



**ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ**  
HELLENIC REPUBLIC



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Ανώτατης Εκπαίδευσης**  
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# **Accreditation Report** **for the Postgraduate Study Programme of:**

**Telecommunications and Computer Networks**

**Department: Computer, Informatics, and  
Telecommunications Engineering**

**Institution: International Hellenic University**

**Date: 19 September 2023**



**Επιχειρησιακό Πρόγραμμα  
Ανάπτυξη Ανθρώπινου Δυναμικού,  
Εκπαίδευση και Διά Βίου Μάθηση**  
Με τη συγχρηματοδότηση της Ελλάδας και της Ευρωπαϊκής Ένωσης



Report of the Panel appointed by the HAHE to undertake the review of the Postgraduate Study Programme of **Telecommunications and Computer Networks** of the **International Hellenic University** 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 Telecommunications and Computer Networks of the **International Hellenic University** comprised the following four (4) members, drawn from the HAHE Register, in accordance with Laws 4009/2011 & 4653/2020:

- 1. Prof. Emeritus Panos Papamichalis (Chair)**  
Southern Methodist University, USA
  
- 2. Mr. Rizos Theodoros Chadoulis**  
Postgraduate Student, Aristotle University of Thessaloniki, Greece
  
- 3. Prof. Kiki Ikossi**  
George Mason University, USA
  
- 4. Dr. Dimitris Kabilafkas**  
OTE Group, Greece

## II. Review Procedure and Documentation

The External Evaluation & Accreditation Panel (EEAP) was formed in late August 2023 (and received the accreditation support material concerning the sister Postgraduate Study Program (henceforth PSPs) in Robotics on Wednesday, September 6th for the online visit to the Programs at the International Hellenic University that began on the following Monday, September 11<sup>th</sup>). Unfortunately, because of some problem with the platform, the Panel did not receive the material for this PSP of Telecommunications and Computer Networks until September 11, the day that the onsite reviews started. As a result, there was very little time to look into the support material before the beginning of the visit, and most of the analysis of the relevant information had to be done during the visit. The quality of the support material, when they were finally received, was very good. All documents (i.e., Student Guides, the Accreditation Proposals or the Courses Descriptions, etc.) were well designed. Some documents with statistical treatment (for instance, Students' Evaluations) were partially incomplete as the Panel will explain later in this report. During the visit, all the participants involved were very prompt to provide us with all the information asked for. All the meetings were conducted online utilizing Zoom, from Monday Sept. 11th to Wednesday Sept. 13<sup>th</sup>, in a very 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 PSP, the Head of the Department, 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 to have a visual representation of the Labs, buildings, grounds, and library. 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.

The following day, Sept. 12th, at 15:00 the Panel started a sequence of online meetings for the sister PSP Robotics, that lasted until 20:30. The teleconferences started with the teaching staff members of the PSP, followed by students, graduates and ended with employers/social partners. The same sequence was repeated the following day, Sept. 13, for the present PSP.

At the end of the day, on Sept. 13th, 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 “Telecommunications and Computer Networks” was established in 2018 and is now part of the Computer, Informatics and Telecommunications Engineering Department within the School of Engineering of the International Hellenic University (IHU). The program has been re-established several times between 2012 and 2023 in order to conform to the changing legal framework and organizational structure of the overall university. The current content of the Program has remained the same since 2018.

The objectives of the Program are to offer graduate education in the theory and practice of Telecommunications and Computer networks, as they are studied in Research and applied in Industry. Area of studies include Mobile Communications, Optical Communications, Microwave Technology, Network Security, Internet of Things, and Data Mining. This background will help the graduates work in an Academic, Research or Industrial environment. The duration of the program is three (3) semesters, two of them attending courses, and the last one to carry out an MSc Thesis. All the courses offered are required courses. The program leads to the accumulation of 90 ECTS in total. Finally, the PSP provides a unique and high-quality environment for teaching and conducting research (labs, classrooms, library, etc.).

## 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 in Telecommunications and Computer Networks applies a Quality Assurance System which is in line with European Quality Standards and with the Quality Policies of the International Hellenic University (IHU). The implementation

of this system is undertaken by the Internal Quality Unit of the Department (OMEA), which works in close cooperation with the Quality Assurance Unit of the University (MODIP).

The Program has well-qualified faculty members that disseminate the theoretical concepts and the practical applications of the courses to their students. From the meeting with the students, it became apparent that the program and its professors offer high quality student support services.

