



**AGJENCIA E SIGURIMIT TË CILËSISË NË ARSIMIN E LARTË**

**EXTERNAL EVALUATION REPORT FOR STUDY PROGRAM PHD  
IN COMPUTER ENGINEERING OF EPOKA UNIVERSITY**

**External Evaluation Group:**


Prof. Dr. Krenare Pireva Nuci

Prof.Asoc. Dr Edlira Martini

**June 2023**

**STUDY PROGRAM DATA SUMMARY TABLE**  
**Doctorate in “Computer Engineering” offered by Epoka University**

Nr.		
1	Applicant HEI:	Epoka University
2	Basic unit:	Department of Computer Engineering
3	Name of the study program:	Doctorate in ‘Computer Engineering’
4	Licensing order / DCM:	Order of the Minister of Education and Science no.565, dated 19.11.2012
5	Reorganization order / DCM:	-
6	Diploma registration form:	Order no.403, dated 08.09. 2017
7	Order / VBA of the first accreditation:	Order of the Minister of Education and Sports no.555, dated 23.11.2016
8	Study cycle:	Third Cycle
9	Duration of the study program:	3 years
10	Total Credits (ECTS):	60 ECTS
11	Form of study:	Full time
12	Language (Albanian / other):	English language
13	The program is offered in cooperation with other institutions:	-
14	Joint degree (insert name):	-
15	Dual degree (insert name):	-
16	Level in the national qualifications framework:	Level 8
17	PAE / PWD academic staff for the study program:	2 PAE/0 PWD a.y. 2016-2017 6 PAE/2 PWD a.y. 2017-2018 6 PAE/1 PWD a.y. 2018-2019 3 PAE/0 PWD a.y. 2019-2020 0 PAE/1 PWD a.y. 2020-2021 2 PAE/1 PWD a.y. 2021-2022
18	Number of students:	1 student a.y. 2016-2017 2 students a.y. 2017-2018 2 students a.y. 2018-2019 * after 2019, there were no more students registered for this study program.
19	Comments / others:	* This study program has been reorganized and will no longer be offered in this form. Accreditation applies only to those registered students who are still in the process of finalizing their doctorate.




**EXTERNAL EVALUATION REPORT**  
**FOR STUDY PROGRAM: PHD IN COMPUTER ENGINEERING**

**INTRODUCTION**

This External Evaluation Report (EER) offers an assessment of the quality of the doctorate program in "Computer Engineering" offered by EPOKA University in Tirana within the department of Computer Science, which is part of the Faculty of Architecture and Engineering (FAE).

EPOKA Institution is a private University founded on the Council of Ministers of the Republic of Albania's Division No:281, dated 12.03.2008. The first institutional accreditation was awarded on June 7, 2011 by Ordinance No.260 of the Ministry of Education and Science of the Republic of Albania, and it is being followed by accreditation of several study programs including Computer Engineering at the Bachelor and Master levels (see Ordinance No.286, dated 06.07.2012).

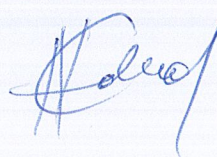
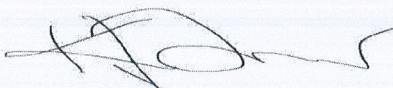
The PhD program in Computer Engineering was offered for the first time in the academic year 2012-2013 after receiving permission from the Ministry of Education and Science of the Republic of Albania to provide PhD programs under Ordinance No: 565, dated 19.11.2012.

This report offers the EE evidences that are documented after the visit to the institution, which happened after the review of the Self-Evaluation report submitted from the Internal Evaluation Group established from the Scientific Committee of the Department of Computer Engineering with Ref No.0303/21087, which later was approved by the Decanate on 12.11.2021 No.0300/21191 as it is requested by PAAHE directives and information acquired during the study visit.

This will be used to examine how FAE assures the quality of the Computer Engineering doctorate program, as well as to highlight the quality criteria on which the faculty must continue to work in order to strengthen their position in research and education.

**MEMBERS OF EXTERNAL EVALUATION GROUP (EEG)**

1. Prof. Dr Krenare Pireva Nuci,
2. Prof As Edlira Martini,



The draft report is sent to the institution through the AMS system and with official letter Prot. No 131, on 23.03.2023. The institution on 30.03.2023 through the AMS system and with letter Prot. No 99/4 on date 30.03.2023, has sent comments on the draft report.

The external evaluation group after carefully reading the comments of the institution, states as follows:

**Regarding comment no. 1:** The report on this point has reflected the comment received, and the EE emphasizes the need to integrate the Mission of the program inside the SER and reflect upon the Mission of Institution and Faculty.

**Regarding comment no. 2:** The report on this has not changed, EEG is aware of the SC of 5 professors, but we recommend that three of them to be fully engaged in research and publications at least in the last three years.

**Regarding comment no. 3:** The report on this point does not change. In the report, inline with the claims is emphasized the recruitment process and the contractual processes, however during the site visit the EEG selected two samples that reflect with EEG claims.

**Regarding comment no. 4:** The report on this point does not change. EEG is aware that the TURNITIN was used, but when EEG asked for evidence, they received a document listing one single scientific student's work. EEG requires TURNITIN in all cases as specified in Turnitin report of the PhD students, but also to collect evidence on the use of the system.

**Regarding comment no. 5:** The report in this point does not change. EEG understands the claims of the Institution that through this PhD Program they do not aim to generate revenues, but still, they need to have a very detailed plan for every program it offers.

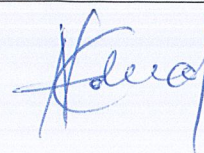
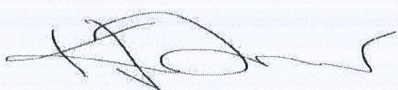
**Regarding comment no. 6:** The report does not change. EEG claims that the matching of the PhD students with the supervisors should be in the initial phases. PhD program is about research and after matching with the right potential supervisor, the student can perform self-assessment for the courses that need to be undertaken to facilitate the goal of the research proposal.

**Regarding comment no. 7:** The report on this point does not change. EEG claims that in the course difficulties associated with the appropriate teaching materials should be inline with the third cycle of studies.

**Regarding comment no. 8:** The report on this point does not change. EEG is aware of the one case that was shared from the Institution as a collaboration between the PhD and Master students, but they emphasized the need to have more such cases.

**Regarding comment no. 9:** The report in this point changes inline with the claims that the teaching hours of PhD students are decreased in the department.

**Regarding comment no. 10:** The report on this point does not change. The naming is specified in the page 1 and 2 of this documents, inline with the application process and SER.



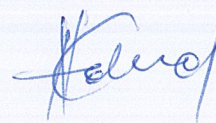
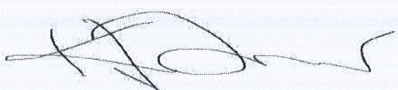
## FULFILLMENT OF THE RECOMMENDATIONS FROM THE FIRST ACCREDITATION PROCESS

- I. Recommendations of the Accreditaion Board, no. 201, date, 17.10.2016, regarding “Accreditation of Third Cycle Study Program in Computer Engineering, at the Epoka private university”, are as follows:
- a. The number of PhD students to be increased in research projects and the quality of scientific publications.
  - b. The university must allocate more financial resources for research, conferences, and scientific papers publication.
  - c. PhD students must be more involved in teaching activities of the University.

### **II. Fulfillment of recommendations from the Institution:**

- a. The number of PhD students still needs to be increased in research projects.
- b. The university allocates financial resources for research, conferences, and scientific papers publication.
- c. PhD students are involved in teaching activities of the University.

We can state that the University has made substantial efforts and accomplishments from the last Accreditation Board Decision.



## MANAGEMENT POLICIES AND ADMINISTRATION OF DOCTORAL STUDY PROGRAMS

### 1. Mission and objectives of doctoral study program

#### Description part

*Terms of reference: Based on the SER and visits to institutions, EEG should analyze and evaluate the: aims and objectives of the study program and scientific research, strategies in the short, medium and long terms, the number of students over the years, study programs of third cycle, HEI place (in the national and international contest).*

The SER of the doctoral study program should be echoing the Mission of the study program from the very first section, but it is argued that this is part of the Strategic Plan of the Department of Computer Engineering. Within the SER it rather describes the procedures how the Institution has been developed and accredited its program rather than specifying explicitly its mission. It further lacks the linking between the Mission of the institution and PhD program and how the latter one could have an impact in Albanian society and abroad.

With respect to objective of the doctoral study program, it is stated that it aims to meet the demands for specialized computer scientists and engineers in industry and academia by offering a flexible curriculum which emphasizes the importance of research competences and body of knowledge in several niches within computer science and engineering.

PhD students must successfully finish 8 courses (60 ECTS) in their first year of study and then focus on their thesis work for the next two years (120 ECTS). The program is available in two formats: full-time and part-time study. Full-time PhD studies last at least six semesters, or three academic years, although part-time PhD studies can run up to 12 semesters, or six academic years.

The PhD students started to be enrolled from the academic year 2016-2017 (1 PhD Student), and doubled for the academic year 2017-2018 (2 PhD Student) and 2018-2019 (2 PhD Student). During 2019 to 2022 no students were enrolled due to affection of the new reforms that Accreditation Agency in line with Ministry of Education experienced which resulted with the new law on Higher Education. From the discussion that we consumed from our visit; this situation resulted due to the suspension of the PhD programs during last two years.

Relevant documents, taken during visits to the institution

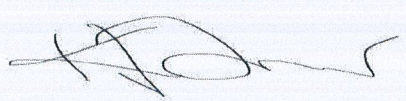
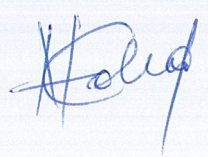
#### Evaluation according to the Standards

Standards/criterion	Evaluation according to standards
<b>Standard I.1 - General framework</b>	
<b>Criterion 1</b> The study program of third cycle (doctorate) is a new program or a reorganized program;	The study program CEN-PhD was accredited for the first time in 2016, under a decision no. 201, dated 17.10.2016. This decision follows the decision of the Ministry of Education no:553 dated 22.08.2012.

<p><b>Criterion 2</b> If it is reorganized, the extent to which it affected the previous program.</p>	<p>The new program that is under the accreditation process for this year is not classified as a reorganized program, therefore all the changes are reflected in low percentages as a result of technological developments within this period. According to the new legislation this program needs to be reorganized for the upcoming accreditation process and will no longer be offered in this form. Accreditation is only valid for a registered student who is still in the process of finalizing the doctorate.</p>
<p><b>Criterion 3</b> The total number of students studying how doctor eight and number of those who attend this study program each year is in line with the policies of Higher Education Institutions (HEI) where the program is conducted as well as state policy for higher education and scientific research regarding recognition and validation of diploma and number of students studying for doctorate to one scientific mentor.</p>	<p>In total there are three PhD students enrolled in the academic year 2012-2013 and 2013-2014 for the study program which is in line with the legal framework in Albania, and the ratio between full time professor and students, respectively the ratio between mentor- students are respected as requested by the Higher Education legislation in Albania.</p>
<p><b>Criterion 4</b> Doctorate study program is supported by national or international research groups accredited for research in relevant field or fields of studies;</p>	<p>The support of the program is reflected through the agreements between the institution and national research institute NANOALB established by Albanian Academy of Sciences. Additional to that, the institution has involved the students and professors in research funded project which gave them the possibility to increase the network of collaboration with all international consortium partners as well. From the visit that we had, we reflected that at least one of the students was very active in these projects.</p>
<p><b>Criterion 5</b> Internal evaluation report of study program of the third cycle is reviewed by the Council of Professors.</p>	<p>The current program is reviewed by the Council of Professors and the evaluation details have been submitted after the visit.</p>

**Conclusions of EEG:**

The EPOKA University through this program aims to enclose the third cycle of education in Computer Engineering. The launch of the doctoral study program will increase the research competences of the University staff and students and it will have an impact on strengthening their positioning within the HEI in Albania. Based on the Law on Higher Education, the HEI have the basis to develop PhD study programs, such as this program. EPOKA University has experienced a continual growth, which is reflected also in the number of academic staff during the last six years (65% growth comparing 2016 with respect to 2022). The fact that the department of Computer Science is engaged in several research project in national and international level gives basis to conclude that the PhD students under their supervisors support had the chance to research, publish, present their findings and be part of several scientific projects whose results has national, regional and international impacts (see the list of publications for the current PhD student). Having submitted new project proposals for the current year gives the impression that the staff and students are eager to increase the research

capacities, and play an active role in the academia society.

**Recommendations:**

In addition to the criteria listed above, the mission of the study program is not stated neither in the self-evaluation report nor in the regulation of study program, it is only stated in the Strategic Plan. The PhD program objectives are listed.

Since including the mission in SER is a requirement of the report template, it is recommended that to include it in the internal regulations of the Department and not allocating only in the Strategic Plan. It is also important to explain how the institutional mission and the mission of the PhD study program are related.

**Judgement on the area:** Partially met

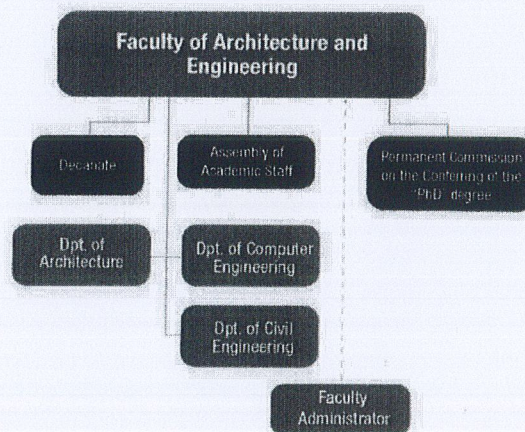
## 2. Academic Organisation chart of the Doctoral School

As shown in the organogram (see SER, pg:12), the PhD Program is managed by the Faculty of Architecture and Engineering which is composed of three departments: (i) Department of Architecture, (ii) Department of Civil Engineering, and (iii) Department of Computer Engineering.

The main responsibility of the program is under the Permanent Commission on Conferring of the PhD Degree (see Annex 7) which is composed in total of 5 members and a rapporteur (see Table 5 in SER, pg 15). The actual composition is voted in October 2021. This body and its functions are designed as specified under the Law No 80/2015 on Higher Education and Scientific Research in Higher Education Institutions in Albania on the Decision of the Council of Ministers No.112, dated Feb 23, 2018 “On the Determining of Criteria for Obtaining the PhD Scientific Degree and State Standards for Obtaining Associated Professor (See Annex 8, Annex 9).

**Measurable indicators:**

- Organizational structure (chart)



With respect to the course appointment in the PhD program, for the latest academic year, from faculty staff are involved in total: 1 FAS, 1 PAS and 5 AE, whereas from department staff are involved: 1 FAS, 1 PAS and 3 AE.

- Bodies selected/nominated at all levels

During the visit, we met the members of The Permanent Commission on Conferring of the PhD Degree (see Annex 7) and discussed about their responsibility. The Permanent Commission on



Conferring of the PhD Degree is composed of two full professors, three associated professors and a rapporteur. The actual composition is voted in October 2021 and is now in effect.

