



**ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ**  
HELLENIC REPUBLIC



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# **Accreditation Report for the New Undergraduate Study Programme in operation of:**

**Informatics and Telecommunications**

**Institution: University of Ioannina**

**Date: 11 November 2022**



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 New Undergraduate Study Programme of **Informatics and Telecommunications** of the **University of Ioannina** 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 new undergraduate study programme of **Informatics and Telecommunications** of the **University of Ioannina** comprised the following five (5) members, drawn from the HAHE Register, in accordance with Laws 4009/2011 & 4653/2020:

- 1. Prof. Petros Drineas (Chair)**  
Purdue University, USA
  
- 2. Dr. Paraskevas Dalianis**  
UniSystems S.M.S.A., Quest Group, Greece
  
- 3. Prof. Costas Iliopoulos**  
King's College London, UK
  
- 4. Prof. Dimitris Nikolopoulos**  
Virginia Tech, USA
  
- 5. Mr. Michail Voskakis**  
Hellenic Mediterranean University, Greece

## **II. Review Procedure and Documentation**

For the purposes of this evaluation, the Hellenic Authority for Higher Education (HAHE), implemented an online accreditation review of the undergraduate study programme of the Informatics and Telecommunications of the University of Ioannina. Meetings and briefings were conducted using MS Teams and Zoom. Before the online meetings, the EEAP received the review timeframe with MS Teams links as well as a wealth of material from the department and the university. It is worth noting that there was no prior External Evaluation Report for the department, because the department recently transitioned from a TEI undergraduate study programme to an AEI undergraduate study programme. EEAP members discussed strategy and items to be considered during the review and the chair allocated tasks for each panel member during the introductory meeting. Additional documentation and presentations were requested by EEAP and provided by the departmental staff during and after the completion of the online meetings.

The review started on Monday, October 24 with an introductory meeting among the EEAP members. On Tuesday, October 25, the meetings started with a teleconference with the Vice-Rector/President of MODIP and the Head of the Department. Tuesday's schedule continued with a detailed presentation on the 12 evaluation principles, prepared by the department's faculty and staff. The days concluded after two additional teleconferences with faculty and staff, as well as students (almost a dozen students attended the meeting). On Wednesday, October 26, the committee had the opportunity to attend an online tour of the department and meet with employers and social partners. Finally, the evaluation concluded with a debriefing including departmental faculty and staff, the department head, as well as the vice rector and members and staff from MODIP. A detailed schedule of the review and the participants at each meeting is available by HAHE.

Over the following days, EEAP continued working on key findings of the review. The EEAP acknowledges the spirit of cooperation shown by the department and the university. From October 27 to November 11, 2022, EEAP members worked both independently and as a team on their assigned tasks on the Accreditation Report. Follow-up EEAP team meetings were conducted via Zoom.

### **III. New Undergraduate Study Programme in operation Profile**

The Department of Informatics and Telecommunications of the University of Ioannina was established by law in 2018, as a continuation of a related TEI department at the same university. It currently provides an undergraduate curriculum targeting the science and technology of modern computer and telecommunication systems. It is physically located in Arta, Greece.

The number of incoming students is determined annually by the Ministry of Education and Religious Affairs. The total number of registered undergraduate students during the current academic year seems to exceed 1,000 with approximately 200 students in the first year of their studies. The department also has over 30 PhD students and over 50 graduate students.

The Undergraduate Program is based on IEEE/ACM curricula. Offerings include approximately 60 courses. The total duration of the studies is expected to be four years and during the last year (7th and 8th semesters), students have the option to work on a diploma thesis, or alternatively take two elective courses. In summary, graduation requires the accumulation of 240 ECTS credits (30 mandatory courses, 12 elective courses and the diploma thesis, or 14 elective courses without a diploma thesis).

The Department currently has 18 full-time faculty, at all levels: two Laboratory Teaching Staff (EDIP), and three administrative staff members. The department has multiple areas of specialisation, roughly split in four research laboratories/divisions:

- Human-Computer Interaction: HCILAB (<http://hclab.dit.uoi.gr/>)
- Asynchronous Systems: ASyL (<http://www.asl.dit.uoi.gr/>)
- Knowledge and Intelligent Systems: KIC-Lab (<https://kic.uoi.gr/>)
- Computational & Telecommunication Systems: CTSL (<http://ctsl.dit.uoi.gr/index.php>)

## **PART B: COMPLIANCE WITH THE PRINCIPLES**

### **Principle 1: Strategic Planning, Feasibility and Sustainability of the Academic Unit**

**Institutions must have developed an appropriate strategy for the establishment and operation of new academic units and the provision of new undergraduate study programmes. This strategy should be documented by specific feasibility and sustainability studies.**

*By decision of the institutional Senate, the Institutions should address in their strategy issues related to their academic structure in academic units and study programmes, which support the profile, the vision, the mission, and the strategic goal setting of the Institution, within a specific time frame. The strategy of the Institution should articulate the potential benefits, weaknesses, opportunities or risks from the operation of new academic units and study programmes, and plan all the necessary actions towards the achievement of their goals.*

*The strategy of their academic structure should be documented by specific feasibility and sustainability studies, especially for new academic units and new study programmes.*

*More specifically, the feasibility study of the new undergraduate study programmes should be accompanied by a four-year business plan to meet specific needs in infrastructure, services, human resources, procedures, financial resources, and management systems.*

*During the evaluation of the Institutions and their individual academic units in terms of meeting the criteria for the organisation of undergraduate study programmes, particular attention must be placed upon:*

#### **a. The academic profile and the mission of the academic unit**

*The profile and mission of the department should be specified. The scientific field of the department should be included in the internationally established scientific fields of Higher Education, as they are designated by the international categorisation of scientific fields in education, by UNESCO (ISCED 2013).*

#### **b. The strategy of the Institution for its academic development**

*The academic development strategy for the operation of the department and the new study programme should be set out. This strategy should result from the investigation of the factors that influence the studies and the research in the scientific field, the investigation of the institutional, economic, developmental, and social parameters that apply in the external environment of the Institution, as well as the possibilities and capabilities that exist within the internal environment (as reflected in a SWOT Analysis: strengths, weaknesses, opportunities, and threats). This specific analysis should demonstrate the reason for selecting the scientific field of the new department.*

#### **c. The documentation of the feasibility of the operation of the department and the study programme**

*The feasibility of the operation of the new department should be justified based on:*

- *the needs of the national and regional economy (economic sectors, employment, supply-demand, expected academic and professional qualifications)*
- *comparison with other national and international study programmes of the same scientific field*
- *the state-of-the-art developments*

- *the existing academic map; the differentiation of the proposed department from the already existing ones needs to be analysed, in addition to the implications of the current image of the academic map in the specific scientific field.*

**d. The documentation of the sustainability of the new department**

*Mention must be made to the infrastructure, human resources, funding perspective, services, and all other available resources in terms of:*

- *educational and research facilities (buildings, rooms, laboratories, equipment, etc.)*
- *staff (existing and new, by category, specialty, rank and laboratory). A distinct five-year plan is required, documenting the commitment of the School and of the Institution for filling in the necessary faculty positions to cover at least the entire pre-defined core curriculum*
- *funding (funding possibility from public or non-public sources)*
- *services (central, departmental / student support, digital, administrative, etc.)*