Telecommunications and Computer Networks is planned to be evaluated internally every year. There is also an evaluation by the Program's Coordinating Committee at the end of each Cycle of Studies (cohort), taking into consideration the feedback from Faculty, students, technological developments, and market needs. The results of the assessment are analysed in terms of weaknesses and strengths, and improvement actions and measurable, achievable, and timely quality goals are proposed. Any relevant information is supplied by OMEA to the Program Director for dissemination.

## **II. Analysis**

Regarding financial resources, the only income of the PSP is from tuition. Most of that income is used for compensation of instructors, but any remaining funds are used for Lab instrumentation and supplies, for conference and publication support, and even for scholarships to students. The overall goal of the Program is to equip its students with a good background in the subjects taught and bring them closer to reality through the Lab exercises. In this respect, the Program's learning outcomes meet the requirements of level 7 according to the European and National Qualifications Framework for Higher Education in terms of knowledge, skills, and abilities.

## **III. Conclusions**

In the opinion of the EEAP, the Program demonstrates a commitment towards Quality Assurance Policy implementation and towards nonstop improvement of the PSP on its published policy. The Academic Unit works to promote continuous improvement regarding objectives, expected learning outcomes, appropriateness of the qualifications of the teaching staff and the infrastructure and resources. However, EEAP has identified some technical and methodological drawbacks with the statistical processing of the collected data. These are mentioned in Principle 9.



## Panel Judgement

<b>Principle 1: Quality assurance policy and quality goal setting for the postgraduate study programmes of the institution and the academic unit</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

## Panel Recommendations

P1.1 Present systematically the data and statistics from the profile of incoming students and their study progression, making sure that the statistics developed are meaningful to help in improving the courses and the instructors. It would also be positive to track the careers of graduates of the Program for a few years after their graduation.

## **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

The IHU Telecommunications and Computer Networks (TCN) postgraduate Master of Science (MSc) Program was designed by the members of the teaching staff under the area of Computer Architecture and Industrial Applications, during the 2016 and 2017 academic years. The process followed for the creation of the program was prescribed by the existing law. Studies were conducted examining the purpose and viability of the program as well as the societal needs. These studies were examined and approved by the appropriate institutional and state authorities before establishing the program. The job market both in Greece, European Union (EU) and international showed a steady increase in the demand of employees with expertise in Telecommunications and Computer Networks.

In 2016 the program's teaching language was English and but since 2017 the teaching language is Greek. The faculty and students mentioned that the English terminology is also taught to be familiar with the international technical terms. standards to the high-tech area of Telecommunications and Computer Networks.

The program consists of 3 semesters two of which have mandatory courses and the last semester is dedicated to the MSc research and Thesis. There are a total of 8 required courses carrying each 7.5 credit hours (ECTS) while the MSc research and Thesis have 30 credit hours (ECTS). The total of 90 credit hours (ECTS) are accumulated for a MSc degree which is in agreement with EU and International standards. The courses are suitable for the Telecommunications and Computer Networks area and give the student a solid background. There are laboratory sessions for all courses that are taught as a separate class each semester.

Theory and technology of digital telecommunications, Internet of Things (IoT), Security and data mining in telecommunications, networks of wireless telephony and applications, networks of optical telecommunications, advance computer networks and lab I and II. The content of the course is very appropriate for learning the related topics. The courses are offered in 2 semesters and are accompanied by a Laboratory class that allows the student to have experimental hands-on understanding of the material taught. Each course is taught by multiple faculty members who are responsible for the course section in their direct area of expertise. In addition to the conventional exams, the students are assigned projects where their understanding of the theory and engineering skills can be better evaluated. The classes offered have a hybrid format. The students can attend on-line and/or in-class and have in-person labs scheduled to help with the students' work responsibilities. The experimental lab time is very well coordinated with the theoretical content of the courses and constitutes a valuable addition to Telecommunications and Computer Networks (TCN) education. The department benefits from the prior TEI inheritance of excellent laboratory facilities that are equipped with state-of-the-art instrumentation.

All students are assigned an academic advisor who follows their progress and advises them throughout their studies. The majority of the students are part-time students who work at the same time. All students commented that the learning environment works properly, despite the fact the program is highly demanding, especially for students with no Engineering undergraduate degree. The students believe that the timeframe given for the degree is

reasonable and, for full-time students, the 1.5-year program duration for completing a MSc degree is possible.