Hierarchical units, decision- making

The hierarchy is composed of Faculty of Architecture and Engineering, which then includes three different departments: (i) Department of Architecture, (ii) Department of Computer Engineering, (iii) Department of Civil Engineering. The faculty also includes the Decanate, Faculty Administrator, the Assembly of Academic Staff and Permanent Commission on the Conferring of the PhD Degree. The responsibility for each of the units is defined by the respective regulations submitted as Annexes in the application.

Academic Structures of doctoral school

The academic coordinator of the PhD program in Computer Engineering is defined. The teaching staff for the program is composed of seven full time professors, two part time professors and two department coordinators. The current number of PhD student's ratio with respect to academic staff is 9/3 (see SER, Table 3 and 5, pg.13-14).

Database of HEI, updating and the responsibility for retaining and sharing information;

As stated in SER pag. 37, EPOKA University Library is available to staff and PhD students with 25000 printed copies and 2000 digital academic journals. Further the institution is subscribed to the JSTOR database through which the students and staff has access to 75 research domains with approx. 2 mil articles.

During the study visit the library has been visited and while requesting two items to allocate from Librarian, unfortunately one of them was not allocated in library and the second one was outdated, the investigation was not proceeded further.

Number of academic staff (verify the data, according to Table 1 and 2)

Table 1

<i>Doctoral School University/ Faculty/ Department</i>	Number of FAS		Number of PAS		Number of AE		Total number	
	Total number	Number of Degree's	Total number	Number of Degree's	Total number	Number of Degree's	Total number	Number of Degree's
	1	1	1	1	5	0	7	2

Council of Professors and the coordinator of the study program

Table 2 Program Coordinator and Council of Professors

Name /Surname	Degree	Position (Member / Chairman)
Dr. Alban Uka	PhD	Coordinator of study program

Name /Surname	Degree	Position (Member / Chairman)
Ahmet Oztas	Prof Dr.	Member

Sokol Dervishi	Prof Dr.	Chair
Hyseyin Bilgin	Assoc. Prof. Dr	Member
Carki Ciulla	Assoc. Prof. Dr	Member
Mirjam Ndini	Assoc. Prof. Dr.	Member
Fadile Gezen	M.Sc	Rapporteur

Relevant documents, taken during visits to the institution

- Regulation on Selection Procedures for appointment and reappointment of academic staff;
- During the visit also we asked to find two specific scientific papers and one specific book;
- Procedures and regulation under which the scientific and university commission work (also a clear definition of their role and responsibilities with respect to all the processes within the PhD studies);
- Meeting minutes for the last meetings in scientific commission and also in the university commission created for PhD studies;
- List of workshops organised for the academic staff;
- List of Exchange visits occurred in the last three years for the academic staff and PhD students;
- List of cases discussed at the Ethic Council for this PhD program for the last 5 years.

**Evaluation according to the Standards**

Standards/criterion	Evaluation according to standards
<b>Standard III.1 - Management and financing tools for doctorate study program</b>	
<p><b>Criterion 1</b> Unit that organizes doctorate study program has accredited two first cycles of studies in the field, in which it offers the doctorate study program;</p> <p><b>Criterion 2</b> Unit that organizes the doctorate study program has adequate administrative premises to realize its good functioning;</p> <p><b>Criterion 3</b> In order to carry out the doctorate study program, the unit that proposes its opening engages the necessary personnel, ranging from teaching secretary that follows the third cycle progress;</p>	<p>The department of Computer Engineering which is part of Faculty of Architecture and Engineering offers an accredited Bachelor Program valid until 2027 and Master Program valid until 2026.</p> <p>Based on the documents supplied and a physical visit of the facilities, is evident that the doctorate program provides enough opportunities for research activities.</p> <p>Additional to that, the Faculty of Architecture and Engineering has adequate administrative premises to realize the program, but it seems to us that the structure for running the decision making process is very complicated for such program. The complexity increases further when you see the composition of the professors in Faculty level, since most of them (see the background of professors within The Permanent Commission on Conferring of the PhD Degree) do not have Computer Engineering and/or Computer Science background (only 1 out of 5).</p> <p>The support for the third cycle students is given from the faculty and department level</p>




**Criterion 4** Responsible bodies for its supervision are established in doctorate study program regulation;

**Criterion 5** Board of Professors, which is responsible for organizing and supervising doctorate study program has a sufficient number of members that cover all its issues. Minimum number of professors in PC should be 7 (seven). Board of Professors may be also raised to the level of higher education institution, when its main units do not meet the required number of full-time professors;

**Criterion 6** Board of Professors of the main unit that organizes and manages the doctorate study program meets periodically throughout the year;

administration office. The students do have the possibility to approach Faculty and Department Coordinators, dean of student office, international offices, research and project office, to name a few.

The responsible body for the supervision is established under the name: "The Permanent Commission on Conferring of the PhD Degree" which is voted lately in October and performs actively all its functions through its regular meetings as it is required by the Law for Higher Education and scientific research in the Institution of Higher Education in the Republic of Albania (see Article 25, paragraph 4 and Article 26, paragraph 3).

The Board of professors is composed of 7 professors (see the academic titles in SER), who are responsible for supervising the PhD candidates.

The Board of Professors meets biannually. This gathering is used to evaluate PhD candidates' progress reports.

**Conclusions of EEG:**

By successfully establishing the council of professors, the permanent commission on conferring the PhD degree, and accrediting bachelor's and master's degree programs, it can be stated that the formal requirements for doctoral programs in terms of academic organization and the doctoral school section have been met. Even though the Permanent Commission on Conferring of the PhD Degree is made up of a group of researchers with expertise in many different fields, the fact that only one out of five professors are in the same field as the PhD program being offered indicates that this mechanism performs its responsibilities purely technically. The board of Professors at the Department level do have the appropriate background with the Computer Engineering.

**Recommendations:**

Increase the number of academics in the Permanent Commission on Conferring of the PhD Degree who have backgrounds in computer science and computer engineering. The PhD student's responsibility to defend their thesis should be in front of their scientific committee that are expert in the narrow down area of the student's research. The commission of three professors who are expert about scientific work and have published in the last three years: one internal, one international, and the student's supervisor without the right to assess. EE is aware of the SC of 5 professors, but we recommend that three of them to be fully engaged in research and publications at least in the last three years.

More specifically, we recommend that the "Faculty of Architecture and Engineering" be renamed to the "Faculty of Engineering," which would have the three departments represented within it in a more natural and balanced way than it does now: (i) the Department of Architecture, (ii) the Department of Computer Engineering, and (iii) the Department of Civil Engineering.

**Judgment on the area:** Substantially met.

### 3. Quality of Academic and administrative (support) staff

The Computer Engineering department is composed of 19 Full time academic staff, and 12 Part time staff. Among 13 full time academic staff 9 of them hold PhD Degree and the remaining 10 Master Degree. Among the 9 PhDs, only one has the tile “Prof” and additional 1 “Assoc Prof” (See Table 32, SER, pg:29). The ratio of FAS/PAS for the 2021-2022 academic year is 1/0 for Professor and 1/1 for Associated Professors. The Academic and administrative staff involved in the PhD Program in Computer Engineering for the year 2021-2022 is composed of 2 academic staff and 3 administrative staff (year 2021-2022). Additional to that a Program coordinator is assigned.

The recruitment process for the academic staff is explained in detail in SER pg 12-13, which emphasis the step-by-step procedure from the initial phase were the personnel needs are outlined by Department up to the final decision of recruiting them. Human Resources Office is responsible to prepare the contract and also finalize the final formalities. Human Resources Office provide two types of contracts full time and part time (see Annex 12). The same documents were requested also during the physical visit in the institutions and for both type of cases we saw the templates. The full-time contract is considered the contract that is issued for one-year, whereas the duration for part-time contracts is one semester.

The supervisor’s workload of contact hour with PhD students is one hour per week, where during this time the progress of the student is discussed. There was no such document that could have been provided as meeting minutes to reflect the structure of the discussion among the supervisor and PhD student.

Institutions regularly evaluate their administrative and academic staff, and they communicate these results to the institution's various management levels and respective evaluated staff.

The planning for the forthcoming semester includes all of the cumulative findings, allowing for the addition of new initiatives to fill in any gaps found and improve staff performance in relation to the objectives of the PhD program and student satisfaction.

#### **Measurable indicators:**

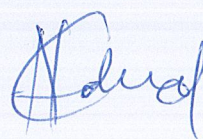
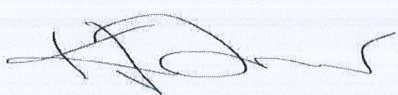
- EEG should analyze and evaluate some datas such as:

The numbers do reflect the table for the academic year 2021-2022 (see Table 32):

- Number of professors = 1
- Number of associated professors = 1
- Number of doctoral degree holders (or PhD) = 9
- Number of assistants = 10
- Number of administrative = 3

- Verify the data, according to Table 3

Table 3



Institution / Basic Unit / Doctoral School						
1	Full-time Academic Staff (Name/Surname)	Position in the Department	Degree	Part-time Academic Staff		Institution where he/her works full time
				(Name/Surname)	Degree	
1	Betim Cico	Professor	Prof	1	Albana Halili	Assoc Prof Dr University "Aleksander Moisiu"
2	Carlo Ciulla	Professor	Assoc Prof. Dr	2		

- Qualification data and reports between them (verify the data, according to Table 4)  
Department of Computer Engineering 2021-2022

Academic and administrative staff	FAS	PAS		FAS/PAS rate
		Albanian	Foreign (invited)	
Professors	1	1	0	1/1
Associate Professors	1	1	0	1/0
Doctor Degree or PHD degree (taken at European Universities)	0	1	0	0/1
Administrative employes	3	0	0	3/0

- Data by age (verify the data, according to Table 5)

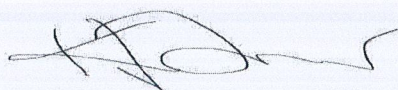
Academic and administrative staff	Data by age (years old) 2021-2022 Academic Year							
	(36-45)		(46-55)		(56-65)		(66-68)	
	FAS	PAS	FAS	PAS	FAS	PAS	FAS	PAS
Professors	0	0	0	0	0	0	1	0
Associate Professors	0	1	1	0	0	0	0	0
Doctor Degree or PHD degree (taken at European Universities)	0	0	0	0	0	0	0	0
Administrative employes	0	0	0	0	0	0	0	0

- Relevant documents, taken during visits to the institution
- Contracts for full time professors
  - Contracts for part time professors
  - Annual plan for academic staff development and the annual report
  - Screenshot of several courses on the e-services platform (where information regarding the courses are shown, syllabuses, assessment methods, learning outcomes etc)
  - Templates/examples for academic staff evaluation from students, from dean and peer-to-peer evaluation (during the meeting the procedures explained from the participants was very confusing)
  - Example of summary reports for quality assurance purposes (all types of reports that EPOKA is producing for Computer Engineering Faculty)

### Evaluation according to the Standards




Standards/criterion	Evaluation according to standards
<b>Standard I.1 - General framework</b>	
<p><b>Criterion 6</b> The number and level of researchers engaged in this program constitutes a guarantee for program implementation (60% of them should be internal academic staff, engaged in research and holders of academic titles "Professor", "Associate Professor" or scientific degree "Doctor" or "PhD" awarded in universities well known in the world for quality and rich research and publishing activities in the relevant field;</p>	<p>The SER report documents that in total 9 Full Time staff are engaged in this program and 2 Part Time, all of them are involved in research. The staff is composed of national and international professors, which bring their expertise in EPOKA institution. From the meeting that we had during our visit some of the professors joined our meeting online, which didn't gave us the possibility to validate who is working physically in EPOKA and who is working online. During the discussion that we had with the Professors this situation was linked with the pandemic COVID-19, and they claimed that all of the professors are working physically in EPOKA.</p>
<b>Standard II.1 - Capacities for scientific research</b>	
<p><b>Criterion 2</b> The institution that offers programs of study of third cycle (doctorate), has sufficient academic staff with scientific titles and degrees;</p> <p><b>Criterion 3</b> The institution has sufficient administrative and research structures for activities provided in the study program to conduct research. The institution may organize joint programs of doctorate study with one or more other institutions, based on agreements between them;</p>	<p>Analyzing the SER report, specifically the Tables 19-32 we see that the staff has moved in terms of their engagement with the institution. For the current years that we are evaluating the program the institution does have sufficient academic staff with scientific competences and appropriate academic titles.</p> <p>In order to support the study program, the institution do have sufficient administrative staff in Faculty and Department level. As per research structure the office Research and Project provides initiatives for small grants, but also supports the department with Research Projects in national and international level (see project with H2020 and Erasmus Schema). These can facilitates the process of conducting research and disseminating their final results.</p> <p>This application of the study program is not considered under the category of joint programs.</p>
<b>Conclusions of EEG:</b>	
<p>The Department of Computer Engineering in the Faculty of Architecture and Engineering, in particular, has a sufficient number of academic staff members with scientific degrees, titles, and research publications. In this regard, the faculty has also complied with the standards set forth in the Higher Education Law and The Accreditation Agency standards for the ratio of full-time staff to PhD students. Additionally, the faculty and departmental level's extra administrative support is deemed sufficient. However, the turnover of the academic staff during the past 5 years (see the movement reflected in the tables within SER but also a number of professors still have not updated their affiliated institution profiles in scientific sites) shows the instability on the staff. In addition, EEG considers that the length of the academic staff contracts (full and part time) directly</p>	




affects the quality of the academic staff in terms of compatibility with the institution system, the quality of teaching and research for the PhD students, as well as the sustainability of the PhD program;

**Recommendations:**

Event that the criteria 2 is compliant, the more stable full-time employees should be established by lowering personnel turnover across HEIs, which is quite noticeable in the self-evaluation report. The institution should establish mechanisms to support their staff and motivate them to contribute to the institution and the program continually (One example that HEI should take into consideration: length of part-time contracts should not be less than one academic year and the tenure of full-time contracts should not be less than one program cycle, 3–4 years). For more details see the recruitment process for the academic staff as explained in detail in SER pg 12-13. In the later stages, we received the comments that the contract length for full time position with PhD Degree are indefinite, but on the site, we selected two samples that doesn't match with the claims.

**Judgment on the area:** Substantially met

#### **4. Facilities, infrastructure, logistics and other services of doctoral program**

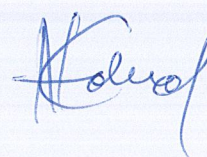
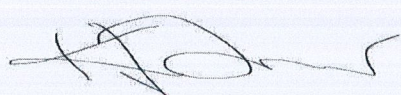
EPOKA has a campus on the outskirts of Tirana, where we had the opportunity to visit two of their buildings. The first served for the administrative part at the level of the Rectorate and the Faculty, which on the first floor had several offices, classrooms and for the socialization of students, while the second floor was allocated the library and a number of classrooms. Further in the second building there were the laboratories, the study classes, the Student Office and the HR Office.

All these parts have been visited by us, and it gives the impression that the institution has made investments in the infrastructural part which will be offered to students and staff to gain knowledge and to do scientific work. The access to the laboratories had several procedures that helped the staff to ensure the functionality of the laboratories, but at the time of entering the laboratories there was sufficient hardware and software equipment to carry out the scientific projects which are mandatory for the part of research and scientific projects. All the infrastructural assets that support the scientific work were under the supervision of the program coordinator, who during the visit we had explained with great commitment. Unfortunately, during the time we had the visit, we did not have the chance to see any student researching or studying, but this could coincide with the period of the visit, which was at the end of the semester.

