



Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

### UNIVERSITY OF PRISHTINA

# Information and Communication Technologies

### **ACCREDITATION**

### REPORT OF THE EXPERT TEAM

April 2021
University of Prishtina, Faculty of Electrical and Computer Engineering





# Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

#### TABLE OF CONTENTS

#### Contents

TABLE OF CONTENTS	2
INTRODUCTION	3
Context	3
Site visit schedule	4
A brief overview of the institution and program under evaluation	7
PROGRAM EVALUATION	8
Mission, objectives and administration	8
Quality management	10
Academic staff	13
Educational process content	17
Students	21
Research	24
Infrastructure and resources	27
OVERALL EVALUATION AND RECOMMENDATION OF THE ET	30
APPENDICES (if available)	32





### Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

#### 1. INTRODUCTION

#### 1.1. Context

Date of site visit: 18th March 2021

#### **Expert Team (ET) members:**

- Prof. Dr. Josip Balen
- Ms. Laura Palac (student expert)

#### Coordinators from Kosovo Accreditation Agency (KAA):

- Mr. Naim Gashi
- Mr. Shkelzen Gerxhaliu

#### **Sources of information for the Report:**

- Self evaluation report
- Quality improvement plan
- Budget Planning and Expenses
- Self evaluation report General Part
- Extract of Cadastral Unit from the Cadastral Agency of Kosovo.pdf
- Possession list of facilities in use by FECE.pdf
- List of laboratory facilities and equipment.pdf
- List of software packages used in teaching ICT programme.pdf
- Library book stock.pdf
- Full list of academic staff with administrative information.pdf
- List of academic staff with workload per week.pdf
- Sample of an agreement with a company.pdf
- List of workshops that was organized for the academic staff in the last year.pdf
- PI for Academic Staff.pdf
- Survey for academic staff and courses.pdf
- University of Prishtina Strategic plan 2020–2022.pdf
- Regulations for financing scientific work.pdf





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

#### Criteria used for program evaluation:

• Standards & performance indicators for external evaluation according to the Accreditation Manual of KAA, July 2018

#### 1.2. Site visit schedule

#### **Expert Team**

- Prof. Dr. Josip Balen Faculty of Electrical Engineering, Computer Science and InformationTechnology, Osijek, Croatia
- Ms. Laura Palac Faculty of Electrical Engineering and Computing (FER)

#### Coordinators of KAA

- Naim Gashi, Executive Director of KAA
- Shkelzen Gerxhaliu, Senior Officer for Evaluation and Monitoring
- Arianit Krasniqi, Senior Officer for Evaluation and Accreditation
- Leona Kovaci, Senior Officer for Evaluation and Monitoring
- Ilirjane Ademaj, Senior Officer for Evaluation and Monitoring

#### Site Visit Program

Meeting with the	he management of the Faculty
Time	Participants in the meeting
09.00 – 09.40	Dean: Prof.Asoc.Dr. Isak Shabani,





# Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

	T	
	Vice deans: Prof.Asoc.Dr. Qamil Kabashi, Prof.Asoc.Dr. Milaim Zabeli and Prof.Asoc.Dr. Kadri Sylejmani	
Meeting with a	uality assurance representatives and administrative staff - Joint session	
iviceting with q	dancy assurance representatives and dammistrative stair some session	
Time	Participants in the meeting	
09.45 – 10.30	Coordinator for Academic Development at FECE: Prof.Ass.Dr. Hëna Maloku,	
	Head of office for academic development at UP: Besnik Loxha	
	Student service officer at FECE : Vlora Shileku	
Meeting with t	he heads of the study programme	
Time	Participants in the meeting	
11.15 – 12.25	Prof.Dr. Enver Hamiti, Prof.Ass.Dr. Hena Maloku, Prof.Ass.Dr. Valdete Rexhebeqaj	
Meeting with academic staff – Information and Communication Technologies, BSc		
Time	Participants in the meeting	
12.30 – 13:10	Prof.Asoc.Dr. Mimoza Ibrani Prof.Asoc.Dr .Bujar Krasniqi	





# Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

	Ass.Msc. Jeta Dobruna
	Dr. Zana Limani
	Msc.Fatos Peci
	Msc. Doruntine Berisha
MMeeting with	employers of graduates
Time	Participants in the meeting
13.15 – 14.00	Flamur Gosalci, Head of business development – 3CIS
	Fatbardh Dragusha, Access Network Team Leader –IPKO
	Abdullah Havolli, Engineer – Kosovo Telecom
	Shkodran Kelmendi - InterAdria
	Argita Canhasi – senior IT training development supervisor - PECB
Internal Meetin	ng of KAA
Time	Participants in the meeting
14.05 – 14.15	Only KAA staff
Closing meeting	g with the management of the Faculty and program
Time	Participants in the meeting
14:15 – 14:30	Dean:
	Prof.Asoc.Dr. Isak Shabani
	Vice deans:
	Prof.Asoc.Dr. Qamil Kabashi
	Prof.Asoc.Dr. Milaim Zabeli and
	Prof.Asoc.Dr. Kadri Sylejmani
	1. Total Good II. Rudin Sylejinum





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

#### 1.3. A brief overview of the institution and program under evaluation

Faculty of Electrical and Computer Engineering (hereinafter the Faculty or FECE) was established in 1961 (under a different name), on the foundation of the Technical High School, which offered study programs in Civil, Electro-technical and Mechanical Engineering. After some restructuring and name changes, the Faculty got its present name in 2001. The Faculty of Electrical and Computer Engineering has defined its mission in "educating the youth in the fields of Electric and Computer Engineering, at all levels of higher education, with the aim of preparing them for the demands of the labour market in the country and beyond, and for the continuous education in this highly dynamic field, and also to contribute directly to the sustainable technological, social and scientific development of Kosovo. The Vision of the FECE is to become a "national and international model of a contemporary and innovative faculty with integrated teaching, whereby practice complements theory and professional skills and research skills are developed for the benefit of society.