The MSc research projects are well publicized by the department and are available on the departmental website. In addition, students can create their own research projects with guidance from the faculty and industry. The student experience is enriched with professional seminars and conferences. The students can attend and learn the last trends in their area of research, and they can also present their research work to a broader audience. The program self-assessment report refers to the need for more invited speakers for the seminars. This reflects the need of funding to provide travel support or honoraria for the speakers. The program funding needs to be enhanced in order to meaningfully support the research activities too.

Of notice is the fact that the course and program evaluations have a nearly 100% completion rate, which points to a healthy environment and active communication between students and faculty. During the interviews with the accreditation panel students commented that with the education they received they feel confident to tackle any future technological advances.

The students commented that the professors were very helpful in getting research articles for them from Journals that were not available or easily accessible from the library. In addition, in their program evaluations the students gave the lowest points to the library question. In a postgraduate program access to articles in research journals is paramount.

The self-assessment report expresses concerns with the variable student admission numbers and low student graduation rate. These are issues that affect the quality of education and need to be addressed.

## **II. Analysis**

The MSc in Telecommunications and Computer Networks (TCN) is a well-designed program with suitable courses and laboratory experience and enrichment activities that gives an excellent education to this very technically-demanding area. Teaching innovations like the hybrid on-line and in-class teaching, and hands on labs gives well needed flexibility to the students. The total of 90 credit hours for a MSc degree follows EU and International standards. The students have the opportunity to do research, publish, and write their thesis. A positive aspect of the MSc in the Telecommunications and Computer Networks (TCN) program is that the professors are very accessible, and the students have a personal one on one education.

The students and graduates were highly enthusiastic and very positive with their MSc experience. The industry representatives were equally enthusiastic about the high quality of graduates from the MSc Telecommunications and Computer Networks (TCN) program. The industry representatives offered to speak in seminars, sponsor collaborative projects and serve in advising on future technology needs. The possibilities are there but this industry collaboration has not materialized as yet.

The Telecommunications and Computer Networks (TCN) MSc is a successful program. The success derives from the presence of a very capable highly educated and dedicated faculty and

an active and engaged leadership that caters to the needs of the students while advancing science and technology, and serving industry needs and National interests.

### III. Conclusions

The academic program is well designed and gives the students the necessary background for a successful and fruitful career in Telecommunications and Computer Networks (TCN)

#### Panel Judgement

<b>Principle 2: Design and approval of postgraduate study programmes</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

#### Panel Recommendations

P2.1 Consider adding elective courses to further enrich the program.

P2.2 Consider enhancing international collaboration for research projects.

P2.3 The program funding needs to be enhanced in order to meaningfully support the research activities.

P2.4 Consider enhancing Industry involvement in the program.

P2.5 Consider adding easy library access to relevant Telecommunications and Computer Networks research journals.

P2.6 Address low student graduation rates.

### **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**

Various delivery methods, as appropriate, are utilized within the program. Students have the flexibility to participate in lectures through a hybrid approach, which allows them to choose

between in-person attendance or remote participation. Additionally, invited talks and project assignments serve as alternative teaching approaches.

The assessment of the degree to which students achieve their intended learning outcomes occurs through several means: (i) daily evaluations by academic staff, (ii) semester-based evaluations by students, and (iii) annual evaluations by the MSc Program's steering committee.

During a meeting of the evaluation committee with a group of MSc Program students, it became apparent that students express satisfaction with the counselling and guidance they receive regarding their thesis work.

Student assessment primarily relies on project assignments, with occasional written exams. These projects may be collaborative or individual, and students are evaluated not only on their submitted work but also on the content of their deliveries.

The MSc Program has established and made available a set of regulations for addressing student complaints. According to these regulations, students have the option to file a complaint, either verbally or in writing, in cases where the actions of a faculty or administrative staff member are inconsistent with the program's regulations.

Each student is assigned an academic advisor upon enrolment in the MSc Program. However, on occasion, students may choose to bypass their academic advisor and directly contact the MSc Program Director or another professor.