In general, the infrastructure and services documented in Section 4 of the SER report, including the list of scientific equipment, computers, laboratories and all classrooms remain as documented. Therefore, the staff and students who want to do science and have an impact on society, can do this at a basic level through the infrastructure presented by the institution, but for larger research projects that needs high performance software and hardwares, of course, it needs help from the partner institutions for which the institution has proved that they possessed them through the scientific projects that were being developed and financed mainly in the EU schemes. A list of partners agreement is presented during our visit.

Regarding the part of the digital libraries, the institution had access to ISTOR through the Library application, and with this part the institution affirmed that all students have access to adequate scientific libraries, in our case ACM, IEEE, Elsevier to mention some of them.

And finally, the part of ensuring the integrity of the data, and the originality of the research, the institution possessed the Turnitin software, but a sample that could inspect the process carried out by them was not presented during our meeting which we requested then to be sent after our meeting.



**Measurable indicators:**

- EEG should analyze and evaluate: the Facilities, infrastructure and logistics for doctoral school (verify the data, according to Table 6)

<b>Facilities for doctoral school or study program</b>	<b>Number or Square m<sup>2</sup></b>
Auditoriums and Classrooms for Seminars	1653.8
Laboratories and professional practice/ research centers	465.2
Computer/internet laboratories	370.7
Library buildings	400
Corridors / halls	2523.4
University sports facilities	2100
Buildings for tertiary services	56
Rooms for student government activities	30
Recreational facilities such as cafeterias / fast-food/etc	537
Toilets for students (54 units)	327.2
Toilets for staff (35 units)	212.1
Logistics Room (for photocopying machines, etc.)	33.6
Offices for Dean/ Chancellery/etc	87.4 + 31.5
Administrative offices	25.4
Department offices	285.1
Quality assurance Unit Office	13
Meeting halls	164.4
Offices for the Department Coordinators	66.4
Premises for Service Personnel	328.5
Offices for the financial office	37
Premises for promotion activities	128
Student information office	71
<b>Rate m<sup>2</sup>/per staff</b>	22.76
<b>Rate m<sup>2</sup>/per student</b>	6.455 m <sup>2</sup>

- EEG should analyze and evaluate other logistics database, as:

- number of PC per doctoral students = 128;
- number of PC furnished labs per students = 4;
- number of PC for academic staff = 87
- number of PC for administration = 53
- number of printers = 15
- number of photocopying machines = 15
- number of head projectors = 1
- number of video-projectors = 30
- number of scanners = 10

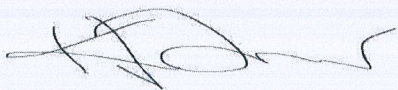
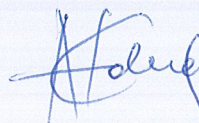
- Relevant documents, taken during visits to the institution



- List of softwares used in the lab
- The Lab hardware specifications
- The Turnitin students' submission statistics
- List of services offered for the PhD students

**Evaluation according to the Standards**

Standards/criterion	Evaluation according to standards
<b>Standard II.2 - Didactic basis and technical support</b>	
<p><b>Criterion 1</b> Students admitted in the third cycle study program have necessary conditions to realize the study program with academic and research character;</p> <p><b>Criterion 2</b> Doctorate studies program provides harmonization of student's goals in scientific-research field, approved research projects and, at its conclusion, even the possibility of academic career and employment;</p> <p><b>Criterion 3</b> A scientific library with publications in hardcopy and electronic form and complete IT infrastructure available to of third cycle study program;</p> <p><b>Criterion 4</b> Students have sufficient technical support for scientific research development;</p> <p><b>Criterion 5</b> Researches that include laboratory researches are supported by sufficient scientific laboratory basis.</p>	<p>The eligible criteria for being enrolled in PhD studies are specified with internal regulation (see SER pg: 89). The potential candidates must have previously achieved a Master of Science/Master of Arts, integrated second cycle studies, a CGPA of at least 2.70 out of 4.00 or 8 out of 10 from the Master of Science/Master of Arts, integrated second cycle studies, and must demonstrate that they have attained the acceptable level of English language competence by obtaining the corresponding CI level score from globally recognized English Language Exams. Within the same report it is claimed that once the students are enrolled in PhD studies, they are automatically employed either directly to HEI or research center.</p> <p>During the visit, the PhD students were directly asked about this specific point and what responsibilities they inherited with the contract; they claimed that the majority of their responsibilities are related to research and lab classes, with limited number of contact hours with Bachelor students in the role of teaching assistant.</p> <p>The PhD students are exposed to scientific initiatives, although according to the materials shown during the visit, just one PhD student was more active in this respect. However, the labs including the computers and software were accessible to all staff and PhD students.</p> <p>Regarding the part of the digital libraries, the institution had access to Eikon platform, ISTAR through the Library application, and with this part the institution affirmed that all students have access to adequate scientific libraries, in our case ACM, IEEE, Elsevier to mention some of them. However, on our visit to the library, we requested two separate materials, indicating that the article had accessibility issues and the book was out of date. All the dissertation are published under the</p>

**Conclusions of IEG:**

All staff and students have access to the facilities and services, which include a list of scientific tools, computers, labs, and all classrooms. As a result, there is adequate infrastructure for the faculty, students, and scientific activity to be conducted. Regarding digital libraries, the school confirmed that all students had access to sufficient scientific libraries—in our case, ACM, IEEE, and Elsevier, to name a few—by having access to ISTOR through the Library application. If we encounter the antiplagiarism software as services for the doctoral program for ensuring the originality and integrity of the students research the institution failed to give a detailed list of all scientific works that has gone through the Turnitin System, the system that the participants claimed to have had in place during the discussion that we had in our visit. The EEG asked explicitly for the statistics on the list of work that was verified during the last three years, and the institution gave a document listing one single scientific student work. In addition to our request to have the meeting minutes of the ethic council, the institution only offered this line of explanation: “There is no case discussed in the Ethics Council for the last 5 years in the Doctorate in Computer Engineering program”. Same situation is experienced when discussing the intellectual property regulation in place.

We received comments from institution that the policy obliges all the student work prior to defending their thesis should go through TURNITIN. This is very well said from internal reviewers, but it doesn't match with the received statistics explained above.

**Recommendations:**

Despite this, just having the infrastructure, software, and technology available today for conducting research are insufficient. The whole range of doctoral services ought to be made available as part of the PhD program's pipeline, and their quality should be guaranteed. The university's turnitin system must be used for all scientific activities. The latest scientific work should be available to all staff and PhD students. Legislation for intellectual property is necessary. The ethics council's meeting minutes should be available and accessible.

**Judgment on the area:** Partially met

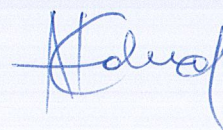
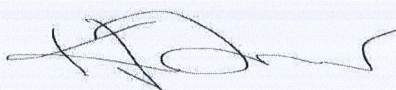
## 5. Financing and management of financial resources

Private Higher Education Institutions, such as EPOKA, rely on students' tuition fees and other project efforts (see assertion in SER pg.44). According to “Regulation of Scientific Research” (Annex 17) there do exist two University budget lines within the scientific research and development budget for individual use for participating in international scientific conferences, publications in specific scientific journals, but this in University level. Due to this fact that all the financial information is supplied at the institutional level, and because there is no unique budget line dedicated solely to the study program, it is difficult to extract the exact financial references alone with respect to the PhD program.

According to SER p. 47, the total amount spent on research activities during the academic year 2013-14 was 20.000 EUR. One year later during the academic year 2013-2014, the institution spent 7190 EUR for attending conferences, symposium. Additionally, EPOKA University provides financial incentives for academic staff members' publications with around 25.460 EUR in the 2013-2014 academic year. None of this data could be validated from our end, therefore all the discussion about academic year 2013-2014, without submitting any financial support from non-public nor public funds including for research activities, grants on research, consultations and services (see SER, Table 36), are handled with caution on our part.

It is important to emphasize that the external financial audits are performed on an annual basis for "Turgut Ozal Education sha Company," to which EPOKA University belongs, and the report is allocated only in the Finance Office within institution.

**Measurable indicators:**



- EEG should analyze and evaluate the financial resources, data over the three years (verify the data, according to Table 7)

Table 7 (see table 36 in SER)

RESOURCES FROM:	For three or four years (as the PhD study program continues)
<b>NON-PUBLIC FUNDS:</b>	
Central government	empty
Local government	empty
<b>NON-PUBLIC FUNDS:</b>	
Grants on research and contracts	empty
Consultations, services	empty
All kinds of tuition fees	12,462.50 (Years: 2019-2022)
Sponsorships	empty
Donations, assurance activities, foundations etc.	empty

- EEG should analyze and evaluate the Costs for students and their mobility costs;

Cost for students and their mobility is declared as follows: (i) 1816 EUR/student during 2011-2012, (ii) 2049 EUR/student 2012-2013, and (iii) 1446 EUR/student during 2013-2014

- Transparency and internal financial control, audit and outcomes;

The "Turgut Ozal Education sha Company," based in Tirana, manages every aspect of the financial and budget parts, as well as the budget deficit.

- Financial management capacity;

The "Turgut Ozal Education sha Company," based in Tirana, manages every aspect of the financial and budget parts, as well as the budget deficit.

- Relevant documents, taken during visits to the institution;

- Financial plan at the level of PhD program
- The project proposal of the same student participating in the meeting, the evaluation and all documentation that has been generated from the application to the awarding of the price (email Exchange/evaluation details/ the list of all applications in the same call etc)
- The information on subject transfer procedures (the case of one PhD student that won the grant of 2500 EUR)

**Evaluation according to the Standards**

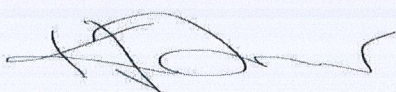
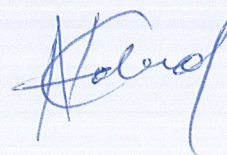
Standards/criterion	Evaluation according to standards
Standard I.1 - General framework	

<p><b>Criterion 5</b> Doctorate study program is supported by a sufficient budget for research;</p>	<p>Based on the information provided in SER, see “Regulation of Scientific Research” (Annex 17) there do exist two supporting budget lines for individual use for research purposes, the first one is for participating in international scientific conferences and the second one is for publications in specific scientific journals. Visiting the list of publications for the last six years (see link: <b>Publications</b>) we can conclude that most of the budget is shifted to Architecture domain, since only few publications are part of Computer Science and Computer Engineering domain.</p>
<p><b>Standard II.1 - Capacities for scientific research</b></p>	
<p><b>Criterion 8</b> External funding received for scientific research is indicative of high level research activity and they are administered for the progress of relevant study program.</p>	<p>There is funding received from the international projects as DIMTV, PANBioRA and K-Force which do strength the research capacities in EPOKA, but the exact amount dedicated only for EPOKA is not declared.</p> <p>The investigation conducted by our side with respect to calculate the exact amount of incoming with respect to the support that is provide by the international grands is very hard to be performed due to the inconsistency links and other sources that are provided in the report. Example, the URL: <a href="https://fae.epoka.edu.al/home-internal-projects-430-1883.html?lang-FN&amp;dpid-2&amp;t-internal-projects&amp;catid-430&amp;menuid-1883">https://fae.epoka.edu.al/home-internal-projects-430-1883.html?lang-FN&amp;dpid-2&amp;t-internal-projects&amp;catid-430&amp;menuid-1883</a> is not functionable, instead we visited <a href="https://fae.epoka.edu.al/home-internal-projects-430-1883">https://fae.epoka.edu.al/home-internal-projects-430-1883</a>. In the latter one there are no incoming declared.</p>
<p><b>Standard III.1 - Management and financing tools for doctorate study program</b></p>	
<p><b>Criterion 7</b> Financial budget of doctorate study program is sufficient to achieve research objectives for each doctorate student;</p> <p><b>Criterion 8</b> Financial budget distribution structure of doctorate study program matches with scientific research policy and needs.</p>	<p>Claiming that the financial budget is sufficient with the information given in SER is not possible from our end. However, an analysis of the online events, particularly those of international projects (DIMTV, PANBioRA, and K-Force), shows that the University is working toward achieving the research objectives. Furthermore, we can observe through an examination of PhD students' research publications that just one PhD student has been actively involved in this respect.</p>
<p><b>Standard III.3 - Financing of doctorate study program</b></p>	
<p><b>Criterion 1</b> Number of research works funded by the ministry;</p> <p><b>Criterion 2</b> Distribution of funds to host and supervision teams of scientific research works is done in a balanced way;</p>	<p>There are no Ministry-sponsored research projects. AKKSHI has funded one research project.</p> <p>In SER, there is no explanation or additional schema for giving balanced financial support from funded initiatives to supervisory teams. Individuals, however, are eligible for assistance for conference</p>

<p><b>Criterion 3</b> Number of research works funded under national research projects, benefited by scientific supervisors of doctorate students for this study program;</p> <p><b>Criterion 4</b> Number of research works funded under international research projects benefited by scientific supervisors of doctorate students for this study program;</p>	<p>attendance and journal publishing under the "Regulation of Scientific Research." During the visit, an evidence of support document for one PhD student project is delivered.</p> <p>One project is funded in the last year under the national schema, specifically under the support of Albanian Academy of Science</p> <p>Grants that have been absorbed as part of international schema are as follows: (1) Horizon 2020 (panbiora.eu) – role: partner, (2) Erasmus + Projects (DIMTV and V-Tech, role: partner), (4) affiliation of staff/researchers under the COST Action calls. In this point, the institution is active in applying for new grant calls.</p>
<p><b><u>Conclusions of EEG:</u></b></p> <p>The program, as well as the faculty and PhD students, get financial assistance from a variety of national and international initiatives in which the department of computer engineering participates. Furthermore, the "Regulation of Scientific Research" (Annex 17) lists two supplementary budget lines for individual usage for research, the first of which is for attendance at international scientific conferences and the second of which is for publications in certain scientific journals.</p> <p>However, aside from these funding and support, there is no evidence provided in SER for the sums suggested as support for conference activities and research publications for the academic year 2013–2014. (See SER, Table 36).</p> <p>Additionally, the table of incoming funds from non-public and public funds remains not declared (empty) in SER, so does also remain the fields for grants on research, consultations and services (see SER, Table 36). As a result, we were unable to confirm any of the data. The EEG requested information on the institution's PhD program's budget since only with the individual support in university level and the international support given from the project where the department is participating as partner, the program would not be considered sustainable. However, in response to our inquiry, the institution merely provided the following line of defense: "The finance office does not have a proper annual plan for the PhD Program in Computer Engineering."</p> <p><b><u>Recommendation:</u></b></p> <p>The institution must have a suitable yearly plan for every program it offers, especially the PhD program that is the focus of this study, despite the fact that it has been demonstrated that efforts exist that result in institutional support for the individual researchers.</p> <p>The institution is a part of the Turgut Ozal Education Sha Company; thus, it would take a lot of work, time and additional expertise on our side to analyze the institution's financial performance using the company's regular audits which is accessible only in the Financial Office. Therefore, we deem the Institution to establish a Scientific Institute and link additional funding for the PhD program to such Institute, which then could be easily accessible from the EEG members. By doing this, the program's funding as well as the support provided to its staff, PhD students, and research activities would be more transparent.</p> <p><b><u>Judgment on the area:</u></b> Not met</p>	

## 6. Internal Quality Assurance System (IQAS)

The EPOKA University has a Quality Policy (Annex 22) in place that contains policies pertaining to the core concepts and standards of the quality management system.

