UNIVERSITY OF PRISHTINA "HASAN PRISHTINA"

Information and Communication Technologies
Bachelor of Science

Reaccreditation

REPORT OF THE EXPERT TEAM

26.03.2024, Prishtinë

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1. INTRODUCTION

1.1. Context

Date of site visit: 26.03.2024

Expert Team (ET) members:

- *Dr. Flavio Canavero*
- *Dr. Anastasios Dagiuklas*
- *Dr. Seifedine Kadry*
- *PhD Cand. Asnate Upmace*
- *PhD Cand. Stefania Armaselu*
- *PhD Cand. Damian Michalik*

Coordinators from Kosovo Accreditation Agency (KAA):

- *Shkelzen Gerxhaliu, Director of Department for Monitoring and Post-Accreditation Procedures*

Sources of information for the Report:

- *The Manual for External Evaluation of Higher Education Institutions*
- *Self-evaluation Report*
- *Syllabi of the courses*
- *CV-s of the academic staff*
- *University strategic plan*
- *Faculty strategy*
- *Student Statistics for recent years*
- *External Review Report*

Criteria used for institutional and program evaluations

- *Standards & performance indicators for external evaluation according to the KAA Accreditation Manual - Updated 2021*

1.2. Site visit schedule

Time	Meeting	Participants
09:00 – 09:50	*Meeting with the management of the faculty where the programme is integrated*	*Isak Shabani* *Qamil Kabashi* *Milaim Zabeli* *Bujar Krasniqi*
09:55 – 10.35	*Meeting with quality assurance representatives and administrative staff*	*Besnik Loxha* *Dhuratë Hyseni* *Qerim Behrami*

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Time	Meeting	Participants
		Vlora Shileku *Rreze Rudi*
10:40 – 11:50	*Meeting with the heads of the study programme*	*Mimoza Ibrani* *Hëna Maloku* *Valdete Rexhëbeqaj* *Bujar Krasniqi* *Zana Limani Fazliu*
11:50 – 12:50	*Lunch break*	-
12:50 – 13.40	*Visiting Facilities*	-
13:40 – 14:30	*Meeting with teaching staff*	*Enver Hamiti* *Qefsere Doko* *Avni Rexhepi* *Artan Mazrekaj* *Valon Raça* *Valon Veliu* *Jeta Dubruna* *Doruntine Berisha* *Agnesa Avdiu* *Miranda Kukaj* *Fatos Peci* *Rrezarta Thaqi*
14:35 – 15:20	*Meeting with students*	*Verona Zeqiri* *Dijar Gjinovci* *Atlantida Bytyqi* *Irida Jashanica* *Plator Bajraktari* *Blerona Mala* *Vullnet Laniku* *Fatbardha Bruqi* *Granit Bytyçi* *Arber Vitija* *Brisilda Zylfiu* *Gamze Troshupa*
15:25 – 16:10	*Meeting with graduates*	*Gent Brovia* *Elion Vucetaj* *Arzane Kastrati* *Ronita Gashi* *Eriola Haklaj* *Behare Grajcevci* *Krenare Krasniqi* *Elmaz Maloku* *Kaltrina Mustafa* *Lulzim Qela*
16:15 – 17:00	*Meeting with employers of graduates and external stakeholders*	*Sadri Berisha* *Fatbardh Dragusha* *Flamur Gosalci* *Shpet Berzati* *Valon Fetahu* *Krenar Rexhepi*
17:00 – 17:15	*Internal meeting of KAA staff and experts*	-

Time	Meeting	Participants
17:15 – 17:25	*Closing meeting with the management of the faculty and program*	Isak Shabani Qamil Kabashi Milaim Zabeli Bujar Krasniqi

1.3. A brief overview of the institution under evaluation

The University of Prishtina "Hasan Prishtina" stands as the oldest and largest institution of higher education in Kosovo, comprising 14 academic units with over 28,500 students, 1,450 academic staff, and 275 administrative support personnel.

The institution's vision emphasises quality assurance in higher education, alignment of study programs with labor market needs, and support for international mobility within EU exchange programs. Additionally, the University aims to enhance cooperation with European higher education institutions and promote research crucial to Kosovo's scientific, cultural, and economic development.