## **II. Analysis**

Students are strongly encouraged to actively engage in the learning process. In addition to the various teaching methods, the evaluation of learning outcomes, and the established procedures for addressing student complaints, the personal rapport between academic staff and students appears to be of significant importance. Typically, the role of the academic advisor operates seamlessly. Nevertheless, there are instances where matters are resolved through direct, impromptu personal interactions. This is not a deficiency within the role of the academic advisor but rather serves as a supplementary avenue through which students' concerns can reach the appropriate parties.

## **III. Conclusions**

The MSc program provides all the necessary conditions to encourage students' active involvement in the learning process. Thus, in terms of Principle 3, it is considered to be Fully Compliant.

## Panel Judgement

<b>Principle 3: Student-centred learning, teaching, and assessment</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

## Panel Recommendations

P3.1 The MSc Program could reinforce the function of the academic advisor and encourage students to turn to their advisor to address their academic concerns. This could be achieved by formalizing the interaction of the academic advisor with the students through regular meetings.



## **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**

All regulatory documents can be accessed on the official MSc Program website (<https://cm.ihu.gr/icd/msc/>).

Article 6 of the Internal Regulation for the operation of the MSc Program outlines the student admission procedures and the required supporting documents.

The Internal regulation explicitly outlines students' rights and obligations.

Paragraph 10 of Article 9 of the Internal Regulation for the operation of the MSc Program permits students to optionally participate in an Internship through the Erasmus+ program, although further details are not provided in the Internal regulation.

The procedures and timelines for completing assignments and the thesis are comprehensively detailed in the regulatory documents, specifically in Article 12 of the Internal Regulation for the operation of the MSc Program and in the Regulation of Thesis.

Article 7 of the Internal Regulation for the operation of the MSc Program addresses the duration of studies.

Article 13 of the Internal Regulation for the operation of the MSc Program outlines the procedure for the award of the degree.

## II. Analysis

Overall, the Internal Regulation provides comprehensive coverage of admission, academic progression, thesis preparation, study recognition, certification processes, and clear delineations of the related procedures and responsibilities. For instance, as stipulated in the Internal Regulation, students' academic advancement is subject to ongoing monitoring by the instructional faculty. To facilitate this, faculty members engage in discussions within the steering committee or utilize online collaborative platforms to exchange insights and information.

## III. Conclusions

The publicly available academic regulatory corpora adequately cover all aspects and phases of studies. Thus, in terms of Principle 4, it is considered to be Fully Compliant.

### Panel Judgement

<b>Principle 4: Student admission, progression, recognition of postgraduate studies and certification</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

### Panel Recommendations

P4.1 Reinforce student mobility.

## **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, self-assessment, 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**

There are clear procedures for hiring faculty, which comply with high quality standards. A large number of the MSc program teachers are existing faculty members of the Institution. Because of the high-tech area and need for technology expertise, there is an open invitation to apply for teaching positions. The department provided a detailed list of the faculty teaching at the Telecommunications and Computer Networks MSc consisting of 10 faculty members. They all are highly qualified, have Ph.D. degrees and have extensive research experience and a reasonable publication record.

The student to teacher ratio is good. Each faculty member is assigned incoming students to advise throughout their studies.

There is support for development in the form of the existing EU programs like the Erasmus program. However, the faculty and students do not appear to take advantage of this due to the short duration of the MSc program. Funding of all the activities of the MSc program comes from the student tuition which is very limited. The faculty explained that there is some limited

funding to attend conferences. The majority of conference attendance comes from funded research projects.

The faculty are highly motivated and dedicated to the success of the program. They are in constant communication with the students through the SLAC platform and phone calls. The faculty uses the available platforms like Zoom and others to enable hybrid classes and easy communication with students.

The teaching staff expressed satisfaction with the working environment. The workload of the faculty appeared to be heavy as they teach both in graduate and undergraduate programs. During the interview with the accreditation panel the faculty commented that the workload became more reasonable after the latest government regulations were introduced. The self-assessment report expresses concerns for the lack of faculty from abroad. Offering fellowships for external visiting faculty may help recruit faculty from abroad. Also allowing faculty to go on sabbatical leave and enhance their research experience will broaden the recognition of the program abroad.

The information provided by the employers and social partners at the meeting with the accreditation panel assured us that a good relationship with the department and its academic staff is in process of being established. Collaboration with industry will be a valuable part of the program, in terms of the students developing broader skills and becoming aware of industry trends.