**e. The structure of studies**

*The structure of the studies should be briefly presented, namely:*

- **The organisation of studies:** *The courses and the categories to which they belong; the distribution of the courses into semesters; the alignment of the courses with the European Credit Transfer System (ECTS).*
- **Learning process:** *Documentation must be provided as to how the student-centered approach is ensured (modes of teaching and evaluation of students beyond the traditional methods).*
- **Learning outcomes:** *Knowledge, skills and competences acquired by graduates, as well as the professional rights awarded must be mentioned.*

**f. The number of admitted students**

- *The proposed number of admitted students over a five-year period should be specified.*
- *Any similar departments in other HEIs with the possibility of student transfers from / to the proposed department should be mentioned.*

**g. Postgraduate studies and research**

- *It is necessary to indicate research priorities in the scientific field, the opportunities for interdisciplinary research, the challenges towards new knowledge, possible research collaborations, etc.*
- *In addition, the postgraduate and doctoral programmes offered by the academic unit, the research projects performed, and the research performance of the faculty members should be mentioned.*

**Relevant documentation**

- *Introductory Report by the Quality Assurance Unit (QAU) addressing the above points with the necessary documentation*
- *Updated Strategic Plan of the Institution that will include its proposed academic reconstruction, in view of the planned operation of new department(s) (incl. updated SWOT analysis at institutional level)*
- *Feasibility and sustainability studies for the establishment and operation of the new academic unit and the new study programme*
- *Four-year business plan*



## **Study Programme Compliance**

### **I. Findings**

The EEAP evaluated a multitude of documents provided both by the institution and the department to address the objectives of Principle 1. Additionally, the department and its leadership presented in detail their thoughts on Principle 1 during online meetings. The committee appreciated the institutional and departmental effort to comply with the objectives of this principle. The profile and mission of the department was compliant with UNESCO (ISCED 2013) standards. The institution has a SWOT analysis in place for the department, both with respect to the operation of the department and its development; the analysis included a detailed and reasonable discussion of strengths, weaknesses, opportunities, and threats for the department. The feasibility of operation of the department with respect to the local and regional economy, the comparison with national and international programmes of study for the same scientific field, and the differentiation of the department from other similar, existing departments was discussed (concerns were raised by the committee and will be discussed below). Sustainability and structure of studies were discussed in detail. The number of admitted students was specified and the committee recognized that this is beyond the departmental and even institutional control. Graduate studies were briefly discussed since the committee focused on the undergraduate curriculum.

### **II. Analysis**

The committee deemed that the department is compliant in terms of UNESCO standards and that the institutional SWOT plan reasonably addresses departmental planning and strategic aspects. The feasibility of operation of the department raised concerns: while the department has performed some comparisons of its undergraduate study program with other peer departments in Greece, it is unclear whether the department has figured out how to offer a curriculum that differentiates it from its peers. The objective of the department is to get a brand name for itself; to achieve that, it needs to get a competitive edge in a niche area. For example, the telecommunications aspect of the department seems weak: there is only a small number of faculty members (and therefore a small number of courses and labs) in telecommunications. It is unclear whether this is a priority area for the department in the future. During our discussions, it was also unclear whether the university plans to commit resources to the department in the future (i.e., new hires and new salary lines). This affects the department's sustainability and its ability to expand its research endeavours.

The structure of studies seems to follow other similar programs. However, given the timing of the UGP evaluation (which is not under the department's control), there is limited data to evaluate how successful the proposed undergraduate curriculum will be. The department needs to be highly cognizant of the fact that the curriculum is a work in progress that will need to be updated frequently. It is worth emphasising that all courses have learning outcomes and are aligned with ECTS. Student-centred learning approaches seem to be important for the teaching faculty, but teaching evaluations are somewhat sparse and the committee cannot determine whether such approaches are implemented successfully.

The number of admitted students is beyond departmental control. Given existing facilities, 200 incoming students per year seems a rather high number for the department.

### **III. Conclusions**

The institution and the department have made significant efforts to comply with Principle 1, and the committee appreciated those efforts. However, a number of concerns were raised and EEAP deemed the department to be substantially compliant with this principle.

## Panel Judgement

<b>Principle 1: Strategic planning, feasibility and sustainability of the academic unit</b>	
<b>a. The academic profile and the mission of the academic unit</b>	
Fully compliant	
Substantially compliant	X
Partially compliant	
Non-compliant	
<b>b. The strategy of the Institution for its academic development</b>	
Fully compliant	
Substantially compliant	X
Partially compliant	
Non-compliant	
<b>c. The documentation of the feasibility of the operation of the department and the study programme</b>	
Fully compliant	
Substantially compliant	X
Partially compliant	
Non-compliant	
<b>d. The documentation of the sustainability of the new department</b>	
Fully compliant	
Substantially compliant	X
Partially compliant	
Non-compliant	
<b>e. The structure of studies</b>	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	
<b>f. The number of admitted students</b>	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

<b>g. Postgraduate studies</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

<b>Principle 1: Strategic planning, feasibility and sustainability of the academic unit (overall)</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

### Panel Recommendations

- The department should identify a niche area that differentiates it from similar departments in Greece and even within the University of Ioannina. It should then adapt its undergraduate curriculum to train undergraduates to be leaders in that niche area.
- The institution should work towards supporting the department with more faculty. In light of the fact that a similar department exists within the same institution, some separation should exist between the two undergraduate curricula. It is unclear whether any such discussions have happened at the departmental or the institutional level.
- The institution should help with infrastructure needs, including dining halls and student accommodations.

## **Principle 2: Quality Assurance Policy of the Institution and the Academic Unit**

**The Institution should have in place an accredited Internal Quality Assurance System, and should formulate and apply a Quality Assurance Policy, which is part of its strategy, specialises in the operation of the new academic units and the new study programmes, and is accompanied by annual quality assurance goals for the continuous development and improvement of the academic units and the study programmes.**

*The quality assurance policy of the Institution must be formulated in the form of a published statement, which is implemented by all stakeholders. It focuses on the achievement of special annual quality goals related to the quality assurance of the new study programme offered by the academic unit. In order to implement this policy, the Institution, among others, commits itself to put into practice quality procedures that will demonstrate: the adequacy and quality of the academic unit's resources; the suitability of the structure and organisation of the curriculum; the appropriateness of the qualifications of the teaching staff; the quality of support services of the academic unit and its staffing with appropriate administrative personnel. The Institution also commits itself to conduct an annual internal evaluation of the new undergraduate programme (UGP), realised by the Internal Evaluation Group (IEG) in collaboration with the Quality Assurance Unit (QAU) of the Institution.*

*The quality assurance policy of the academic unit includes its commitment to implement quality procedures that will demonstrate: a) the adequacy of the structure and organisation of the curriculum, b) the pursuit of learning outcomes and qualifications in accordance with the European and National Qualifications Framework for Higher Education, c) the promotion of the quality and effectiveness of the teaching work, d) the adequacy of the qualifications of the teaching staff, e) the promotion of the quality and quantity of the research work of the members of the academic unit, f) the ways of linking teaching with research, g) the level of demand for graduates' qualifications in the labour market, h) the quality of support services, such as administration, libraries and student care, i) the implementation of an annual review and audit of the quality assurance system of the UGP through the cooperation of the Internal Evaluation Group (IEG) with the Quality Assurance Unit (QAU) of the Institution.*

### **Relevant documentation**

- *Revised Quality Assurance Policy of the Institution*
- *Quality Assurance Policy of the academic unit*
- *Quality target setting of the Institution and the academic unit (utilising the S.M.A.R.T. methodology)*

### **Study Programme Compliance**

#### **I. Findings**

The Institution has in place an accredited Internal Quality Assurance System, properly formulated to support the operation of the Academic Unit. The applied QA Policy sets a number of quality targets and annual assurance goals towards the continuous development and improvement of the study programme, which is now at the fourth year of operation. The Department's curriculum, the applied learning and teaching methods, the quality assurance provision, and the revised monitoring and enhancement mechanisms, sufficiently meet the expected national and international standards of educational provision in the area of Computer Science and Telecommunications.