Established in 1961, Faculty of Electrical and Computer Engineering (FECE) operates within the University of Prishtina "Hasan Prishtina," focusing on contemporary and innovative education. With approximately 1951 active students and 38 full-time academic staff, FECE offers Bologna Declaration-aligned study programs in various fields of engineering.

FECE provides 7 Bachelor's and Master's degrees in Electronics, Automation and Robotics, Computer and Software Engineering, Information and Communication Technologies, Power Systems, and a PhD in Electrical and Computer Engineering.

The Information and Communication Technologies Bachelor study program was accredited in 2021 for three years and was confirmed as being substantially compliant with the standards, with a number of 80 students to be enrolled in the program.

2. PROGRAM EVALUATION

2.1. Mission, Objectives and Administration

The University of Prishtina mission is focused "on academic development, scientific and artistic research, and the provision of higher education through programs of strategic and developmental interest to the Republic of Kosovo. The University enables the mobility of programs, students, and academic staff on an ongoing basis, intending to reach the international level and competition in the market."

In the strategic plan implemented for years 2023-2025, the university set the following objectives:

- Increasing the quality of teaching and learning

- Advancement of science, innovation and connection with the labour market
- Improving the position and role of UP in the international scene
- Digitization and improvement of physical infrastructure
- Strengthening governance, integrity and financing

The strategic plan also includes KPIs which allows representatives to monitor the university progress. Even though the university mission and strategy plan do not specify any study fields, the extended FECE strategy clarifies the scope of the study programme. Therefore, RT considers that both strategy and the study programme are aligned to the mission statement of the university.

The expected learning outcomes are developed in accordance with the National Qualifications Framework and the Framework for Qualifications of the European Higher Education Area. The faculty presented adequate mapping to qualifications and explained that the study programme content was based on experience of other universities, i.e.: University of Zagreb or University of Vienna.

The study program has an applied research focus: students have opportunities to be engaged in research projects, current research findings are included in course materials, and an emphasis is put on the development of research skills. Student centricity and market orientation were stated as the overarching principles, however further development in terms of swift and reliable cooperation with the labour market should be considered.

The university's policies cover a wide range of topics, including accreditation standards, regulations on studies at all levels, quality assurance, academic mobility of students, and disciplinary procedures for academic staff and students, among others. The university also has guidelines on academic ethics, official and archival management, and protection of whistleblowers. All these documents are publicly available.

The University's Code of Ethics serves as a guiding framework for the behaviour expected from all university affiliates, including students, staff, and faculty members. It details essential principles and values, and regulates issues such as plagiarism, academic misconduct, conflicts of interest, and harassment. In addition, the University has instituted entities like the Quality Assurance Committee, with responsibilities that include enforcing compliance with these regulations and probing any suspected infringement.

The Faculty Council periodically reviews faculty decisions at least annually or as required by changing conditions. Specific policies at the University of Prishtina, such as the Regulation on Master Studies and the Regulation on Selection and Appointment of Academic Staff, have been revised multiple times to enhance administrative procedures and research standards, respectively.

Even though the university established strong relationships with external stakeholders from various industries (industrial board of FECE) and started closer cooperation with the University of Iowa (USAID Mission) there is still room for improvement recognized by RT on the meeting with industry representatives. As in general public universities are not as swift as private ones in readjusting their activities to the latest technological trends and transferring scientific outcomes to the labour market. It is essential to enhance internal processes to cover

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gaps between current academic curricula and the rapidly evolving technological landscape, and extend involvement in transferring intellectual property to the local business sector.

Compliance level: Fully compliant

ET recommendations:
1. *Strengthening collaboration between industry and FECE to furtherly improve the study programme and significantly contribute to the further development of local society.*

2.2. Quality Management

The formal system at the University of Prishtina encompasses a Regulation on Quality Assurance and Evaluation approved in 2016. This regulation also defines the role and responsibility of organisational and academic units at the University of Prishtina for carrying out quality assurance and evaluation activities. According to the Quality Assurance Regulation, the quality assurance processes cover a number of issues – teaching quality, services for students, scientific activity, international cooperation and resources. According to the SER, there are four types of quality evaluation instruments – academic staff questionnaires, questionnaires for course evaluation, administrative staff questionnaires and student questionnaires. There is a structure at the central level that explains the formal responsibilities of all parties. The evaluation process is administered at the central level but executed on the faculty level.