## **II. Analysis**

There are clear procedures for hiring faculty that ensure high quality program. The faculty expressed satisfaction with the work environment and workload. To ensure the faculty continues to excel in research while teaching, there are additional steps that can be taken. For example, encouraging and funding conference attendance so that the faculty are exposed to emerging technology trends and transfer the information to their students.

## **III. Conclusions**

There are clear procedures for hiring faculty. The success of the Telecommunications and Computer Networks MSc program can be attributed mainly to the incredible effort of self-motivated faculty and an outstanding MSc program leadership. The program will benefit from active support of faculty research activities in the form of free time for research, support for scientific conference attendance and participation in faculty exchange programs.

## Panel Judgement

<b>Principle 5: Teaching staff of postgraduate study programmes</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

## Panel Recommendations

5.1 The program will benefit from active support of faculty research activities, in the form of free time for research, support for scientific conference attendance and participation in faculty exchange programs.

5.2 Consider offering sabbatical leave to faculty to enhance their research.

## **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 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 long-term 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 MSc program in Telecommunications and Computer Networks is a post-graduate program operating within the department of Computers, Informatics and Telecommunications Engineering, of the **International Hellenic University (IHU)**, and thus, in addition to its own dedicated resources and facilities to be referred to later, it shares those of the department and the University.

The general infrastructure and teaching activities are covered by the department and the university. However, the program can be considered self-supported by its students' tuition (2400 € for the whole duration), despite the discounts for some students (based on educational and financial grounds). The annual budget accounts to circa 24.000 €. Part of this revenue is utilized for updating the labs infrastructure, where a side contribution of

development through thesis work should be mentioned. There is also a return of 30% of the funds the program gives to the university, to cover general needs.

There exist all the basic facilities to support learning and academic activity in general, so as to offer students the best possible level of studies.

The main lecture room is for teaching theoretical lessons and for some assignments. Apart from onsite attendance, the students have the possibility to attend the class via a synchronous tele-education system of the class. Similar systems also include tele-education in the labs. There is also a zoom virtual room available by the program.

The basic electronic service used by the students of the program is the asynchronous distance learning platform, (<https://elearning.cm.ihu.gr/>). Students have access to the platform with their institutional accounts, which are issued immediately after registration. On the platform all the necessary teaching material and exercises have been posted for each course, while the constant enrichment of the platform and the creation of new teaching material is one of the quality goals for the program.

Dedicated to the program, there are 5 labs with adequate workspaces namely:

- Telecommunications Systems (18 Workspaces)
- Microwave Technologies (20 Workspaces)
- Computer Networks (20 Workspaces)
- Communications (30 Workspaces incl. 15 in optical communications)
- Mobile Communications (15 Workspaces)

Every workspace is equipped with either lab apparatus, or a networked PC equipped with the appropriate software, or both, according to its scope. There are also all necessary peripherals (printers, scanners projects etc.).

The Labs provide 10 sets of apparatus for every subject dealt with in the program (basic telephony, optical communications, DSP, wireless communications). Additionally, oscilloscopes, multimeters, various antennas, instruments for handling of fiber etc., are provided.

More specific software and hardware in the labs comprises:

- Vector Signal Generator and Spectral Analyser with appendage software for signal modulation and signal analysis (GPP, W-CDMA, HSPA και HSPA+3GPP, 3GPP LTE TDD)
- Portable Spectrum Analyzer 100 Hz – 26.5 GHz and measurement system of calibrated antennas for frequencies 100 Hz – 26.5 GHz
- Spectrum analyser and site surveying software for Wi-Fi networks
- Portable Instrument for checking-certification of structured cabling networks
- ISDN-BRI and PRI emulator
- Router configuration and emulation software
- MATLAB
- Design and analysis software for wireless telecommunications systems (OPNET)
- Computational Electromagnetism simulation software
- Microwave circuit analysis software

- Electromagnetic simulation software

The aforementioned Laboratories are backed by two more, recognized as legal entities by the state:

- The Laboratory of Telecommunications and New Technologies, under the distinctive title TNT-Lab
- The Security and Networking Laboratory, under the distinctive title SECNET-IAB (not SECNETLab)

Research is carried out in projects of the above laboratories, in which postgraduate students can participate. Also, workstations and lab benches are in place and infrastructure has been developed for the preparation of theses and work plans (projects)

General needs are covered by the department's and university's infrastructure. There is an auditorium and major events, library, admin buildings etc.

The university also covers the administrative support of the research activities. The support by administration and technical staff, although minimal, is deemed sufficient.