The Faculty has six departments: 1) Telecommunications, 2) Computer Engineering, 3) Computerized Automation with Robotics, 4) Power Engineering, 5) Electronics, 6) General Subjects. The studies at the Faculty are concentrated in three main areas: 1) electricity generation and utilization, 2) information processing and transmission, and 3) computer engineering. The third group covers the analysis and design of computer systems, computer networks, software engineering, software systems security, operating systems, distributed and parallel systems, Web and data.

Strategic objectives and strategy for achieving the mission and vision have been developed. There are around 2200 students currently enrolled in FECEs Bachelor programmes and another 210 in its Master programmes. FECE counts among its personnel, 33 full time academic staff, 24 part-time academic staff, and 5 retired professors while there are 13 administrative employees.

The mission of the bachelor program in Information and Communication Technologies is in compliance with the mission of university and faculty, to provide qualitative academic education for a professional engineer profile that is trained in the broad ICT domain, and is equipped with both technical and market oriented skills and, therefore, that can contribute to the techno-economic society challenges.





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

#### 2. PROGRAM EVALUATION

#### 2.1. Mission, objectives and administration

The mission of University of Prishtina stated in the self-evaluation is to educate the youth in the fields of Electrical and Computer Engineering, at all levels of higher education, with the aim of preparing them for the demands of the labour market in the country and beyond, and for the continuous education in this highly dynamic field, and also to contribute directly to the sustainable technological, social and scientific development of Kosovo. Furthermore, the vision is orientated towards the national and international model of a contemporary and innovative faculty with integrated teaching, whereby practice complements theory and professional skills and research skills are developed for the benefit of society. The Expert Team believes that both mission and vision are somewhat generic because they do not suggest FECEs comparative advantages and unique discriminators on the market, nor do they imply its strategic orientation with respect to the specific geographic area of interest, research focus or target academic relevance/market share. However, the Information and Communication Technologies (ICT) study program is in compliance with the overall mission statement of the HEI.

The feedback received from the FECE management has demonstrated some strategic planning. Internationalisation of both the institution and the ICT study program has been communicated as one of the priorities. However, no specific development plans have been articulated or presented apart from a rather generic orientation and reliance on accessible EU funding. The Expert Team strongly recommends that the HEI improves the English version of FECE official website.

The interviewed representatives from the industry have unanimously complimented the quality of the graduated students and their engineering skills, and, as such, the program may be deemed to follow a certain overall didactic concept. Nevertheless, at the same time it is difficult to find any evidence as to how the concept corresponds with new industry trends and technology paradigms as the majority of them are addressed in the elective modules only. Furthermore, experts noticed that the similarity between current bachelor study in Telecommunication and new proposed study Bachelor in ICT is too high since more than 75% of courses are the same (even more if only mandatory courses are considered). Furthermore, some of the technologies taught in this study program are rather outdated.





### Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

The ICT study program was designed with inputs collected from local experts who are directly involved in the industry, companies that the University of Prishtina has cooperation agreements and alumni. Industry representatives are also members of the Advisory board. Before the final proposal of this study programme, new curricula were forwarded to this advisory body. Feedback from the industry representatives confirmed this and indicated an appropriate study program profiling with respect to the actual job market requirements.

The FECE has formal policies, guidelines and regulations dealing with recurring procedural or academic issues and these are made publicly available to all staff and students in Albanian. A regulation addressing ethical conduct in academic and research undertaking is introduced but it is applicable to academic staff only (see Article 3 of the Code of Ethics). Moreover, in addition to the Code of Ethics, the institution has got a number of other relevant regulations introduced, however, many of them are not publicly available via the FECE website. Finally, some important documents and information which happen to be publicly available are of questionable integrity. Furthermore, after the meetings with management, heads of this study program and teachers, experts gained the impression that staff and students comply with all the internal regulations.

Standard		Compliance YES NO	
Standard 1.1. The study program mission is in compliance with the overall mission statement of the institution.	X		
Standard 1.2. Relevant academic and professional advice is considered when defining the intended learning outcomes which are consistent with the National Qualifications Framework and the Framework for Qualifications of the European Higher Education Area.	X		
Standard 1.3. The study program has a well-defined overarching didactic and research concept.		X	





### Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

Standard 1.4. There are formal policies, guidelines and regulations dealing with recurring procedural or academic issues. These are made publicly available to all staff and students.		X
Standard 1.5. All staff and students comply with the internal regulations relating to ethical conduct in research, teaching, assessment in all academic and administrative activities.	X	
Standard 1.6. All policies, regulations, terms of reference and statements of responsibility relating to the management and delivery of the program are reviewed at least once every two years and amended as required in the light of changing circumstances.	X	

Compliance level: Substantially compliant

#### ET recommendations:

- 1. Promptly improve the English version of FECE official website and make all formal policies, guidelines and internal regulations publicly available.
- 2. Improve the didactic concept of the study program.
- 3. Introduce practice which would secure a seamless transition between two consecutive planning processes/periods thus enabling effective business and academic continuity.
- 4. Resolve contradictions and applicability in important regulations such as Code of Ethics and others.

