Doc. 300.1.1

Date: Date.

External Evaluation Report (Programmatic)

- **Higher Education Institution:**
  The Cyprus Institute
- **Town: Nicosia**
- **School/Faculty (if applicable): The Cyprus Institute Graduate School**
-
- **Department/ Sector: The Cyprus Institute Graduate School**
- **Programme of study- Name (Duration, ECTS, Cycle)**
  In Greek:

  Υπολογιστικές Επιστήμες (3 χρόνια, 180 ECTS, Διδακτορικό)

  In English:

  Computational sciences (3 years, 180 ECTS, Doctoral Degree)
- **Language(s) of instruction: English**
- **Programme's status**
  New programme: No
  Currently operating: Yes

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. Introduction

This part includes basic information regarding the onsite visit.

Members of the External Evaluation Committee (EEC) reviewed and examined the accreditation report provided by the Cyprus Institute Graduate School regarding the PhD program in Computational Sciences being evaluated individually before the remote site visit at the Cyprus Institute on 30 September 2020. The committee had a preliminary remote meeting on 29 September to prepare for the remote site visit. The committee had a virtual tour of the facilities through online video and resources. The committee work was supported by digital office tools for preparing the virtual site visit and the evaluation report.

During the remote site visit, the Committee was presented with the detailed organization, structure, and content of the Computational Sciences PhD program. The committee met professors, teachers and current and past students of the program. The EEC received answers to open questions based on reading the accreditation report. A majority of the open issues were answered during the remote site visit and the EEC received substantial additional insights into the operation of the Institute and the PhD Program. Based on the accreditation report and the remote site visit the EEC can conclude that the required standards are met. The present evaluation report describes how the standards are met and provides additional suggestions for improving the program.

B. External Evaluation Committee (EEC)

Name	*Position*	*University*
D. K. Arvind	Professor	University of Edinburgh, UK
Christodoulos Hadjichristodoulou	Student of Computer Science	University of Cyprus, Cyprus
Thomas Simonson	Professor	Ecole Polytechnique, France
Sasu Tarkoma (chair)	Professor, Head of Department	University of Helsinki, Finland

C. Guidelines on content and structure of the report

- *The external evaluation report follows the structure of assessment areas.*
- *At the beginning of each assessment area there is a box presenting:*
  (a) *sub-areas*
  (b) *standards which are relevant to the European Standards and Guidelines (ESG)*
  (c) *some questions that EEC may find useful.*
- *The questions aim at facilitating the understanding of each assessment area and at illustrating the range of topics covered by the standards.*
- *Under each assessment area, it is important to provide information regarding the compliance with the requirements of each sub-area. In particular, the following must be included:*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

Areas of improvement and recommendations

A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

- *The EEC should state the compliance for each sub-area (Non-compliant, Partially compliant, Compliant), which must be in agreement with everything stated in the report. It is pointed out that, in the case of standards that cannot be applied due to the status of the HEI and/or of the programme of study, N/A (= Not Applicable) should be noted.*
- *The EEC should state the conclusions and final remarks regarding the programme of study as a whole.*
- ***The report may also address other issues which the EEC finds relevant.***

1. Study programme and study programme's design and development

(ESG 1.1, 1.2, 1.7, 1.8, 1.9)

Sub-areas

1.1 Policy for quality assurance
1.2 Design, approval, on-going monitoring and review
1.3 Public information
1.4 Information management

1.1 Policy for quality assurance

Standards

- *Policy for quality assurance of the programme of study:*
  - *has a formal status and is publicly available*
  - *supports the organisation of the quality assurance system through appropriate structures, regulations and processes*
  - *supports teaching, administrative staff and students to take on their responsibilities in quality assurance*
  - *ensures academic integrity and freedom and is vigilant against academic fraud*
  - *guards against intolerance of any kind or discrimination against the students or staff*
  - *supports the involvement of external stakeholders*