When we look at the quality assurance system from top to bottom, we notice that the Academic Senate is in charge of quality assurance at the institution, which gave the directive to form the Permanent Commission of Quality Assurance (PCQA).

PCQA is composed of sub-units such as:

- Internal Quality Assurance Office (IQAO),
- Curricula Development Commission (CDA),
- Exam Board and
- Academic Performance Assessment and Quality Improvement Board

Articles 35 and 37 of EPOKA University's Statute (Annex 19), Regulation on the Organization and Functioning of the PCQA (Annex 20), Directive on Academic and Administrative Performance Assessment and Quality Improvement, and the EPOKA University Quality Assurance Handbook define the structure and operation of the PCQA and its subunits (Annex 21).

All of these mechanisms are in place to ensure the quality of the institution and the study programs. The latter is within the department's scope of expertise. To effectively administer the PhD program and other associated operations, the institution gathers, analyzes, and uses relevant information in accordance with the ESG requirements (See ESG, section 1.7). In addition, the institution submitted a report on its ongoing program and staff evaluation. These statistics are utilized to enhance staff and program performance and assess the achievement of the objectives set out in the PhD program's self-evaluation. All the research results they claimed to be using for improving the program's forthcoming activities (in line with ESG, section 1.9).

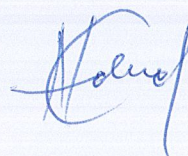
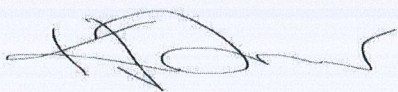
**Measurable indicators:**

In this PhD program - Computer Engineering, the evaluation processes have been accomplished by the students through the evaluation questionnaires of all courses before entering the exam. Also, the evaluation of the supervisor is done annually. There are a total of 5 evaluators in all the courses as is the total number of students registered for the program in question.

Furthermore, the IQAS conducts alumni survey in yearly basis, company satisfaction survey in every academic year, academic performance review process in teaching research and projects and annual report of the exam board. We were shown all these templates, but we were unable to determine how many people took part in these review procedures.

It is important to emphasize that this process is carried out by the quality assurance office and is supervised by the Permanent Commission of Quality Assurance for ensuring the quality standards of the institution and PhD program, while the results are analyzed by department, dean and the quality assurance office.

- Relevant documents, taken during visits to the institution
- Templates/examples for academic staff evaluation from students, from dean and peer-to-peer evaluation (during the meeting the procedures explained from the participants was not so clear)
- Example of summary reports for quality assurance purposes (all types of reports that EPOKA is producing for Computer Engineering Faculty)



## 7. Study program, its organization

The PhD program “Computer Engineering” in EPOKA University is a three-year program in which PhD students must finish eight courses (60 ECTS) in the first year before continuing with thesis work or final dissertation (120 ECTS) during the next two years, for a total of 180 ECTS. The PhD student will defend the final work with a presentation of PhD thesis at the end of the PhD program. PhD students who successfully complete the last process will be awarded with the title EN: "Doctorate in Computer Engineering" and ALB: “Doktoraturë në Inxhinieri Kompjuterike”

This is consistent with the Minister of Education, Sports, and Youth's Instruction No. 5, dated 22.01.2008, "On the determination of the academic criteria necessary for the opening, closure, and reorganization of doctoral study programs, and basic elements according to which higher education institutions should prepare the relevant regulation," as amended in point 10, paragraph "i"; and based on the directives No. 41, date 24.01.2018 and Decision No 879, Date 18.12.2019 and Annex I of Decision No 879.

The PhD program “Computer Engineering” in EPOKA University as part time can last up to 10 semesters (five academic years). PhD candidates' responsibilities must adhere to the program's timetable, which specifies when courses must be completed and when the final dissertation must be submitted. Exemptions from following the prescribed dates are only granted with advance approval when dealing with a medical emergency or other pertinent circumstances. During our visit to the institution, we spoke with all the stakeholders and validated all the procedures.

### Measurable indicators:


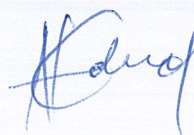
- Analyses and evaluation for: general elements of the study program:
  - Duration: 3 years – 5 years
  - Year for advancing theoretical studies is 1 year or 60 ECTS
  - Research and thesis written in the second and third year of the PhD Program.
  
- Analyses and evaluation for: academic curriculum plan of the first year, the division of subjects in credits, and according to the forms of teaching (verify the data, according to Table 8)

Year I	Semester	Credits (ECTS)	Hour in week	Academic Curriculum Plan												Final exam					
				Lecture (hour)			Seminar (hour)			Laboratory (hour)			Practice (hour)								
				Total credits	In class	Individual student work	Total credits	In class	Individual student work	Total credits	In class	Individual student work	Total credits	In class	Individual student work						
1	CEN 8XX- Elective Courses	1	7.5	3	7.5	48	139.5	-	-	-	-	-	-	-	-	-	-	-	48	139.5	YES

2	CEN 8XX- Elective Courses	I	7. 5	3	7. 5	4 8	13 9.5	-	-	-	-	-	-	-	-	-	48	13 9.5	Y ES
3	CEN 8XX- Elective Courses	I	7. 5	3	7. 5	4 8	139 .5	-	-	-	-	-	-	-	-	-	48	13 9.5	Y ES
4	CEN 8XX- Elective Courses	I	7. 5	3	7. 5	4 8	139 .5	-	-	-	-	-	-	-	-	-	48	13 9.5	Y ES
5	CEN 8XX- Elective Courses	2	7. 5	3	7. 5	4 8	139 .5	-	-	-	-	-	-	-	-	-	48	13 9.5	Y ES
6	CEN 8XX- Elective Courses	2	7. 5	3	7. 5	4 8	139 .5	-	-	-	-	-	-	-	-	-	48	13 9.5	Y ES
7	CEN 8XX- Elective Courses	2	7. 5	3	7. 5	4 8	13 9.5	-	-	-	-	-	-	-	-	-	48	13 9.5	Y ES
8	CEN 8XX- Elective Courses	2	7. 5	3	7. 5	4 8	13 9.5	-	-	-	-	-	-	-	-	-	48	13 9.5	Y ES
Total			6 0	2 4	6 0	3 8 4	111 6	-	-	-	-	-	-	-	-	-	384	111 6	

PhD students finish eight courses (60 ECTS) in the first year before continuing with thesis work or final dissertation (120 ECTS) during the second and third year of the PhD program, for a total of 180 ECTS. The list of elective courses for the first year of the program is given in SER pg:65-70.

- Analyses and evaluation for Academic Curriculum Plan, related to the relevant academic staff (verify the data, according to Table 9)







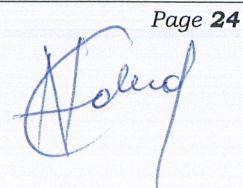
Subject/Module		Responsible professor/s (Name Surname)	Title/degree	Department	FAS or PAS
1.	Subject 1	CEN 809- Research Methods	Betim Cico	Prof. Dr.	FAS
2.	Subject 2	CEN 873- Artificial Neural Networks	Khalid Masood	Assoc. Prof. Dr.	FAS
3.	Subject 3	CEN 843- Digital Image Processing	Indrit Enesi	Assoc. Prof. Dr.	PAS
		CEN 871- Data Mining	Dimitrios Karras	Assoc. Prof. Dr.	FAS
4.	Subject 4	CEN 839- Introduction to Nano-Science and Nano- Technology	Albana Halili	Assoc. Prof. Dr.	FAS
5.	Subject 5	CEN 875- Computer Vision	Dimitrios Karras	Assoc. Prof. Dr.	FAS
6.	Subject 6	CEN 878- Machine Leaming	Ali Osman Topal	Dr	FAS
7.	Subject 7	CEN 887- Advanced Topics in Computer Science	Arban Uka	Dr	FAS
8.	CEN 800- Thesis	CEN 800- Thesis	Betim Cico	Prof. Dr.	FAS
9.	CEN 800- Thesis	CEN 800- Thesis	Dimitrios Karras	Assoc. Prof. Dr.	FAS

EEG should analyze and evaluate the: the syllabuses for each subject, with all the elements

According to the National Qualifications Framework, all course workloads are created using the European Credit Transfer and Accumulation System (ECTS) credit system (see AQF section 3.5) and addition to that, the workload is calculated also with the American System. The analysis of the syllabuses reveals a number of courses in the computer engineering and computer science fields; however, the design of the syllabuses is inconsistent in that it states that a number of courses will cover the practical component; however, when it comes to the declaration of lab contact hours and their impact on workload, either zero or nothing is stated. Additionally, prerequisites for advanced courses are not specified, and textbooks are either outdated or not defined at all.



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- EEG should analyze and evaluate: the procedures followed for the research project, proposed by candidates

This process is three folded:

(i) The supervisor is in charge of guiding the PhD student through the submission of the relevant PhD manuscript, which will lead to the PhD dissertation. Relevant in the sense that it meets all of the requirements established by the institution including the originality of the work.

(ii) Before certifying the manuscript as a dissertation, the supervisor evaluates the material presented in light of the requirements outlined in the relevant legislative acts and regulations.

(iii) The supervisor give the final approval, only after gathering all necessary facts and validating them that the manuscript satisfies the requirements and qualifies as proof of competence in independent research.

- EEG should analyze and evaluate the second year of PhD: (Research/Creation), as database for institutions in/outside the country, where students have completed their scientific research, such as:

- o university / research center and development of a University
- o Institute / non-academic research unit
- o Foundation / public entity / private entity
- o Hospital structure
- o Other

- Analyses and evaluation of third year of PhD: Research/creation/data processing /publication of articles /presentations to international conferences

- o Data for publications / references of students;
- o Data for Magazines, publishing entities where these articles are published

	<i>Jounials</i>
1	Uka, A., Halili, A. N., Polisi, X., Topal, A. O., Imeraj, G., & Vrana, N. E. (2021). Basis of image analysis for evaluating cell biomaterial interaction using brightfield microscopy. <i>Cells Tissues Organs</i> , 210(2), 77-104.
2	Ceyhan, M; Orhan, Z; Kan-as, D; Dane, S. Sentiment Analysis of Hospital Service Satisfaction, <i>J Res Med Dent Sci</i> , 2020, 8(5): 6-12. eISSN No.2347-2367: pISSN No.2347-2545. <a href="https://www.jnnds.in/articles/sentiment-analysis-of-hospital-service-satisfaction-55758.html">https://www.jnnds.in/articles/sentiment-analysis-of-hospital-service-satisfaction-55758.html</a>
3	Ceyhan, M; Orhan, Z; Karras, D. Automatic Classification of Film Reviews on Social Media through Opinion Mining. <i>Journal of Social Research and Behavioral Sciences (Sosyal Ara tinnalar ve Davrani Bilimleri Dergisi)</i> , SADAB, 2020, Volume 6, Issue 10, p. 130-154. <a href="http://www.sadab.org">www.sadab.org</a> ISSN:2149-178X. Accessed from <a href="http://www.sadab.org/FileUpload/bs701867/File/ceyhan_">http://www.sadab.org/FileUpload/bs701867/File/ceyhan_</a>

	movie_reviews.pdf
4	Ceyhan, M., Orhan, Z., Karras, D. (2020, August). An Approach for Movie Review Classification in Turkish. European Journal of Engineering and Fonnal Sciences, 4(2), 1-9. <a href="https://revistia.org/index.php/ejfe/article/view/5179">https://revistia.org/index.php/ejfe/article/view/5179</a> , doi: <a href="https://doi.org/10.26417/328uno67t">https://doi.org/10.26417/328uno67t</a>
5	Ceyhan, M., Orhan, Z., Karras, D. (2020). Sosyal Medyadaki Film Yorumlanm Fikir Madenligi ile Otomatik S1111flamas1. International Journal of Social Sciences - Uluslararası Sosyal Bilimler Dergisi, 4(20), 1-31. Retrieved 2020, from <a href="http://www.sobider.net/FileUpload/ep842424/File/film_makale_(I).pdf">http://www.sobider.net/FileUpload/ep842424/File/film_makale_(I).pdf</a> , Index Copernicus ICV=55.09
6	Koc;i, Artur, and Betim <ic;o. "ADLMCC-Asymmetric distributed lock management in cloud computing." International Journal on Infonnation Technologies and Security 10.3 (2018).
7	Koc;i, Artur, and Betim <ic;o. "Perfonnance Evaluation of the Asymmetric Distributed Lock Management in Cloud Computing." International Journal of Computer Applications 975 (2018): 8887.
8	Koc;i, Artur, and Betim <ic;o. "Resource Starvation in Asymmetric Distributed Lock Management in Cloud Computing". Albanian Journal of Natural and Technical Sciences (47):91-102, November 2018. Albania
9	Koc;i, Artur, and Betim <ic;o. "Distributed Lock Management in Cloud Computing: Performlance and Challenges." International Scientific Conference Computer Science2018. Vol. 1. 2018.
10	Orhan, Z; Giri , F S; Ceyhan, M.; Domnori, E.(2016). Customer satisfaction measurement tool by analysing Turkish product reviews. Tiirkiye Bili im Vakf1 Bilgisayar Bilimleri ve Miihendisligi Dergisi - TBV Journal of Computer Science and Engineering, 7 (I), Retrieved from <a href="http://dergipark.gov.tr/tbbmd/issue/22247/238816">http://dergipark.gov.tr/tbbmd/issue/22247/238816</a>
11	Topal, A. 0., Altun, 0., & Yildiz, Y. E. (2015). Micro bat algorithm for high dimensional optimization problems. International Journal of Computer Applications, 122(12), Impact Factor: 0.752.
12	Topal, A. 0., Altun, 0., & Yildiz, Y. E. (2015). An Effective Hybrid of Bat Algorithm and Hill Climbing for Global Optimization of High-dimensional Functions. Journal of Natural and Technical Sciences, vol. 20, no. 2.
13	Yildiz, Y. E., Altun, 0., & Topal, A. 0.(2015). Computational Chemotaxis in Micro Bacterial Foraging Optimization for High Dimensional Problems: A Comparative Study on Numerical Benchmark. International Journal of Computer Applications, 124(4).
14	Yildiz, Y. E., Altun,0., & Topal, A. 0. (2015). The effects of Crossover and Mutation Rates on Chemotaxis Differential Evolution Optimization Algorithm. Journal of Natural and Technical Sciences, vol. 20, no. I.