An additional academic service is the assignment of a faculty member to each student upon admission as Academic Advisor, to guide the student during the course of his studies on educational and welfare issues and as contact with the market. However, no specific regular effort is taken for networking the graduates for professional and academic purposes. As a final step, the student has the right to appeal to the student advocate-defender, at the university level. The complaints and appeal processes are covered by a special by-law.

There is also support for access of disabled people, and also procedures for tackling learning difficulties, if they appear.

The department's library covers the basic needs.

There is a cafe-restaurant on campus, with free access for a wide range of students. Although there are no accommodation facilities (a dormitory is planned for the future), rental cost is affordable in Serres, for the few out-of-town students that decide to live there. The institution helps students claim the state-provided support for rental, if qualified. Other athletic and cultural activities are provided in the city and the prefecture of Serres.

## **II. Analysis**

Teaching, labs, technical and administrative personnel are well covered by the institutions' permanent staff, and there is also the possibility of contract support, where needed.

The educational workshop spaces for the program are satisfactory, as the number of students attending each cycle averages twenty students, with the only inconvenience that some exercises should be performed in two groups.



The fact that space plays an important role is dedicated to and used only by the Graduate Program in Robotics, so the teaching aids (hardware and software) remain in their intended configuration, throughout the academic semester.

Although the campus is in a small city, because of the postgraduate nature of the program and the fact that students visit it for a few days, (and when they do not use the tele-education), welfare support in the campus is not crucial.

The internal communications channels during the study are satisfactory. The formal academic advisor operates on top of the fact that, due to the small size of the community, issues are frequently resolved by ad-hoc personal contact. Moreover, closer and formal contact with the market, and networking after graduation should be considered (by establishment of a career or alumni office).

### III. Conclusions

The MSc program provides infrastructure (buildings, labs and educational tools) and services (teaching, welfare), which are deemed satisfactory for its purposes.

#### Panel Judgement

<b>Principle 6: Learning resources and student support</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

#### Panel Recommendations

P6.1 Establishment of a career or alumni office

## **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 basic system for the collection of information and the monitoring of the course of study of the postgraduate students is the student registry (<http://uniportal.ihu.gr>).

The student registry collects data on admitted students by year, total enrolled students and graduates. It also collects and stores data on the students' grade performance in each semester, the course of study, and generates detailed score reports. Students have access, with their personal codes, to their grades and course selection.

According to the registry, students, in general, have a smooth course of study and the vast majority of them succeed in the courses during the first examination period (January or June), while, less often, they need to make use of the re-examination period in September. The grades (averages) of students in this Program since its inception to date, are shown in the table and a diagram provided for the current review, per course.

In parallel, in PSP operates an ad-hoc data recording and collection system, based on Excel, with info on the course of the students' studies in each operating cycle, the departments of origin, any professional qualifications, the changes in the study status, the Thesis subject, tuition fee waivers, scholarships, etc.

The institution takes full advantage of MODIP's quality assurance information system -IQAS, (<https://modip.ihu.edu.gr/>) where data is recorded regarding the published work of faculty members, their participation in research projects and their teaching work. The evaluation by the students of the teaching work that is conducted regularly per semester is also recorded in this system. The evaluation of the teaching reflects the opinion of the students in each semester and is important for the renewal of the material and the teaching methods, and it appears to be appreciated and well respected by the students.

In addition, the National Information System for Quality Assurance in Higher Education (NISQA-ΟΠΕΣΠ), developed by HAHE, is maintained regarding the Higher Institutions of Education, their Departments, as well as undergraduate and postgraduate programs of studies offered. They register in this system annually, by the appointed operators of the Institutions, data related to its qualitative and quantitative indicators progress and student performance. Also, data on categories is recorded of teachers at PSP.

Finally, there are systems for student admission and the monitoring of research projects.

## **II. Analysis**

The course progress is monitored by a comprehensive information system and the quality tools, both for the Internal Quality Assurance System and the Hellenic Authority for Higher Education, that are utilized for collection of data. These data are well presented during the evaluation procedures. However, it is not clear in which degree these data are analysed for the detection of possible drawbacks in the program, the teaching procedure etc. The ad-hoc tool, based on excel, has intrinsically limited, or not intuitive, analysis capabilities.