#### 2.2. Quality management

Quality management system described in the self evaluation report is missing important information but from the collected information during the online visit it can be concluded that all staff participate in the QA activities and these activities are integrated in the overall planning process. Nevertheless, evidence of poor handling of identified needs for improvements can be seen. Thus, for instance, even though all the stakeholders interviewed appreciate the need for a prompt upgrade of the FECE website, this has not been translated in the corresponding QA related documents and planned procedures. Furthermore, the interviewed QA personnel have outlined the relatively poor survey sample size as a main





### Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

obstacle to reaching better representativeness of the feedback collected. As participation in the student questionnaires is voluntary, a feedback would be collected typically from only a handful of students making it rather unrepresentative. In this regard it would be expected that corresponding prompt calls for actions are made and documented, however, the Expert Team has found only a scarce evidence of such undertakings. One such example is the objective entitled as "Quality of self-assessment reports" found in the Draft Strategic Plan 2021-23, but as it has been set to be effective as of May 2021 onwards, it can hardly be seen as genuine.

The interviewed QA representatives have outlined that student passing rate is used as a method to assess the quality of both the study program and the academic staff. As the passing rate may indeed provide valuable info on how the study process is meeting the overall expected didactic outcomes, if used solely it may well be misleading. It is therefore recommended the QA assessment process include a cross-sectional approach and generate integrated analytics to support improvement planning.

Further to the above, no feedback collection procedure has been set to seek useful information from graduates and employers, and only unstructured communication with both stakeholders is present. Moreover, most of the feedback collected is not publicly available, neither the way they are structured allow for easy manipulation or keyword searching. As a result, it may be deemed that only basic QA procedures aimed at securing long-term institutional and study program development have been put in place, and more should be done to raise the current standards of QA-related operations. The reports are prepared regularly, however, the Expert Team feels the reporting is focused primarily to meet the regulatory requirements rather than to improve the quality of the processes it refers to. Finally, the self report is superficially written with a low quality since it is missing numerous important information and is not covering all the standards.

Standard	Compliance YES NO	
Standard 2.1. All staff participate in self-evaluations and cooperate with reporting and improvement processes in their sphere of activity.	X	
Standard 2.2. Evaluation processes and planning for improvement are	X	





### Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

integrated into normal planning processes.		
Standard 2.3. Quality assurance processes deal with all aspects of program planning and delivery, including services and resources provided by other parts of the institution.		X
Standard 2.4. Quality evaluations provide an overview of quality issues for the overall program as well as of different components within it; the evaluations consider inputs, processes and outputs, with particular attention given to learning outcomes for students.	X	
Standard 2.5. Quality assurance processes ensure both that required standards are met and that there is continuing improvement in performance.		X
Standard 2.6. Survey data is being collected from students, graduates and employers; the results of these evaluations are made publicly available.		X
Standard 2.7. Results of the internal quality assurance system are taken into account for further development of the study program. This includes evaluation results, investigation of the student workload, academic success and employment of graduates.		X
Standard 2.8. The institution ensures that reports on the overall quality of the program are prepared periodically (eg. every three years) for consideration within the institution indicating its strengths and weaknesses.	X	
Standard 2.9. The quality assurance arrangements for the program are themselves regularly evaluated and improved.	X	

Compliance level: Partially compliant

#### ET recommendations:

- 1. Introduce regulation which would mandate students to participate in QA-related surveys.
- 2. Introduce feedback collection systems and procedures to gather feedback from other stakeholders such as graduates, employers, local community and local government.

12





### Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

- 3. Make findings of the QA assessment processes publicly available and promote positive practices internally and externally.
- 4. Improve significantly the quality of the next self report.

#### 2.3. Academic staff

academic staff at FECE include in total 33 full time academic staff, 24 part-time academic staff, and 5 retired professors. In this study program 15 full time academic staff and 3 part time are involved, and therefore more than 83% of the academic staff in the study program are full time employees. Furthermore, 13 full time academic staff holds a PhD title and the standards that for each student group (defined by the statute of the institution) and for every 60 ECTS credits in the study program, the institution has employed at least one full time staff with PhD title, are satisfied.

The selection and promotion of academic staff to the respective academic title is conducted according to Article 171, 175, 176 and 177 of the Statute of UP and the following Regulations: Regulation on selection procedures for appointment, reappointment and promotion of academic staff and Regulation on selection procedures for part-time staff. The publication of position openings by UP is usually done twice a year. Requests for new academic personnel are initiated with proposals submitted by the respective departments to the FECE Council that makes a decision to proceed with the publication of a position opening call or not.

In the self evaluation report only basic information regarding the full time and part time academic staff was provided and from the available information it was not possible to evaluate the qualifications and experience of the academic staff. However, from the attached CVs and additionally provided documents all necessary information and data are verified and evaluated. Although academic staff CVs are also available online on the FECE web page, they have not been maintained or updated in the last several years. Furthermore, it is not clear whether during the employment procedure all candidates are aware of their other responsibilities besides teaching work such as consulting, administrative activities, research, etc.





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

Evaluation of the academic staff is administered by the Rectorate and is done at the end of each semester through the questionnaires posted on the SEMS (Electronic student management system) platform. The results of the academic staff evaluation are taken into account for promotion of the academic staff and renewal of contracts. The performance of each professor is measured based on the University regulation for staff promotions. However, the number of students that participate in the surveys and questionnaires is low and it should be improved dramatically in order to get a representative sample for analysis and evaluation of teachers performance and quality of courses and study program. Furthermore, each academic staff should get insight into the results of their performance and the courses that they deliver.

It is ensured by the law, regulation and declaration that academic staff do not cover more than two teaching positions within an academic year regardless of the educational institution where they carry out their activity. Furthermore, during the meeting with quality assurance representatives it was stated that the majority of academic staff has only one full time teaching position, and some part time contracts.