1.2 Design, approval, on-going monitoring and review

Standards

- *The programme of study:*
  - *is designed with overall programme objectives that are in line with the institutional strategy and have explicit intended learning outcomes*
  - *is designed by involving students and other stakeholders*
  - *benefits from external expertise*
  - *reflects the four purposes of higher education of the Council of Europe (preparation for sustainable employment, personal development, preparation for life as active citizens in democratic societies, the development and maintenance, through teaching, learning and research, of a broad, advanced knowledge base)*
  - *is designed so that it enables smooth student progression*
  - *is designed so that the exams' and assignments' content corresponds to the level of the programme and the number of ECTS*
  - *defines the expected student workload in ECTS*
  - *includes well-structured placement opportunities where appropriate*
  - *is subject to a formal institutional approval process*

- *results in a qualification that is clearly specified and communicated, and refers to the correct level of the National Qualifications Framework for Higher Education and, consequently, to the Framework for Qualifications of the European Higher Education Area*
- *is regularly monitored in the light of the latest research in the given discipline, thus ensuring that the programme is up-to-date*
- *is periodically reviewed so that it takes into account the changing needs of society, the students' workload, progression and completion, the effectiveness of procedures for assessment of students, student expectations, needs and satisfaction in relation to the programme*
- *is reviewed and revised regularly involving students and other stakeholders*

1.3 Public information

Standards

- *Regarding the programme of study, clear, accurate, up-to date and readily accessible information is published about:*
  - *selection criteria*
  - *intended learning outcomes*
  - *qualification awarded*
  - *teaching, learning and assessment procedures*
  - *pass rates*
  - *learning opportunities available to the students*
  - *graduate employment information*

1.4 Information management

Standards

- *Information for the effective management of the programme of study is collected, monitored and analysed:*
  - *key performance indicators*
  - *profile of the student population*
  - *student progression, success and drop-out rates*
  - *students' satisfaction with their programmes*
  - *learning resources and student support available*
  - *career paths of graduates*

- *Students and staff are involved in providing and analysing information and planning follow-up activities.*

You may also consider the following questions:

- *What is the procedure for quality assurance of the programme and who is involved?*
- *Who is involved in the study programme's design and development (launching, changing, internal evaluation) and what is taken into account (strategies, the needs of society, etc.)?*
- *How/to what extent are students themselves involved in the development of the content of their studies?*
- *Please evaluate a) whether the study programme remains current and consistent with developments in society (labour market, digital technologies, etc.), and b) whether the content and objectives of the study programme are in accordance with each other?*
- *Do the content and the delivery of the programme correspond to the European Qualifications Framework (EQF)?*
- *How is coherence of the study programme ensured, i.e., logical sequence and coherence of courses? How are substantial overlaps between courses avoided? How is it ensured that the teaching staff is aware of the content and outputs of their colleagues' work within the same study programme?*
- *How does the study programme support development of the learners' general competencies (including digital literacy, foreign language skills, entrepreneurship, communication and teamwork skills)?*
- *What are the scope and objectives of the foundation courses in the study programme (where appropriate)? What are the pass rates?*
- *How long does it take a student on average to graduate? Is the graduation rate for the study programme analogous to other European programmes with similar content? What is the pass rate per course/semester?*
- ***How is it ensured that the actual student workload is in accordance with the workload expressed by ECTS?***
- *What are the opportunities for international students to participate in the study programme (courses/modules taught in a foreign language)?*
- *Is information related to the programme of study publicly available?*
- *How is the HEI evaluating the success of its graduates in the labor market? What is the feedback from graduates of the study programme on their employment and/or continuation of studies?*
- *Have the results of student feedback been analysed and taken into account, and how (e.g., when planning in-service training for the teaching staff)?*
- *What are the reasons for dropping out (voluntary withdrawal)? What has been done to reduce the number of such students?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

The Graduate School has established the Educational Quality Management Systems (EQMS) that is based on the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). All new or reformed educational programs go through a series of internal and external evaluation and approval processes. The Internal Quality Committee is responsible for monitoring and ensuring the quality of education at the Institute. The Committee has a student member.