The EEAP recognises the considerable efforts, which the faculty has put during the last three years due to the parallel operation of the new UGP next to the old “TEI” one, ensuring the smooth transition to the new academic programme.

The discussions during the scheduled online meetings (i.e., with students, academic and administrative staff), as well as, the careful review of the provided documentation, show that the Department is gradually beginning to establish its academic and research identity. The Department has not yet involved its extended network of external stakeholders into its continuous UGP review process.

There was a positive feeling regarding the academic facilities available in the Campus, although some students did not have sufficient understanding of some administrative processes, like that for the request of official transcripts. Available accommodation facilities are rather limited in the city, and there is no dormitory nor sufficient dining services in the campus.

QA Policy is communicated to all internal parties. The Department’s OMEA has done a great deal of work under the auspices of the University’s MODIP.

## **II. Analysis**

The Institution is committed to actively support the new Department and adapt its QA policy considering the needs and expectations of the peripheral Academic Unit’s UGP under accreditation.

QA processes, like those concerning UGP review, monitoring, QA feedback and academic attainment, reflection on teaching methods, interaction of teaching with research, are gradually evolving. A vast amount of documentation handed to EEAP, including whatever requested during the accreditation process, provided sufficient evidence of the status of the QA processes.

Engagement of external stakeholders was exploited upon the initial setup of the new UGP, but is not yet active in the annual QA process. The Department in close cooperation with the other academic Units in the peripheral campus of Arta should further work towards improving the transportation services between the campus and the city, as well as the sufficient provision of facilities, such as accommodation and dining services for students as needed. To that end, the Institution and the Unit should work setting up related QA processes, goals and KPIs for the provision of support facilities for students and the academic staff.

## **III. Conclusions**

The Department may further enhance its efforts towards documenting and enhancing its QA policy to cover all aspects towards the continuous UGP improvement. It may extend its annual review process facilitating additional effective methods to strengthen all internal stakeholders’ participation, and further exploit the extensive network of external stakeholders, as well. To that end, additional documentation may be considered, focusing on benefits and obligations

foreseen from the active participation of all stakeholders in the continuous implementation and evolution of the QA process.

### Panel Judgement

<b>Principle 2: Quality assurance policy of the Institution and the academic unit</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

### Panel Recommendations

- The Department should continue to increase the participation of students in the course review process, enhancing the collected feedback from these questionnaires.
- The Department should work further towards defining a clear identity, which has to adapt to its teaching programme and research activities and vice versa. This must further reflect its QA policy and goals and the continuous and active engagement of all stakeholders.
- Consider the adoption of targets and KPIs, which may incorporate the views of external stakeholders, especially those related to employability and graduate prospects.

### **Principle 3: Design, Approval and Monitoring of the Quality of the New Undergraduate Programmes**

Institutions should design the new undergraduate programmes following a defined written process, which will involve the participants, information sources and the approval committees for the programme. The objectives, the expected learning outcomes, the intended professional qualifications and the ways to achieve them are set out in the programme design. The above details, as well as information on the programme's structure, are published in the Student Guide.

*The Institutions develop their new undergraduate study programmes, following a well-defined procedure. The academic profile, the identity and orientation of the programme, the objectives, the subject areas, the structure and organisation, the expected learning outcomes and the intended professional qualifications according to the European and National Qualifications Framework for Higher Education are described at this stage. An important new element in the structure of the programmes is the introduction of courses for the acquisition of digital skills. The above components should be taken into consideration and constitute the subject of the programme design, which, among other things, should include: elements of the Institution's strategy, labour market data and employment prospects of graduates, smooth progression of students throughout the stages of the programme, the anticipated student workload according to the European Credit Transfer and Accumulation System (ECTS), the option of providing work experience to the students, the linking of teaching and research, the international experience in study programmes of similar disciplines, the relevant regulatory framework, and the official procedure for the approval of the programme 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 Quality Assurance Unit (QAU).*

#### **Relevant documentation**

- *Senate decision for the establishment of the UGP*
- *Curriculum structure: courses, course categories (including courses for the acquisition of digital skills), ECTS awarded, expected learning outcomes according to the EQF, internship, mobility opportunities.*
- *Labour market data regarding the employment of graduates, international experience in a related scientific field.*
- *Student Guide*
- *Course outlines*
- *Teaching staff (list of areas of specialisation, its relation to the courses taught, employment relationship)*
- *QAU minutes for the internal evaluation of the new study programme and its compliance with the Standards*



## **Study Programme Compliance**

### **I. Findings**

The Department's undergraduate programme was initially developed in 2019-2020 based on IEEE/ACM curricula. The programme requires the completion of 240 ECTS units. This may be obtained after the successful completion of 30 compulsory (core) courses that all students need to take, the completion of one (or two) elective Skills Development course, as well as the successful completion of at least 14 elective courses from a list of courses, which are offered through 5 different Course Streams («Ποές»). Among these elective courses, at least 4 must come from one of the available Streams. Based on the current student guide, the final year Thesis corresponds to 10 ECTS, potentially replacing two elective Courses, and remains as an option for the students. Besides, there is no Practical Training (Internship) offered as a Course, but instead it is an optional student activity without any ECTS associated with it, which will be mentioned in the Diploma supplement, as a bimonthly optional task within student's period of studies.

### **II. Analysis**

The programme offers a great variety of courses covering a broad aspect of the Computer Science and Telecommunications field. The faculty has done an outstanding job within the study programme guide in articulating the set of learning objectives that students are expected to meet at time of graduation. The Student Guide is currently available only in the Greek language, which eliminates the possibilities for foreign students to consider the Department as a probable destination during their participation in the student exchange ERASMUS+ program.

The faculty has also done remarkable work towards analysing the data collected by the course evaluation forms at the end of each Semester. Further work is expected towards increasing the student participation, as well as the identification of KPIs/ goals upon this process.

### **III. Conclusions**

There is a clearly defined written process for the management of the quality of the UGP, its structure, clear objectives and learning outcomes, professional qualifications, and ways to achieve them within the Greek version of the Student Guide. The AP is satisfied with the way the Department's Study Programme Committee processes the annual improvement process, demonstrating the overall compliance of the Department with the strategic aims of the institution, the pursuit of high-quality teaching, comprehensive external relations, and general efforts to support the students.

## Panel Judgement

<b>Principle 3: Design, approval and monitoring of the quality of the new undergraduate programmes</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

## Panel Recommendations

- The Department must consider any discrepancies, between its Student Guide and related regulation documents (such as, those on Practical Exercise, or Thesis), improving the information available in the Student Guide.
- The Department may further enhance its Course assessment policy ensuring the existence of processes for the provision of sufficient feedback to students upon their participation in the process.
- A formal and efficient process has to be defined and implemented assuring the consultation of external stakeholders in the curriculum review and revision process.
- The Department should enhance its website, especially the English version, and consider the preparation of an English version of its Student Guide providing sufficient information for foreign students who might potentially consider it as their destination via the ERASMUS student exchange program.
- The Department should consider setting up the Internship and final year Thesis as mandatory courses.