While the expert team is aware of the diverse practices at the University of Prishtina, despite the common regulations, the expert team would like to commend FECE and the university central management for successful cooperation in preparing the documentation relevant for accreditation. While the report could benefit from more analysis and self-reflection, the documents have been well arranged, the course descriptions follow a unified template and the self-evaluation report is accurate.

The FECE Strategic Plan 2021 – 2023, extended 2024 – 2025 lists a separate action line on Quality assurance and accreditation. The action line includes 9 strategic objectives – improving of teaching and learning in order to develop student competencies, quality of self-assessment reports, student scoring system, establishment of scholarships for short periods for conducting research visits abroad, doctoral programs at FECE in accordance with the Bologna system, improving the quality of teaching, learning and research activities at FECE, expanding FECE's relations with the labour market and civil society, involvement of students in quality improvement and increase quality performance. The Strategic Plan includes several indicators for each strategic objective, however, it is not fully clear how these indicators are monitored. It would be important to monitor their achievement on a regular basis and also report within and after the timeframe of the strategy execution.

The University of Prishtina Statute states that the evaluation of teaching, scientific research, and artistic work of staff shall be conducted in the following manner – internal evaluations through self-evaluation, questionnaires and self-evaluation conducted by academic staff,

anonymous questionnaires of evaluation by students, analysis of parameters based on performance reports. The FECE Strategic Plan includes a related task and activity – development of mechanisms for receiving feedback from students and employers (survey, alumni, etc.) and survey with students (through online tools), employers and graduates (alumni), in order to receive feedback on the quality of teaching and learning at FECE. Recently, the centre for Alumni UP of the graduates was established within the University of Prishtina to maintain the link and correspondence with the graduates. This center distributes two questionnaires – a questionnaire for graduates to evaluate the completion of the study program and the questionnaire for employers to assess the knowledge and the gaps of students who graduated from a specific study programme. The surveying of graduates and employers is, however, a very recent practice and not yet regular and embedded. On the faculty level the feedback from graduates is collected informally, mostly regarding the courses that could be included in the study programme. There is an Industry Advisory Council that functions on the level of faculty that is asked for input on these matters.

The first public reports on the results of surveys have been produced only very recently. It would be very important for the summary reports on employer and graduate feedback (but not limited to) to be produced at the FECE level to allow for the faculty community to get a clear overview on the faculty performance and allow for immediate translation into improvement actions.

FECE claims that the results generated on the basis of all evaluations are an integral part of planning for the next academic year in order to increase the quality. The quality assurance processes cover – programme planning, teaching and assessment, environmental conditions and resources, student feedback and evaluation, student assessment and feedback, professional development of staff, continuous programme review, monitoring of results and changes. The plans on implementation of expert recommendations are produced after each external evaluation and the expert team receives the examples of these reports. The expert team studied the summary reports produced on the university level. One sample was based on the feedback from academic staff, administrative staff and students. It contained a thorough analysis and a number of recommendations/ suggestions. However, it was not fully clear how these recommendations are further translated into actions and how their implementation is monitored.

SEMS is used to collect real-time information on student achievements. The information on course completion and student progression is registered there. Based on the external reports on the previous programmes, the expert team was concerned about the overall time it takes for a student to graduate from a study programme in FECE and the so-called "inactive" students. The bachelor programmes currently implemented by FECE are formally new and have been significantly revised compared to the previous ones and the first graduates are expected for 2024. However, the expert team urges FECE to monitor the situation of student progression closely and take actions in order to reduce the dropout.

It is understandable that the mission of the university is to provide quality education to its students and not necessarily accommodate the needs of working students at the bachelor level. However, in the IT sector working students is a global tendency and the . The expert team learned that on the master's level the lectures are organised in the afternoon/ evening

and this is the major reason that enables the students to attend. However, on the bachelor's level the expert team did not feel that this issue was sufficiently explored and that all possible actions by FECE are being taken.