The learning goals of a program and its courses are clearly presented. The students have a Program Handbook at their disposal that includes course descriptions and assessment/grading details for the program and the courses. Course Handbooks are prepared and disseminated to the students the beginning of each semester. Program and course information is publicly available.

The Office of the Graduate Studies has an important role in overseeing the operations of a program. Any changes to the syllabus and proposed new courses go through review and approval processes. The Graduate School and the PhD program follow the key KPIs, such as the pass rates of courses and degrees.

Course evaluation is conducted with an anonymous questionnaire for the students (course and instructor evaluation/feedback) and the course instructor uses the student feedback to fill a course evaluation form. The process is overseen by the program coordinator who together with the instructors can review the learning process and improve it. The committee heard from the teachers and students that course feedback is actively gathered and it has had positive effects in developing the courses. Meeting with the administrative staff indicated that the Quality Assurance is an integral part of the processes starting from the application phase and ending with graduates leaving the university.

The program is following the career paths of the student. The program is producing graduates that are valued by the labor market. The program has excellent connections to both national and international research activities including student and researcher mobility. The students valued the course selection that provided knowhow and practical knowledge on the computational tools and methods having wide applicability.

The program has experienced significant growth, but despite the growth it is still relatively small. The student-teacher ratio is excellent and the students meet their instructors and mentors often. The students also have access to a state-of-the-art infrastructure including local supercomputer resources.

Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

The Institute has established the necessary internal and external quality assurance processes and they are working well.

The Graduate School and the PhD Program in Computational Sciences have clear and accessible learning goals, evaluation criteria and course details that are disseminated to students.

Student and teacher feedback are taken into account in developing the program and the courses.

The Institute has an excellent student-teacher ratio and state-of-the-art facilities. Students are connected with international research projects and infrastructure activities.

Areas of improvement and recommendations

A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

The program can consider establishing a more formal industrial advisory board or industry group for receiving feedback and advice from the companies regarding degree relevance and industry requirements for PhD level professionals.

The program can consider a more systematic approach in offering teaching assistant possibilities to the PhD students. It was not clear how the PhD students can gain important teaching experience through helping instructors with the courses. The new MSc program could be used in providing opportunities for PhD students to take part in teaching activities.

The stipend and financial support instruments available for students should be reviewed periodically in terms of the evolving costs of living.

The program has grown, but it is still relatively small in terms of the number of students. The program has the aspiration of having more students while keeping the favorable student-teacher ratio and the current high level of administrative support. Given that in the current situation it is difficult to recruit students, the recruitment challenge will be greater with the aspiration of scaling the program. We recommend increasing the visibility and marketing efforts, developing dual-degree instruments, and developing the visiting professor and teacher instruments.

Please select what is appropriate for each of the following sub-areas:

Sub-area		***Non-compliant/ Partially Compliant/Compliant***
1.1	Policy for quality assurance	Compliant
1.2	Design, approval, on-going monitoring and review	Compliant
1.3	Public information	Compliant
1.4	Information management	Compliant

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

Sub-areas

2.1 Process of teaching and learning and student-centred teaching methodology
2.2 Practical training
2.3 Student assessment

2.1 Process of teaching and learning

Standards

- *The process of teaching and learning supports students' individual and social development.*
- *The process of teaching and learning is flexible, considers different modes of delivery, where appropriate, uses a variety of pedagogical methods and facilitates the achievement of planned learning outcomes.*
- *Students are encouraged to take an active role in creating the learning process.*
- *The implementation of student-centered learning and teaching encourages a sense of autonomy in the learner, while ensuring adequate guidance and support from the teacher.*
- *Teaching methods, tools and material used in teaching are modern, effective, support the use of modern educational technologies and are regularly updated.*
- *Mutual respect within the learner-teacher relationship is promoted.*
- *The implementation of student-centred learning and teaching respects and attends to the diversity of students and their needs, enabling flexible learning paths.*
- *Appropriate procedures for dealing with students' complaints regarding the process of teaching and learning are set.*

