delivering the PSP comprises competent members of staff in academic and technical areas. Most are graduates of well-established Universities and TEIs in Greece and abroad. They continue to engage with the subject of their studies and research, expand their knowledge and experience and combine it with new and enhanced experiences gained through consultancy and development projects. We urge the PSP team to consider investing the outcome of this continuous improvement into their teaching and guidance of the students. Outcomes of development work of individual staff appear to become integrated into teaching and provide ideas and inspiration for coursework and projects. Such actions enrich student learning, improve the ability of students to connect theory to real work practice and contribute positively to the employability of the PSP graduates.

We understand that the structure of the PSP and the content of the taught modules are regularly reviewed in a rather ad-hoc manner. Beyond the results of the academic review, it appears that comments and suggestions from student surveys are considered to some extent in revising a module. This is considered good practice that sustains the interaction of partners of the learning community engaged with this PSP, but it may not be enough.

The EEAP felt that, although the engagement of social partners appears to be a very dynamic and beneficial process, it operates rather informally. The PSP would benefit better from a more formal engagement process through the constitution of

an Advisory Board comprising professionals from the public and private sector, as well as representatives from industry and other "big" employers. Such a board could meet once or twice a year, depending on the needs and wishes of the PSP team. The members of such an Advisory Board could also be utilised in supporting surveying a wider membership of the professional community by seeking their views on upcoming major revisions of the PSP and they could also contribute to its advertisement. We feel that, in general, such advertisements have not yet reached the expected level of sufficiency.

The PSP team often invites guests from the professional world to complement academic teaching. Suitably qualified professionals are also used as auxiliary lecturers in supporting different modules of the PSP with specialist knowledge. Although some of these external partners have a history of engagement with the department and the PSP team, the EEAP believes that there should be a formal system of supporting these guests with their development and securing funds for a decent stipend to them. This is considered essential in cases where such guests are involved with assessment activities, in order to ensure consistency and accuracy of the outcomes. It is particularly important as the wider expectation is that the PSP gets more successful in attracting higher numbers of entering students.

To support a potential increase in student number, the PSP team could consider engaging in a risk assessment exercise. This will need to be repeated every year to evaluate the impact of student numbers on human, technical, and teaching resources. Relevant discussions on utilising any surplus money earned from student fees to support the development of staff and teaching resources appears to be absent.

Totally absent are also formal procedures for inspiring, incentivizing and supporting students at the stage of completing their dissertation towards presenting their work at international conferences or publishing journal papers. It appears that the PSP team has not yet evaluated properly the extent to which such procedures could help to improve the reputation of the PSP and, by reflection and osmosis, that of the department too, among prospective students to enter the PSP. At present a number of the above procedures are running in a less formal manner. There is ample space for developing and maintaining such procedures in a framework compatible with the institution's quality framework and concurrent with the aims and goals of the PSP.

In this respect, we noticed that the PSP is basically a "one-man-show", in the sense that overly too much control of activities is accumulated in the hands of a single person, the PSP director, and there have been observed no strong connections among the PSP stakeholders (faculty, staff, students, graduates and social partners). We would not recommend such a centralised structure since it does not guarantee that the various activities will continue to run smoothly in emergency cases where the single "processor" (so to speak) becomes either totally unavailable

or the emergency tasks require some kind of task sharing at the emergency time. Needless to say, it is always better to design (and keep ready for implementation) emergency procedures off-line and a priori rather than search for and design such procedures at the time of emergency. More generally, we noticed that "Plan B"s have not been considered by the PSP.

Graduates of the PSP and its precursors appear very supportive, attaching value to the knowledge and experiences accrued and justifying the observed preference of the PSP to hiring in turn graduates of the PSP. Graduates have expressed their satisfaction as to the impact the PSP has had on their career and pointed out several possible improvements to the PSP, such as introducing 3D-design techniques and tools into the modules, introducing modern courses that would be up-to-date with contemporary technological advances, and many more.

We subscribe to the philosophy that the alumni of a postgraduate program are its ideal ambassadors and constitute a valuable resource not only for the program but for the institution too. They could support further developments, create a career network that will support future graduates, collaborate with the institution in research and consultancy projects, and possibly offer financial support in the form of donations. It will benefit the PSP if graduates were to create a PSP alumni group with a formal status, embraced by the PSP team and the department. The organisation and sufficient advertisement of career days on a formal and regular basis (at least once per year) could be the key to such developments. In conclusion, the extent to which the impact of alumni activities on maintaining and improving the quality of learning and student experience may benefit the PSP in growing in student numbers and reputation remains yet to be seen.