## **Principle 4: Student-centred Approach in Learning, Teaching and Assessment of Students**

The academic unit should ensure that the new undergraduate programmes are delivered in a way that encourages students to take an active role in creating the learning process. The assessment methods should reflect this approach.

*In the implementation of student-centered learning and teaching, the academic unit:*

- ✓ *respects and attends to the diversity of students and their needs, enabling 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 application of pedagogical methods aiming at improvement*
- ✓ *regularly evaluates the quality and effectiveness of teaching, as documented especially through student surveys*
- ✓ *reinforces 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 students' complaints*

### **Relevant documentation**

- *Questionnaires for assessment by the students*
- *Regulation for dealing with students' complaints and appeals*
- *Regulation for the function of the academic advisor*
- *Reference to the planned teaching modes and assessment methods*

### **Study Programme Compliance**

#### **I. Findings**

The newly established Department of Informatics and Telecommunications at the University of Ioannina (Arta) has flexible pedagogical methods of teaching and evaluation in order to be fully aligned on student-centred learning. The department is constantly trying to optimise teaching methods and utilise more and more tools for this purpose. Lectures presented at lecture halls are mainly presentations, while practical exercises are carried out in the computer laboratories.

Tools (including ICT tools) used to enhance learning, are:

- Lectures and presentations made available to students.
- Faculty use asynchronous education platforms, where educational material for the courses, as well as laboratory exercises, are posted. This material is available to students to support the educational process.
- Tools for synchronous and asynchronous student-teacher communication, messages through the asynchronous tele-education platform, video conferencing system (MS Teams), e-mail, etc.

- Hardware and specialised software (Eclipse, Android Studio, Visual Studio Code, etc.) for the implementation of laboratory exercises, either inside or outside the department. For example, the committee appreciated the supply of a sufficient number of development boards (MSP430, Arduinos), which are assigned to students to implement projects at home (Embedded Systems, IoT).
- Software for writing reports, spreadsheets, and creating presentations, is also made available to the students.
- Access to research publications via the library system and subscriptions to international databases.

The curriculum promotes mutual respect, having experienced 2 years of pandemic distance learning. In addition, in order to acquire coherent knowledge and skills in each subject, or professional direction, students are offered a group selection of courses in five streams: software, intelligent systems, computer systems, telecommunications, and networks. The curriculum provides the flexibility for a student to graduate by specializing in two or more streams (both majors and minors) rather than just one. In conclusion, each graduate of the Department will be able to deal with, for example, activities such as study, design, analysis, implementation, installation, supervision, operation, evaluation, expert opinion, and certification in fields such as:

- Computer software and hardware and software, hardware and computer systems software and hardware and computer systems.
- Communication systems and networks, telecommunication systems, network and telecommunications services and Internet applications.
- Digital systems of any kind which store, process, and systems which process, process, process and transmit data and information in digital form.
- Digital embedded and robotic systems.
- Systems and applications for automation and signal processing, graphics, image/video and speech/audio systems and systems and systems for processing, processing, graphics, image/video, and speech/audio.
- Safety-critical firmware systems.
- Internet of Things systems.
- Big data analytics, machine learning and artificial intelligence.
- Applications of digital systems in various fields of digital information technology.

The Department conducts an evaluation of the courses each semester. The department, with the help of its students, has created a booklet of detailed instructions for completing the questionnaires. According to the Course Evaluation Report (Academic Year 2021-22, the percentage of course evaluation was 22.76% with the questionnaire questions having answers on a 5-point scale. The department has instituted a best faculty award based on the scores in the courses taught by the faculty and utilising questions from the questionnaire related to faculty performance.

The department has implemented the appointment of an academic advisor for undergraduate students. This was implemented from 2014-2015, and contributes significantly to the smooth operation of the curriculum. It essentially codifies the previously informally offered advising of

faculty members to students. The basic principles of the institution are the function of the academic advisor as a constant point of reference in the progress of the study programme, the creation of a permanent relationship of trust and confidentiality with the student, the provision of advice on study and career prospects, and the (anonymous) collection of feedback and suggestions on the improvement of the curriculum. Regulation that describes in detail the role and responsibilities of the academic supervisor.

The learning outcomes of each course describe in detail the specific knowledge, skills, and competences of an appropriate level that students will acquire on successful completion of the course. The course syllabus is communicated to students at the beginning of the semester. In the first lecture of each course, and then at regular intervals, the professor informs the students with printed and digital material about the purpose, content, method of assessment, bibliography, etc. of the course. This information is continuously updated and is available in the corresponding digital course, on the asynchronous tele-education platform of the University (<https://ecourse.uoi.gr/>).

The department has established and communicated a Complaints and Objections Mechanism, which guides the student and informs him/her of the course of action to be taken in response to his/her request, attempting to address at the lowest level any accidental failures and misunderstandings.

## **II. Analysis**

There was a constructive 2-day conversation with faculty, students and other staff of the Department and local officials. The reception of first-year students was important, as the department provided dialogue and exploration of the university with the help of the academic advisor. The University has skilled and experienced teachers who can use student-centred learning in their classrooms to increase student motivation, help students take ownership of their learning and build strong relationships.

The department did not fully implement the course evaluation system during the pandemic, as evidenced by the low participation rate of about 15%. The department should work towards improving this issue. It is worth noting that a problem arose when a professor in the department refused to upload the weekly lectures to eclass. It was immediately recorded in the evaluation on behalf of the students and the department was contacted to resolve it. The department also seems to have settled other issues that were raised by students efficiently.

## **III. Conclusions**

The Department of Informatics and Telecommunications, ensures that its undergraduate programme is delivered in a way that encourages students to take an active role in the learning process.

## Panel Judgement

<b>Principle 4: Student-centred approach in learning, teaching and assessment of students</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

## Panel Recommendations

- Students could help design their own research projects, propose solutions, communicate their ideas to teachers and community members, and evaluate their own progress as they go. The faculty could help guide this process, but the content, timing and motivation should belong to the students.
- Individual learning plans can also be a way of making learners' aware of the options available to them in terms of learning and progression. Making discoveries from a task the teacher sets that they are genuinely interested in and find challenging, is rewarding for learners and a useful life tool.
- Three ways to think about the role of faculty in student-centred learning are: resources (faculty serve as experts and key sources of knowledge, and students share responsibility for accessing that knowledge), mentors (strong relationships with trusted adults give students the confidence and motivation they need to take leadership in their learning), and guides (teachers provide the structure and guidance that enables students to overcome challenges and see how their classwork connects to larger interests and goals). The department could work towards further improving the role of their faculty towards those goals.

## **Principle 5: Student Admission, Progression, Recognition of Academic Qualifications and Award of Degrees and Certificates of Competence of the New Study Programmes**

**Academic units should develop and apply published regulations addressing all aspects and phases of studies of the programme (admission, progression, recognition and degree award).**

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

- ✓ *the registration procedure of the admitted students and the necessary documents - according to the law - and the support of the newly admitted students*
- ✓ *student rights and obligations, and monitoring of student progression*
- ✓ *internship issues, granting of scholarships*
- ✓ *the procedures and terms for writing the thesis (diploma or degree)*
- ✓ *the procedure of award and recognition of degrees, the duration of studies, the conditions for progression and assurance of the progress of students in their studies*

*as well as*

- ✓ *the terms and conditions for enhancing student mobility*

*Appropriate recognition procedures rely on relevant academic practice for recognition of credits among various European academic departments and Institutions in line with the principles of the Lisbon Convention on the Recognition of Qualifications concerning Higher Education in the European Region. Graduation represents the culmination of the students' study period. Students need to receive documentation explaining the qualification gained, including achieved learning outcomes, and the context, level, content and status of the studies that were pursued and successfully completed (Diploma Supplement).*

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

### **Relevant documentation**

- *Internal regulation for the operation of the new study programme*
- *Regulation of studies, internship, mobility and student assignments*
- *Printed Diploma Supplement*

*Certificate from the President of the academic unit that the diploma supplement is awarded to all graduates without exception together with the degree or the certificate of completion of studies*

### **Study Programme Compliance**

#### **I. Findings**

The Department of Informatics and Telecommunications at the University of Ioannina (Arta) has established at the beginning of each academic year the organisation of a welcome event for first-year students. New students are informed by the Department Head about:

- The professional perspectives offered by the MPA,
- Study programme (course load, courses, course categories, flows),
- Student and research laboratories,
- The information available in the Study Guide and on the website,
- The Erasmus programme and internships.