2.2 Practical training

Standards

- *Practical and theoretical studies are interconnected.*
- *The organisation and the content of practical training, if applicable, support achievement of planned learning outcomes and meet the needs of the stakeholders.*

2.3 Student assessment

Standards

- *Assessment is consistent, fairly applied to all students and carried out in accordance with the stated procedures.*
- *Assessment is appropriate, transparent, objective and supports the development of the learner.*

- *The criteria for and method of assessment, as well as criteria for marking, are published in advance.*
- *Assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved. Students are given feedback, which, if necessary, is linked to advice on the learning process.*
- *Assessment, where possible, is carried out by more than one examiner.*
- *A formal procedure for student appeals is in place.*
- *Assessors are familiar with existing testing and examination methods and receive support in developing their own skills in this field.*
- *The regulations for assessment take into account mitigating circumstances.*

You may also consider the following questions:

- *How is it monitored that the teaching staff base their teaching and assessment methods on objectives and intended learning outcomes? Provide samples of examination papers (if available).*
- *How are students' different abilities, learning needs and learning opportunities taken into consideration when conducting educational activities?*
- *How is the development of students' general competencies (including digital skills) supported in educational activities?*
- *How is it ensured that innovative teaching methods, learning environments and learning aids that support learning are diverse and used in educational activities?*
- *Is the teaching staff using new technology in order to make the teaching process more effective?*
- *How is it ensured that theory and practice are interconnected in teaching and learning?*
- *How is practical training organised (finding practical training positions, guidelines for practical training, supervision, reporting, feedback, etc.)? What role does practical training have in achieving the objectives of the study programme? What is student feedback on the content and arrangement of practical training?*
- ***Are students actively involved in research? How is student involvement in research set up?***
- *How is supervision of student research papers (seminar papers, projects, theses, etc.) organised?*
- ***Do students' assessments correspond to the European Qualifications Framework (EQF)?***
- *How are the assessment methods chosen and to what extent do students get supportive feedback on their academic progress during their studies?*
- *How is the objectivity and relevance of student assessment ensured (assessment of the degree of achievement of the intended learning outcomes)?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

It is evident that the institute is dedicated to providing its students with education of the highest quality. By being assigned to a research team and a project right at the start of their studies, the student is actively participating in the learning process very early and their analytical thinking and research skills are promoted. The assessment procedure is well defined and up to standards, both for the taught courses and the thesis defence and feedback on their progress is regularly provided to the students. Student complaints and recommendations are taken into consideration and acted upon.

Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

The low ratio of students to teachers is very beneficial since it allows for the teachers to focus on the individual needs of each student and allows for constructive teaching and communication. The constant communication between the students and the faculty as well as the administrative staff is also a positive element.

The PhD program has a comprehensive offering of courses that cover both theory and practice in computational sciences.

The Institute is well positioned for recruiting more students and teachers given the geographical location, research infrastructure, and a substantial international research project portfolio.

Areas of improvement and recommendations

A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

The student-teacher ratio is excellent; however, the PIs have different expertise areas. It was not fully clear how the PhD supervision workload is balanced across the expertise areas of the PIs.

The level of internationalization is very good. The EEC recommends the PhD program and the Institute to continue developing the international networks and researcher exchange instruments (also outside EU).

