

Doc. 300.1.2

Higher Education Institution's Response

Date: 08/06/2021

- Higher Education Institution: University of Nicosia
- Town: Nicosia
- Programme of study Name (Duration, ECTS, Cycle)

In Greek:

Πληροφορική (4 χρόνια, 240 ECTS, Πτυχίο)

In English:

Computer Science (4 years, 240 ECTS, Bachelor of Science)

- Language(s) of instruction: English
- Programme's status: Currently Operating
- Concentrations (if any): N/A

In Greek: Concentrations
In English: Concentrations

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The present document has been prepared within the framework of the authority and competencies of the Cyprus Agency of Quality Assurance and Accreditation in Higher Education, according to the provisions of the "Quality Assurance and Accreditation of Higher Education and the Establishment and Operation of an Agency on Related Matters Laws of 2015 to 2019" [N. 136 (I)/2015 to N. 35(I)/2019].

A. Guidelines on content and structure of the report

- The Higher Education Institution (HEI) based on the External Evaluation Committee's (EEC's) evaluation report (Doc.300.1.1 or 300.1.1/2 or 300.1.1/3 or 300.1.1/4) must justify whether actions have been taken in improving the quality of the programme of study in each assessment area.
- In particular, under each assessment area, the HEI must respond on, without changing the format of the report:
 - the findings, strengths, areas of improvement and recommendations of the EEC
 - the conclusions and final remarks noted by the EEC
- The HEI's response must follow below the EEC's comments, which must be copied from the external evaluation report (Doc.300.1.1 or 300.1.1/2 or 300.1.1/3 or 300.1.1/4).
- In case of annexes, those should be attached and sent on a separate document.

0. Introduction

We would like to thank the External Evaluation Committee (EEC) for their professional and thorough work during the online evaluation of the Department of Computer Science and three of its programs on April 8-9, 2021. We would also like to express our appreciation for the collegial and constructive approach with which they conducted their evaluation. During the visit, the EEC met the faculty supporting the BSc Computer Science program, and had separate meetings with current students and alumni of the program.

We would like to note that the report of the committee is **extremely positive** with 17 out of 18 quality indicators receiving the rating of "Compliant" (amongst the choices of: Compliant/partially compliant/non-compliant) and one indicator receiving the rating of "partially-compliant".

More specifically, the EEC states, amongst other:

- "There is strong evidence of the high quality of teaching and learning good practices, and excellent student experience."
- "Overall there is evidence of an excellent job prospect for graduates. The program clearly meet the most important requirements to ensure excellent employability of the graduates."
- "The CVs of existing staff demonstrate very good evidence of appointed academic staff having prior and relevant teaching and research experience in higher education institutions and are members of professional organizations."
- "Student and graduate feedback is generally very positive. Academic staff are always available to support the students for specific matters related to the courses and for any matter in general."

We do appreciate the committee's recommendations for improvement, which will enhance the quality of our Department and its programs and we will be addressing those in the corresponding section of this response. 1. Study programme and study programme's design and development (ESG 1.1, 1.2, 1.7, 1.8, 1.9)

We appreciate the EEC's assessment of this area. We note that all quality indicators/criteria were assessed as "Compliant" (amongst the choices of: Compliant/partially compliant/non-compliant).

Positive comments made by the EEC:

- "The University has an established process for introducing, monitoring and evaluating a new program of study. Programmes of study can be revised through an internal program evaluation process."
- "The department has a clear process for strategic planning that follows an integrative annual cycle. The planning is monitored and connected with the departmental Quality Assurance (QA) process."
- "The study programs are given mostly by permanent personnel and only a few nonpermanent teachers support the programmes. All faculty members hold doctoral degrees in the modules they teach."
- "The university has a clear process for career advancement through ranking/promotion committees. Pedagogical training and support is available for staff members."
- "The university and department have active student performance and wellbeing monitoring and supportive services available. Students' progress given the learning outcomes is continuously monitored with different instruments, such as exams, quizzes, tests, projects, case studies. Students receive proactive and constructive feedback on their progress."
- "Thematic areas are very helpful for students in building expertise. The Four thematic areas are: cybersecurity and privacy, Internet of Things, AI and ML, VR and game development."
- "The Department advocates connecting research activities and findings with education. Students are reported to be active in research projects resulting in articles co-authored with students."