Academic staff have different opportunities for additional development of professional and teaching skills and the Center for teaching and excellence is responsible for the organization of training and workshops for the academic staff. Some professors stated that they have finished the training for becoming trainers and now they are giving various trainings to their colleagues. More recently training on enhancing teaching and assessment methods, creating syllabuses and writing learning outcomes were organized by international experts and some were part of the international projects DRIVE. Other opportunities for academic staff include regular meetings during the years where experienced academic staff are presenting their experience in teaching, sharing of documents and materials from trainings between academic staff, etc. Furthermore, new employed academic staff are obligated to take two courses on improvement of teaching methodology and the requirements for the other academic staff is to attend at least two trainings/workshops between each promotion or before signing the new contract. However, there is no strategy and plan for the academic staff improvement, as well as no obligatory reporting or a database with all conducted activities by academic staff, like attended trainings, workshops, conferences, etc.





### Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

The responsibilities of all academic staff besides teaching include also other engagements such as conducting and correcting exams, students' project and bachelor thesis evaluation, as well as consultations with students. Although, part of the academic staff participate in the boards of national agencies, government institutions and the Ministry of education, in general their community service should be improved.

During the meeting with quality assurance representatives it was stated that University of Prishtina Strategic plan 2020 - 2022 includes strategies for quality enhancement and improving the teaching strategies and quality of learning materials but only the improvement of teaching by introducing new methodologies is mentioned. Therefore, improvement of the teaching and assessment methods must be included into the strategies for quality enhancement and the strategic plans, as well as the continuous improvement in the content and quality of learning materials.

Standard	Compliance YES NO	
Standard 3.1. Candidates for employment are provided with full position descriptions and conditions of employment. To be presented in tabular form data about full time (FT) and part time (PT) academic/ artistic staff, such as: name, qualification, academic title, duration of official (valid) contract, workload for teaching, exams, consulting, administrative activities, research, etc. for the study program under evaluation.		X
Standard 3.2. The academic staff must comply with the legal requirements concerning the occupation of teaching positions included in the Administrative instruction on Accreditation.	X	
Standard 3.3. Academic staff do not cover, within an academic year, more than two teaching positions (one full-time, one part-time), regardless of the educational institution where they carry out their activity.	X	
Standard 3.4. At least 50% of the academic staff in the study program are full time employees, and account for at least 50% of the classes of the study program.	X	





### Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

Standard 3.5. For each student group (defined by the statute of the institution) and for every 60 ECTS credits in the study program, the institution has employed at least one full time staff with PhD title or equivalent title in the case of artistic/applied science institutions.	X	
Standard 3.6. Opportunities are provided for additional professional development of academic staff, with special assistance given to any who are facing difficulties.	X	
Standard 3.7. The responsibilities of all academic staff, especially full-time, include the engagement in the academic community, availability for consultations with students and community service.	X	
Standard 3.8. Academic staff evaluation is conducted regularly at least through self-evaluation, students, peer and superiors' evaluations, and occur on a formal basis at least once each year. The results of the evaluation are made publicly available.		X
Standard 3.9. Strategies for quality enhancement include improving the teaching strategies and quality of learning materials.		X
Standard 3.10. Teachers retired at age limit or for other reasons lose the status of full-time teachers and are considered part-time teachers.	X	

Compliance level: Substantially compliant

#### **ET recommendations:**

- 1. Regularly maintain and update the academic staff CVs that are available on the FECE web page. CVs should be in English language and special attention should be added to the sections describing academic staff research interest and teaching profile.
- 2. Include improvement of the teaching and assessment methods into the strategies for quality enhancement and the strategic plans, as well as the continuous improvement in the content and quality of learning materials.
- 3. Create scientific profiles on the official web page of online scientific platforms in order to improve the visibility of your institution (such as Research Gate, IEEE, Google Scholar, etc..).

16





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

4. Increase the quantity of students participating in surveys and questionnaires in order to get a representative sample for analysis and evaluation of teachers performance and quality of courses and study program.

#### 2.4. Educational process content

The first year of study is the same for all study programs offered by the faculty and gives the students fundamental knowledge in mathematics, physics, electrical engineering and computing. In higher years students broaden this knowledge and acquire new knowledge more related to Information and Communication Technologies. During the meeting with employers it was stated that in general they are satisfied with the knowledge and skills that students acquired in the current study program, but feel that they lack soft skills. Therefore, the Expert Team recommends to the FECE to introduce more (elective) courses on soft skills development.

The study program complies with the level 6 of the National Qualifications Framework. However, experts noticed that the similarity between the current bachelor study in Telecommunication and the proposed new study program Bachelor in ICT is extremely high since more than 75% of courses are the same and the similarity is even higher if only mandatory courses are considered. The management stated that the last year the quota in the bachelor study in Telecommunication was not filled since there were 80 places and only 60 students were enrolled. Furthermore, their goal is to attract students in this field with this new study program and the formation of a modern profile of graduates in ICT but it is not clear how they will accomplish it since the new study program is extremely similar to the current that is not popular among students. Moreover, the new, emerging, state of the art technologies in the ICT field such as Internet of Things (IoT), 5G, Cyber Security, Vehicular Ad hoc Networks (VANETs), Artificial Intelligence (AI), Blockchain, Big Data, Cloud Computing, etc. are only marginally or not included at all in the proposed study program. One of the explanations provided by the management was that some of those technologies are closer to the Computer Science field. On the other hand, if the goal of the ICT study program is to stay in the field of information technology and communication networks, elective courses such as Computer games development, Animation and Virtual Reality and Application development for Android and iOS do not fit within the field. Furthermore, the course "Practic(k)um in





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

Labview" is offered twice during the study program as an elective course and it should be offered only once. Further on, some of the technologies proposed in courses in this study program are rather outdated. For example, in the syllabus of the course "Application Development for Android and iOS" Objective-C and Java are stated as the main development technologies but both are hardly of any use in this field. Therefore, it is necessary to improve the content of the current courses to include new technologies and also add new courses based on new technologies in the field of information systems and communication networks.