In the same event, the new students are informed by the administrative staff and the student association about the service provided by the secretariat; food/housing and Student Services; their representative bodies; life in the city. In addition, there is the possibility of supporting students with disabilities or students who have difficulties in successfully completing their studies.

COVID-19 (2 years) deprived two academic series of students of basic high school knowledge resulting in new students joining the university with several deficiencies. Therefore, all first semester teachers emphasised during their introductory lectures how to make up for lost ground from secondary education in order to be ready at the university level.

Statistical analysis was presented with 86.90% of incoming students choosing this department within their top five choices for continuing their studies. It was also stated that students were aware of the flexible curriculum and the special location among other universities nationwide from the beginning. The intention of all faculty is to promote and maintain a high percentage of students who will complete a thesis, from which innovative research efforts may result. Indicatively, we cite the recent work of *Antoniou et al* and *Oikonomou et al* completed by students in the department and presented in international journals and an IEEE international conference, respectively.

The department has been dynamically involved in research projects in recent years. The employment of students on contract work in the projects is a priority, as it is common knowledge that the participation of students on a paid basis motivates all students to further effort. As examples, we mention the projects "MEGATRON: Megadata analysis of a robotic assisted walking system and 3D camera system for optimal motor rehabilitation" and "Model Centre for Immersive Virtual, Augmented and Mixed Reality of Epirus Region" of the Operational Programme "Competitiveness, Entrepreneurship and Innovation 2014-2020", in the action "Support for Regional Excellence", which employ four students.

Student mobility is carried out through the Erasmus programme. Student mobility can also be considered as internships, but this is discussed in the next section. The terms and conditions for participation in ERASMUS+ are as follows: Mobility through ERASMUS+ includes studies at universities abroad; studies at universities that have a bilateral agreement with the Department; a traineeship at a partner university.

Throughout the curriculum which is posted the ECTS course weighting is fully applied. The Diploma Supplement issued after completion of all obligations is in Greek and English. The new curriculum provides for the preparation of a thesis, which is not mandatory. It corresponds to two courses "Thesis A" and "Thesis B" of the 7th and 8th semesters respectively and is equivalent to 10 ECTS (5 ECTS per semester). The diploma thesis is original, i.e., its design and



implementation are a personal composition of the author under the guidance of the supervisor.

Internships are offered after the 6th semester on an optional basis, for a period of 2 months, and are offered in both the public and private sector. In order to participate, the student must have previously passed at least 24 compulsory courses. The internship aims to introduce the student to the professional environment where the student will be required to apply both the theoretical knowledge and the practical skills acquired during their studies.

## **II. Analysis**

There was a constructive 2-day conversation with Professors, students, and other staff of the Department as well as with local officials. The students were fully briefed on how the university community works, regulations and obligations throughout their studies. They received appropriate information about the culture of the city of Arta and how to get around the campus facilities and halls. The dining hall, where undergraduate and postgraduate students have their meals, as well as student housing are located in the centre of the city of Arta. Unfortunately, it is about 15 minutes by car which makes student life somewhat more complicated.

The compilation of the curriculum uses as sources of knowledge the curricula of relevant departments in Greece and abroad. Relevant studies on Computer Science and Computer Engineering curricula, which have been prepared by internationally recognized organisations such as IEEE and ACM, are considered. Indicatively, the following sources are mentioned. The organisation of the Programme of Studies is based on the rational distribution of the curriculum according to the ECTS system. It offers a reasonable structure which facilitates the understanding of the objectives of the individual courses and the requirements of the student for their successful completion. Students have a clear understanding of:

- The subject matter that each course addresses.
- The competencies that each course aims to acquire/cultivate.
- The outcomes that the curriculum expects to be present upon completion of the course.
- The effort that will be required during the semester to successfully complete the course.

The teaching-research interface is considered particularly important in the link between the research activity that develops in the Department and the teaching work provided to students. Research is inextricably linked to the structure of the new Curriculum and influences both the introduction of new courses and the modification of the curriculum of existing courses. Further, the correlation of courses with the research interests of faculty members is highlighted, which gives the opportunity to reflect in the teaching process the (state-of-the-art) in the specific scientific area. The new curriculum is also linked to businesses and institutions through the Internship Office of the Employment and Career Structure, which maintains a database of social, productive, and cultural institutions. Proposals for internships are submitted by interested companies and institutions as well as by lecturers in the framework of their cooperation with relevant institutions or even by the students themselves.

There are specific conditions of cooperation between the Department and the internship institutions.

The Department is constantly developing partnerships with institutions related to technology, health, and social solidarity. For example:

- Democritus/IPT (<https://www.iit.demokritos.gr/el/>): Institute of Informatics & Telecommunications with leading fields of activity.
- Athena/Invis ([https://www.athenarc.gr/el/inbis\\_dm](https://www.athenarc.gr/el/inbis_dm)): INVIS is a research institute focusing on cutting-edge technologies applicable in the industrial and business environment, with the ultimate goal of innovation and increasing the competitiveness of Greek industry.
- Imperial College of London (<https://www.imperial.ac.uk/>): The Imperial College of London in the UK, known for its disciplines of technology, medicine, science and finance. Also, two professors of the department hold the position of Honorary Research Fellow.
- KIDs SAVE LIVES (<https://kidssavelives.gr/>): partnership with humanitarian organisations such as Kids Save Lives which, through digital advances and the development of innovative programs, has brought to Greece a new era in First Aid Training and Rescue.

### III. Conclusions

The Department of Informatics and Telecommunications properly addresses all aspects of the programme (admission, progression, recognition, and degree award).

#### Panel Judgement

<b>Principle 5: Student admission, progression, recognition of academic qualifications, and award of degrees and certificates of competence of the new study programmes</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

## **Panel Recommendations**

- Deepen the role of the Quality Assurance Unit (QAU) to improve quality of educational and research work. In addition, emphasise the quality of the institution's processes and services primarily to students, but also to staff, regular faculty members, administrative staff, creating a high-quality academic community.
- The objective of students' mobility is to contribute to establishing a European Education Area with a global outreach and to strengthen the link between education and research. The university of Ioannina should work more towards giving opportunities to the students to participate in such programs.