The student survey has become mandatory at the University of Prishtina. Until then, there was a low response rate to student surveys. However, the hesitation of students to provide meaningful and/or critical feedback through these surveys exists and the students, especially on master's level where there are smaller student groups, prefer other ways of communication, for example, a direct conversation with a professor.

However, despite the remarks made in the analysis above, overall it is visible that there is a culture of continuous improvement at FECE that is reflected in formal documents and reports and also maintained in practice.

Compliance level: Substantially compliant

ET recommendations:
1. *To perform analysis on the implementation of the FECE Strategic Plan and monitor the indicators related to all strategic aims;*
2. *To produce summary reports on the feedback from academic staff, administrative staff, students, employers and graduates not only on the University level but also on the FECE level specifically;*
3. *To ensure that the suggestions included in the summary reports result in certain actions for improvement and that their implementation is monitored.*
4. *To complement the recently introduced practice of surveying employers and graduates with certain actions at the FECE level, either by directly receiving the data collected on the central level or by introducing complementary activity on the FECE level, to get immediate and up-to-date feedback.*
5. *To take a close attention to student progression and drop-out rates in all FECE programmes, in particular on the bachelor level, in order to investigate the reasoning and prevent drop-out;*
6. *Explore additional tools for obtaining quality and meaningful feedback from the students.*

2.3. Academic Staff

The bachelor level ICT study program belongs to the Faculty of Electrical and Computer Engineering and is taught by 16 full-time employed academic staff; 2 part-time employed teaching staff from ICT industry for professional courses were engaged last academic year. Out of 16 full-time employed staff, 5 have academic title Prof.dr., 3 have academic title Prof.asoc.dr., 3 currently hold the title Prof.ass.dr. and 5 are full-time teaching assistants. The female gender represents 44% of full-time staff in Bsc. ICT study program. Concerning the age distribution, more than 50 % of staff are younger than 45 years old. More than 70 % of staff hold a PhD. All academic staff have completed at least one cycle of study in EU/USA universities and/or have been co-supervised in master's and PhD levels by well-known international scientists.

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The workload of academic staff includes weekly teaching hours (6 for professor rank and 10 for assistants), weekly consultation slots with students (at least 3 x 1.5 hours), mentoring of thesis (at least 3 bachelor thesis per academic year), preparing and organising the intermediate student assessment (colloquiums, quizzes, midterm evaluations etc.), preparing and organising exams. Statistical quantification of promotion of the ICT study field to the community and of research work, participation in international conferences, serving as reviewer of international conferences and journals, evaluation of professional projects and participation in different professional committees are not provided, and we can only assume that the time dedicated to these activities is the complement to the 40 hours per week required by the academic contract. In research and professional projects, ICT staff cooperates with students, industry, and international peers. The results of such cooperation are disseminated via publications, reports, presentations etc. which are publicly available.

The full-time academic staff is recruited through meritocratic procedures, whose criteria and procedures are defined by the Statute of university and with Regulation on recruitment and promotion of academic staff, which are available in the web page of the University. Position descriptions and conditions of employment are advertised in public calls. Contracts for professor rank: assistant professor and associate professor are 4 years, while full professors have unlimited

The full-time academic staff in this program complies with the legal requirements concerning the teaching positions, that is: academic staff engaged for lectures hold PhD and at least the title of Prof.ass.dr. in the field they are teaching; teaching assistants engaged for labs and exercises have at least Msc. Degree, but most of them are PhD candidates and some are from related industries. The course teachers hold the rank of at least Prof.ass.dr. and also they are first and/or corresponding authors of at least 1 journal paper published in ISI and Scopus indexed journal.

Full-time academic staff in the ICT department are engaged as full-time teaching staff in University of Prishtina only, and they do not have any other teaching activities in other higher education institutions. In addition, they do not cover, within an academic year, more than two teaching positions, one full-time/one part-time, regardless of the higher education institution they carry out activity. Part-time teaching staff are employed by the ICT industry and have only 1 part- time teaching contract for this ICT study program.