Finally, we are unable to say that the degree of internationalisation of this particular PSP is in par with the expected character of an international university. There remains a lot to be done towards this direction, ranging from offering the PSP in an international language to attracting students from the international pool into the PSP. We had expected that the effort towards internationalisation would have already reached a certain level of maturity. We consider this lack of effort as a serious disadvantage of the PSP. We encourage the International Hellenic University administration to urgently take a spherical view of the disadvantage and find ways to rectify it.

III. Conclusions

Overall, the PSP team appears to have been engaged very well with IHU and its quality assurance body. All procedures (even the informal ones) for developing, delivering the PSP, monitoring the outcomes and considering the evaluation results appear to be well in line with the institution's quality framework.

Student satisfaction is very high, and this speaks in favour of further development and expansion of the PSP in student numbers.

Social partners appear to highly value the output of the PSP (and its precursors) and its impact on services in the region.

While an inherent separation between academic excellence and practical skills could be understandable and accepted as a general "norm", we feel that the PSP staff should strengthen striving into academic excellence as measured by research quality by engaging into international research and development consortia and attracting research funding offered by (and not only) national and European Union agencies. Nevertheless we were quite happy to observe some emerging research synergies among faculty members.

We strongly encourage the PSP team to work harder in order to further enhance and formalise the procedures for creating and further developing a formal Advisory Board and an alumni group. We envision that these will further support the enhancement of the quality of the training experience offered to students. This, in turn, would support the expansion in student numbers and the catchment area beyond the local region, especially when combined with an expected effort towards internationalisation of the PSP.

Panel Judgement

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

To enhance adherence to Principle 1, the EEAP recommends the following:

- Formalise procedures for creating, maintaining and utilising an external Advisory Board and an alumni group.
- Strengthen and improve the currently loose connections among the PSP team, the students, the PSP alumni and the engaged social partners.

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 PROGRAMME 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

Studies in the PSP entitled "Renewable Energy Utilisation Systems", offered by the Department of Mechanical Engineering of IHU, at Serres, Greece, adheres to a well-defined overall quality assurance framework.

Discussions we had with staff members made it clear that the required mechanisms are in place to ensure that the PSP meets national standards for quality of the modules that are offered to the enrolled students at the postgraduate level. The same could be said about the academic qualifications of the staff members contributing to the PSP.

The design and content of the offered modules is of high quality and their approval appears to take place at the Departmental level (i.e., Departmental assembly). Appropriate procedures are in place for approving and/or altering/amending modules in the Department and its programmes. This aspect has been discussed during the meetings, especially in terms of corrective actions based on the feedback received from the students. However, the overall score received from the students is particularly high; hence, issues regarding altering a module and/or performing any modifications did not seem to occur so far.

Staff members appreciate the importance of student feedback and the role that it plays in ensuring a high quality of teaching and overall student satisfaction. In fact, the return rate of the questionnaire seems to be almost 100%, which is excellent; however, it has to be mentioned that the overall number of students is quite low (hence, a high return rate could be deemed as feasible).

It became evident from the discussions that such feedback is collected and analysed internally at the Departmental level. The Head of Department and the PSP Director are fully aware about those results and individual module leaders are also informed about their module. The feedback is anonymous and takes place via a portal offered by IHU.

Having said the above, we consider that it would be good to have some formal procedures in informing each cohort of students about the Departmental/programme response (corrective actions) as a response itself to the received feedback.

The overall procedure is in line with other Departments at the national level, highlighting, in that respect, a good quality assurance policy. The analysis of the available results as documented and presented to EEAP members, depict an excellent (average) performance in terms of teaching quality, with an overall marking score well above 4 for most of the modules. This result has also been mirrored during the discussions with current students and PSP alumni.

The Student Guide appears to contain all required information. While new modules might be offered in the future, it has been emphasised that this might require hiring new members of staff. However, recruiting new academics remains uncertain at the moment and time-consuming since it requires decision-making above the Departmental level.

II. Analysis

To start with, it has to be noted that this PSP started in 2020 but, in fact, it can be considered as a continuation of a course that was established back in 2012, when the Department was part of TEI (Serres) and was entitled 'MSc in Renewable Energy Systems: Design, Development and Optimization'. Naturally, there must have been significant accumulated experience in running this PSP.