## **Principle 6: Ensuring the Competence and High Quality of the Teaching Staff of the New Undergraduate Study Programmes**

**Institutions should assure themselves of the competence, the level of knowledge and skills of the teaching staff of the academic units, 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, the appropriate staff-student ratio, the suitable categories of staff, the appropriate subject areas and specialisations, 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 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 members (with respect to attendance requirements, performance, self-assessment, training, etc.); develop policies to attract highly qualified academic staff.*

### **Relevant documentation**

- *Procedures and criteria for teaching staff recruitment*
- *Regulations or employment contracts, and obligations of the teaching staff*
- *Policy for staff recruitment, support and development*
- *Performance of the teaching staff in scientific-research and teaching work, also based on internationally recognised systems of scientific evaluation (e.g., Google Scholar, Scopus, etc.)*

### **Study Programme Compliance**

#### **I. Findings**

The Department adheres to the procedures established by the Ministry of Education in a transparent manner when hiring new academic staff members. Similar to those at other Greek universities, these universities have policies in place to draw in highly qualified academic staff.

The department has hired 30% of its members from open searches. The vast majority (70%) of the teaching staff came from TEI Arta's. The department has 18 permanent members of staff (DEP), 9 Adjunct teaching staff, 3 members of ADIP staff, 3 administrative staff and 2 members of the technical staff. The teaching load is 8-10 hours per week. There were clear procedures to hiring "specialist" adjuncts, and assigning them to courses.

The vast majority of the teaching staff possess the necessary credentials to instruct the program's modules. The department and teaching staff recognise the importance of both

teaching and research. The teaching faculty made a significant effort to incorporate some research into undergraduate lectures.

Regular staff and course evaluations are conducted but student participation is poor. Additionally, sabbaticals and Erasmus are options for teaching staff mobility: Erasmus+ staff mobility is limited by the low number of bilateral agreements and sabbaticals are given on a regular basis (around 2 a year).

## II. Analysis

There are regular evaluations of courses and teaching; they are done electronically, with an in-house build software. The student participation is rather low, making the outcomes of teacher assessments and the course evaluations hollow. Although there are procedures to address the issues raised by the evaluation, there is no paper trail of the actions taken.

The research strategy of the department lacks a focal point. Niche research areas need to be identified to provide the foundation of a departmental research identity. Furthermore the research quality/quantity should make the jump from TEI to AEI level.

It appears that there are sufficient funds to support staff to attend conferences and seminars. The departmental ERASMUS+ agreements should be expanded in tandem with the establishment of niche research areas.

## III. Conclusions

The department has a group of dedicated, good quality faculty (DEP) and members of the special teaching staff (EDIP). They maintain high standards in their teaching and research responsibilities; as the department transitions from TEI to AEI, their research should meet AEI standards. Despite the fact that it is a new department, the procedures are followed and implemented adequately.

### Panel Judgement

<b>Principle 6: Ensuring the competence and high quality of the teaching staff of the new undergraduate study programmes</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

### **Panel Recommendations**

- The number of students taking part in the evaluations should be increased.
- Raise the academic staff's research proficiency to AEI level.
- Establish a research/teaching identity that distinguishes the Department from other ones on a similar subject.

## Principle 7: Learning Resources and Student Support of the New Undergraduate Programmes

Institutions should have adequate funding to meet the needs for the operation of the academic unit and the new study programme as well as the means to cover all their teaching and learning needs. 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, boarding, career and social policy services, etc.).

*Institutions and their academic units must have sufficient resources, on a planned and long-term basis, to support learning and academic activity in general, in order to offer students the best possible level of studies. The above means include facilities such as, the necessary general and specific libraries and possibilities for access to electronic databases, study rooms, educational and scientific equipment, information 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. Students should be informed about 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.*

### Relevant documentation

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

### Study Programme Compliance

#### I. Findings

The Department is located in Thanaseika, just outside the city of Arta. The campus is serviced by a regular “KTEL” bus; the trip between Arta and the campus takes 10-15 minutes. The Department is located in the main building, most of the labs are in the “Prokat” building, some labs and storage area are in the “Tol” building, there is a library, a Virtual reality lab as well as the admin office. For teaching, there are three amphitheatres (capacity 215, 145, 145 students each), 3 labs with capacity 24 each, 3 labs with capacity 15 each, an Electronics lab with capacity 35 and Networks lab with capacity 15. The academic staff is split between two buildings, 14 members are located in one, and 4 in the other.

Every student is assigned a tutor (Advisor professor), who will help them throughout their studies by addressing any academic or personal issues that may arise. There are meetings to help students choose optional courses. There is a small Café (“Kilikio”) on the campus serving refreshments to the students and staff. There are sporting facilities: Gym at the Athletic Park,

Basketball and Football facilities nearby at Kwstakiwn area. There are organised cultural activities: dancing, cinema, photography etc. There is student accommodation with a capacity of 150 beds which is located away from the campus.

There is limited Wi-Fi around the campus with an overall speed of 1G. The Department has 7 ERASMUS+ agreements, with approximately 5 incoming, 2 outgoing students and 2 academic staff, per year.

## II. Analysis

The department's facilities are very good. The amphitheatres and lecture halls are well-designed and kept in good condition. The buildings and the rooms are clean and in good repair. Overall, it is a great teaching and research environment. The labs appear to be well-equipped. The PCs are modern and up to date. The software is updated and maintained on a regular basis. The laboratories seem to be well-managed and efficiently run for the students' benefit.

Housing for the students is inadequate. Its capacity (150 beds) is limited. Furthermore, Arta's rental accommodation is not available in great numbers, forcing students to seek accommodation in nearby villages. There is no restaurant on the campus, forcing the students and staff to commute to Arta for their meals.

The administration is efficient and well-managed. It provides adequate assistance to academic staff and students. The mobility of students and staff is restricted by the small number of bilateral agreements by the Department.

## III. Conclusions

The Department is well-organised, and its buildings are in good condition. It needs to address the issues of student accommodation, Wi-Fi quality, catering facilities and broaden the number of ERASMUS+ agreements.

### Panel Judgement

<b>Principle 7: Learning resources and student support of the new undergraduate programmes</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	



### **Panel Recommendations**

- Improve the Wi-Fi speed and bandwidth.
- Provide additional student accommodation.
- Provide catering facilities at the main campus.
- Increase the number of ERASMUS agreements.

## **Principle 8: Collection, Analysis and Use of Information for the Organisation and Operation of New Undergraduate Programmes**

**The Institutions and their academic units bear full responsibility for collecting, analysing and using information, aimed at the efficient management of undergraduate programmes of study and related activities, in an integrated, effective and easily accessible way.**

*Effective procedures for collecting and analysing information on the operation of Institutions, academic units and study programmes feed data into the internal quality assurance system. The following data is of interest: key performance indicators for the student body profile, student progression, success and drop-out rates, student satisfaction with the programme, availability of learning resources and student support. The completion of the fields of National Information System for Quality Assurance in Higher Education (NISQA) should be correct and complete with the exception of the fields that concern graduates in which a null value is registered.*

### **Relevant documentation**

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

### **Study Programme Compliance**

#### **I. Findings**

A centralised university system manages student information; the software used is commercial, a localised version of UNITRON, a standard system used by 15 or so other Greek universities. The department has several built-in systems for information processing: they interact with the central University system, used for: staff performance analysis, course evaluations, advisor support, administration etc.

Student satisfaction and course evaluation surveys are conducted anonymously and regularly, but student participation rates are disappointingly low. The department uses its own in-house software for the submission and analysis of the student satisfaction surveys. There is an ad-hoc internal process for analysing and acting based on the evaluation.

Although the department is still in transition and the programme has only been in place for three years, EEAP is confident that the department will be able to produce key performance indicators (KPIs) such as career paths, student retention/progression, completion rates, and so on in a few years.

#### **II. Analysis**

The departmental information management is adequate, and it does the tasks required.

### III. Conclusions

The department is fully compliant with Principle 8.