The large majority of staff (> 90 %) is full-time, while most of teaching (> 90 %) is carried out by full-time academic staff.

For this study program, *academic staff to students ratios* are comparable to well-known international universities offering study programs in engineering, making it possible for one academic staff to work with small groups and a low number of students. In fact, FT/student ratio is 1:15, considering all students enrolled in ICT bachelor level; FT/student ratio is 1: 6, considering 16 academic staff members for 80 freshmans in Bsc ICT.

More than one PhD holder is engaged for each student group and for every 60 ECTS credits in the study program.

Various professional development opportunities are offered by this institution through the Center for Teaching Excellence Center. According to internal university regulations, each staff member is required to complete two teaching excellence trainings, and all listed staff from the ICT department have completed those trainings.

Senior academic staff develop a mentor-mentee relationship with junior staff, assisting and facilitating their career development through continuous guidance.

The ICT department staff have also completed other training courses organised within international capacity-building projects.

The academic staff of the program under evaluation actively contribute to academic community, serving as:

- Reviewers at international peer reviewed journals indexed by ISI and Scopus such as: IEEE Journals, Springer Journals, Elsevier Journals etc.;
- Member of Organizing Committees and reviewers at national and international scientific and professional conference;
- Members of bachelor, master and PhD thesis evaluation and thesis public defence;
- Members of University and Faculty academic decision structures;
- Members of working groups for preparing, updating and developing courses and study programs;
- Coordinators and members of international projects on capacity building in higher education;
- Contributors on developing the laboratory setups and technical specifications;
- External evaluators of different research and professional, local and international projects, deliverables;
- Some academic staff participate in development of higher education legislation and strategies and legislation in the ICT sector.

Academic staff are active in promoting the ICT study fields to society, industry and to high school students. They are members of: national ICT scientific subcommittee at Ministry of Education, authors of ICT of pre-university textbooks and provide high level expertise for ICT related issues in courts etc.

Academic staff evaluation is conducted regularly via different means:

- evaluation during recruitment or promotion procedure;
- self-evaluation of academic productivity by comparing with local and international standards, and with performance of peer colleagues from different universities;

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- student's evaluation based on forms to be filled by each student at the end of each semester. Results are discussed with colleagues in department meeting and whereas necessary with faculty management level;

- peer evaluation, in forms of peer discussions and reflection during workshops, meetings etc.

Head of department on a regular basis reports to faculty management and faculty council about academic performance of staff. Results of each academic staff evaluation are considered during the procedure of staff promotion.

The results of evaluation of the department are shared and published according to university policies, defined within the University Statute and Internal Quality Assurance Regulation.

The proposal for quality enhancement (e.g., improving the teaching strategies and quality of learning materials, etc) is discussed at department level and with international peers, partners in capacity building projects. The delivery of study program includes: multimedia and VR technologies, project and problem-based learning, research oriented teaching, case studies, internship and industry invited lectures, field and lab work, e- platforms, software simulation; adopted course textbooks are authored by internationally well-reputed professors and are in line with those in used in other international universities. Locally-developed learning materials are peer reviewed from at least 2 professors from the same department, before they are distributed to students. Presentations to students are updated on yearly basis to reflect latest development trends in the respective areas.

The legal age of retirement is 65 years. Retirees may engage as a Part Time staff and can teach until the age of 70 years, if there is a need at faculty level.

Compliance level: Substantially compliant

ET recommendations:

1. *Apart from the teaching load, the time dedicated by staff members to research and community service should be quantified and statistical information should be provided. Instead of a simple list of activities other than teaching, a quantitative estimate of the time spent by staff for different categories of activity should be provided.*

2. *A quantitative estimate of the staff members involvement in different activities, apart from teaching, should be specified; e.g., how many individuals are reviewers for international journals, how many are part of public committees, how many provide expertise to Court, etc.*

2.4. Educational Process Content

ECTS are defined by 20 hours of student workload (lectures, auditorium, lab, individual learning); the calculation differs also by the type of course

The first-year schedule is common for everybody, then it becomes more flexible and allows for internships: in fact, after the third semester, all lectures are on 3 days of the week, leaving 2 days for internship. Internship is compulsory for every student, in 3 semesters, based on industry recommendation to start earlier and have time to develop a project to be presented at the end of the curriculum. A list of subjects for internship is prepared by professors, especially for those students without a clear idea.