The offered feedback from the students at each module is detailed; there are 35 questions being asked. Also, the return rate is very high (close to 100%) and this allows the Department to perform a detailed review of the offered course.

The PSP offers 10 mandatory modules. We consider it positive that no optional modules are offered since the low number of students per cohort might have incurred problems in running optional modules. However, even for the current structure, the small numbers of students per module might affect teaching quality, the performance of the students and even the way that a module is delivered (for example, it may not be always possible to create different group projects).

The EEAP strongly encourages the PSP director and members of academic staff involved in teaching modules of the PSP to examine ways of increasing the number of students that enrol into the PSP.

III. Conclusions

The EEAP is satisfied that the Department has developed and adheres to an appropriate quality assurance policy, as part of its strategy for the design and approval of modules within this PSP, which we find well-organised.

The set of offered modules equip students with the right skills and knowledge to further their career within the scope area and position themselves in completive industrial positions.

It is also positive that there is a small number of students wishing to further extend their academic journey by starting doctoral studies in areas related to the postgraduate studies.

There is high satisfaction among students, alumni and stakeholders on the quality of the different modules that are offered and the overall training of the students.

In conclusion, we consider that the PSP offers the Department a competitive edge.

Panel Judgment

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

Panel Recommendations

To enhance adherence to Principle 2, the EEAP recommends the following:

- Integrate industrial visits/presentations that could take place during the Labs so there is face-to-face interaction potentially from an industrial visitor in relation to the Lab. This could be formally described and potentially timetabled.
- A periodic sustainability analysis of the PSP should be implemented.

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

All courses are taught in person. Alongside live teaching, lectures are broadcast via zoom, providing a flexibility, especially for working students or students on sick-leave, but also for those who are far away, as was the case during the pandemic period.

The evaluation method in each course is communicated to students at the beginning of the semester and is described in detail in the course outlines. The evaluation of the courses is implemented electronically through the Quality Evaluation System of the Quality Assurance Unit (MODIP) of IHU, which has been fully operational since the winter semester of the academic year 2020-2021.

The Department of Mechanical Engineering of IHU supports the operation of the student complaints management mechanism, as it has been centrally established by the IHU with the establishment of the independent "Student Advocate" office at the Serres Campus. In addition, PSP has adopted its own regulations for the management of student complaints in order to facilitate easy communication and fast resolution of any problem. The University has established the Academic Adviser for Postgraduate Studies and has drawn up relevant operating regulations.

II. Analysis

The institution of the IHU clearly serves the societal need for lifelong learning and the demand for professional development among individuals in both private and public sectors. The teaching methods are adequate for meeting the needs of students at the University, who are typically employed and self-sustaining. From the assessment of the PSP, the student-centred approach of the PSP was evident, along with the academic staff's ability to meet this task and the successful implementation of existing procedures.

There is plenty of room for improvement in the methods, processes, and tools used for the student-centred approach.

The academic staff are found to be familiar with the existing examination system and methods and are supported in developing their own skills in this field.

III. Conclusions

The rules and regulations that have been developed for the student-centred approach to learning, teaching, assessment and degree award to students are considered adequate.

Panel Judgement

Principle 3: Student-centred	learning,
teaching, and assessment	
Fully compliant	x
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

To enhance adherence to Principle 3, the EEAP recommends the following:

- Combine the questionnaire assessment process with a collection of views regarding the expectations of incoming students taken before the start of the PSP each year. The assessment results should be statistically analysed, and the conclusions of the analysis should be communicated to the students.
- The changes selected for implementation every year are evaluated and discussed with the students.

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

The Department particularly encourages the mobility of postgraduate students through the European program Erasmus+. At the end of each semester, presentations of the said program take place in order to prepare the participation of postgraduate students in it during the upcoming (new) academic semester, while a relevant regulation has been established. Nevertheless, we met no student of the specific PSP who has used Erasmus+.

With the aim of attracting candidates of high academic level and learning background, the PSP offers an admission scholarship every year. Each student must successfully attend 10 compulsory courses, in the 1st and 2nd semester of their studies, and prepare the compulsory Diploma Thesis during the last semester. Each semester, after teaching is over, there is a two-weeks examination period for the courses taught in the specific semester. In addition, in September of each academic year, there is a two-weeks examination period for all courses taught in the two semesters of the specific academic year.