Areas of improvement and recommendations made by EEC:

1.1 "The department should analyze the degree programs for identifying the root causes of the slow graduation process. Many of the students are working at the same time that explains why the completion of degrees can take more time than anticipated. The department is encouraged to analyse course and degree completion in more detail and mitigate any identified bottlenecks."

Response/Action: As the EEC has observed, a number of students are working and therefore follow a part-time mode of study. This indeed causes delays in graduation. However, it should

be noted that students in part-time mode are contacted throughout the year, their load is monitored to ensure both that they remain in touch with the program and do not fall behind. Moreover, the Department is already analysing course and degree completion to identify bottlenecks by utilizing a dashboard tool. In addition to the dashboard use, the Department is currently developing a tool that will help us predict the student dropout. We believe that this will help us identify students facing difficulties and prioritize advice so that delays (and/or dropouts) can be avoided.

1.2 "While the low number of female faculty members and students is typical in Computer Science, this should be addressed through faculty and student recruitment. It is highly recommended to increase the number of female professors."

Response/Action: The Department percentage of female faculty is approximately 19% which compares favorably with Computer Science Departments around the world. However, every effort is made to attract and hire more female professors. It should be noted that the three leadership positions in the Department (Head, Associate Head, Administrative Coordinator) are held by female professors, serving as role models and contributing to an increase of the number of female students as well as female faculty.

1.3 "The challenge of the high teaching load should be addressed through new recruitments, assessing teaching task assignments to the faculty members, increasing researcher and PhD student participation in teaching."

Response/Action: As the EEC notes under Section 3-Teaching Staff, of the evaluation report: "(Student-Staff Ratio) SSR is excellent and therefore the staffing base seems more than appropriate to deliver the programmes of study." As our program continues to grow, new faculty recruitments will be considered as well as further involvement of PhD students with the role of Teaching Assistants. All our current PhD students are already actively involved in the educational process through laboratory tutorials and assistance to undergraduate and MSc students.

1.4 "While it is commendable that each student receives academic counselling from the Head of Department and the Program Coordinator there are questions pertaining to scalability and time management especially for the B.Sc. program with hundreds of students. We recommend revisiting the notion of assigning an academic mentor for each student. This would be important as the program scales up."

<u>Response/Action</u>: We will assign one faculty member of the Department to each student, to act as academic mentor starting the Fall semester of 2021. This mentor will meet regularly with the student to monitor his/her progress, offer advice and guidance.

1.5 "We recommend developing skills oriented courses to complement the core Computer Science topics."

Response/Action: The BSc Computer Science already contains skills-oriented courses. Specifically, the two compulsory courses COMP-116 Software Development Lab I and COMP-118 Software Development Lab II, are skills-oriented courses. In addition, a

substantial number of the remaining CS courses (compulsory and electives) include a skillsoriented part. The following is an indicative list:

- COMP-116 Software Development Lab I and COMP-118 Software Development Lab II:
 - We are exploring various features of the Integrated Development Environment (students are using Visual Studio, Visual Code, and Xcode depending on their preferred platform) and are using GitHub as the Software Revision Control System
 - Features provided by the IDE (including plugins) which are explored, debugging, debug/release builds, Automated Testing via development of Unit Tests
 - Features provided by the software revision system (GitHub) that are explored are among other, branching, tagging, sharing, and viewing history. The main skills which are emphasized is to build your software incrementally and commit your changes after each "unit of work"
 - Additionally, we are using GitHub as the Bug Management Service
 - Documentation tools such as doxygen and sphinx are also used
- COMP-399 Special Topics in CS-Data Science: The students go through the entire data science project lifecycle through labs/exercises using real-world datasets on the KNIME analytics platform
- COMP-340 Big Data: Students use nosql databases (e.g., couchbase, Cassandra, mongdb, google bigquery) and distributed processing engines for batch and stream processing (e.g. Hadoop, Spark)
- COMP-244 Machine Learning and Data Mining I: Use of RapidMiner for conducting data analysis, building machine learning models and developing data visualizations.
- COMP-401 Software Engineering: Use of Trello for project management, Slack for Team communication, Gantt Chart software for Project Management, GitHub for Code management and Maintenance, Scrum for reporting progess and communication.
- COMP 212 Object-Oriented Programming: Use of Eclipse IDE with Shell and Android development plugin
- COMP 285 Mobile Computing Application Development: Use of Open source PhoneGap (Apache Cordova) and Xamarin cross-platform for Mobile Apps development for building Android and iOS apps with .NET and C#, also Github is used, and GitLab using Web development interfaces
- COMP-358 Networks and Data Communication: Use of Emulation/Simulation experiments for certain network scenarios using Core packages by Oracle using Java, NS-3 and other integrated packages (for their course project). Also, visual network mapping software are used such as Wireshark and EVE-Emulated Virtual Environment
- COMP-475 Internet of Things and Wearable Technologies: Use of Open source PhoneGap (Apache Cordova), Crossbow MDA 100CB, Crossbow Accelerometer 12, MICA2dot sensor Motes (nesC interface) with control board.
- COMP-320 Computer Graphics: Use of OpenGL with C++ or C#
- COMP-431 Computer Security: Use of Kali Linux as a penetration testing platform
- MATH-341 Numerical Analysis I and MATH-330 Ordinary Differential Equations: Use of MATLAB

2. Student – centred learning, teaching and assessment (ESG 1.3)

We appreciate the EEC's assessment of this area. We note that all quality indicators/criteria were assessed as "Compliant" (amongst the choices of: Compliant/partially compliant/non-compliant).

Positive comments made by the EEC:

- "There is strong evidence of the high quality of teaching and learning good practices, and excellent student experience."
- "The teaching, learning and assessment practices are well thought, organized and implemented."
- "Coursework assignments and consistently marked and feedback and solutions are provided."
- "Students are offered continuous support from academic advisors and counsellors."
- "Student and graduate feedback is generally very positive. Academic staff are always available to support the students for specific matters related to the courses and for any matter in general."
- "There is evidence of the general high quality of T&L activities and of a friendly environment that facilitates a positive student engagement."
- "Overall there is evidence of an excellent job prospect for graduates. The program clearly meet the most important requirements to ensure excellent employability of the graduates."
- "The number of students per course is capped to ensure high quality T&L and student experience."
- "There are good examples of research and industry engagement in T&L. Research and industry seminars given by guest speakers have been offered at the MSc level and were open to all students."

Areas of improvement and recommendations made by EEC:

2.1 "Student feedback needs to be analysed more systematically and a general response should be offered back to the students in terms of a general summary and the plan of action to make improvements."

<u>Response/Action</u>: Student feedback is highly valued within the department and there are multiple ways by which this is taken into account. More specifically, these are the official ways by which student feedback is recorded, analysed and offered back to students:



- a) The Department of Computer Science Council has three elected student representatives who bring student feedback to the department council meetings and where decisions/plans of actions are taken based on this feedback.
- The three Department Council student representatives are also chairing the Department's "Student Wellness Committee" which is responsible for providing feedback to the curriculum committee and liaising with the rest of the students
- There is one student member in the Internal Team of Reviewers who evaluate the program 2 years after its accreditation, as per the University regulations regarding the Internal Program Evaluation Process (IPEP)
- d) There is one student representative who is a member of the Department Quality Assurance Committee.
- The Computer Science Department holds yearly Board of Studies meetings where all Department of Computer Science students are invited to provide feedback to faculty and raise any concerns regarding their programs of study.
- Student evaluations for each course and their instructor are given to students to compete, at the end of every semester. These student evaluations are available to the respective faculty, the Department Head and the program coordinator who can take formal action and address any issues that become evident through these student evaluations. It should also be noted that these student evaluations are also included in each faculty's self-assessment report as part of the peer evaluation of every faculty member. The School Faculty Evaluation Committee that reviews the faculty member's self-assessment report is a four-member committee consisting of the School Dean, the Department Head, a senior faculty of the Department and a senior faculty member of the School. The committee is responsible for providing an evaluation report to the faculty member, addressing each section of the selfassessment report, including student evaluations.
- 2.2 "The department offers a non mandatory orientation week and following the meeting with the students the EEC has found that not all students were aware of the formal complaints and appeals procedure reflecting the need for improved communication with concerns students better communication is required to ensure students are aware of the policies i.e. complaints and appeals process some courses can be improved."