The syllabus of each course is presented to the students at the beginning of the semester and discussed with the students.

Although the teaching language is Albanian, from the second year on the course literature is international and students have a choice for the slides to be in English or Albanian. In addition, the Department plans to have English-friendly courses/programmes in future times: this is also strongly supported by Industry representatives.

To support students during their course of study, a large number of scholarships are provided by the university, ministry, and companies. In addition, the region provides students with the possibility to access campus dormitories with minimal expenses: this helps attracting Albanian-speaking people to the Balkan area.

Several Erasmus projects are active to offer study visits, exchanges, short-term mobilities to students and also professors.

The study program education content is prepared to meet the declared qualification objectives (fitness for purpose approach). The program was inspired from the study programs offered by highly-ranked universities in the region and in the EU. To prepare the study program, curriculum and respective syllabuses, the all-inclusive consultation process with different stakeholders, both internal and external, was realised.

The program was circulated to peers from EU universities, partners in different international projects. Meetings with the ICT industry to collect their feedback were organised and their recommendations were included in the study program. Also, questionnaires to collect feedback from alumni and current students were distributed and results were taken into account during preparation of the study program.

The proposed study program includes specific subjects and interdisciplinary aspects, as well as soft and transversal skills, identified as necessary academic competencies by labour market representatives, enabling and ensuring smooth transition from studies to adequate employment in the ICT sector.

The first year of study is common to all study programmes offered by faculty. This first year gives the students fundamental knowledge in mathematics, physics, electrical engineering, and computing, and teaches the students to communicate effectively, and acquaints them with general principles of engineering. The English language and German language course are included in the program as electives as well as English for professional communication.

In the second year, the students broaden their knowledge in mathematics (Probability and statistics); information and communication engineering and technologies (Internet

technologies, Communication networks, Data transmission, Signals and Information, Digital communication etc.) applied electrical engineering for ICT (Electronics for communications, Electromagnetic waves), but also the students are introduced to ICT project management, soft skills courses for sustainable development and digital transformation, and also to Software tools for Communication engineering such as Python, Matlab etc.

From Industry representatives, a suggestion came to make the soft skills education more practical, with student activities favouring the real acquisition of the soft skills by students.

In the 5th semester, to increase their project management and teamwork competencies, the students in groups complete the Project course in networking and communication. In the third year they deep their knowledge in professional oriented courses: Mobile communications, Signal Processing, RF Engineering, Communication Networks and Network Programming, and also they are introduced to new technology courses such as IoT, Artificial Intelligence, and they can elect courses from: Multimedia, Optical Communication, Cloud Networking and Big Data, Cyber Security, Virtual Reality etc.

Industry representatives outlined that student preparation about cybersecurity was missing from the program syllabus. Few of the third-year courses include research methodology elements and research-oriented topics. The study terminates after the final project is successfully completed and publicly defended.

This study program is developed in compliance with the standards of the European Higher Education Area, which is characterised by the pattern of studies in three cycles of study and where Bachelor studies comprise the first cycle of studies with 180 ECTS. The compilation of the program with such standards enables students to move within the European study area and continue their studies abroad. The proposed study program complies with level VI requirements of National Qualification Framework (NQF). Kosovo NQF is fully harmonised with the European Qualification Framework.

The individual components of the program and the program as a whole include different forms of teaching and learning, such as lectures, lab exercises, numerical exercises, project based, problem based, research oriented, VR/AR supported content, seminars, practical assignments, software and hardware competencies, team work, soft skills and personal development opportunities, joint academy-industry supervision, invited lectures etc. The components are developed based on a student-centred approach.

The disciplines within the curriculum are provided in logical flow. Learning outcomes of the program are:

- Identifies, defines, understands and analyses problems in the field of ICT and other fields related to engineering.

- Demonstrates a satisfactory level of professional knowledge in the field of ICT.