In addition to the examination, there are homework assignments with research content during the semester, which aim to consolidate the theoretical content of the courses, to boost the research effort and to familiarise students with searching for optimal solutions in the design and development of Renewable Energy Systems.

II. Analysis

All necessary documents that accurately describe the required procedures for participation in the PSP, the rights and obligations of the students, the assessment requirements and the completion of their thesis work were made available to us.

Regarding student mobility, a relevant configuration of the Erasmus program for working students is required in order to facilitate their participation.

The EEAP recognizes the effective organisation of the PSP and the quality of the regulations that promote the academic culture and the value of knowledge.

III. Conclusions

The rules and regulations that have been developed for this PSP guiding admission, progression, recognition and degree award to students are considered adequate.

Panel Judgement

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

Panel Recommendations

To enhance adherence to Principle 4. the EEAP recommends the following:

For the sake of internationalisation, interaction of the PSP with similar postgraduate programs abroad is sought.

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 PSP program is supported by a dedicated team of 12-13 permanent academic staff members (DEP), who ensure a stable and continuous foundation. Additionally, there are 2-5 specialist (external) members of academic staff, each bringing expertise and a focused approach to specific areas within the field of Renewable Energy Systems. The PSP also benefits from the contributions in specialised knowledge to specialised PSP courses by a small number of temporary teaching academic staff.

The majority of teaching staff have their origins in Macedonian Technological Educational Institutes (TEI), stemming from a significant merger of departments. This merger has combined diverse skills and expertise, enriching the academic environment and the quality of education and research within the PSP. This diverse team is integral to the PSP's success, fostering a comprehensive learning experience for students.

The recruitment process for permanent academic staff is centralised and governed by Greek Law, ensuring a standardised and regulated approach. This centralised system guarantees that the hiring practices adhere to national standards, maintaining fairness and consistency. The department follows clear and transparent methods to select experts who possess the necessary qualifications in both education and research. These methods are designed to evaluate candidates, ensuring that those selected are qualified and capable of contributing significantly to the academic environment.

Temporary teaching staff members are sourced from local industries, bringing practical, realworld experience and insights into the academic setting. This connection with industry professionals ensures that the curriculum remains relevant and up-to-date with current technological advancements and industry practices. Additionally, the department recruits from the pool of local doctoral and postdoctoral graduates.

The curriculum vitae (CVs) of the academic staff members shows expertise and proficiency in the subjects they teach, reflecting a satisfactory level of scholarly and professional achievement. These CVs are offering a thorough account of each staff member's academic journey. They include information on their publications, highlighting their contributions to their respective fields. Furthermore, the CVs document research activities, collaborative research initiatives, and participation in academic conferences and workshops, underscoring their engagement with the academic community.

During the evaluation process conducted by the EEAP, the teaching staff provided examples that effectively demonstrated the synergy between their research work and teaching endeavours. These examples illustrated how their research enhances their teaching practices, ensuring that the curriculum is infused with current scientific findings and methodologies.

The promotion process for academic staff is well managed, with staff members being promoted when needed. For example, 3 permanent members of staff were promoted to full Professors. It should be noted, however, that few staff members retired and their positions were not refilled.

The department conducts regular evaluations of the staff, and student participation in these evaluations is 100% as the number of students is small (12 students in total). To anticipate and address any potential issues in teaching, questionnaires are administered for modules. This approach helps identify problematic points and enables timely interventions to enhance the teaching quality and student learning experience.

The Department acknowledges the importance of professional development for its academic staff, recognizing that ongoing learning and skill enhancement are essential for maintaining high educational standards and staying abreast of advancements in their fields. Despite this recognition, the Department has not sent any permanent staff members on study leave. Study leave, which typically provides extended time for staff to engage in in-depth research, pursue

advanced degrees, or gain new industry experiences, has not been utilised, potentially limiting opportunities for significant professional growth and development.

On the other hand, the group's engagement in international collaborations is very satisfactory. There are several ongoing international partnerships supported by European and other grants, which facilitate valuable academic exchanges and cooperative research efforts. These collaborations are substantial and represent a significant growth area, fostering global academic connections that enhance both the staff's professional development and the Department's academic reputation.