The disciplines within the curriculum are provided in a logical flow and learning outcomes on the program level meet the precise determination of the general and specific competencies. The courses within the curriculum have analytical syllabuses which are explained and discussed with students in the beginning of each semester (first class of every course). Course syllabuses contain student assessment mechanisms which are also clearly communicated to students at the beginning of every course. External experts noted that some courses do not have well-defined learning outcomes, i.e. in some courses the learning outcomes are too generic and imprecise (e.g. Fundamentals of Programming, Algorithms and Data Structures, Signals and Information, Application development in C++, Mobile communications).

In case the student does not have satisfactory language skills in English, he/she can choose Technical English as an elective course in the first semester. This course enables students to actively use English language to communicate, orally and in writing, at the necessary level for the professional field of electrical and computer engineering. Also, in the self-evaluation report it is stated that the staff is fluent in English and that this could attract foreign students.

It can be said that the program is student-centered because it offers different teaching methods that allow students to actively learn, such as discussions, practical works, projects, seminars and laboratory exercises. Also, professors have sufficient scheduled times in their working hours for consultation for students. It is also important to note that students can rate their professors and the way courses are conducted. The results of these surveys are analyzed and forwarded to the Dean and Vice-Deans in order to take further measures which means that the effectiveness of planned teaching strategies in achieving different types of learning outcomes is regularly assessed and adjustments are made in response to evidence about their effectiveness. For example, a professor who had been poorly graded in student questionnaires





### Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

for several years was invited to the dean's office for consultation and subsequently retired. Unfortunately, students are not informed about the results of these surveys.

As mentioned before, various teaching methods are used to achieve learning outcomes such as lectures, laboratory exercises, seminars. practical works, projects, discussions, etc. Student assessment mechanisms are conducted fairly and objectively. If a student disagrees with the assessment, he/she has the right to file a written complaint to the Dean.

The Internship (Final Project) is mandatory and ECTS credited (10 ECTS) in 6th semester as a part of the final thesis. The Final Project is organized so that a student must complete 125 working hours in one of the companies that have signed an agreement with the FECE and the FECE ensures the internship for each registered student. The study finishes after the final project is successfully completed and publicly defended. An example of a good practice is that students have mentors from the industry that have to be present when the student is defending his final thesis.

Standard	Compliance YES NO	
Standard 4.1. The study program is modelled on qualification objectives. These include subject-related and interdisciplinary aspects as well as the acquisition of disciplinary, methodological and generic skills and competencies. The aspects refer especially to academic or artistic competencies, to the capability of taking up adequate employment, contributing to the civil society and of developing the students' personality.		X
Standard 4.2. The study program complies with the National Qualifications Framework and the Framework for Qualifications of the European Higher Education Area. The individual components of the program are combined in a way to best achieve the specified qualification objectives and provide for adequate forms of teaching and learning.		X
Standard 4.3. The disciplines within the curriculum are provided in a logical flow and meet the definition and precise determination of the general and specific competencies, as well as the compatibility with the	X	





# Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

study programs and curricula delivered in the EHEA. To be listed at least 7 learning outcomes for the study program under evaluation.		
Standard 4.4. The disciplines within the curriculum have analytical syllabuses which comprise at least the following: the discipline's objectives, the basic thematic content, learning outcomes, the distribution of classes, seminars and applicative activities, students' assessment system, the minimal bibliography, etc. The full course description/syllabuses of each subject/ module should be attached only in electronic form to the self-assessment report for the study program under evaluation.	X	
Standard 4.5. If the language of instruction is other than Albanian, actions are taken to ensure that language skills of both students and academic staff are adequate for instruction in that language when students begin their studies. This may be done through language training prior to the commencement of the program.	X	
Standard 4.6. The student-teacher relationship is a partnership in which each assumes the responsibility of reaching the learning outcomes.  Learning outcomes are explained and discussed with students from the perspective of their relevance to the students' development.	X	
Standard 4.7. Teaching strategies are fit for the different types of learning outcomes programs are intended to develop. Strategies of teaching and assessment set out in program and course specifications are followed with flexibility to meet the needs of different groups of students.	X	
Standard 4.8. Student assessment mechanisms are conducted fairly and objectively, are appropriate for the different forms of learning sought and are clearly communicated to students at the beginning of courses.	X	
Standard 4.9. Appropriate, valid and reliable mechanisms are used for verifying standards of student achievement.  The standard of work required for different grades is consistent over time, comparable in courses offered within a program, and in comparison with other study programs at highly regarded institutions.	X	
Standard 4.10. Policies and procedures include actions to be taken in to	X	





### Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

dealing with situations where standards of student achievement are inadequate or inconsistently assessed.		
Standard 4.11. If the study program includes practice stages, the intended student learning outcomes are clearly specified and effective processes are followed to ensure that those learning outcomes and the strategies to develop that learning are understood by students. The practice stages are allocated ETCS credits and the work of the students at the practical training organisations is monitored through activity reports; students during practice stages have assigned tutors among the academic staff in the study program.	X	
Standard 4.12. In order to facilitate the practice stages, the higher education institution signs cooperation agreements, contracts or other documents with institutions/organisations/practical training units.	X	

Compliance level: Substantially compliant

#### ET recommendations:

- 1. Improve the content of the courses to include new technologies in the field of information systems and communication networks.
- 2. Add new courses based on new technologies and trends in the ICT field
- 3. Remove courses that do not fit within the study program field
- 4. Make learning outcomes more uniform across all courses in the proposed study program.
- 5. Introduce more (elective) courses on soft skills development.
- 6. Inform students about results of surveys and questionnaires and measures taken based on those results.
- 7. Sign more cooperation agreements in order to facilitate the practice stages.