	<i>Conferences</i>
1	Uka, A., Tare, A., Polisi, X., & Panci, I. (2020, December). FASTER R-CNN for cell counting in low contrast microscopic images. In 2020 International Conference on Computing, Networking, Telecommunications & Engineering Sciences Applications (CoNTESA) (pp. 64-69). IEEE.
2	Uka, A., Polisi, X., Barthes, J., Halili, A. N., Skuka, F., & Vrana, N. E. (2020, August). Effect of Preprocessing on Performance of Neural Networks for Microscopy Image Classification. In 2020 International Conference on Computing, Electronics & Communications Engineering (iCCECE) (pp. 162-165). IEEE.
3	Ceyhan, M., Orhan, Z., & Karras, D. (2020, 30-31 June). Towards machine evaluation of human produced comments in Turkish. ICMS XXIII Proceedings on 23rd International Conference on Multidisciplinary Studies: as Resilience for Survival", II, pp. 236-241. Cambridge, UK. Retrieved from <a href="http://books.euser.org/files/proceedings/icms23_proceedings_v2_ISBN_9781649991584.pdf?v=S">http://books.euser.org/files/proceedings/icms23_proceedings_v2_ISBN_9781649991584.pdf?v=S</a>
4	Ceyhan, M., Orhan, Z., & Karras, D. (2018). Sentiment Polarity Classification of Turkish Product Reviews for Measuring and Summarizing User Satisfaction. In A. DL (Ed.), Proceedings of the Workshop on Opinion Mining, Summarization and Diversification, RevOpiD '18., July 2018, 1, pp. 1-10. Baltimore, Maryland, New York, NY, USA: Association for Computing Machinery ACM. doi:10.1145/3301020.3303752
5	Uka, A., Polisi, X., Halili, A., Dollinger, C., & Vrana, N. E. (2017, July). Analysis of cell behavior on micropatterned surfaces by image processing algorithms. In IEEE EUROCON 2017-17th International Conference on Smart Technologies (pp. 75-78). IEEE.
6	Ceyhan, M., Orhan, Z., & Domnori, E. (2017, March). Health service quality measurement from patient reviews in Turkish by opinion mining. IFMBE Proceedings of International Conference on Medical and Biological Engineering in Bosnia and Herzegovina. 62, pp. 649-653. Singapore: Springer. doi:10.1007/978-981-10-4166-2
7	Ceyhan, M., Orhan, Z., & Domnori, E. (March, 2017). E-Medical Test Recommendation System Based on the Analysis of Patients' Symptoms and Anamnesis. IFMBE Proceedings of International Conference on Medical and Biological Engineering in Bosnia and Herzegovina, CMBEBIH. 62, pp. 654-659. Singapore: Springer. doi:10.1007/978-981-10-4166-2
8	Topal, A. O., & Altun, O. (2014, September). Dynamic virtual bats algorithm (dvba) for global numerical optimization. In 2014 International Conference on Intelligent Networking and Collaborative Systems (pp. 320-327). IEEE.
9	Orhan, Z.; Mercan, M.; Ceyhan, M.; Giri, S.F. "Yazlı Metinlerdeki Ölçümler Özellikleri ile Psikolojik Rahatsızlıkların Tespiti", TBD 31. Ulusal Bilişim Kurultayı. Proceedings of TBD 31. Ulusal Bilişim Kurultayı, Türkiye Bilişim Demegi, Vol I, pp. 85-91, 09 November 2014, Ankara/ Turkey
J O	Orhan, Z.; Domnori, E.; Giri, S.F.; Ceyhan, M. "Customer Satisfaction Measurement Tool by Analyzing Turkish Product Reviews", Proceedings of International Conference Of Turkish Language Processing, TURKLANG, Istanbul Technical University, Vol. I, pp. 15-23, 07 November 2014, Istanbul/Turkey

II	Orhan, Z.; Mercan, M.; Ceyhan, M.; Giri S.F. "Text Analysis System for school-age children to detect Psychiatric Disorders", International Conference on e-Education, University Dzemal Bijedic of Mostar, Mostar, Bosnia and Herzegovina, Proceedings of ICeE, Vol. 1, pg. 127-132, 26 September 2014, Mostar, Bosnia and Herzegovina.
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*List of Trainings received*

1	Xhoena Polisi - 16th Int.I Summer School for Advanced Studies on Biometrics for Secure Authentication: Biometrics and Forensic Science in the Deep Learning Era: 27-31 May 2019, Alghero, Italy Link: <a href="http://biometrics.uniss.it/">http://biometrics.uniss.it/</a>
2	Xhoena Polisi - 15th International Summer School on Advanced Computer Architecture and Compilation for High- Performance and Embedded Systems: 14-20 July 2019, Fiuggi, Italy Link: <a href="http://acaces.higeac.net/2019/">http://acaces.higeac.net/2019/</a>

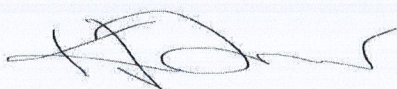
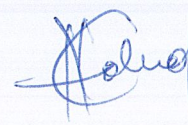
- EEG should analyze and evaluate the: doctoral thesis and its presentation

During the EEG visit, we learned from the discussion that one of the PhD students came to this final point.

- Relevant documentation, received in visits to the institution

**Evaluation according to the Standards**


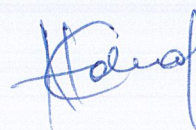
Standards/criterion	Evaluation according to standards/criteria
<b>Standard I.1 - Design and realization of theoretical course of third cycle studies (Doctorate)</b>	
<b>Criterion 1</b> Programs of third cycle studies include 60 credits for theoretical organized studies;	The first year of the PhD program covers 60 ECTS credits, demonstrating that the program complies with formal institutional and national standards.
<b>Criterion 2</b> Theoretical organized studies anticipate balanced ratio of classes for academic and scientific general and specific training;	PhD students are heading into the specialized courses for the specific subject that this program is. Which gives the impression that the general courses are not cover at all, which could help them to increase the competences in teaching, learning, scientific writing, presenting, the importance of research ethics- to name a few.
<b>Criterion 3</b> Detailed teaching program is approved pursuant to bylaws in force;	The program is approved in line with the bylaws that are in force in Albania and Institutional regulations.
<b>Criterion 4</b> Theoretical doctorate course is evaluated with a general theoretical examination in relevant field of study, organized by Dean's office and Professors' Council, with a commission consisting of 5 (five) professors in the relevant	PhD candidates should complete at least 80% of their theory coursework. Before they may


<p>research field or approximate to it. Candidates who achieve over 80% points are allowed to attend the doctorate research studies. Those who do not reach this result receive a certificate for conducted modules, together with accumulated credits and interrupt doctorate studies.</p>	<p>proceed with the research activities linked to their PhD thesis, students who do not meet the aforementioned prerequisite must repeat the course with all the necessary requirements. A CGPA of at least 3.00 and no FD or FF grades are deemed to have successfully completed the theoretical stage of the PhD study program, which is another need for acceptance as a second-year student.</p>
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**Standard II.1 - Drafting and approval of proposed research project**

<p><b>Criterion 1</b> Applicant who requires to be admitted to doctorate studies program has submitted the request for a particular research area and this has been discussed with him in the interview.</p> <p><b>Criterion 2</b> Scope of research is selected in such a way that doctorate studies program can support it;</p> <p><b>Criterion 3</b> Proposal is approved by Professors' Council if criteria prescribed and announced in regulation of doctorate studies are met.</p> <p>The following should be also confirmed:</p> <ol style="list-style-type: none"> <li>Duration of study program;</li> <li>Modalities of verification of research or creative activity of doctorate students;</li> <li>Manner of final presentation of scientific research result that doctorate student will achieve;</li> </ol> <p><b>Criterion 4</b> A member of academic staff with the title "Professor", "Associate Professor" or with scientific degree "Doctor" or ("PhD") awarded in the scientific field in which doctorate student follows the studies in universities known in the world, for quality and rich researching and publishing activities in the relevant field, is appointed by Board of Professors to supervise and support student's research work;</p> <p><b>Criterion 5</b> Doctorate student presents to Board of Professors the research development plan, designed by him and discussed with his supervisor;</p> <p><b>Criterion 6</b> Supervisor has advised repeatedly the students that he supervises for didactic duties and research activities as well as research methodology to ensure the progress of his studies in this program.</p>	<p>According to the requirements for application, the applicant for admission to the doctorate program besides all the necessary documents it submits also the research proposal in a field of study that can receive funding from the full-time staff, and the prospective PhD candidate discusses this research proposal with the relevant scientific committee during the interview phase;</p> <p>The study program's duration is set at six semesters for full-time students and ten semesters for part-time students, respectively, with the option of an additional year (2 semesters) if the students raise any relevant or medical problems.</p> <p>The Board of Professors is composed of all the full time professors. In this case 5 of the professors do have the "Prof Dr" title.</p> <p>The board of Professors appoints a supervisor to supervise the students' research projects for the following two years of study after the PhD students have successfully completed their first year of study (at least 80% of all courses). According to the Minister of Education and Science, all the potential supervisor in Faculty of Architecture and Engineering fulfill the requirements for the academic title, degree, and type of employment. (See the Decision of the Council of Ministers no. 112, dated 23.02.2018, "On determination of criteria for acquisition of scientific degree "Doctor" and state standards for obtaining the academic titles "Associated Professor" and "Professor", as amended, the academic staff with the "Prof. Dr."; title, is permitted to supervise no more than three PhD candidates. The scientific supervisor holding the "Professor Dr academic title and employed part-time, can supervise only one PhD candidate).</p> <p>The student's development plan and progress report, which were created with the supervisor's guidance, are presented to the Board of</p>
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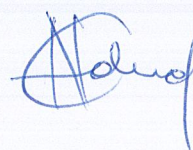



	<p>Professors. The supervisor's supervision plan is also submitted to the Board of Professors.</p> <p>Also the students' progress with respect to the research work is discussed in weekly meeting with the supervisor. During this meeting the supervisor may advise the students for the didactic and scientific work.</p>
<b>Standard II.2 - Capacities for scientific research</b>	
<p><b>Criterion 1</b> A third cycle study program (doctorate) is integrated in research activity of Higher Education Institutions;</p>	<p>The PhD program is integrated in the research activities, and this was documented through this link: <a href="#">Click here</a></p>
<b>Standard II.3 - Doctorate student's supervision and continuous evaluation of progress of doctorate studies</b>	
<p><b>Criterion 1</b> Scientific supervisor of student is responsible for directing, advising, assessment of student's needs and for developing and monitoring progress of student's research work. He has the academic title "Professor", "Associate Professor" or the scientific degree "Doctor" or ("PhD") awarded in Western universities and has a rich research and publishing activity;</p> <p><b>Criterion 2</b> All scientific supervisors have had the expertise, instruction and proper guidance for their role in realization of scientific research project of doctorate students;</p> <p><b>Criterion 3</b> Scientific supervisors work to update their knowledge and skills, based on institutional arrangements in order to enable the exchange of best practices and providing advice to support students effectively;</p> <p><b>Criterion 4</b> Board of Professors selects scientific supervisors, capable to supervise doctorate students' research work, based on assessment of their publishing and research activities inside and outside the country;</p> <p><b>Criterion 5</b> The main scientific supervisor and the other supervisor (when program of doctorate studies is offered by more than one university) guarantee that doctorate students receive sufficient support and guidance to facilitate their work to achieve success;</p> <p><b>Criterion 6</b> In all cases, the student must have only one identified contact point, who should be his main supervisor. If his main supervisor is not available, the student must know who will be the person to replace him;</p> <p><b>Criterion 7</b> University ensures that supervisor has enough time to supervise doctorate student; If the main leader is unable to continue supervision of student, or will be absent for a considerable period, he should be replaced by another his main supervisor before the period of awarding the diploma for scientific degree "Doctor";</p> <p><b>Criterion 8</b> If relationship student-supervisor does not function well, at the request of student or his supervisor, supervisor is changed, provided that this does not affect the project progress;</p>	<p>This criterion is fulfilled as specified by the respective Directive of the Ministry of Education and Science of the Republic of Albania; the low number of PhD students recruited in the PhD program made possible that 2 professors with "Prof. Dr."; title do supervise all PhD candidates.</p> <p>Both professors have scientific expertise and are part of scientific funded projects. All the Board of professors including the supervisors do participate in workshops and academic development process of the institution.</p> <p>Through the funding and support provided at the university level, academic staff are encouraged to do scientific work, participate in international scientific conferences, and publish in specialized scientific publications (see Annex 17). Furthermore, each academic employee is evaluated for their contribution to scientific activities annually (Annex 16)</p> <p>Based on the supervisor's experience in that particular field and the research domain, the board of professors matches PhD candidates with their respective supervisors.</p> <p>The Permanent Commission on the Conferring of the PhD Scientific Degree oversees this procedure and ensures that the student has enough assistance and guidance from the supervisor in their study subject.</p> <p>In this PhD program for each PhD student one single professor is assigned as supervisor. However, as it is stated in the SER, registered PhD students have the option to ask for co-supervisors if they determine that they are necessary. Any issues with the PhD student's</p>

<p><b>Criterion 9</b> Clear and transparent procedures are set for verification of knowledge or periodic evaluation of student (for example, an annual review by a panel called for this purpose or by a special commission set up by Professors' Council).</p> <p><b>Criterion 10</b> Doctorate student and his supervisor should be present during this process. The manner and periods of verification of knowledge or periodic evaluation of doctorate student are stipulated and specified in the beginning of doctorate studies program;</p> <p><b>Criterion 11</b> Continuous evaluation conclusions for realization of scientific research project of program of doctorate studies are clear and transparent including suspension, extension or withdrawal from doctorate studies;</p> <p><b>Criterion 12</b> Meetings between supervisors and doctorate students are documented, especially during the review of progress reports.</p>	<p>supervisor's communication may be raised with the department chair and the dean of the faculty, who oversees the study program. In case of the problem in communication in the SER report is specified that the PhD students may request for replacing the supervisor, but a set of procedures to define this process is missing.</p> <p>The Board of Professors assesses the PhD students' progress reports in the doctorate study program every six months. The dissertation draft must be presented by the PhD students to the board of professors, and they must demonstrate the validity of their research by attending conferences and compiling a list of publications.</p> <p>Only two PhD drafts of the dissertation may be submitted by a student, and if any of those fails to be defended, their candidacy for the degree is terminated.</p>
<p><b><u>Conclusions of IEG:</u></b></p> <p>The PhD program has been designed with the appropriate level of study in consideration. Admission policies are outlined in the relevant regulations. The design of this program makes it clear what the PhD candidates must do in terms of coursework and research. The Board of Professors matches PhD candidates with their appropriate supervisors based on their knowledge in the relevant scientific field. The institution has certain requirements for the output or deliverables of the PhD studies, including participation in workshops, conferences, and journal and conference publication.</p> <p>The analysis of the syllabuses reveals a number of courses in the computer engineering and computer science fields, but the syllabus design is inconsistent in that it claims that a number of courses will cover the practical component, but when it comes to the declaration of lab contact hours and their effect on workload, either zero or nothing is stated. Additionally, advanced course prerequisites are rarely stated, and textbooks and periodicals often lack definitions or have obsolete information.</p> <p><b><u>Recommendation:</u></b></p> <p>The matching of the PhD students with the supervisors only after finishing 80% of the courseload of the first year of study may not be helpful for students when deciding the courses that the student should follow, therefore we recommend to do the matchmaking immediately when registering for PhD studies, since the PhD students do submit a PhD research proposal.</p> <p>Second, as the courses learning outcome should be designed in line with the requirements of the National and European Qualification Framework and relevant taxonomy (i.e., Bloom Taxonomy). The declaration of lab contacts hours, individual work, the prerequisites needs to be indicated for each of the courses. The text materials need to be updated.</p> <p><b><u>Judgment on the area:</u></b> Substantially met</p>	