Furthermore, the group maintains healthy and vibrant collaborations with several Greek universities, totalling 7-8 partnerships. In addition to these academic collaborations, the group also engages with approximately 10 public and private industries. These partnerships provide a broad range of opportunities for applied research, practical experience, and industry-aligned project development.

It is also worth mentioning that the group organises several local meetings, contributing to the academic community and fostering knowledge exchange. Among these events is an International Summer School, which attracts participants from around the world. This event not only showcases the group's expertise but also enhances its international profile and provides additional professional development opportunities for both staff and students.

Academic staff members have actively pursued teaching or research trips aimed at professional development. These excursions are invaluable, as they provide opportunities for faculty members to collaborate with international peers, participate in conferences, and showcase their work. Moreover, these trips offer exposure to emerging teaching techniques and research advancements, enriching the educational experience for both staff and students alike.

Furthermore, funding is available from the Special Account for Research Funds (ELKE) within the University to support such professional development activities. This financial support enables staff members to take full advantage of these opportunities, fostering their growth as educators and researchers.

Participation in these professional development endeavours not only benefits the individual staff members but also has a ripple effect throughout the academic community. The knowledge and insights gained from these experiences are shared with students, enhancing the quality of education. Additionally, the research collaborations and new methodologies brought back from these trips contribute to the advancement of knowledge within the broader academic community. Thus, the investment in staff professional development ultimately enriches the entire academic ecosystem.

II. Analysis

The professional development support provided to academic staff is very good, evident in the robust international and national collaborations they engage in. These collaborations offer valuable opportunities for meaningful professional growth, essential for fostering academic advancement and innovation. Through these endeavours, staff members are able to collaborate with leading experts in their respective fields, facilitating the exchange of ideas and best practices. Access to specialised facilities and cutting-edge research infrastructure at partner institutions further enhances the depth and quality of their research endeavours.

Furthermore, these collaborative efforts often result in joint research initiatives, co-authored publications, and the evolution of new curricula. These outcomes collectively contribute to the academic vitality and reputation of the Department, reinforcing its position as a hub of scholarly excellence and innovation. As a result, these experiences not only bolster the staff's professional expertise but also enrich the learning environment for students, fostering a more dynamic academic community.

III. Conclusion

The PSP is compliant with Principle 6. The EEAP believes that improvements are required as outlined in the recommendations below.

Panel Judgement

Principle 5: Teaching staff of postgr study programmes	raduate
Fully compliant	х
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

To enhance adherence to Principle 5, the EEAP recommends the following:

Provide mechanisms for staff "sabbaticals".

PRINCIPLE 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 LEARNING 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-centred learning and the adoption of flexible modes of learning and teaching. Support activities and facilities may be organised 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 PSP is located in Serres, within the Mechanical Engineering Department. We were shown a video of the following laboratories:

- · Machinery Laboratory
- · Tools Laboratory

- · Robotics Laboratory
- · Mechanics Laboratory
- · Elevating and Transporting Machines
- · Mechanical Constructions Dynamics Laboratory
- · Mechanical Laboratory
- · Technology of Materials
- · Fluid Mechanics Laboratory
- Steam Engines/Steam Boilers
- · Internal Combustion Machines
- \cdot Heating and Air-conditioning
- · Mild Forms of Energy
- · Electronic Automation
- · Thermodynamics

II. Analysis

The facilities provided are both adequate and sufficient to support the comprehensive teaching and learning needs of the PSP. They include well-equipped, state-of-the-art laboratories, library resources, and modern technological infrastructure. Additionally, the campus offers comfortable study spaces, access to advanced research tools, and various student support services that collectively ensure a conducive environment for academic excellence and professional development.

III. Conclusions

Overall, the combination of well-maintained physical spaces and a robust support system creates an environment that is conducive to advanced learning and research, meeting the diverse needs of postgraduate students.

The EEAP found it unclear how many hours students were actually spending in the laboratories. This lack of clarity suggests that there might be inconsistencies or gaps in the record-keeping or reporting mechanisms regarding student lab attendance and participation. Without precise data on the number of hours students dedicate to laboratory work, it becomes challenging to assess whether they are gaining sufficient practical experience to complement their theoretical learning.

Panel Judgement

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

Panel Recommendations

None

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 MODIP is tasked with supporting both the evaluation and accreditation procedures of the PSP and the internal quality assurance system of IHU. This responsibility is carried out in accordance with the principles, guidelines, and instructions established by the HAHE.