#### 2.5. Students





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

The admission criteria for enrollment are clearly defined and publicly announced and are specified in the public call. These criteria apply to all students. To enroll in Information and Communication Technologies study, a student must have a high school diploma, pass the Matura state exam and the entrance exam (in mathematics) organized by the Faculty. The University Senate is responsible for the number of candidates to be accepted in the first year, considering the proposed number by the Faculty Council for each study program.

The study groups should be organized to ensure an effective and interactive teaching and learning process, but since this is a new study program study groups are not organized yet. The study program curriculum is published on the FECE website before the beginning of the semester and is available to students. Lectures are organized on a regular basis according to the class schedule published on the FECE website before the beginning of the semester. The University has established an Electronic Student Management System (SEMS) to which students have individual access. This platform contains all course syllabuses, materials and other important information and records individual student achievements and it is very helpful for the student management.

Assessment of the student's knowledge is done through exams, colloquiums, seminars, laboratory exercises, presentations of the realization of any practical project in the field of engineering, etc. Usually, a student has to pass the written part of the exam and afterwards the oral part of the exam. The exam grade is usually obtained as an average of written and oral grades. The student has the right to review the assessment of the written exam and if he/she disagrees with the assessment, he/she has the right to file a written complaint to the Dean. In that case, the student takes the exam before the commission. All exams are held within the announced exam terms (January, June and September). The Senate of the University of Pristina (on the proposal of the Study Committee and the Faculty Councils) may decide to announce additional exam terms if it considers that this contributes to the progress of the study process. However, the system adapts to students who participate in an international exchange program or do an internship abroad by allowing them to take the exams earlier. The FECE has a database where they keep records of all student grades and students can get a printout of their grades if they need it. The students' transfer between higher education institutions, faculties and study programs is regulated in formal internal documents. All students' rights and obligations are made publicly available.





### Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

This study program is student-centered, but needs improving in this field. Experts recommend introducing student services such as counselling for students dealing with emotional, financial or family-related problems. Furthermore, the infrastructure for students with disabilities has to be improved. For students whose mother language is not Albanian exams and literature are provided in their mother tongue.

The FECE collects and analyzes the pass rate and grades of students in all courses and the obtained data is used to improve the quality of the studying process. The results of these analysis are forwarded to Dean and Vicedeans and further measures are taken, if needed. Exams are held in larger classrooms with two supervisors and students caught cheating are reported to the Disciplinary committee that takes further measures. Regarding plagiarism, academic staff do not have any platform (like Turnitin) available for plagiarism check, but in general are encouraged to do it manually. Experts recommend the FECE to improve plagiarism prevention process. In general, academic staff have sufficient scheduled times in their working hours for consultations with students.

Standard	Comp YES	liance NO
Standard 5.1. There is a clear and formally adopted admission procedure at institutional level that the study program respects when organising students' recruitment. Admission requirements are consistently and fairly applied for all students.	X	
Standard 5.2. All students enrolled in the study program posses a high school graduation diploma or other equivalent document of study, according to MEST requirements.	X	
Standard 5.3. The study groups are dimensioned so as to ensure an effective and interactive teaching and learning process.	X	
Standard 5.4. Feedback to students on their performance and results of assessments are given promptly and accompanied by mechanisms for assistance if needed.	X	
Standard 5.5. The results obtained by the students throughout the study	X	





### Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

cycles are certified by the academic record.		
Standard 5.6. Flexible treatment of students in special situations is ensured with respect to deadlines and formal requirements in the program and to all examinations.		
Standard 5.7. Records of student completion rates are kept for all courses and for the program as a whole and included among quality indicators.	X	
Standard 5.8. Effective procedures are being used to ensure that work submitted by students is original.		X
Standard 5.9. Students' rights and obligations are made publicly available, promoted to all those concerned and enforced equitably; these will include the right to academic appeals.	X	
Standard 5.10. The students' transfer between higher education institutions, faculties and study programs is clearly regulated in formal internal documents.	X	
Standard 5.11. Academic staff is available at sufficient scheduled times for consultation and advice to students. Adequate tutorial assistance is provided to ensure understanding and ability to apply learning.	X	

Compliance level: Substantially compliant

#### **ET recommendations:**

- 1. Introduce student services such as counselling for students dealing with emotional, financial or family-related problems.
- 2. Improve support for students with disabilities.
- 3. Improve plagiarism prevention and verification.

#### 2.6. Research

None of the study program objectives and study program learning outcomes include research objectives and the main explanation from the management is that the research takes place

24





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

during master studies and especially during doctoral studies. Furthermore, learning outcomes of the courses also do not include research goals. Although it is a bachelor study level, basic research goals should be included in the last year of the study, as well as the state-of-the-art research results and technologies that must be included in the course content. Furthermore, there is no evidence that students are engaged in research projects and other research activities.