Response/Action: The Department provides multiple ways by which the students become aware of the policies, including the complains and appeals process:

- Each student can access online the Student Handbook for their respective program. These booklets are produced by the Department, for each of its programs, and contain all the relevant information that a student may need during their years of study, such as program pathway and short description of courses, advice on registration to courses, grades and ECTS, faculty lists with contact numbers and more. In this report we refer to all the relevant University policies, as described in the Academic Policies booklet issued by the University.
- 2) Each student has access to the Academic Policies booklet, which is available online and introduced to the student in the Student Handbook described above.
- There is a student Orientation Day for new students, in September, which is organized by the Department. The students are introduced to the faculty of the Department and are presented with the information contained in the Student Handbook.
- 4) In addition, the Department organizes a yearly Board of Studies meeting where students are given the opportunity to raise concerns and discuss with their faculty.

5) Finally, the Department Head, Associate Head and Program Coordinator provide all the necessary advice to students, describing the policies and guiding them in case of complaints and appeals.

We will continue to use all these multiple ways to keep our students informed and aware of the relevant policies. In addition, following the EEC recommendation, we will assign one faculty member of the Department to each student, to act as academic mentor starting in the Fall semester of 2021. This mentor will meet regularly with the student to monitor his/her progress and offer advice and guidance.

2.3 "Some courses can be improved in terms of supporting the development of practical skills associated to conceptual and theoretical content: a continuous effort to balance between theory and practical skills in some courses is advisable. The distribution between elective vs major courses can also be reconsidered periodically."

Response/Action: Our courses emphasize practical skills and the development of such skills is actually stated in the Aims and Objectives of the BSc Computer Science program. As the EEC noted in Section 4 of the Departmental Evaluation report: "..the definition of the programme provides a good integration of theory and practice through hackathons, group work and case studies in regular courses as well as several projects." Regarding the recommendation for reconsidering periodically the distribution between elective and major courses, this is indeed our standard practice every 4 years, in view of the next accreditation.

3. Teaching staff

(ESG 1.5)

We appreciate the EEC's assessment of this area with 2 out of 3 quality indicators/criteria assessed as "Compliant" (amongst the choices of: Compliant/partially compliant/non-compliant). The "partially compliant" assessment of criterion "3.1 Teaching staff recruitment and development" is clarified in this section (3.1).

Positive comments made by the EEC:

- "The recruitment and selection procedure has been described in a robust manner and it is fair and clear."
- "There are clear criteria for different teaching ranks (professor, associate professor etc) and clear guidelines for progression and promotion."
- "The CVs of existing staff demonstrate very good evidence of appointed academic staff having prior and relevant teaching and research experience in higher education institutions and are members of professional organizations."
- "Research expertise and publication records are relevant and consistent to the programmes of study."
- "As a whole the teaching staff is highly commended by the students"

Areas of improvement and recommendations made by EEC:

3.1 "The EEC recommends the development of systematic central support with regards to staff induction and staff development."

<u>Response/Action</u>: The University Senate and Council has recently approved the establishment of the *Faculty Training and Development Unit* whose role is to:

- a) Draft the university's plan and strategy on faculty training and development
- b) Identify faculty training and development needs necessary for fulfilling their job requirements
- c) Make available to faculty relevant training and development opportunities that can be linked to educational research and development, curriculum leadership, and educational scholarship
- d) Coordinate the training and development practices offered by the various training centres/units and evaluate their impacts on the careers of the participants and the institutional environment.

The new Unit brings under its umbrella, through a coordinating role, existing Units such as the PSU (Pedagogical Support Unit), the ePSU (e-Learning Pedagogical Support Unit), the TELC (Technology Enhanced Learning Centre), the DL-LMS (Distance Learning - Learning Management Systems Unit) and the RIO (Research and Innovation Office).