Please select what is appropriate for each of the following sub-areas:

Sub-area		***Non-compliant/ Partially Compliant/Compliant***
2.1	Process of teaching and learning and student-centred teaching methodology	Compliant
2.2	Practical training	Compliant
2.3	Student assessment	Compliant

3. **Teaching staff** *(ESG 1.5)*

Sub-areas

3.1 Teaching staff recruitment and development
3.2 Teaching staff number and status
3.3 Synergies of teaching and research

3.1 Teaching staff recruitment and development

Standards

- *Institutions ensure the competence of their teaching staff.*
- *Fair, transparent and clear processes for the recruitment and development of the teaching staff are set up.*
- *Teaching staff qualifications are adequate to achieve the objectives and planned learning outcomes of the study programme, and to ensure quality and sustainability of the teaching and learning.*
- *The teaching staff is regularly engaged in professional and teaching-skills training and development.*
- *Promotion of the teaching staff takes into account the quality of their teaching, their research activity, the development of their teaching skills and their mobility.*
- *Innovation in teaching methods and the use of new technologies is encouraged.*
- *Conditions of employment that recognise the importance of teaching are followed.*
- *Recognised visiting teaching staff participates in teaching the study programme.*

3.2 Teaching staff number and status

Standards

- *The number of the teaching staff is adequate to support the programme of study.*
- *The teaching staff status (rank, full/part time) is appropriate to offer a quality programme of study.*

- *Visiting staff number does not exceed the number of the permanent staff.*

3.3 Synergies of teaching and research

Standards

- *The teaching staff collaborate in the fields of teaching and research within the HEI and with partners outside (practitioners in their fields, employers, and staff members at other HEIs in Cyprus or abroad).*
- *Scholarly activity to strengthen the link between education and research is encouraged.*
- *The teaching staff publications are within the discipline.*
- *Teaching staff studies and publications are closely related to the programme's courses.*
- *The allocation of teaching hours compared to the time for research activity is appropriate.*

You may also consider the following questions:

- *How are the members of the teaching staff supported with regard to the development of their teaching skills? How is feedback given to members of the teaching staff regarding their teaching results and teaching skills?*
- *How is the teaching performance assessed? How does their teaching performance affect their remuneration, evaluation and/or selection?*
- *Is teaching connected with research?*
- *Does the HEI involve visiting teaching staff from other HEIs in Cyprus and abroad?*
- *What is the number, workload, qualifications and status of the teaching staff (rank, full/part timers)?*
- *Is student evaluation conducted on the teaching staff? If yes, have the results of student feedback been analysed and taken into account, and how (e.g., when planning in-service training for the teaching staff)?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

The teaching relies on a strong group of faculty members, including 4 full time and 4 part time or adjunct professors. The faculty are active in an interdisciplinary range of research fields within the CaSToRP center, including several aspects of computational physics, climate research, machine learning and computational biology. Postdoctoral fellows participate in research, with six postdoctoral instructors. Students take courses during the first two semesters of the PhD (20 ECTS total). A mandatory course (10 ECTS) has the form of a seminar series. The other 10 ECTS are drawn from a collection of 17 elective courses that cover aspects of HPC, computational physics, and data science. Each course is evaluated by the students, providing feedback. Some courses are shared with a new MSc program and with the University of Cyprus.

Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

The course topics map closely onto faculty research activity and expertise, and the synergy between teaching and research is strong. Student/faculty ratio is low, teaching loads are reasonably low, classes are small, and almost all the faculty teach to all the students. This allows both highly personalized teaching and ample time for faculty research.

The faculty have a strong research network within Cyprus, Europe and beyond. This includes strong involvement with European HPC such as PRACE and several joint positions with high profile partner HEIs.

The core funding for the current teaching and PhD salaries is sustainable, and external fundraising has been quite strong of late. Several strategic areas for development have been identified, contingent on increased core funding: artificial intelligence, computational biology, quantum computing.

Areas of improvement and recommendations

A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

Given the strong fundraising, we would hope core funding from the government could increase, allowing some of the development areas indicated above.

Incoming visiting professors and possibly an outgoing sabbatical program could help bring in new expertise and research groups in strategic areas. For example, computational biology currently relies on two adjunct professors. To mitigate risks associated with visiting or part time teachers and supervisors, areas such as this could be strengthened with permanent faculty.

The EEC recommends the PhD program to develop courses on soft skills, such as communications and entrepreneurship, in supporting graduating students.