- Relevant documents, taken during visits to the institution
  - A list of the professors teaching the courses;
  - A list of the software installed in the lab and the courses that cover it;
  - Syllabuses list
  - Regulation of the study program.
  - The Regulation by which the Board of Professors operates



## 8. Teaching – Learning outcome (in first year)

### Description part

Students enrolled in the PhD program “Computer Engineering” in EPOKA University are informed and trained regarding performing research activities and teaching. During their program they are engaged in different subjects at Bachelor level as assistants, and by being in contact with students they engaged them in activities that helped their research topics

### Measurable indicators:

- EEG should analyze and evaluate the student’s workload, forms of teaching (verify the data, according to Table 10)

Forms of teaching	Class hours for
Lecture	384
Seminars	0
Exercises	0
Laboratories	0
Practice for subjects	0
Professional practice	0
Etc.	0

- EEG should analyze and evaluate the policies for Learning Outcomes control (verify the data, according to Table 11)

Learning Outcomes control	in %
Active participation in lectures, seminars, etc.	-
Implementation of obligations (laboratory course tasks, essays)	-
Intermediate tests	-
Final exam	-
Etc	-
In total	-


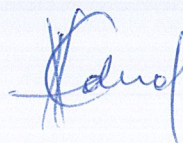
- EEG should analyze and evaluate the: students’s participation in the research activities of the University/Faculty/etc. (verify the data, according to Table 12)

Table 12

HEI scientific activity	Number of students activated
For individual Papers of Lectures	6
For scientific projects of Faculty / Department / Doctoral School	8
For research projects, in collaboration with other	3

### Evaluation according to the Standards

Standards/criterion	Evaluation according to standards
<b>Standard I.2 - Continuous increase of theoretical level and promotion of students' team work</b>	

**are targets of a study program of third cycle, doctorate.**

**Criterion 1** Level of scientific research development helps in student training to complete the study program successfully;

As a student enters the PhD program they can participate in some of the ongoing projects within the department, or they are free to choose their research topic. As the infrastructure of the department and HEI in general is apt for developing ideas and implementing research, students are also supported by the staff to fulfill their interests and research questions.

**Criterion 2** Students have the opportunity to participate in various research activities closely related to the specific area in which they attend doctorate studies, which help him/her to be trained for:

Basically, at the doctoral program, even though Epoka University has a very active participation of students from first and second cycle, in different activities, having a small numbers of PhD students does not allow to create larger research groups. This is partially also because of the fact that PhD quotas have not been issued by the Albanian Ministries of Education over the last 9 years.

- a) Acquisition of research methodologies for independent creative activities, such as scientific articles, presentations, standard approach for references, bibliography, indexes and content writing as the basis for doctor a thesis processing;
- b) Independent work in laboratory;
- c) Use of information resources (e.g. libraries and Internet) and information management;
- d) Use of modern technologies for public presentations;
- e) Acquisition of advanced methods of analysis and data processing;
- f) Learning and mastery of specialized terminology associated with the research field of doctorate student;

As we could witness from the campus visit at Epoka University and from the meetings held with different actors, students were informed about how to conduct research, develop experiments or implement methodologies and write solid research papers. Nevertheless, in some cases the quality of their students did not match the expected outcomes, due to the pandemics situation and other reasons related to the candidates backgrounds and sometimes limited resources.

**Criterion 3** Doctorate students participate in foreseen activities young and their research work.

A doctorate student is free to participate as a listener or as a speaker in:

Students at Epoka, and PhD students too make use of different information resources, libraries (online and in-site), they use modern technologies for their research presentation. In general, they are expected to have gained a deeper implementation and use of advanced methods of analysis and data processing. As according to IER, their students have participated in some important training schools such as "Biometrics and Forensics", "Advanced Computer Architecture and Compilation for HPES", etc, which helps students in general getting in touch with the latest developments of the respective fields of study.

- a) Lectures;
- b) Seminars;
- c) Interdisciplinary debates, organized in the framework of doctorate study program;
- d) Other possibilities of learning such as following presentations of post doctorate students and research projects, even when it is not related directly to the student's research interest.
- e) Scientific mentors advise students to take part in scientific activities and conferences that help them in their scientific research;

**Criterion 4** Students have gained skills for appropriate communication with a scientific level (*Student's communication skills include: the competency to write clearly and with an appropriate style, use of persuasive arguments and clear articulation of ideas before the public concerned; the ability to debate and support others, involved in teaching, supervision or demonstrations*);

In general, PhD students were employees of Epoka University, in the sense that they had to teach, mentor, or evaluate students of first and second cycle of study. They could work together in different tasks related to their own research topic, but also helped in their students' topics.

**Criterion 5** Students have acquired the ability to communicate correctly with others, and necessary skill for a scholar, but also in other situations (*being able to develop and maintain cooperation and working relationships with others, awareness that their behavior affects them and others and be willing to listen, to give and to take reactions and responses with sharpness*);

**Criterion 6** Development of communication skills of doctorate students encouraged them to be engaged in teaching in study programs of first and second cycle (e.g. by engaging in teaching as lecturers, in support of professors guiding their thesis).

As according to the Higher Education Law in Albania, there are clear specifications regarding a PhD candidate to defend their research and gain the “Doctor” degree. In fact, PhD students in Epoka have published in important research outlets their work, results, ideas, and this shows that they have the necessary skills to communicate with a satisfying scientific level. On the other hand, their inclusion in the teaching process, somehow might produce an overload regarding their research time. Nevertheless, students have a very active research life, as they participate in other activities, such as seminars, discussion groups, forums, etc.

As it is mentioned in previous criteria, PhD students at Epoka university are all engaged in teaching in study programs of first and second cycle, or in support of professors, mentors, or evaluators of diploma thesis.

**Conclusions of EEG:**

The level of scientific research is determinative in the quality of a HEI in general, as it comprises one of the most important milestones in the scientific objectives and goals. For Epoka University in general, and the department of Computer Engineering in particular, there have been part of and still are some of the most renowned academics in Albania, which have clearly contributed in the improvement of conducting scientific research. PhD students of the study program have successfully participated in conferences, workshops and different projects, increasing their collaboration with their peers in international institutions.

Nevertheless, some of the classes, textbooks, or courses offered at this study program are at a lower level than advanced, as it is expected to be in the third cycle of studies. It is desirable that PhD students work in research groups comprised of Master students too, in order to create a more vivid research environment and a more productive implementation of the different research methodologies. This will transform their topics into real and valuable contribution to the HEI and the country, and not some isolated works that are valid for a local context only. In later stages the EE received information that there is joint research with master student in one case, but for sure we emphasize the need to strengthen this component in more often cases.

**Recommendation:**

As according to the enrollment procedures and selection of research, a student enters the PhD program and is free to choose their research topic. There are discussions with supervisors on this issue, and they had to get their approval, but we suggest that the department suggests research topics, presents different open questions within the field, and then let students decide on the path they prefer to pursue, based on their experience, and previous research.

Secondly, young researchers and PhD students are recommended to have a lower number of teaching classes. In later comments the EEG received the claims that this point is supported from the Department.

**Judgment on the area:** Substantially met

## 9. Doctoral students

### Description part

*Terms of reference: Based on the SER and visits to institutions, EEG should analyze and evaluate the: academic criteria and procedures for enrollment of doctoral student, quality of students enrolled, the number of students enrolled and who has finished in years, average duration of doctoral studies (in years), statistics, collaboration with students who have received diploma, student's information.*

The Department of Computer Engineering is the unit responsible for the PhD program in Computer Engineering. The mission of the Department of Computer Engineering is to educate the students to gain an understanding of the fundamentals of science and engineering so that they can develop solutions to Computer Engineering problems and enhance their skills on computer science, computer architecture, design and analysis of algorithms, software engineering communication and research skills. It is aimed to especially emphasize teamwork, independent and innovative thinking and leadership qualities.

Doctorate (PhD) Degree (Third Cycle) can normally be obtained on the completion of 3 academic years. The maximum duration of studies is 5 academic years. If a student exceeds the maximum duration of studies for the respective program, the University terminates relations with the student.

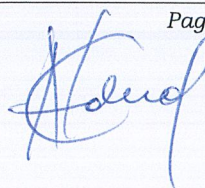
The student who successfully completes 60 ECTS from the theoretical stage and defends his/her PhD with a dissertation in compliance with the provisions stipulated in the respective regulation is granted the PhD Degree Diploma.

### Measurable indicators:

- EEG should analyze and evaluate the statistical data for doctoral students:
  - The total number of PhDs students and the number for each year;
  - The number of PhDs students coming from outside of the university;
  - Number of graduates each year;
  - The average duration of doctoral studies and what has been the trend of this indicator;
  - Number and percentage of students, who have interrupted his doctoral studies.
  - Number and percentage of students, who come from Kosovo, Albanian territories, as well as from the Albanian diaspora;
  - Number and percentage of foreign students, who come from the Balkan region;
  - Number and percentage of students, who come from EU countries;
  - Number and percentage of students, who come from other countries of the world;

For the last 9 years, as PhD programs were completely closed in Albania, the only research that was possible to be fulfilled, was through remaining quotas that specific HEIs could manage to include in their programs. As a result, we as EEG recognize this issue and consider that Epoka University has a vibrant research community. As for the PhD students, there are 6 in total. Five of them are still finishing their studies, and one has terminated. They are from different nationalities, come from the academia or the industry, and contribute as lecturers too within the different courses of Bachelor and Master programs.

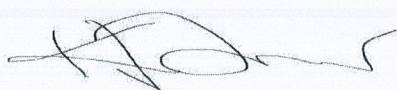
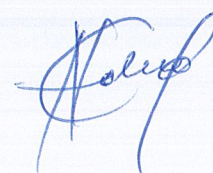
- EEG should analyze and evaluate the information for the mobility of doctoral students at universities abroad



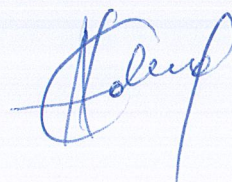
- Analyses and evaluation of data for the final evaluation of doctoral students
- Relevant documents, taken during visits to the institution

**Evaluation according to the Standards**

Standards/criterion	Evaluation according to standards
<b>Standard I.3 - Admission of students in a doctorate study program</b>	
<p><b>Criterion 1</b> The student admitted to doctorate study program has completed second study cycle with average grade (&gt; 80% of points) and was awarded the university degree "Master of Science"/ "Master of Fine Arts" or an equivalent degree, following completion of university studies that include a scientific thesis evaluated with 30-40 ECTS;</p> <p><b>Criterion 2</b> Candidate who applies to continue the third cycle program, the doctorate, has profound theoretical knowledge in the relevant field of study. Some basic knowledge that doctorate student has is:</p> <ul style="list-style-type: none"> <li>a) Creative thinking;</li> <li>b) Development of critical sense about research;</li> <li>c) Connections between different fields of research;</li> <li>d) Skills developed for solving problems arising during research work;</li> <li>e) Competence to manage research complexity and to propose new ideas in research field;</li> </ul> <p><b>Criterion 3</b> The student admitted to doctorate study program is ready to apply in practice the knowledge gained from research in relevant field of studies;</p> <p><b>Criterion 4</b> Student owns the English language certified in the international level, at least "C1", based on internationally recognized tests and a second foreign language as French, German, Italian, Spanish or Russian. In social sciences it may be Latin, Ancient Greek, Persian or other languages needed for research in the area;</p> <p><b>Criterion 5</b> Professors' Council set the criteria for admission to program of doctorate studies contained in regulation of doctorate program of studies;</p>	<p>As according to the Epoka University Regulation, students are admitted to the third cycle of studies if their average grade is at least 8/10 or their GPA at least 2.7/4. In former case, 8/10, the University is fulfilling the average grade criteria.</p> <p>All candidates should have obtained a Master of Science/Master of Arts, or an integrated second cycle diploma in the field of the doctorate program, or in a close field. In many cases, doctoral students were free to choose their research topic of interest and this had to be accepted by the scientific committee. Some of the points marked by letter (a)-(e) in this criterion are not fully described in the IER as affirmative of their students, or how they measure their skills as according to these points.</p> <p>In some cases students had to follow a research path that was new to them. This leads to an added difficulty in comprehending in depth the new direction, and then in practicing new knowledge gained from research. It is highly advisable that research topics are chosen in accordance to what they have already learned and practiced in their second cycle of studies, or in their work in the industry, if that is the case.</p> <p>As provided in the Higher Education Law, 2015, applicants should have obtained a C1 level Certificate of English language. The PhD study program is offered in the English language, which should bring positive outcomes regarding internationalization.</p> <p>The higher body in the organigram of a HEI that regulates scientific degrees is the "Permanent Commission of the Conferring</p>


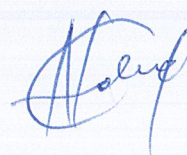
<p><b>Criterion 6</b> The applicant has received detailed information about doctorate program of study, before being admitted into it. He is fully informed regarding:</p> <ul style="list-style-type: none"> <li>a) Duration of study program;</li> <li>b) Conditions that student should meet before appearing in doctorate exam;</li> <li>c) Support that institution provides to the student through administrative and research structures for activities envisaged in the study program (laboratories, libraries, etc.).</li> <li>d) Modalities of exercise of research or creative activity of doctorate students, especially with regard to preparation of doctorate thesis;</li> </ul> <p><b>Criterion 7</b> Admission criteria include also interviews and supports that can be provided by references and additional documents;</p>	<p>of Scientific Degrees”. The same commission sets the criteria for admission to the doctorate program.</p> <p>According to the Regulations on PhD Study Programs (last updated October 2018), these criteria are:</p> <ul style="list-style-type: none"> <li>a) A notarized copy of the Master of Science/Master of Arts, integrated second cycle studies, or any other equivalent diploma translated into English and Albanian languages;</li> <li>b) Official transcript of the first cycle (Bachelor) study program or any other equivalent study program in which are defined all the courses and grades taken by the candidate translated into English and Albanian languages;</li> <li>c) Official transcript of the Master of Science/Master of Arts, integrated second cycle studies or any other equivalent study program in which are defined all the courses and grades taken by the candidate translated into English and Albanian languages;</li> <li>d) If the candidate has completed the Master of Science/Master of Arts, integrated second cycle studies or any other equivalent study program in a foreign institution, he must also submit the notarized copy of the document on the equivalence of the said studies by the Center of Educational Studies of the Republic of Albania translated into English language;</li> <li>e) Document certifying the English proficiency level of C1 as stipulated in the directive of the Minister of Education and Sports No. 52, dated 03.12.2015 "On defining the foreign language levels and international tests, on the admission to second and third cycle study programs, in Higher Education Institutions";</li> <li>f) Two academic reference letters for the applicant;</li> <li>g) Curriculum Vitae;</li> <li>h) A PhD proposal in an area on which the applicant would wish to prepare his/her Dissertation in compliance with the areas of scientific research, offered by the base unit or Faculty.</li> </ul> <p>The applicants receive the required information through different channels. One of them is the Regulations on PhD Study</p>
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<p><b>Criterion 8</b> Admission policies include also doctorate admission exam.</p>	<p>Programs which can be publicly accessed in the official website of Epoka University.</p> <p>After the Admission Office checks the submitted documents according to formal criteria; if all required forms and documents have been submitted, then the Admission Office submits the applicant's file to the respective Scientific Committee for evaluation.</p> <p>According to the HEI Regulations, the Scientific Committee proposes the admission to PhD programs based on applicants':</p> <ul style="list-style-type: none"> <li>a) compliance of the individual research program of the applicant with the research area/s which belong to the approved doctoral study program that the base unit offers;</li> <li>b) academic success in the graduate and undergraduate program;</li> <li>c) level of English language proficiency;</li> <li>d) interview conducted with the respective Scientific Committee;</li> <li>e) Other documents which may be requested by the Scientific Committee.</li> </ul> <p>This criterion is not fulfilled as Epoka University does not include in their policies an admission exam for the doctorate level.</p>
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**Standard II.5 - Final evaluation of students in this cycle of studies**