It should be noted that the faculty members teaching in the programme have undergone a 12week 36-hour training and development Seminar on "Teaching and Learning Theory and Practice," consisting of twelve 3-hour workshops. The faculty have been awarded the Teaching and Learning Theory and Practice Certificate for the successful completion of the workshop series. The workshops cover a variety of areas such as, designing effective learning environments with 21st century skills and competencies in mind, critical and creative thinking, adult education, project and problem-based learning, inclusion of students with diverse needs, designing online courses using interactive and collaborative multimedia tools, effective use of e-learning and other educational resources etc.

In addition, there is a Research Skills Development Programme in which various workshops/webinars are developed by the office of the VRFR to promote research and support mentoring to new faculty and PhD students.

Regarding staff induction, the University's Department of Human Resources organizes a faculty induction week, every year, at the beginning of September. The induction week includes presentations on the various academic policies and administration procedures which are delivered by the Academic Affairs and Human Resource offices respectively, as well as presentations from the following: Research and Innovation Office, Library, Health and Safety, Erasmus, Student Affairs, amongst others. In addition, a comprehensive Faculty Manual is given to all faculty, which provides them with information about the University, its policies and procedures, and any other information they will need during their employment.

3.2 "Unavailability of all optional courses. The EEC recommends the alignment of course demand from the students, course planning and course selection."

Response/Action: The elective (optional) courses included in the BSc pathway are mainly advanced electives which are relevant to the thematic areas and to additional current and emerging trends, beyond the thematic areas. Including these state-of-the-art courses in the curriculum is in line with the Department's mission. However, the offering of an elective course requires a minimum number of student registrations (as per the requirement of the National Agency for Quality Assurance and Accreditation in Higher Education). Therefore, the current selection of elective course offerings is dictated partly by the student interest. Courses that do not attract enough students may not be prioritized. However, our Department has now issued new guidelines to the Academic Advisors who assist in student registrations, so that each student at the end of the second year will indicate the thematic area that they may be interested in. This information will be visible on the student record, and the program coordinator will be able to do the necessary planning for offering the advanced 3rd and 4th year electives. We believe that this will be very helpful when planning the schedule of classes and will also increase student satisfaction.

We also believe that as the program grows, more electives will be offered.

4. Student admission, progression, recognition and certification (ESG 1.4)

We appreciate the EEC's assessment of this area. We note that **all quality indicators/criteria were assessed as "Compliant"** (amongst the choices of: Compliant/partially compliant/non-compliant).

Positive comments made by the EEC:

- "The EEC felt that the admissions procedure contains robust and credible plans for the recruitment of students."
- "There are clear plans supporting student progression and achievement of student outcomes."
- "Academic advisors and tutors are available to support and monitor student progression and achievement. Monitor Reviewing Indicators about progression at both course and programme levels are analyzed and monitored through programme coordinators review meetings on an annual basis."
- "Range of entry requirements to support various educational backgrounds."

Areas of improvement and recommendations made by EEC:

4.1 "Lack of a risk assessment plan for low student intake. The EEC recommends the development of an action plan leading to an increasing number of students over the next two-three years."

<u>Response/Action:</u> The Department has a very good student intake for the BSc Computer Science program. The following action plan is established to further increase the number of students. More specifically, the action plan includes:

- 1) Organized visits to high-schools (as well as hosting visits by high-schools) where faculty members and current BSc students (or alumni), will deliver hands-on workshops on exciting Computer Science topics. This has already been pursued in the last years (prior to the pandemic) and we will be intensifying these efforts in the coming years. The Department already participates yearly to the Handshake with ICT which is organized by the University and where the Department delivers workshops on Cyber Security, Artificial Intelligence, Data Science and Computer Graphics.
- 2) Yearly participation in the Computer Science Student Conference in Greece where faculty and alumni deliver workshops to high-school students in areas such as Cyber Security and Data Science. The Department has already participated in the last two conferences (the 10th and 11th).
- 3) Organizing hackathons and other competitions that promote the Computer Science field. For example, our Department co-organizes yearly the Logipaignion game development competition which is open to students (both high-school as well as University students through different tracks). Our University through our Department is also serving as hub every

year in the Google hashcode competition. Our Department plans to further organize some hackathon competitions on hot topics such as Cyber Security.