Please select what is appropriate for each of the following sub-areas:

Sub-area		***Non-compliant/ Partially Compliant/Compliant***
3.1	Teaching staff recruitment and development	Compliant
3.2	Teaching staff number and status	Compliant
3.3	Synergies of teaching and research	Compliant

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

Sub-areas

4.1 Student admission, processes and criteria
4.2 Student progression
4.3 Student recognition
4.4 Student certification

4.1 Student admission

Standards

- *Pre-defined and published regulations regarding student admission are in place.*
- *Access policies, admission processes and criteria are implemented consistently and in a transparent manner.*

4.2 Student progression

Standards

- *Pre-defined and published regulations regarding student progression are in place.*
- *Processes and tools to collect, monitor and act on information on student progression, are in place.*

4.3 Student recognition

Standards

- *Pre-defined and published regulations regarding student recognition are in place.*
- *Fair recognition of higher education qualifications, periods of study and prior learning, including the recognition of non-formal and informal learning, are essential components for ensuring the students' progress in their studies, while promoting mobility.*
- *Appropriate recognition procedures are in place that rely on:*
  - *institutional practice for recognition being in line with the principles of the Lisbon Recognition Convention*
  - *cooperation with other institutions, quality assurance agencies and the national ENIC/NARIC centre with a view to ensuring coherent recognition across the country*

4.4 Student certification

Standards

- *Pre-defined and published regulations regarding student certification are in place.*
- *Students receive certification explaining the qualification gained, including achieved learning outcomes and the context, level, content and status of the studies that were pursued and successfully completed.*

You may also consider the following questions:

- *Are the admission requirements for the study programme appropriate? How is the students' prior preparation/education assessed (including the level of international students, for example)?*
- *How is the procedure of recognition for prior learning and work experience ensured, including recognition of study results acquired at foreign higher education institutions?*
- *Is the certification of the HEI accompanied by a diploma supplement, which is in line with European and international standards?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

The ethos of the doctoral programme is to provide high quality supervision and instruction as befitting their aspiration as a regional Centre of Excellence. The programme has access to excellent high-performance computing facilities, with emphasis on computational physics although there are cross-disciplinary topics covered as well. The entry criteria is competitive to ensure high quality students enter the programme and this is evidenced by the very low attrition rate and the destinations post-PhD are institutions of international repute. The doctoral programme structure is in transition in terms of the balance between courses and research: from 50/130 ECTS (courses/research) to 20/160 ECTS over a 3 year period.

Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

This is a highly selective programme with good student-teacher ratio for supervision (3:1), with access to excellent high-performance computing facilities, and a strong demand for their students once they graduate. It is commendable that most students spend a proportion of their time abroad in joint projects in partner European institutions or internships in companies and international laboratories. The Graduate School office provides centralised student support from admissions to graduation which is much appreciated by the students. The stages in the journey of the students from admission, on-campus orientation, thesis topic selection, thesis proposal submission and review, annual appraisal and final thesis defence are well catalogued and in line with good practices.

Areas of improvement and recommendations

A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

The balance of credits between courses and research was weighted too highly in favour of the former (50:130::Courses:Research) which has now being reduced to a more manageable (20:160) division for students to concentrate on research and submit their thesis within the 3-year time frame. The EEC commends this change and expects that it will shorten the time to graduation.

We would like to see this reduced more in the future by integrating the doctoral programme more closely with the Masters programme in Computational and Data Sciences, i.e. create a pipeline from Masters to the Doctoral programme, so that students gain course credits during the Masters programme (with an exit point, if required), and concentrate on their research during the 3 years of doctoral study. At present a large number of students take more than 3 years to submit their dissertation.

We would recommend dedicated on-campus facilities for counselling of students with mental health problems which is an issue of increasing concern amongst the student population worldwide.

The CyI should consider investing resources in collaboration with the government to scale up the current cohort size of 24 doctoral students without diluting the quality of supervision. This would mean investing in tenure-track faculty staff, and formal collaborative links with international research groups to encourage visiting Faculty positions.