#### Panel Judgement

<b>Principle 8: Collection, analysis and use of information for the organisation and operation of new undergraduate programmes</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

#### Panel Recommendations

No recommendations.

## **Principle 9: Public Information Concerning the New Undergraduate Programmes**

**Institutions and academic units should publish information about their teaching and academic activities in a direct and readily accessible way. The relevant information should be up-to-date, clear and objective.**

*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 new undergraduate programmes they offer, the intended learning outcomes, the degrees awarded, the teaching, learning and assessment procedures used, the pass rates and the learning opportunities available to their students. Information is also provided, to the extent possible, on graduate employment perspectives.*

### **Relevant documentation**

- *Dedicated segment on the website of the department for the promotion of the new study programme*
- *Bilingual version of the website of the academic unit with complete, clear and objective information*
- *Provision for website maintenance and updating*

### **Study Programme Compliance**

#### **I. Findings**

On the official website of the department, we find appropriate information about the university, the academic unit, regarding access to the university both in Greek and English (up-to-date, clear, and easily accessible). All course outlines (i.e., structure, the way of attendance, the evaluation criteria, the Diploma Supplement, quality assurance, mobility, the CVs of the teaching staff and other useful information) are visible and available on the official website of the institution only in Greek. Also, the academic unit policy for Quality Assurance is available online only in Greek.

#### **II. Analysis**

The official website of the university provides general information only or mostly in Greek. Information on institutional activities including the new undergraduate program, the intended learning outcomes, the degree awarded, the teaching, learning and assessment procedures used, the pass rates and the learning opportunities available to students as well as information on graduate employment perspectives is provided mostly in Greek. The department should provide additional information about the nearest airport, sightseeing, a metropolitan map of Arta, and accommodations in the surrounding area.

### III. Conclusions

While the department publishes information about their teaching and academic activities in Greek, the web site could be more comprehensive and have more content in English, to improve the departmental brand name. It is also unclear whether the department uses social media to regularly promote departmental activities, etc.

#### Panel Judgement

<b>Principle 9: Public information concerning the new undergraduate programmes</b>	
Fully compliant	
Substantially compliant	
Partially compliant	<b>X</b>
Non-compliant	

#### Panel Recommendations

- The committee would like to see more information regarding the department and its activities in English. Also, a more sustained presence in social media would be useful.
- The website could feature more pertinent information for incoming ERASMUS+ students. For instance, it should be easy to find courses offered in English per semester. As the department moves forward and, in an attempt, to strengthen its extroversion, the website should include all relevant information for non-Greek speaking students.
- The study guide is comprehensive, but its contents should also be offered in English for non-Greek speaking students.

## Principle 10: Periodic Internal Review of the New Study Programmes

Institutions and academic units should have in place an internal quality assurance system, for the audit and annual internal review of their new programmes, so as to achieve the objectives set for them, through monitoring and amendments, with a view to continuous improvement. Any actions taken in the above context, should be communicated to all parties concerned.

*Regular monitoring, review and revision of the new 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: the content of the programme in the light of the latest research in the given discipline, thus ensuring that the programme is up to date; the changing needs of society; the students' workload, progression and completion; the effectiveness of the procedures for the assessment of students; the students' expectations, needs and satisfaction in relation to the programme; the learning environment, support services, and their fitness for purpose for the programme. 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.*

### **Relevant documentation**

- Procedure for the re-evaluation, redefinition and updating of the curriculum
- Procedure for mitigating weaknesses and upgrading the structure of the UGP and the learning process
- Feedback processes on strategy implementation and quality targeting of the new UGP and relevant decision-making processes (students, external stakeholders)
- Results of the annual internal evaluation of the study programme by the QAU and the relevant minutes

## **Study Programme Compliance**

### **I. Findings**

The Department's study program is periodically reviewed by the Department's Committee. The programme, in general, follows international standards (ACM & IEEE) and provides courses covering wide and diverse topics of the Computer Science and Telecommunications area.

Since the UGP is now entering its fourth year of operation, there are not sufficient records in order to establish a clear view of the efficiency of the whole process. However, the Institution and the Department put sufficient effort on the process and its continuous improvement. Evidence of a widespread sharing of the results among the other members of the Department (students, non-teaching staff) is rather limited, probably due to the limited accreditation interview process.

As mentioned, and described in the documentation, until now there was no student representative assigned to participate in any of the Department's official Committees.

The Department and staff have fully declared their commitment to further extend documentation and realise detailed action plans, in order to assure the regular monitoring, review and revision of the UGP, especially upon completion of a full 4-year circle, following the graduation of its first students within 2023.

## II. Analysis

There are clear indications that the Department maintains extensive processes for the collective evaluation and detailed analysis of the results of the assessment, identifying best practices, as well as, strengths and weaknesses, among the various courses offered, the teaching process and the provision of academic services.

## III. Conclusions

During our meetings with faculty, staff, students and graduates, there was strong evidence of the existence of a friendly and mutually respectful relationship in the Department. The very positive comments heard during the interview process, regarding the availability, assistance and support that the students enjoy during their studies, construct a very promising basis for the existing relationship, which must be further reflected in the programme's review and monitoring processes.

### Panel Judgement

<b>Principle 10: Periodic internal review of the new study programmes</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

### Panel Recommendations

- The Unit is encouraged to carry on internal quality assurance procedures and further enhance the measurable action plans, set up, and fully document processes related to student graduation to assure the periodic and annual review and continuous improvement of the study programme.
- Clearly document and communicate the appropriate actions and expectations to all internal stakeholders.
- Consider involving consultation of external stakeholders (an approach might be the documented existence of an External Advisory Committee) in the periodic monitoring and review process of the study programme.
- Clearly document and realise formal procedures for eliciting input from all stakeholders (faculty, staff, students, external stakeholders).

## **Principle 11: Regular External Evaluation and Accreditation of the New Undergraduate Programmes**

The new undergraduate study programmes should regularly undergo evaluation by panels of external experts set by HAHE, aiming at accreditation. The results of the external evaluation and accreditation are used for the continuous improvement of the Institutions, academic units and study programmes. The term of validity of the accreditation is determined by HAHE.

*HAHE is responsible for administrating the programme accreditation process which is realised as an external evaluation procedure and implemented by a panel of independent experts. HAHE grants accreditation of programmes, based on the Reports submitted by the panels, with a specific term of validity, following to which revision is required. The accreditation of the quality of the programmes acts as a means of verification of the compliance of the programme with 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.*

### **Relevant documentation**

- *Progress report on the results from the utilisation of the recommendations of the external evaluation of the Institution and of the IQAS Accreditation Report.*

### **Study Programme Compliance**

#### **I. Findings**

The faculty members are aware of the importance of the external review and its contribution to the improvement of the program. Based on the information gathered during the online discussion, it appears that the faculty, lab personnel, and administrative staff have realised the importance of the external review process and its contribution to improvement. All stakeholders of the programme, including academic, administrative and support staff, and undergraduate students, are actively engaged in the current review. During the meeting, the staff members demonstrated that they are fully aware of the importance of external review and the positive effects that can result from it.

#### **II. Analysis**

As already discussed in findings, faculty, staff, and lab personnel were acutely aware of the importance of the external review and did their best to present relevant information to our committee and in a timely and efficient manner. The committee is appreciative of their efforts.

#### **III. Conclusions**

As there was no other review in the past, the Department's commitment to the spirit and the processes of Quality Assurance should be evident in all principles and aspects. The Department



should establish formal, well-defined procedures to elicit, use and evaluate feedback from students and external stakeholders (social partners). The importance of having all the meetings of the different committees and the actions taken or to be taken written in minutes is valuable for monitoring purposes. Therefore, it is strongly suggested that the Department keeps minutes of meetings of all relevant committees for quality assurance purposes.