- 4) Delivery of webinars by faculty with active participation from current students and alumni. The webinars are live-streamed on youtube and are open to all. These webinars take many forms: a) They present the Department and its programs, b) they can talk about Computer Science/Data Science jobs and career prospects, c) they present a particular subject or project with participation from students (current and past). This past year, the Department has delivered 4 such webinars. Two of these webinars involved students: One seminar on hacking was delivered by an MSc CS Alumni and the other seminar on Data Science was delivered by two current BSc CS students along with their professor, who presented their term project on the Data Science course. More webinars are planned in the next couple of years.
- 5) We also plan to offer a number of scholarships per program. The University is already offering scholarships based on merit and financial needs. We plan to request an additional number for the next 2-3 years, especially in view of possible financial problems that may have arisen to a number of families affected by the pandemic.
- 4.2 "Lack of a structured and annually produced monitoring report pertaining to student progression, attainment and other key performance indicators relating to their studies."

Response/Action: The introduction of mentors for each student as suggested in point 1.4 above, will enable a structured and annually produced report on student progression. It should also be noted that there is an already established process, by which the Academic Advisors identify at the end of the semester all low-performing students (i.e. students with GPA less than 2.0). These students are then contacted by the Academic Advisor assigned to them, and are offered extra help and tutoring hours by the University's Student Success Center.

5. Learning resources and student support *(ESG 1.6)*

We appreciate the EEC's assessment of this area. We note that **all quality indicators/criteria were assessed as "Compliant"** (amongst the choices of: Compliant/partially compliant/non-compliant).

Positive comments made by the EEC:

- "The programs have excellent support from the university IT services, for example cloud services. The library facilities meet the expectations and the library services include access to IEEE and ACM digital resources. Off campus access is available through OpenAthens and a proxy server."
- "Student to teacher ratio is excellent. Students enjoy a very good presence by the teachers."

Areas of improvement and recommendations made by EEC:

5.1 "The computer laboratories appear adequate for the teaching purposes; however, the extent of availability of the infrastructure to Computer Science courses was ambiguous. The department is recommended to clarify which of the laboratories are open to taught students."

<u>Response/Action:</u> The following is the list of computer laboratories which are open to taught students:

- Four main labs used in most programming courses: B101, B111, B113 and A20. These are regularly updated and upgraded to meet the needs of the students.
- Dedicated Computer Science laboratory for use by the Department's students only: B110.
 This CS lab is equipped with iMacs and PCs as well as the MoSys Lab infrastructure described below (point 5.2).
- Dedicated Virtual Reality Lab: This lab is a state-of-the-art virtual, augmented and mixed reality technologies' facility. It includes two independent immersive VR installations and facilities for teaching including 16 high-end workstations. This lab is utilised by our students taking the Virtual Reality Game Development courses which are Major Elective courses in BSc Computer Science.

In addition, MATLAB is available to students (and faculty) to use from home, since there is a University-wide license, allowing all UNic students to download and install the latest version (including all packages, such as Machine learning and AI) on their own personal computers.

5.2 "The mobile computing and the Internet of Things infrastructure could be more comprehensive for state of the art research activities."

<u>Response/Action:</u> Our faculty's research projects enrich the infrastructure for taught courses in Mobile Computing and the Internet of Things. The department's Mobile Systems Lab (MoSys Lab) hosts a number of mobile devices ranging from tablets and wearables (smart

programmable watches to smart programmable insoles) as well as different general purpose and Ambient Assisted Living sensors (i.e. Motes supporting wireless communication protocols such as Telos B Green and Blue 802.15.4 Motes, MultiTech Conduit 300 Series IoT Programmable Gateway (MTCDT3AC Series) and Libelium PS485 modbus for Raspberry PI with Libelium RGI to Arduino as well as Waspmode 3G sim card module). Additionally, our laboratories host prototypes developed using Sensing hardware (ie. Crossbow MDA 100CB, Crossbow Accelerometers, MICA2dot sensor Motes (nesC interface) with control board (nesC interface), Crossbow MIB520CB and Dust Sensor) and Wireless Power Transfer and Monitoring Toolkits (educational). Our laboratories are equipped with different configurable testbed platforms such as Motes' intefaces with enabled Foscam FI9831P IPCam with Proprietary architecture OS (3 nodes) and 3 Galaxy Tab (versions S2, S4, S6) with sensor programmable modules with Station interface (Android OS).