## **III. Conclusions**

The program is supported by a satisfactory information management system, that could be further enhanced with analysis capabilities

## Panel Judgement

<b>Principle 7: Information management</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

## Panel Recommendations

P7.1 Consider the enhancement of the information system with further analysis capabilities.

**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 program maintains its website at <http://msctelecomms.ict.ihu.gr/> (also appears as <http://informatics.teicm.gr/msc/> when coming from the university's site, which may be confusing or misleading), accessed also from the department's and the university's website. This website is available on the website of the Department of ICT (<http://ict.ihu.gr>). This website contains information on:

- Study info and structure (including general info for the university and department's structure)
- Applicants' info and application form (in different tabs)
- Cisco Academy (just its existence, without further info)
- Contact Details of graduate students
- Current announcements
- Address, contact details and conduct form.

The site info looks up-to-date in Greek. There is also a rather full English version, with clear flags for switching. All tabs exist in English, however in crucial topics the information is obviously outdated.

The website is updated and maintained by the website manager who is selected each year by the Coordinating Committee of the Graduate Studies Program (currently a member of the teaching staff)

The PSP also maintains a Facebook page where photos and some information should be posted related to events organized by the Graduate Program.

## **II. Analysis**

The program's site displays the basic necessary info for its structure and operations. Any deficiency in the English version may cause an immediate drop out of the visitor, which is especially crucial for a program that hopes to swift into "internationalization"

There is no reference (at least easily found) to the two formal labs, or to the CISCO academy.

The program has an entry in the Hellenic Academic Research Data Management Initiative), (<https://hardmin.heal-link.gr>), a repository of research data, with no data or activities reported for the last year

The Facebook page looks poor in context and appearance. The somewhat stiff policy of webpage updating may be justified for an official institution's site, however, when applied to a Facebook page could yield a rather cumbersome result, with pages outdated or with irrelevant context.

The program should establish an official presence in more appropriate scientific and professional networks like IEEE (e.g. by establishing a student branch), IEE and LinkedIn. Relevant to these, it should be noticed that an IEEE student branch has been established from TEI (Technical Higher Education Institute) times, and the IHU has its own page in LinkedIn (<https://www.linkedin.com/school/international-hellenic-university/>)

## **III. Conclusions**

The program publishes information about its structure and its teaching and academic activities. However, it is necessary this info to reach an international audience and to utilize more established academic and professional channels.

## Panel Judgement

<b>Principle 8: Public information concerning the postgraduate study programmes</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

## Panel Recommendations

P8.1 More professional effort and resources should be considered for the program's info to reach a broader audience. Additional established academic and professional channels should be utilized.

P8.2 Improve the accessibility and accuracy of the 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**

The continual monitoring of the PSP is done through (a) the anonymous evaluation of the courses and the instructors by the students during the semester, (b) regular evaluative meetings of the program's Coordinating Committee, which examines the events of the semester and the student feedback, and seeks ways to improve the Program, and (c) the annual reports of internal evaluation, produced by MODIP, the university's Quality Assurance Unit.

The data is processed by MODIP and shared with all relevant parties. The data is analysed, and potential corrective actions are identified.

It is also stated in the Accreditation Proposal that feedback is received from external stakeholders, but this was not obvious from the discussions with external parties with interest



in the Program. There are also annual one-day events to present the activities to the external public, but such events could be used for more focused and deliberate feedback.

## **II. Analysis**

The anecdotal information the Panel received from the faculty was that the participation of the students in the evaluations is close to 100%. If this is accurate, it is highly impressive because the subject is a perennial problem in universities around the world. Still, it has plausibility because the instructors in the PSP seem to teach and work very closely with their students and tend to motivate them well. However, it would be important to have the percentage participation of the students in the evaluations explicitly stated in the MODIP reports.

According to the verbal description of the process provided, the data collected are processed both by course and collectively. However, the samples given in the documentation accompanying the Accreditation Proposal were only for collective processing of all the courses per semester and not for individual courses. The value estimated from the student evaluations for a particular question on the questionnaire are of dubious value when aggregated over different courses and instructors. Severe deficiencies could be hidden that way for some courses. So, it would be important for MODIP and the Program to demonstrate and give examples that results are generated by course (and instructor), where they would be most helpful.

In any case, the Program provided tables with meaningful statistics for admission applications, registrations, and composition of the successive Study Cycles/ cohorts, which were useful to the EEAP in getting a sense of the level of activity.