### Panel Judgement

<b>Principle 11: Regular external evaluation and accreditation of the new undergraduate programmes</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

### Panel Recommendations

- The Department is advised to come up with follow-up yearly reports that would allow external entities (e.g. the University, the HAHE, etc.) to follow up on the implementation of the recommendations included in this report.
- The Department should establish formal, well-defined procedures to elicit, use and evaluate feedback from students and external stakeholders (social partners).
- The Department should employ innovative and efficient procedures for collecting meaningful and actionable feedback from the students and external stakeholders. All their actions and committee meetings should formally be recorded in minutes so that actions/responsibilities can formally be assigned to internal stakeholders.

## Principle 12: Monitoring the Transition from Previous Undergraduate Study Programmes to the New Ones

Institutions and academic units apply procedures for the transition from previously existing undergraduate study programmes to new ones, in order to ensure compliance with the requirements of the Standards.

*Applies in cases where the department implements, in addition to the new UGPs, any pre-existing UGPs from departments of former Technological Educational Institutions (TEI) or from departments that were merged / renamed / abolished.*

*Institutions should implement procedures for the transition from former UGPs to new ones, in order to ensure their compliance with the requirements of the Standards. More specifically, the institution and the academic unit must have a) the necessary learning resources, b) appropriate teaching staff, c) structured curriculum (courses, ECTS, learning outcomes), d) study regulations, award of diploma and diploma supplement, and e) system of data collection and use, with particular reference to the data of the graduates of the pre-existing UGP. In this context, the Institutions and the academic units prepare a plan for the foreseen transition period of the existing UGP until its completion, the costs caused to the Institution by its operation as well as possible measures and proposals for its smooth delivery and termination. This planning includes data on the transition and subsequent progression of students in the respective new UGP of the academic unit, as well as the specific graduation forecast for students enrolled under the previous status.*

### **Relevant documentation**

- *The planning of the Institution for the foreseen transition period, the operating costs and the specific measures or proposals for the smooth implementation and completion of the programme*
- *The study regulations, template for the degree and the diploma supplement*
- *Name list of teaching staff, status, subject and the course they teach / examine*
- *Report of Quality Assurance Unit (QAU) on the progress of the transition and the degree of completion of the programme. In the case of UGP of a former Technological Educational Institution (TEI), the report must include a specific reference to how the internship was implemented*

### **Study Programme Compliance**

#### **I. Findings**

The EEAP committee was given access to all relevant documentation described above. The committee concurred that the UGP incorporates all necessary transitional provisions for students with TEI status, aiming to facilitate their graduation according to Greek law and taking into account a variety of educational restrictions. Specifically, students with TEI status admitted to the department are allowed to complete graduation with the new university (AEI) status, provided that they complete all necessary coursework. There are approximately 450 students following the previous curriculum and the department expects them to graduate over the next three years. The department has in place a solid operational plan that provides (to the best of our understanding) support for TEI students.

## II. Analysis

Following the aforementioned provisions, the committee was satisfied with the department's transitional plan.

## III. Conclusions

The committee concurred that the department is doing its best to accommodate the transition from TEI to AEI. No specific recommendations were made for this principle.

### Panel Judgement

<b>Principle 12: Monitoring the transition from previous undergraduate study programmes to the new ones</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

### Panel Recommendations

No recommendations.

## **PART C: CONCLUSIONS**

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

The Department has cultivated an excellent climate among faculty, and between faculty and students. Faculty are responsive to student concerns and feedback and broadly supportive of students. Faculty also seem to genuinely care about the Department and be committed to its continuous improvement. The Department has good facilities and sufficient staff to support project-based and student-centred learning; the Department also has plans in place to expand their available space with a new, high-quality multi-purpose building that will serve both teaching and research. The Department overall appears to be on a growth trajectory in terms of number of faculty, number of PhD students, external collaborations and research and innovation activities. Other indicators including the quality of the incoming student cohort, degree completion times, graduation rates, and employability also seem to be on a positive trajectory. The Department has excellent relationships with many external stakeholders, particularly in local government, and benefits from healthy external funding. This funding enables the Department to pursue ambitious goals in education and research and counteract to some extent the volatility of the structural funding available to the Department by the government.

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

The Department operates in a highly competitive and “crowded” academic space, both in Greece and internationally. There are many Departments in Greece with undergraduate and postgraduate programs focused on Informatics, Telecommunications, or closely related subjects such as Computer Science and Computer Engineering. The Department faces a challenge in distinguishing itself in this highly competitive area. The panel found that the Department does not yet have its own unique strengths and differentiators in education or research, or an overall unique value proposition that would motivate talented students and faculty to select the Department over other Departments with similar undergraduate programs in Greece. The Department should be able to attract talent based on the quality of its undergraduate and graduate programmes, without considering only geographical criteria. The panel understood that the Department has recently gone through a major and rather disruptive transition process and that faculty have not necessarily had the necessary time to develop a vision for the Department’s education and research in the new, competitive academic space where the Department operates. The Department’s overall digital presence was also identified as an area of weakness. Specifically, the coverage of necessary material on the Department’s English webpages was insufficient, there were inconsistencies between the Department’s digital content and the Department’s documentation, and many important processes and workflows in the

Department were not documented in sufficient detail. The panel once again understands that addressing these issues needs time that the Department faculty did not have in abundance while supporting the Department in its transition to the new undergraduate program.

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

The Department should develop a vision and a plan to distinguish itself from other academic Departments in Greece and attract talented students and faculty based on excellence in the quality of its undergraduate and graduate programs. This vision should explore and cultivate specific areas in research, education, and innovation where the Department has or can build unique and clearly identifiable strengths, not just in Greece but also internationally. Concrete suggestions include: (1) hiring of faculty with an excellent research profile in emerging areas of Informatics and Telecommunications; (2) encouraging and supporting existing faculty to pursue more ambitious agendas in research, education and innovation; (3) growing and strengthening the quality of the graduate program; (4) growing the number of undergraduate students who engage with practical training, research, or mobility abroad; (5) establishing academic and research partnerships between the Department and other, prestigious and established academic or research units abroad; (6) securing external grants that would help the Department develop more differentiated and unique programs of study, explore new research directions, and pursue new pathways for innovation. From an operational perspective the Department seems to have the necessary resources and ingredients to succeed in this goal, including dedicated faculty, a vibrant student body that seems to appreciate the Department and value their studies, support from local government and external stakeholders, a good external funding profile, and a positive climate among the Department staff and students.

#### IV. Summary & Overall Assessment

The Principles where full compliance has been achieved are: **2, 3, 5, 8, 10, 11, and 12.**

The Principles where substantial compliance has been achieved are: **1, 4, 6, and 7.**

The Principles where partial compliance has been achieved are: **9.**

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

Overall Judgement	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

## The members of the External Evaluation & Accreditation Panel

Name and Surname

Signature

- 1. Prof. Petros Drineas (Chair)**  
Purdue University, USA
- 2. Dr. Paraskevas Dalianis**  
UniSystems S.M.S.A., Quest Group, Greece
- 3. Prof. Costas Iliopoulos**  
King's College London, UK
- 4. Prof. Dimitris Nikolopoulos**  
Virginia Tech, USA
- 5. Mr. Michail Voskakis**  
Hellenic Mediterranean University, Greece