Expectations for academic staff involvement in research and scholarly activities and performance in relation to these expectations are specified in the work contract, in the Statute of the University and in the Regulation on the Selection Procedures Related to the Appointment, Reappointment and Promotion of the Academic Staff at the University of Prishtina "Hasan Prishtina". Research activities are determined indirectly: the document Regulation on Financing Research – Scientific, Artistic and sports Activities at the University of Prishtina lists the activities that are financially supported. Research indicators are listed in the Strategic Plan of Actions 2021-2023 of FECE. The research of academic staff is basically validated by scientific publications and is internationally visible. The majority of the academic staff has published research work on similar topics as their teaching activity with an adequate citation score. Participation in international conferences has been relatively active but in the last year it is lower mainly due to the current pandemic situation. According to the list of publications submitted, the teachers have published at least an average of one scientific/applied research publication per year for the past three years under the name of the University of Prishtina. No evidence was provided that academic staff are encouraged to include in their teaching information about their research and scholarly activities that are relevant to courses they teach, together with other significant research developments in the field. On the other hand, as the research of the teachers harmonizes quite well with the topics they teach, the potential is high to use research results in teaching. This also creates opportunities for teachers to offer topics for diploma work according to their research interest.

Technological transfer is not regulated and not supported in the University. This is not facilitated by the salary system either, as salaries are unified and do not depend on cooperation with companies. However, realization of professional expertise for the needs of the community is foreseen as one of the tasks in the Strategic Plan of Actions of FECE for 2021-2023. The University has not yet established intellectual property ownership policies or





### Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

regulations, although "The development of policy for the protection of the intellectual property of the University and of its commercial utilization" is stated in the Statute of the University as one of the responsibilities of the Senate.

Standard	Comp YES	oliance NO
Standard 6.1. The study program has defined scientific/applied research objectives (on its own or as part of a research centre or interdisciplinary program), which are also reflected in the research development plan of the institution; sufficient financial, logistic and human resources are allocated for achieving the proposed research objectives.		X
Standard 6.2. Expectations for academic staff involvement in research and scholarly activities are clearly specified, and performance in relation to these expectations is considered in staff evaluation and promotion criteria.	X	
Standard 6.3. Clear policies are established for defining what is recognized as research, consistent with international standards and established norms in the field of study of the program.	X	
Standard 6.4. The academic staff has a proven track record of research results on the same topics as their teaching activity.		
Standard 6.5. The academic and research staff publish their work in speciality magazines or publishing houses, scientific/applied/artistic products are presented at conferences, sessions, symposiums, seminars etc. and contracts, expertise, consultancy, conventions, etc. are provided to partners inside the country and/or abroad.	X	
Standard 6.6. Research is validated through: scientific and applied research publications, artistic products, technological transfer through consultancy centres, scientific parks and other structures for validation.		X
Standard 6.7. Each academic staff member and researcher has produced at least an average of one scientific/applied research publication or artistic outcome/product per year for the past three years.	X	





### Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

Standard 6.8. Academic and research staff publish under the name of the institution in Kosovo they are affiliated to as full-time staff.	X	
Standard 6.8. (1) Academic staff are encouraged to include in their teaching information about their research and scholarly activities that are relevant to courses they teach, together with other significant research developments in the field.		X
Standard 6.9. Policies are established for ownership of intellectual property and clear procedures set out for commercialization of ideas developed by staff and students.		X
Standard 6.10. Students are engaged in research projects and other activities.		X

Compliance level: Partially compliant

#### ET recommendations:

- 1. Add topics of research methods and methodology to existing course(s).
- 2. Include state-of-the-art research results and technologies in the courses content.
- 3. Develop and implement a regulation on technology transfer.
- 4. The University is recommended to establish an intellectual property ownership policy.

#### 2.7. Infrastructure and resources

The FECE has been sharing its facility with FME (Faculty of Mechanical Engineering) and FCE (Faculty of Civil Engineering), that consists of two big and two medium amphitheaters, nine smaller lecture halls and eight laboratories that were presented in videos. It seems that the FECE has enough premises, human resources and equipment for satisfying the needs of the study program. However, there is an issue with some well-equipped laboratories since there are not enough technicians to fully exploit the potential of these laboratories for independent work of students.





### Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

Financial plan of the whole Faculty has been provided where expenses for salaries, as well as faculty level operational expenses, and expenses for computers, new devices, renovations, furniture and other categories are calculated. Study programs do not have separate financial plans, the financial needs of the study program are covered by the central administration of the University. As a public institution of higher education, University's financial sustainability is guaranteed by the Mid-Term Expenditure Framework for the next three years. The University is the owner of the space it uses and has the central library.

Considering the number of students (about 2400 students in the whole Faculty), the number and size of teaching classrooms and laboratories is adequate. However, the infrastructure is not fully adapted to students with special needs but the Strategic Plan of Actions of FECE foresees concrete activities for improvement.

The role of the library seems to be underestimated since in the self evaluation report library capacities are described in only two sentences and there is no information of compliance with Standard 7.5. The link to "Access to electronic resources" on the University web page is also empty (like several other links on the web page). The self evaluation report (page 99) lists "Lack of funds for the purchase of textbooks for the courses being taught" as one of the weaknesses for infrastructure and resources.