Please select what is appropriate for each of the following sub-areas:

Sub-area		***Non-compliant/ Partially Compliant/Compliant***
4.1	Student admission, processes and criteria	Compliant
4.2	Student progression	Compliant
4.3	Student recognition	Compliant
4.4	Student certification	Compliant

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

Sub-areas

5.1 Teaching and Learning resources
5.2 Physical resources
5.3 Human support resources
5.4 Student support

5.1 Teaching and Learning resources

Standards

- *Adequate and readily accessible teaching and learning resources (teaching and learning environments, materials, aids and equipment) are provided to students and support the achievement of objectives in the study programme.*
- *Adequacy of resources is ensured for changing circumstances (change in student numbers, etc.).*
- *All resources are fit for purpose.*
- *Student-centred learning and flexible modes of learning and teaching, are taken into account when allocating, planning and providing the learning resources.*

5.2 Physical resources

Standards

- *Physical resources, i.e. premises, libraries, study facilities, IT infrastructure, are adequate to support the study programme.*
- *Adequacy of resources is ensured for changing circumstances (change in student numbers, etc.).*
- *All resources are fit for purpose and students are informed about the services available to them.*

5.3 Human support resources

Standards

- *Human support resources, i.e. tutors/mentors, counsellors, other advisers, qualified administrative staff, are adequate to support the study programme.*
- *Adequacy of resources is ensured for changing circumstances (change in student numbers, etc.).*
- *All resources are fit for purpose and students are informed about the services available to them.*

5.4 Student support

Standards

- *Student support is provided covering the needs of a diverse student population, such as mature, part-time, employed and international students and students with special needs.*
- *Students are informed about the services available to them.*
- *Student-centred learning and flexible modes of learning and teaching, are taken into account when allocating, planning and providing student support.*
- *Students' mobility within and across higher education systems is encouraged and supported.*

You may also consider the following questions:

- *Evaluate the supply of teaching materials and equipment (including teaching labs, expendable materials, etc.), the condition of classrooms, adequacy of financial resources to conduct the study programme and achieve its objectives. What needs to be supplemented/ improved?*
- *What is the feedback from the teaching staff on the availability of teaching materials, classrooms, etc.?*
- *Are the resources in accordance with actual (changing) needs and contemporary requirements? How is the effectiveness of using resources ensured?*
- *What are the resource-related trends and future risks (risks arising from changing numbers of students, obsolescence of teaching equipment, etc.)? How are these trends taken into account and how are the risks mitigated?*
- *Evaluate student feedback on support services. Based on student feedback, which support services (including information flow, counselling) need further development?*
- *How is student learning within the standard period of study supported (student counselling, flexibility of the study programme, etc.)?*
- *How students' special needs are considered (different capabilities, different levels of academic preparation, special needs due to physical disabilities, etc.)?*
- *How is student mobility being supported?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

The resources available to students are able to support the study programme. Having access to selected e-libraries of universities from all over the world ensures that the students will always have at their disposal the study material they need and the facilities along with the equipment are well suited for a study programme at this level. As the committee has been informed, the Institute classroom space and facilities are able to support significant growth.

Student mobility is encouraged by the Institute, mainly through joint degrees and collaborative projects with international universities.

The evaluation took place over an online meeting and the tour of the Institute was based on three videos and a collection of photographs. The committee was not able to physically inspect the buildings and teaching and research facilities.

Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

The institute displays the ability to facilitate the computational needs of its PhD students, faculty and researchers to an impressive capacity thanks to its local infrastructure, as well as the access it has acquired to many powerful data centres across Europe.

Students and alumni also pointed out that networking with high-calibre professionals in their field during conference events they attended was very beneficial to them for advancing research and post-doctoral appointments.

Areas of improvement and recommendations

A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

The graduate school is located at the outskirts of Nicosia, at a significant distance from the city centre and with limited public transportation options. Future expansion planning could consider on-campus housing for students.