Within this framework, the Internal Evaluation Team plays a crucial role in collecting comprehensive data on the overall performance of the PSP. To achieve this, every semester the team administers a survey using detailed questionnaires. These surveys are designed to evaluate various aspects of the PSP, including the effectiveness and performance of teaching staff, the quality of teaching activities, the efficiency of administrative services, and the adequacy of other infrastructural facilities.

In addition to these specific areas of evaluation, the surveys provide an opportunity for participants to freely and anonymously express their personal opinions. This anonymous feedback mechanism ensures that respondents can provide honest and candid insights without any concerns about confidentiality, thereby contributing to a more accurate and holistic understanding of the PSP's strengths and areas for improvement. By systematically collecting and analysing this data, MODIP and the evaluation team work collaboratively to enhance the quality and effectiveness of the university's educational offerings and operational processes.

II. Analysis

The organisation maintains an ongoing process for collecting data as part of its internal quality system. This continuous data collection is crucial for monitoring and ensuring the quality of various operations and outcomes. Every procedure involved in the data collection process is thoroughly supported by sophisticated information systems. These systems facilitate accurate and efficient data gathering, storage and retrieval, ensuring that all relevant information is readily available for analysis. By leveraging advanced technology, the organisation can systematically track performance metrics, identify areas for improvement, and make data-driven decisions to enhance overall quality.

III. Conclusions

There are established processes in place to systematically collect and analyse various aspects of the programme. These processes ensure that comprehensive and relevant data is gathered to evaluate the programme's effectiveness and efficiency. The current information system supporting these processes is appropriately designed and implemented, providing a framework for data management and analysis.

Panel Judgement

Principle 7: Information management	
Fully compliant	x

Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

None

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 website of the 'Renewable Energy Systems' PSP (<u>http://mech.ihu.gr/msc</u>) provides detailed information about the PSP and the different modules and gives access to the student handbook, where current and candidate students may be provided with detailed information about regulations and other general information is provided. The website is also available in English at <u>http://mech.ihu.gr/msc/?lang=en</u>. There is full synchronisation with the English version, even though this is not a prerequisite (at this stage) since the course is not offered in English and is not available for Erasmus students.

The information provided on the website relates to the global market and prospects of Renewable Energy Systems. It would have been useful to prospective students to provide some information about opportunities at the national level as well as at the regional level. Some of the links in the website are non-operational and should be updated and/or removed (for example: (<u>www.ren21.net/gsr-2021/pages/summary</u>). In the website there are a number of inconsistencies and errors that could be easily corrected. For example, in the contact details a fax is provided and this should be removed.

Fax is an archaic functionality and as digital technology and broadband services have developed, the fax machine has been overtaken by email and document sharing software that offer better or at least the same functionality. In many European countries, UK, for example, supporting a fax line is not part of the so-called universal service obligation of a telecom provider. The EEAP suggests removing any links to the Fax as a contact method for the PSP and instead provide the email addresses of the PSP Director and the four members of the coordinating committee (plus the contact point of any professional services staff). It is important to note that at the current webpage, instead of an email the http address of the PSP is provided.

These may be minor aspects, but they do decrease the quality of the website. As alluded above, a clear contact point, i.e., email and/or phone number to the PSP Director, should be provided.

In the student handbook, mention is made of the e-Class platform of IHU, which presumably provides the basic teaching support for the postgraduate study programs. However, it is only for internal use and contains no information for either the public and/or prospective students.

Furthermore, there is no link provided to the ERASMUS programme, which should be available to the PSP students. It will be beneficial to provide a link to any Departmental and/or centrally hosted information by IHU about the ERASMUS programme, in the hope that the PSP proceeds more actively in these activities.

The site contains only information about Quality Assurance, but only in its Greek version. It has to be noted that there is no specific section on students' life and welfare on the website.

The PSP is listed in the Central Website of the Organization Study in Greece of the Ministry of Education (<u>https://masters.minedu.gov.gr/Masters/index/gr</u>) with a short but comprehensive entry about the PSP with keywords: RENEWABLE ENERGY, ENERGY SYSTEMS, WIND-, SUN-, GEOTHERMAL-, BIO-ENERGY. However, the link provided at this website is not the web link of the PSP but of the Department.

II. Analysis

Not at all clear from the information available on the website is the overall modus operandi of the course; that is, how many hours per week are discussions online, how many hours face-to-face teaching, etc.