<p><b>Criterion 1</b> Student provides evidence that he has acquired:</p> <ul style="list-style-type: none"> <li>a. Profound knowledge in relevant scientific field;</li> <li>b. Profound knowledge in some areas approximate to it;</li> <li>c. Professional skills in using modern technology to solve critical problems related to his field of scientific research;</li> <li>d. Innovation, to expand and update existing knowledge;</li> <li>e. Autonomy, scientific, professional integrity and dedication for development of new ideas that encourage scientific research;</li> </ul>	<p>As according to the Regulations on PhD studies, one of the requirements for students to qualify for the degree is to meet the specified assessment and examination requirements, including the final thesis, dissertation or research project and, where required, an oral examination. But, for the criterion to be complete, points (c) – (e) should be thoroughly treated not only in the regulations and in the description of IER. They should be argued with the proper documented activities, as why students have acquired professional skills in using modern technology, or innovation, to expand and update existing knowledge, or how they have become autonomous in developing new ideas, etc.</p>
<p><b>Criterion 2</b> Student provides evidence that he has brought original scientific products, scientific works of a high scientific level through conducted scientific research, some of which have deserved or deserve publication in scientific national and international magazines;</p>	<p>The main evidence that the PhD candidate provides when it comes to scientific products is their publication list, participations in conferences and projects, or</p>

**Criterion 3** Final evaluation of doctorate students is based above all on an assessment of their scientific research product;

other activities. This is clearly stated in the Regulations, as the candidate should demonstrate before the defense date of their research work that they indeed have brought scientific products.

At the end of their doctorate studies, candidates should demonstrate in front of the Research Committee and before their defense that they:

a) have realized as the first or second author, when the first author is the scientific supervisor, at least 3 (three) presentations, 2 (two) of which should have been held in international scientific activities (symposium, conference, congress) in one of the European Union, OECD or G20 member countries, accepted on the basis of a preliminary scientific assessment and published in "Proceedings", indexed with ISBN or ISSN code;

b) have published at least 3 (three) scientific articles in scientific journals, of which 2 (two) should have been published or accepted for publication in indexed journals of the OECD, EU or G20 countries, with editorial board, where, at least, in one of them he should be the first author and in the other as a second author. One of these journals should be a peer-reviewed and periodical journal found in Science Citation Index (SCI), Social Science Citation Index (SSCI) or Arts and Humanities Citation Index (AHCI) in Thomson Reuters or Scopus.

c) have prepared and submitted the dissertation to the Permanent Commission on the Conferring of the PhD Scientific Degree of the respective Faculty, accompanied with a summary approved by the supervisor, after having ensured the compliance of the format of the dissertation with the Guidelines of Epoka University on Thesis Format as certified by the academic staff member appointed to this end by the Scientific Committee.

**Criterion 4** On the basis of an agreement reached in the phase of the study program approval, scientific research result is presented as a dissertation thesis, or cumulative with 3 scientific articles published in international journals with impact factor coefficient above 1;

**Criterion 5** In case of doctorate examination with dissertation thesis, doctorate student meets the following conditions:

- a. He has realized as first author at least three scientific papers or presentations (poster), of which two papers or presentations are held in a international scientific event, in a western country (symposium, conference, congress), accepted on the basis of a preliminary scientific assessment, published in "Proceedings", indexed with an ISBN code;
- b. He has published as first author, at least three scientific articles in scientific journals. At least two of the articles have been published or accepted for publication in well-known western journals with editorial board;
- c. He has prepared and presented to Faculty Board of Professors the dissertation, along with a summary, approved by scientific supervisor. Structure of dissertation and its summary are defined in doctorate study regulation;

As according to Regulation of PhD study programs (art. 25, 26), the candidate and their supervisor after agreeing on the termination of the PhD thesis the research results are presented as a monography, or cumulative with three scientific journal



<p><b>Criterion 6</b> Board of Professors defines two or three opponents, one of which is from outside the institution. Opponents are also members of the jury to assess dissertation. They have required academic titles and rich research and publishing activities inside and outside the country in the relevant field of study in which program doctorate studies is offered;</p> <p><b>Criterion 7</b> Opponents who have had a substantial involvement in the work of doctorate student, or whose work is the very focus of research project;</p>	<p>papers with IF coefficient above 1.</p> <p>Refer to Criterion 3.</p>
<p><b>Criterion 8</b> A dissertation copy is given to every opponent, giving enough time to read it and to write a separate report. Opponents should not communicate among themselves, with doctorate student or its scientific supervisor during this period. Opponents must verify the authenticity of data used in dissertation, observance of scientific research practice as well citations of scientific research works and articles of other authors.</p>	<p>In the regulations of the Epoka University, the Permanent Commission of the Conferring of the Scientific Degrees, appoints two opponents for the final evaluation of a dissertation thesis. One is from the department of the study program, and the other opponent is selected from other HEIs. This is a practice which is rigorously followed by the department. According to the Law for Higher Education (2015), they have required academic titles (Professor degree) and their research work is within the field of study of the doctorate under evaluation. The PhD Jury is composed of 5 (five) members, of whom at least 3 (three) should hold the “Professor Dr.” title. In cases when the other 2 (two) members of the jury with “Professor Dr.” title cannot be selected, lecturers who hold the “Associate Professor Dr.” title and have sufficient academic and scientific experience within and outside the country can be accepted as Jury members. At least 2 (two) members belong to base units from domestic or foreign counterpart institutions.</p>
<p><b>Criterion 9</b> Opponents express clearly that scientific paper is free of plagiarism. If they notice and find that this has happened, they ask for termination of dissertation assessment;</p>	<p>Each of the opponents is given a dissertation copy and they fill a separate document. The whole Criterion 8 is not regulated in the Documents of the HEI, as declared in the IER. They cite Article 41/2, but this does not relate to this Criterion.</p>
<p><b>Criterion 10</b> Dissertation is accompanied by a summary, about 10 pages in English. This review is published in the official website of the institution, in the section designated for information for this study;</p>	<p>This Criterion is not regulated as declared in the IER. The EEG cannot find evidence as how opponents express that scientific papers are free of plagiarism. Considering that Epoka University uses Turnitin as an anti-plagiarism tool for their students, it helps in maintaining a certain level of work ethics while writing research results. But, considering that one of the opponents is external to the university, they probably don't have access to such tools. This should be clarified in the Regulations.</p>
<p><b>Criterion 11</b> Scientific supervisor of the student should not be an opponent;</p>	<p>At Epoka University all dissertations are written in English, as a result, the whole material that is published in this language.</p>
<p><b>Criterion 12</b> When opponents have completed their reports, they are called by the Dean and Head of Board of Professors to agree to conduct oral examination;</p>	<p>At Epoka University all dissertations are written in English, as a result, the whole material that is published in this language.</p>

**Criterion 13** It is recommended, that a jury member of doctorate examination be from universities known in the world for quality and rich research and publishing activities in the relevant field, which has at least the scientific degree "Doctor" awarded in the scientific field in which doctorate student follows the studies and over 5 years academic and research experience. This criterion may not be applied to Albanology sciences.

Assessment of doctorate student in examination is made open by consensus, provided that all members are pronounced for a passing grade. Even if one member has evaluated doctorate student by convincing arguments, with a failing grade, the final outcome will be failing;

**Criterion 14** Opponents submit to dean of unit that organizes the program of doctorate studies and chairperson of doctorate examination jury a copy of their individual reports;

**Criterion 15** Dissertation defense for obtaining the diploma for scientific degree "Doctor" is public. It is announced at least 4 weeks before and it is done in the presence of department interested members, students and teachers in the relevant Higher Education Institution;

**Criterion 16** Evaluations that opponents can make include: granting diploma of scientific degree "Doctor", or resubmission of written scientific research paper after completion of their recommendations, or a further extension of study program, or denial of diploma for scientific degree "Doctor";

The HEI has a separate folder in their official website for the Dissertation Publications:

<http://dspace.epoka.edu.al/handle/1/1666>

According to the Regulation, and from the online list of dissertations for the study program of Computer Engineering, the scientific supervisor of the candidate, is not an opponent.

The PhD Jury informs the Permanent Commission on the Conferring of the PhD Scientific Degree on its decision through the assessment report. Within 10 days upon receiving the assessment report by the PhD Jury, the Permanent Commission on the Conferring of the PhD Scientific Degree takes the decision on the conferring of the "Doctor" (PhD) scientific degree and conveys it for further procedures to the Dean.

According to Art. 41.4, one of the Jury members can be chosen among lecturers who hold the "Doctor" (PhD) degree, coming from universities known in the world for quality and rich research and publishing experience in the respective field and having at least five years of academic and research experience in the field on which the student has prepared his dissertation. But, from a survey of all dissertations available online, this was not applied in any case. As according to the regulations, the PhD Jury takes the decision by unanimity. The decision of the Jury is final. The PhD Jury informs the Permanent commission on the Conferring of the PhD Scientific Degree on its decision through the assessment report.

In practice, and as according to the Regulations, the thesis opponents send a copy of their reports to the dean.

There is no evidence on the official website that there is an announcement prior the public defense of a doctorate student. It is written though in the Regulations. Probably, there are other public channels that the university might follow, but this is not documented in the IER.

**Criterion 17** A copy of dissertation of student who received a diploma for scientific degree "Doctor" is deposited in library of faculty, research institute, university research centers, university where study program is carried out and scientific paper and a copy in National Library. Scientific degree "Doctor" is not issued without dissertation being deposited in aforementioned institutions, published in paper and on disk (CD) and without making it public in the official website of respective higher education institution;

**Criterion 18** Scientific degree "Doctor" is not issued without being registered in National Register of Doctorates of Securities Commission Academic Assessment (KVTA) in MES.

According to the Regulations (Art. 42.3), after examining the dissertation presented by a candidate and considering the results of any oral or written examination which they have conducted, the Jury members, at their discretion, shall make one of the following recommendations:

- a) That the candidate be awarded the degree of PhD with no corrections to the dissertation being required;
- b) That the candidate be awarded the degree of PhD subject to minor corrections being made to the dissertation to the satisfaction of the Jury members;
- c) That the candidate be invited to revise and resubmit the dissertation for the degree of PhD, after a further period of no more than 12 (twelve) and no less than 3 (three) months.

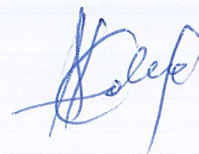
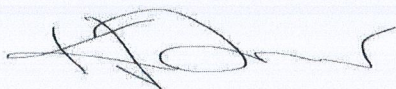
A dissertation may normally be referred on one occasion only. The dissertation shall be re-examined, normally by the original Jury members. The Jury members may require a further oral examination;

- d) That no award be made to the candidate and no resubmission be permitted.

Research degrees are not awarded or conferred until any minor corrections required by the Jury members have been made to their satisfaction, and until copies of the dissertation or the dissertation have been deposited in the University's Library and the National Library of Albania (Art 44.1). For the online publication of thesis refer to Criterion 10.

In Art. 53 of the Regulations it is stated that the list of students graduated from the PhD study programs is submitted by the University to the Ministry responsible for higher education in order to be registered at the State Register for Scientific Degrees and Academic Titles.

**Standard III.2 - Quantitative aspects of doctorate study program**

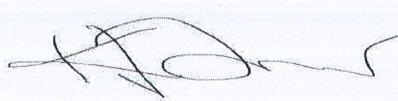
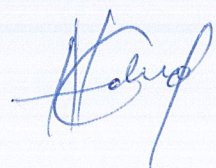


<p><b>Criterion 1</b> Total number of registered doctorate students and doctorate number for each year;</p>	<p>Number of registered doctorate students for each year:</p> <table border="1"> <thead> <tr> <th>Year</th> <th>No. of students</th> </tr> </thead> <tbody> <tr> <td>2016-2017</td> <td>1</td> </tr> <tr> <td>2017-2018</td> <td>2</td> </tr> <tr> <td>2018-2019</td> <td>2</td> </tr> <tr> <td>2019-2020</td> <td>0</td> </tr> <tr> <td>2020-2021</td> <td>0</td> </tr> <tr> <td>2021-2022</td> <td>0</td> </tr> </tbody> </table>	Year	No. of students	2016-2017	1	2017-2018	2	2018-2019	2	2019-2020	0	2020-2021	0	2021-2022	0
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2019-2020	0														
2020-2021	0														
2021-2022	0														
<p><b>Criterion 2</b> Number of registered doctorate students coming from outside the unit that has opened the doctorate study program;</p>	<p>Not specified.</p>														
<p><b>Criterion 3</b> Number of diplomas issued to receive "Doctor" degree for each year;</p>	<p>Number of diplomas issued for each year:</p> <table border="1"> <thead> <tr> <th>Year</th> <th>No. of students</th> </tr> </thead> <tbody> <tr> <td>2018</td> <td>2</td> </tr> <tr> <td>2019</td> <td>0</td> </tr> <tr> <td>2020</td> <td>1</td> </tr> <tr> <td>2021</td> <td>2</td> </tr> <tr> <td>2022</td> <td>0</td> </tr> </tbody> </table>	Year	No. of students	2018	2	2019	0	2020	1	2021	2	2022	0		
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<p><b>Criterion 4</b> Average duration of doctorate studies and trend of this indicator;</p>	<p>According to IER, the average duration of the doctorate studies is more than 5 academic years. There is no evidence about the trend of this indicator.</p>														
<p><b>Criterion 5</b> Number and percentage of those who gave up doctorate studies in the level of study program.</p>	<p>According to IER, there are 4 students that are dismissed from their doctorate studies, 4 left. So, from 13 registered students, 5 have successfully defended their thesis.  4 students left: 30.8%  4 students dismissed: 30.8%  5 students finished: 38.4%</p>														

**Standard III.4 - Internationalization of doctorate study program**

<p><b>Criterion 1</b> Number, expressed in percentage, of registered doctorate students coming from Kosovo and other areas where Albanians live and Albanian diaspora;</p> <p><b>Criterion 2</b> Number, expressed in percentage, of registered doctorate students coming from Balkans region.</p> <p><b>Criterion 3</b> Number, expressed in percentage, of registered doctorate students coming from the EU countries;</p> <p><b>Criterion 4</b> Number, expressed in percentage, of registered doctorate students coming from other countries of the world;</p>	<p>The table below projects all percentages and numbers of registered students depending on their home-country.</p> <table border="1"> <thead> <tr> <th>Place</th> <th>No. of students</th> <th>Percentage (%)</th> </tr> </thead> <tbody> <tr> <td>Kosovo and other areas where Albanians live and Albanian diaspora</td> <td>1</td> <td>7.7</td> </tr> <tr> <td>Balkans region</td> <td>0</td> <td>0</td> </tr> <tr> <td>EU countries</td> <td>0</td> <td>0</td> </tr> <tr> <td>Other countries of the world</td> <td>6</td> <td>46</td> </tr> </tbody> </table>	Place	No. of students	Percentage (%)	Kosovo and other areas where Albanians live and Albanian diaspora	1	7.7	Balkans region	0	0	EU countries	0	0	Other countries of the world	6	46
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Kosovo and other areas where Albanians live and Albanian diaspora	1	7.7														
Balkans region	0	0														
EU countries	0	0														
Other countries of the world	6	46														

**Conclusions of EEG:**

EEG considers that the Department of Computer Engineering has put serious efforts in the management of the PhD program they offer, by following the procedures and the legal statements of HE. We consider that the department nevertheless should improve the study program procedures regarding subjects and students obligations.