6. Additional for doctoral programmes (ALL ESG)

N/A

7. Eligibility (Joint programme) (ALL ESG)

N/A



B. Conclusions and final remarks

We would like to thank the External Evaluation Committee (EEC) for their professional and thorough work during the online evaluation of the Department of Computer Science and three of its programs on April 8-9, 2021. We would also like to express our appreciation for the collegial and constructive approach with which they conducted their evaluation.

We welcome the EEC's positive evaluation of our BSc Computer Science program and the final conclusion which states: "Based on the examination and evaluation of the accreditation materials and the remote site visit, the EEC concludes that the required standards are met."

We would like to address some further remarks made by the EEC in the "Conclusions and final remarks" (section D):

1) EEC remark: "The External Evaluation Committee (EEC) reviewed and examined the accreditation report and materials provided by the University of Nicosia pertaining to the Department of Computer Science and its four-degree programs. The EEC evaluated the department and three of its programs that had not been previously evaluated and accredited: the BSc, MSc and PhD programs in Computer Science."

Response: We would like to note and clarify that all three programs under evaluation in this assessment have been previously evaluated and accredited by the Evaluation Committee for Private Universities - ECPU (which was the responsible body prior to the introduction of CYQAA). Hence, all programs in this evaluation were submitted for reaccreditation.

2) EEC remark: "The department should analyze the degree programs for identifying the root causes of the slow graduation process. Many of the students are working at the same time that explains why the completion of degrees can take more time than anticipated. The department is encouraged to analyse course and degree completion in more detail and mitigate any identified bottlenecks."

Response/Action: This remark was raised in Section 1 and our response is given in point 1.1 above.

3) EEC remark: "Some courses can be improved in terms of supporting the development of practical skills associated to conceptual and theoretical content: a continuous effort to balance between theory and practical skills in some courses is advisable. The distribution between elective vs major courses can also be reconsidered periodically."

Response/Action: This remark was raised in Section 2 and our response is given in point 2.3 above.

4) EEC remark: "Some of the optional courses may not be available to students at a given semester or year. The EEC recommends the alignment of course demand from the students, course planning and course selection."

Response/Action: This remark was raised in Section 3 and our response is given in point 3 2 above

5) EEC remark: "The computer laboratories appear adequate for the teaching purposes; however, the extent of availability of the infrastructure to Computer Science courses was ambiguous. The department is recommended to clarify which of the laboratories are open to taught students."

<u>Response/Action:</u> This remark was raised in Section 5 and our response is given in point 5.1 above.

6) EEC remark: "The mobile computing and the Internet of Things infrastructure could be more comprehensive for state of the art research activities."

Response/Action: This remark was raised in Section 5 and our response is given in point 5.2 above.

7) EEC remark: "A formal internal progress monitoring and assessment process involving academic members not in the supervisory team can be considered to add more robustness to the programme. Lack of a structured and annually produced monitoring report pertaining to student progression, attainment and other key performance indicators relating to the studies.".

<u>Response/Action</u>: This remark refers to the PhD in Computer Science program as it refers to the "supervisory team". Therefore, this point is addressed in the respective response to the PhD program.

Concluding, we would like to thank once more the External Evaluation Committee for their valuable feedback and their **extremely positive** evaluation of the BSc Computer Science programme.

C. Higher Education Institution academic representatives

| Name | Position | Signature |
|-------------------------------------|--|-----------|
| Dr George Gregoriou | Dean School of Sciences and Engineering | |
| Prof Athena Stassopoulou | Head - Department of Computer Science and Program Coordinator | |
| Prof Constantinos Mavromoustakis | Quality Assurance and Faculty Member | |
| FullName | Position | |
| FullName | Position | |
| FullName | Position | |

Date: 08 June 2021