Some web-links do not seem to work; generally speaking, it is not recommended to include weblinks in the portal since those might become obsolete.

The quality of the main pages could also improve; for example, "Home Page" is mentioned twice in the main page. We recommend considering the option of creating a news feed, where some more updated information is contained. That might require having a staff member responsible for updating and/or posting any relevant news items in the portal.

III. Conclusions

The offered PSP publishes high quality information about its rationale, the needs of the industry as well as the overall structure of the PSP and the associated teaching and academic activities.

However, there is lack of information regarding how the different laboratories in the Department are utilised within the PSP. Also, it is unclear how research activities within the Department link with the teaching in the PSP. Another important missing aspect relates to the overall welfare issues of student experience.

Information offered to candidate students may, in general, be sufficient; however, in order to increase the intake and provide a more holistic view of the studies, a more competitive/energetic/aggressive strategy may be needed, whereby student experiences are embedded, research activities (related to the PSP) are presented, and industrial partners are included as case studies.

Panel Judgement

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

Panel Recommendations

To enhance adherence to Principle 8, the EEAP recommends the following:

- Put more emphasis on publicising the PSP and the Departmental activities/work in various social media (including interesting case studies, such as recently published works by former students of the course, etc).
- Include stories of current and/or previous students on the website, so as to help prospective students to resonate better in terms of what they will experience.
- Provide information about research and how it links to the PSP.
- Based on the above-mentioned aspects, an ownership of the information updates of the portal should be provided at the Departmental level, by which updates can be included on a regular basis.

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

The course is reviewed every two years according to the findings derived from the report compiled by the Internal Auditing Unit (MODIP). Minor changes can be implemented by the boards of studies that convene at a more regular basis.

It is commendable that minor changes are driven by the PSP's interactions with the local industrial partners.

There has not been any systematic review of the courses yet, as the directors are awaiting this first external review for guidance.

It is commendable that there was a very high percentage of students completing the questionnaires, reaching to almost 100%. Furthermore, this feedback gave very high scores to the modules, processes and procedures by the students completing it. This was further verified during the interviews the EEAP had with both current students and graduates, although (as mentioned above) most of the graduate students participating in the interviews graduated from the previous version of the PSP, when it ran under TEI's.

The internal audit by MODIP focused on the strengths and weaknesses of the course, stating a number of positive points and a lesser number of negative ones.

II. Analysis

- MODIP seems to manage through identifying issues (positive and negative) regarding this course. In its report, it had listed a number of positive points (high level training, industry related course, internal expertise), while the report for the negative points seems to be missing the necessary recommendations for improvement.
- Out of those negative points, the one regarding offering the course in English in order to attract foreign students in the area and the one regarding the standardisation of processes, stand out.
- Most importantly, the report seems to be missing the "closing of the loop" of their suggestions: it mentions that the issues are discussed in the board of studies and changes can be made, but this is largely unclear. Where is the list of those changes? Were these implemented on time? There needs to be a clear cycle of *question*, suggestion, implementation of change and feedback for the cycle to close.
- The A8 appendix was drafted in Jan 2023. In MODIP's defence, HAHE delayed the distribution of these documents by a lot. However, almost a year and a half has passed and no report detailing the addressing of the points in the A8 appendix could be found or discussed during the meetings.

As there was still no systematic previous review of this PSP, the report (Appendix A1, principle 9, p. 42) mentions the ten-year operation of this course as a pool of experience addressing the negative points of the MODIP report. While this might be partially true, this specific course has run for a lot less time in its current form and former versions of it should not be used as a valid proof of experience. If that were the case, the EEAP would have been seeking validations, actions and rectifications dating back to 2014.

III. Conclusions

This PSP is a good example of a PSP that is in tune with industrial and local needs and has most of the requirements to be a highly successful and attractive programme of study.

The academic staff are of high calibre; many of them exhibit international research and collaborations, something they bring back to the classroom.

Nevertheless, there are shortcomings (as indicated separately for each principle) that have to be addressed, initially by the Internal Auditing Unit, (MODIP).

In the relevant report, MODIP seemed to have performed a "light touch" of the PSP. Most importantly, the report does not seem to offer pathways or processes to "close the loop" between a shortcoming being identified and a solution implemented.