## **III. Conclusions**

It is very probable that the right steps are taken for the internal assessment of the program, but it would be appropriate to provide the corresponding data and examples, as mentioned in the Analysis above and repeated in the Panel recommendations below.

The two programs evaluated, Robotics and Telecommunications and Computer Networks, seem to have similar style of processes and results, since they are within the same Department.

## Panel Judgement

<b>Principle 9: On-going monitoring and periodic internal evaluation of postgraduate study programmes</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

## Panel Recommendations

P9.1 Present data showing the percentage of students returning the course evaluations for each semester, course, and instructor.

P9.2 Show samples of statistics from student evaluations per course and instructor (possibly redacting the course and instructor identification for privacy reasons).

P9.3 Consider instituting an External Advisory Board to give you regular feedback (e.g., twice a year) on Market conditions and Technology needs.

## **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**

The evaluation by the External Evaluation and Accreditation Panel (EEAP) is intended to assist in the HAHE decision on the accreditation of the program. The Telecommunications and Computer Networks Program appears to have a concrete plan to review the EEAP comments and plan any corrective actions, if necessary.

### **II. Analysis**

The Evaluation Panel feels that the plan of action is comprehensive and well thought out. Since this is the first time the Telecommunications and Computer Networks program goes through the accreditation process, the results of following the plan of action will be evaluated in subsequent accreditation reviews.

### **III. Conclusions**

The program Leadership is encouraged to consider the suggestions presented in Principle 9, to make the work of the EEAP easier, and to bring out the strengths of the program. It is understood that an accreditation by HAHE will have a 5-year duration.

## Panel Judgement

<b>Principle 10: Regular external evaluation of postgraduate study programmes</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

## Panel Recommendations

None.

## **PART C: CONCLUSIONS**

### **I. Features of Good Practice**

- Dedicated, sympathetic, open, and hardworking faculty members, help make the students successful.
- Teaching of subjects addresses both Industrial needs and STEM Education needs.
- Uses a hybrid method of presentation, both in person and remote, synchronous and asynchronous, to accommodate distant students.
- Accommodates both full-time and part-time students.
- Strong laboratory component of courses for hands-on experience.
- Well-planned weekend meetings with students to accommodate lab requirements for distant students.

### **II. Areas of Weakness**

- Location in a regional city presents problems from competition of programs in large cities.
- Admission of students with non-engineering backgrounds presents special challenges for some to cover background material.
- Working students face time constraints for studying (although the option of being a part-time student helps).
- The English-language part of the website not as complete or strong as the Greek-language side and is not up to date. This will present problems in the internationalization effort.
- Small numbers of students in some of the cohorts.

### **III. Recommendations for Follow-up Actions**

- Consider adding elective courses to further enrich the program.
- Consider enhancing international collaboration for research projects.
- The program funding needs to be enhanced in order to meaningfully support the research activities.
- Consider enhancing Industry involvement in the program.
- Consider adding easy library access to relevant Telecommunications and Computer Networks research journals.
- Reinforce student mobility to interact with other universities, domestic and international.
- Consider offering sabbatical leaves to faculty to enhance their research.
- Encourage faculty development by providing support for scientific conference attendance.
- Establishment of a career or alumni office
- Consider the enhancement of the information system with further analysis capabilities.

- Improve the accessibility and accuracy of the website. Improve the website content in English.
- Present data showing the percentage of students returning the course evaluations for each semester, course, and instructor.
- Show samples of statistics from student evaluations per course and instructor (possibly redacting the course and instructor identification for privacy reasons).
- Consider instituting an External Advisory Board to give you regular feedback (e.g., twice a year) on Market conditions and Technology needs.

#### IV. Summary & Overall Assessment

The Principles where full compliance has been achieved are: **2, 3, 4, 5, 6, and 10.**

The Principles where substantial compliance has been achieved are: **1, 7, 8, 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	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

## The members of the External Evaluation & Accreditation Panel

Name and Surname

Signature

- 1. Prof. Emeritus Panos Papamichalis (Chair)**  
Southern Methodist University, USA
- 2. Mr. Rizos Theodoros Chadoulis**  
Postgraduate Student, Aristotle University of Thessaloniki, Greece
- 3. Prof. Kiki Ikossi**  
George Mason University, USA
- 4. Dr. Dimitris Kabilafkas**  
OTE Group, Greece