Please select what is appropriate for each of the following sub-areas:

Sub-area		***Non-compliant/ Partially Compliant/Compliant***
5.1	Teaching and Learning resources	Compliant
5.2	Physical resources	Compliant
5.3	Human support resources	Compliant
5.4	Student support	Compliant

6. Additional for doctoral programmes *(ALL ESG)*

Sub-areas

6.1 Selection criteria and requirements
6.2 Proposal and dissertation
6.3 Supervision and committees

6.1 Selection criteria and requirements

Standards

- *Specific criteria that the potential students need to meet for admission in the programme, as well as how the selection procedures are made, are defined.*
- *The following requirements of the doctoral degree programme are analysed and published:*
  - *the stages of completion*
  - *the minimum and maximum time of completing the programme*
  - *the examinations*
  - *the procedures for supporting and accepting the student's proposal*
  - *the criteria for obtaining the Ph.D. degree*

6.2 Proposal and dissertation

Standards

- *Specific and clear guidelines for the writing of the proposal and the dissertation are set regarding:*
  - *the chapters that are contained*
  - *the system used for the presentation of each chapter, sub-chapters and bibliography*
  - *the minimum word limit*
  - *the binding, the cover page and the prologue pages, including the pages supporting the authenticity, originality and importance of the dissertation, as well as the reference to the committee for the final evaluation*
- *There is a plagiarism check system. Information is provided on the detection of plagiarism and the consequences in case of such misconduct.*
- *The process of submitting the dissertation to the university library is set.*

6.3 Supervision and committees

Standards

- *The composition, the procedure and the criteria for the formation of the advisory committee (to whom the doctoral student submits the research proposal) are determined.*
- *The composition, the procedure and the criteria for the formation of the examining committee (to whom the doctoral student defends his/her dissertation), are determined.*
- *The duties of the supervisor-chairperson and the other members of the advisory committee towards the student are determined and include:*
  - *regular meetings*
  - *reports per semester and feedback from supervisors*

- *support for writing research papers*
- *participation in conferences*

- *The number of doctoral students that each chairperson supervises at the same time are determined.*

You may also consider the following questions:

- *How is the scientific quality of the PhD thesis ensured?*
- *Is there a link between the doctoral programmes of study and the society? What is the value of the obtained degree outside academia and in the labour market?*
- *Can you please provide us with some dissertation samples?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

The PhD program has well-defined criteria and processes for student selection and admission into the program as well as monitoring and supporting studies across the different stages of the PhD program. The admission procedure includes joint degrees. The expected time for completing the PhD degree is three years. The PhD program details including course information are available online. The students have guidelines regarding the preparation of the dissertation and the administration has processes for assisting students and providing support in various matters. The program has a plagiarism checking procedure and procedures for submitting the dissertation to the university library system. The PhD supervision and evaluation committees are defined and overall the processes are well-defined. The study and research progress of students is regularly monitoring and the supervisors have regular meetings with the PhD students. The students have an extensive evaluation at the end of the first year of studies.

Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

Overall the PhD program has a sound approach to the monitoring and mentoring of the research progress of each student.

Areas of improvement and recommendations

A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

The PhD program gives grades for the students based on their research work every semester. It was not fully clear to the EEC how the grades are given.

It was not clear how the students are distributed among the different areas of the PhD program.

The institute and its four research centers provide a rich basis for interdisciplinary PhD topics. The EEC recommends the program to explore new synergy possibilities for interdisciplinary PhD projects with the research institutes, for example pertaining to atmospheric sciences and environmental monitoring at the crossroads of three continents.

Please select what is appropriate for each of the following sub-areas:

Sub-area		
7.1	Selection criteria and requirements	Compliant
7.2	Proposal and dissertation	Compliant
7.3	Supervision and committees	Compliant

D. Signatures of the EEC

Name	*Signature*
D. K. Arvind	
Christodoulos Hadjichristodoulou	
Thomas Simonson	
Sasu Tarkoma	

Date: October 7, 2020