Panel Judgement

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

Panel Recommendations

To enhance adherence to Principle 9, the EEAP recommends the following:

A more detailed approach to the internal evaluation of the PSP, producing a list of problems, timelines, owners and solutions, is in order.

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 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

As this is the first external evaluation of this PSP, there are no previous reports or action points to address. The teaching staff clarified that they are in anticipation of the EEAP's report before they start addressing any major issues that might arise.

II. Analysis

There has been a limited attempt to list and address some of the more generic points made by the departmental review, as and when they apply to this specific PSP. These were included in appendix A18.

In this document, the first nine out of 13 pages are a translation of the points made in the departmental evaluation. This is unneeded and added to the confusion while reading the document.

While attempting to address some of the aforementioned issues, some valid points are made, addressing comments from the external evaluators (points 1-7, pp. 10-13). These are generic and with limited value.

III. Conclusions

In line with the suggestions made to MODIP regarding principle 9, a thorough approach to the external report is expected, detailing possible solutions, timelines, measurable targets and owners.

Panel Judgement

Principle 10: Regular external evaluation of postudy programmes	ostgraduate
Fully compliant	x
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

Not applicable (as there is no past external review of the PSP).

PART C: CONCLUSIONS

I. Features of Good Practice

- The PSP is constantly bringing opportunities for outside work experience to the attention of students.
- The local industry is absorbing PSP graduates, revealing that the skills accrued out of attending the PSP are sufficient for industrial employment.
- Very good student engagement and excellent levels of student satisfaction.
- Quite good staff development activity.
- Integration of the principles of Renewable Energy Utilisation Systems into teaching.
- Potential for PSP growth in student numbers via online delivery.
- Prompt support from both the administrative team and teaching staff is readily available to assist students.
- For employed students, the option of flexible attendance is provided in order to accommodate work schedules.

II. Areas of Weakness

- Strengthen relations, communication links and networking opportunities among the leading faculty, the administrative personnel, the students, the alumni and the various social partners.
- Overall and across principles, it appears that there is a lack of formalisation, coding, timeliness and regularity of procedures and actions. It should be better appreciated by the leading faculty that even the best formalisation of principles on paper may not succeed as much as it deserves if it is not accompanied by an as good formalisation of procedures and actions.
- Links with industry and social partners depend mostly on interpersonal relationships and are restricted to locality.
- Rather limited student catchment area.

• The internationalisation degree of the PSP is far from the one expected from a named International University.

III. Recommendations for Follow-up Actions

- Formalise procedures for creating, maintaining, and utilising an external Advisory Board and a PSP alumni group.
- Make a targeted effort towards increasing the internationalisation degree of the PSP. This effort should include offering the PSP in an international language and attracting students from the international pool.
- Develop proactive planning to address potential challenges associated with accommodating a larger student body to ensure the continued efficacy and quality of the PSP.
- Implement syllabi distribution in printed format at the commencement of each semester to provide clarity on the learning objectives to the students. This practice will enhance the transparency of the curriculum and assist students in better understanding the goals and expectations associated with their courses.
- Consider implementing a new approach to address the issue of delays in the completion of the master's thesis. Specifically, explore the possibility of offering students, especially those with limited time due to work or family commitments, an alternative option.
- Establish an advisory committee consisting of faculty, external partners, and alumni.
- Consider publishing the results of students evaluations on the PSP's web pages for better transparency.
- For the sake of internationalisation, create an English version of the PSP's web pages and improve the structure and quality of the content of both.
- We recommend that the PSP timely and regularly prepares and disseminates (by posting and communicating to the relevant parties) an updated plan for the agreed actions of improvement.

IV. Summary & Overall Assessment

The Principles where full compliance has been achieved are:

2, 3, 4, 5, 6, 7, 8, and 10.

The Principles where substantial compliance has been achieved are: **1** and **9**.

The Principles where partial compliance has been achieved are: **None.**

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

Overall Judgement	
Fully compliant	х
Substantially compliant	
Partially compliant	
Non-compliant	

Name and Surname

Signature

- 1. Prof. Marios Mavronicolas (Chair) University of Cyprus, Nicosia, Cyprus
- 2. Dr. Konstantinos Banitsas Brunel University, London, UK
- 3. Professor Costas Iliopoulos King's College London, London, UK
- 4. Dr. Vasilis Friderikos King's College London, London, UK
- 5. Ms. Despoina Boulogiorgou University of West Attica, Athens, Greece