**Recommendations:**

We recommend that, as according to the criteria in this document, opponents should go through the process of plagiarism check through the tools of the HEI. It is evident that these tools are used by academic staff, but in the documentation there is no evidence of a confirmation that opponents have clear evidence on the submitted papers plagiarism check. Even though this procedure is already considered as fulfilled by the publication channels, there should be a method from the university to address this issue.

Secondly, we recommend that PhD defenses become public events through the official website 4 weeks before the established date.

**Judgment on the area:** Substantially met

**SCIENTIFIC RESEARCH POLICIES**

**10. Research in doctoral school and involvement of doctoral students**

**Description part**

*Terms of reference: Based on the SER and visits to institutions, EEG should analyze and evaluate the: research policies of HEI /Doctoral School, publications over the years, acquired and implemented projects, participation of doctoral student in activities at home and abroad, the activities organized by the unit, etc..*

PhD students of the study program offered at the Department of Computer Engineering participate in different project that the institution participates. Considering the low number of academic staff that hold the Professor title, there is a challenge for the department to have a considerable amount of staff performing research in the third cycle. Regardless, there are solid policies in place, and a number of students participating in activities at the HEI or abroad.

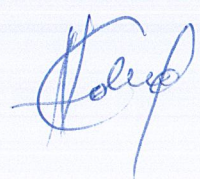
**Measurable indicators:**

- EEG should analyze and evaluate: data for research (verify the data, according to Table 13)


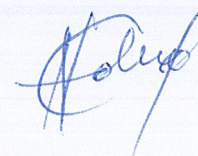
Planned activities, individual and institution, who are involved in doctoral students		Number	The titles of scientific journals, projects, research activities
1.	Publications, where students have scientific articles	74	Reference: IER
2.	Research projects, acquired by leading professors or doctoral students	5	Reference: IER
3.	Projects Implemented	5	Reference: IER
4.	Scientific activities organized by the HEI	3	Reference: IER
5.	Participants in scientific activities	11	Reference: IER
6.	Students involved in research	11	Reference: IER
	etc		

- Relevant documents, taken during visits to the institution

**Evaluation according to the Standards**

Standards/criterion	Evaluation according to standards/ criterions
<b>Standard II.1 - Capacities for scientific research</b>	
<p><b>Criterion 1</b> A third cycle study program (doctorate) is integrated in research activity of Higher Education Institutions;</p> <p><b>Criterion 4</b> The institution has the capacity to perform supervision of each doctorate student in research activities and respective didactic duties;</p> <p><b>Criterion 6</b> Academic staff must show achievements in the research field through such creative activities as: presentations, scientific publications, magazines, books or monographs;</p> <p><b>Criterion 7</b> Indicators of high level research activity are publications that contain statements from publishing and scientific research activity by other scholars outside doctorate study program, especially international, regarding the outcome of scientific research in the institution that offers doctorate programs;</p>	<p>Partially PhD topics were part of projects where Epoka University and the Department of Computer Engineering participates with their staff members and Master students too. Other PhD topics are specifically selected as according to their candidates' work and interests. Nevertheless, considering the low number of defended PhDs, the university is willing to integrate further the third cycle of studies in "Computer Engineering" in their research activity.</p> <p>As in Criterion 1, considering the low number of registered PhD students over the last five years, and the number of Professors and Associate Professors in the Department of Computer Engineering, they could manage the supervision of students. But, actually, with the opening of the PhD programs in Albania they have a limited capacity to perform supervision of research activities and didactic duties, considering that only two staff members hold the academic title of Professor.</p> <p>Staff members of the Department of Computer Engineering conduct research and publish their work in conferences and journals. Evidence of research work can be found on their online official website: Department of Computer Engineering – Research groups – Papers. It is strongly advised that these links are properly updated with full and new content.</p> <p>Epoka University and the Department of Computer Engineering have participated in many projects in Horizon 2020, Erasmus+, COST projects, etc., in collaboration with different European insititutions. This has broadened their capability of conducting applied research, collaborations with professors abroad, and writing common publications with them.</p>
<p><b>Conclusions of EEG:</b> EEG evaluates that at the Dpartment of Computer Engineering students could work of different projects, where some of them had real impact in society, as they were part of bigger and important consortia. This is an advantage for the quality of research, networking, and further advancements in the field of study.</p>	

**Recommendations:**

We recommend that the institution hires more academic staff at the department of Computer Engineering holding the Professor or Associate professor title, in order for them to increase the number of students, and have as a result a higher performance in terms of quantitative and qualitative research work.

**Judgment on the area:** Substantially met

**11. National and international cooperation, in function of doctoral study**

**Description part**

*Terms of reference: Based on the SER and visits to institutions, EEG should analyze and evaluate the: Doctoral School's cooperation with institutions /national or international research organizations, invited academic staff, etc..*

Epoka University has an extensive list of agreements, specifically:

- 34 HEIs from the Western Balkan countries
- 65 HEIs from EU, USA, etc
- 44 institutions operating in Albania (public institutions, banks, businesses)

Since 2019, mobilities were reduced and almost interrupted because of Covid 19 travel restrictions.

Epoka University nevertheless records the following numbers regarding it:

- 5 incoming mobility of staff (2019-2022)
- 9 outgoing mobility of staff (2018-2021)

**Measurable indicators:**

- EEG should analyze and evaluate: the national and international cooperation (verify the data, according to Table 14)

Scientific activities in the framework of international cooperation		
1	Number of students participating as partners in national and international projects	3
2	Number of Students participating in scientific activities, outside of HEI / presentations abroad	8
3	The number of foreign lecturers, who are invited to teaching	3
4	The number of classes held by invited foreign lecturers	4
5	Number of participants in training, in the field of abroad research	3
6	Mobility of students to and from HEI	-
7	The number of international awards in the field of research	-

- EEG should analyze and evaluate: the Cooperation with scientific institutions (verify the data, according to Table 15)

Table 15

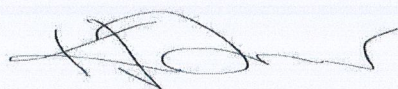
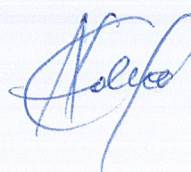
Institutions and scientific organizations, which is cooperating with	
Higher Educational Institutions	64 from EU and Western countries (Italy, Romania, Germany, Poland, Hungary, Croatia, Portugal, France, Spain, USA, etc.)

Higher Educational Institutions	35 from the Balkan region (Albania, Montenegro, Bosnia-Hercegovina, Kosovo, Serbia, etc.)
Non-Educational Institutions	44 (all of them operating in Albania, from which 4 are foreign)

Relevant documents, taken during visits to the institution

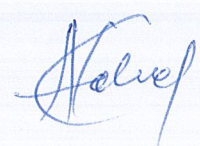
**Evaluation according to the Standards**

Standards/criterion	Evaluation according to standards/criteria
<b>Standard III.4 - Internationalization of doctorate study program</b>	
<p><b>Criterion 5</b> Doctorate study program encourages doctorate mobility by paying a considerable amount of expenditures for academic training outside doctorate study program;</p>	<p>In their report the IEG confirms that the Department of Computer Engineering has funded the participation of their PhD students in two summer schools. The participation cost in these activities is considered high (approx. 1,500 EUR for the summer school in Biometrics). During the visit at the HEI, PhD candidates could confirm their participation in such events.</p> <p>As part of their policies and regulations, at Epoka University research is funded on a yearly basis, according to the requirements of their PhD candidates that are staff of the department for different research activities. During the visit at the HEI, PhD candidates could confirm their funding for participation in such events from the department funds.</p> <p>Epoka University has a high number of agreements and Memorandum of Understanding: 99 with western HEIs, mostly from Erasmus+ programs, and more than 40 with other organizations that operate in Albania.</p> <p>According the IEG, there are 82 universities that the study program has agreements with. The list of projects of the Department of Computer Engineering is quite long and doctorate students have participated in joint research projects.</p> <p>As there is no evidence, this criterion is not fulfilled.</p> <p>Epoka University promotes the involvement of professors from foreign universities as</p>
<p><b>Criterion 6</b> Doctorate study program encourages mobility of doctorate students by paying a considerable amount of expenditures for presentation of research results in national and international scientific activities (symposium, conference, congress);</p>	
<p><b>Criterion 7</b> The institution has an agreement, at least with one Western university, guaranteeing programs of exchange of academic staff and doctorate students and realization of joint research projects. For Albanological Sciences cooperation could also be with a Higher Education Institution or research centre in Kosovo and lands where Albanians live;</p>	
<p><b>Criterion 8</b> Doctorate study program creates the necessary space to develop joint doctorate study programs with homologous universities in the region, Europe and beyond;</p>	
<p><b>Criterion 9</b> Doctorate study program provides for 3-4 modules (not less than 15 ECTS) to be conducted, organized in theoretical studies and doctorate students have the exam by professors of partner universities, known in the world, for quality and research, publishing activities in the relevant field of study. Exception cited in criterion 7 applies for Albanological Sciences;</p>	
<p><b>Criterion 10</b> Doctorate study program promotes involvement of professors from foreign universities as scientific supervisors or as scientific collaborators of doctorate students.</p>	



	supervisors or collaborators of PhD students, but, from an observation of the online collection of defended PhD thesis at the Department of Computer Engineering this has never occurred.
<b>Standard II.1 - Capacities for scientific research</b>	
<b>Criterion 5</b> The institution has agreements with other academic or research institutions at home and abroad, supporting the exchange of academic staff and doctorate students and academic and research activities of doctorate school;	Refer to Criterion 8.
<p><b><u>Conclusions of EEG:</u></b> Regarding the internationalization of the study program, EEG considers that the department of Computer Engineering should further improve the involvement of international researchers as co-supervisors of PhD students. The University has a sufficient number of agreements with international institutions to achieve this and fulfill the criteria as requested.</p> <p><b><u>Recommendations:</u></b> In this standard the institution should take into consideration the fact that the study program provides for 3-4 modules (not less than 15 ECTS) to be conducted, organized in theoretical studies and doctorate students have the exam by professors of partner universities, known in the world, for quality and research, publishing activities in Computer Engineering. As the university has a high number of MoUs with western universities, we are confident that this criteria can be fulfilled in the future.</p> <p><b><u>Judgment on the area:</u></b> Fully met</p>	

## SWOT ANALYSIS

### Strengths

1. Engagement of academic staff and PhD students in different research projects.
2. Well-supported administration at department level.
3. Periodic organization of international conferences, seminars, etc.
4. Availability of laboratories for learning and research.
5. Access in numerous information sources.
6. Training programs for both academia and administrative staff.
7. Financing of academic activities for PhD students.
8. Organization and implementation of training programs academia and administrative staff.
9. Cooperation with organizations, institutions, local and international.

### Weaknesses

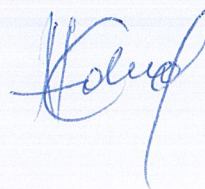
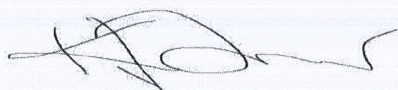
1. Low number of professors who can supervise PhD students.
2. Anti-plagiarism tools are not used in all scientific works presented to EE.
3. There is no legislation for intellectual property.
4. Matchmaking between PhD candidates and supervisors is done in later periods after their registration.
5. Department does not have a focus on the research topics of their vision and interest, as a result PhD topics are freely chosen by students.
6. There is no clearance on the institution's financial performance.
7. Literature in some courses is still outdated.
8. There are no subject or modules taught by professors of partner universities.
9. There is no public call for PhD defenses through the official website 4 weeks prior to the defense date.

### Opportunities

1. Improved infrastructure for conducting teaching and research.
2. Staff and student exchange through EU projects.
3. The opening of PhD cycle in all HEIs in Albania.

### Threats

1. Increased competition in higher education.
2. Difficulties in hiring IT staff with academic titles.



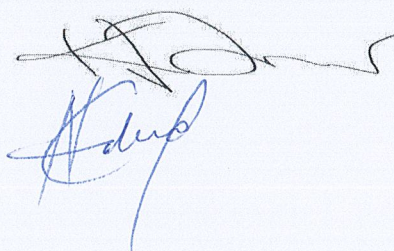
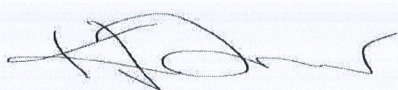
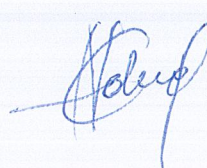
## Recommendations

1. HEI should have specific hiring campaigns for IT academic staff with Professor Degree, in order to supervise more PhD students.
2. HEI should improve their regulations regarding intellectual property.
3. Matchmaking between PhD candidates and supervisors is recommended to be done after their immediate acceptance at the third cycle.
4. Department is suggested to have a plan of their research focus on a 5-year basis, and PhD topics can be orientated towards the plan objectives.
5. The financial performance and allocation of resources should be transparent.
6. HEI is recommended to assign a number of 15 ECTS to courses or research conducted by professors of partner universities.
7. HEI should make more efforts to update some of its current literature.
8. The administration that manages PhD defenses is recommended to follow all the regulations and procedures, for the conduct of a transparent and public process.
9. HEI should launch public calls for PhD defenses through the official website 4 weeks prior to the defense date.
- 10.

## External Evaluation Group:

1. Prof. Dr. Krenare Pireva Nuci

2. Prof.Asoc. Dr Edlira Martini

Two handwritten signatures are present. The top one is in black ink and appears to be 'Krenare Pireva Nuci'. The bottom one is in blue ink and appears to be 'Edlira Martini'.A handwritten signature in black ink, likely belonging to Prof. Dr. Krenare Pireva Nuci.A handwritten signature in blue ink, likely belonging to Prof.Asoc. Dr Edlira Martini.