Standard	Comp YES	liance NO
Standard 7.1. The adequate long-term implementation of the study program is ensured in quantitative terms as regards premises, human resources and equipment. At the same time, it is guaranteed that qualitative aspects are also taken into account.	X	
Standard 7.2. There is a financial plan at the level of the study program that would demonstrate the sustainability of the study program for the next minimum three years.	X	
Standard 7.3. The higher education institution must demonstrate with adequate documents (property deeds, lease contracts, inventories, invoices etc.) that, for the study program submitted for evaluation it	X	





# Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

possesses the following, for the next at least three years: a) owned or rented spaces adequate for the educational process; b) owned or rented laboratories, with the adequate equipment for all the compulsory disciplines within the curriculum, wherever the analytical syllabus includes such activities; c) adequate software for the disciplines of study included in the curriculum, with utilisation licence; d) library equipped with reading rooms, group work rooms and its own book stock according to the disciplines included in the curricula.		
Standard 7.4. The number of seats in the lecture rooms, seminar rooms and laboratories must be related to the study groups' size (series, groups, subgroups); the applicative activities for the speciality disciplines included in the curricula are carried out in laboratories equipped with IT equipment.	X	
Standard 7.5. The education institution's libraries must ensure, for each of the study programs:  a) a number of seats in the reading rooms corresponding to at least 10% of the total number of students in the study program;  b) a number of seats in the group work rooms corresponding to at least 10% of the total number of students in the study program;  c) their own book stock from Albanian and foreign speciality literature, enough to cover the disciplines within the curricula, out of which at least 50% should represent book titles or speciality courses of recognised publishers, from the last 10 years;  d) a book stock within its own library with a sufficient number of books so as to cover the needs of all students in the cycle and year of study the respective discipline is provided for;  e) a sufficient number of subscriptions to Albanian and foreign publications and periodicals, according to the stated mission.		X
Standard 7.6. The infrastructure and facilities dedicated to the implementation of the program is adapted to students with special needs.		X

Compliance level: Substantially compliant

#### **ET recommendations:**





### Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

- 1. Ensure adherence to the Strategic Plan of Actions of FECE concerning infrastructure for students with special needs.
- 2. Plan and implement measures to ensure compliance with the requirements of Standard 7.5.

#### 3. OVERALL EVALUATION AND RECOMMENDATION OF THE ET

University of Prishtina as a large public institution has an important role for the local but also regional higher education landscape. The constant involvement of industry representatives in the development of study programs is just one example of good practices. The teaching and administrative processes of the FECE are adjusted to the needs of students and the general goals of the proposed study program Information and Communication Technologies are in line with the overall mission and strategic goals of the University. However, there are several improvements that are necessary in order to further improve the quality of the proposed study program:

- 1. The general impression is that the main factor holding back development is the poor performance of duties by the University top management. This is expressed as follows:
  - a. The usage of academic resources at the University is inefficient, particularly in the field of ICT. It is known that the development of a society is largely determined by the digital solutions used in all its sectors, the so-called digital transformation. It is the same with university education in all subject areas, which requires digital transformation to ensure quality. To achieve excellence in this, academic competence in ICT should be pooled rather than split between different faculties. Thus, instead of each faculty recruiting some ICT lecturers, they should be grouped in one unit (faculty), which also provides ICT training in all other units' disciplines. Such a unit would have the potential to create strong research teams that would be much more competitive in obtaining international ICT projects.
  - b. In today's information society, economic development, culture, politics and the well-being of members of society are largely based on information. The most important mediation medium for public information about the University is the

30





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

University website. Public universities should lead by example. However, the public website of the University of Prishtina is not adequate. The fact that a new website is being created is not an excuse for poor quality of the existing web site.

- c. Several important areas are not regulated at the University. For example, the University has not established intellectual property policies and technology transfer (including establishing spin-offs and start-ups) is not regulated. Ensuring academic activities with the necessary resources should be a special focus of university management. Furthermore, although there is a strategic plan it is clear that there are shortcomings in the implementation of the strategy.
- 2. The mission of the bachelor program in Information and Communication Technologies includes the following statement: "The graduates of this study program should be trained to understand and respond to new information and communication technologies relevant to industry needs." However, the similarity between the current study in Telecommunication and the proposed new study program Bachelor in ICT is very high since more than 75% of courses are the same and the similarity is even higher if only mandatory courses are considered. Furthermore, some of the technologies taught in this study program are rather outdated. Therefore, it is necessary to improve the content of the current courses to include new technologies and also add new courses based on new technologies in the field of information systems and communication networks.
- 3. Improve students support for students with disabilities and by introducing student services such as counselling for students dealing with emotional, financial or family-related problems. Furthermore, the number of students that participate in the surveys and questionnaires should be increased dramatically in order to get a representative sample for analysis and evaluation of teachers performance and quality of courses and study program.

Considering that the provided documentation is not covering all the standards and is missing numerous important information discussions with the program development team during an online visit to the Faculty of Electrical and Computer Engineering was crucial for several decisions. The expert committee for the accreditation process prepared this report based on defined Standards & performance indicators for external evaluation according to the





### Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

Accreditation Manual of KAA (July 2018) and gave recommendations for further quality improvement and the following compliance levels:

Standard	Compliance Level	
Mission, objectives and administration	Substantially compliant	
Quality management	Partially compliant	
Academic Staff	Substantially compliant	
Educational Process Content	Substantially compliant	
Students	Substantially compliant	
Research	Partially compliant	
Infrastructure and resources	Substantially compliant	
Overall Compliance	Substantially compliant	

In conclusion, the Expert Team considers that the study program Bachelor in Information and Communication Technologies offered by University of Prishtina, Faculty of Electrical and Computer Engineering is Substantially compliant with the standards included in the KAA Accreditation manual and, therefore, recommends to accredit the study program for a duration of three years with a number of maximum 80 students to be enrolled in the program.

#### 4. APPENDICES (if available)

None





# Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

# **Expert Team**

Member	Boll	
Signature	Josip Balen	07.04.2021.
Member (Student)		
Signature	Laura Palac	07.04.2021.