- Effective work and communication orally and in writing, individually or in groups in multidisciplinary settings.

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- Design, implementation, certification and deployment of a communication network or system, in accordance with professional, environmental and social responsibility.

- Gain hands-on practical knowledge that meets the needs of the job market.

- Follows the development trends in the field of ICT, at the level of its competencies.

- Implements contemporary trends in the field of ICT, at the level of its competencies.

All courses presented in this study program have a detailed analytical syllabus, in Albanian and English. The syllabuses contain: objectives, content, learning outcomes, distribution of classes, applicative activities, assessment methods, minimal bibliography, ECTS workload.

This study program is offered in Albanian language, in accordance with University Statute and applicable higher education law. The faculty offers a list of English taught courses for incoming students. Since the majority of staff has finished at least one degree in English language and is active in international cooperation, the teaching staff have no language barriers to offer content, part of study program or program as whole in English language, wherever it is needed.

Academic staff devote particular attention to the principle of integrity of relation student-professor, which is one of the foundations of the university's educational mission. The learning outcomes are developed with a student-centred approach and are discussed and elaborated with students in the first class of course, during syllabus elements presentation. The academic staff and students have different roles and responsibilities in reaching learning outcomes but they have convergent objectives: meeting learning outcomes and contributing to student's development. The course syllabus (distributed to students when courses start and made publicly available on the faculty website) serves as a kind of contract, whereby each of the parties is informed of responsibilities to reach learning outcomes.

The favourable number of academic staff that serve students in this study program make it easier to build partnership between staff and students, communicate effectively with students and track their progress towards expected course and study program learning outcomes.

The teaching methodologies in this study program are diverse and teaching strategies are fitted based on different types of learning outcomes.

The teaching flexibility expands taking care that some students need more tutorials, other more labs; adopting a grouping strategy enabling students to complement and support each other, learn from each other; and well balancing the teaching/supervision time.

Also, the study program with few elective courses' paths enables flexibility to meet the needs of different groups of students. Some might select more professional courses, others more research oriented.

The syllabus of each course specifies the teaching methods. Syllabi are made available to students through the faculty electronic system (SEMS) together with course material.

Assessment methods are adopted according to the teaching methods and expected learning outcomes. The University Statute and other regulations on bachelor level studies regulate the procedure of student's complaint and appeal about assessment.

The grading scale is according to the Stature of University, ranking from 5 (fail) to 10 (excellent). The grading system has equivalence with the ECTS grading system. The grading performance and standards are regularly discussed at department meetings, serving as indicator to make grading system comparable in courses offered within a program

In case the students' achievements are insufficient, they will have the opportunity to ask their teachers and assistants to support their performance enhancement. The Faculty Council and the Complaints Commission will treat the students' complaints within statutory rules and deadlines.

Policies and procedures to be followed, and actions to be taken in cases where standards of student achievement are inadequate or inconsistently assessed, are regulated at the University level.

Three mandatory internships (3 ECTS in sem 4, 3 ECTS in sem 5, and 6 ECTS in sem 6, integrated in the final project) were introduced, according to Industry suggestions. The syllabuses of Internship courses indicate learning outcomes, activity monitoring and assessment methods.

During Internship, students have a supervisor from academic staff and a supervisor from industry. The internship activity is monitored through activity reports. The academic supervisor illustrates, at the beginning of course, what is expected from students, how to behave at the workplace and how their Internship learning will be assessed. After Internship, the student prepares a presentation that is open, and is presented in front of an academic supervisor and representative from industry.

Examples of companies offering internships are: PTK (Post Telecom of Kosovo), IPKO (Telecom provider), private companies in the ICT sector, like Interadria, 3CISS, Nexxio, TeLos, governmental agencies, etc.

The University of Prishtina and the Faculty of Electrical and Computer Engineering have a significant number of agreements signed with public institutions and private companies. One of the main aspects regulated with MoUs, is realisation of Internships.

Compliance level: Substantially compliant

ET recommendations:

1. *Include in the syllabus an introduction to cybersecurity.*

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2. *Make the teaching of soft skills more practical, assuring that students acquire better communication skills, leadership and team building abilities, critical thinking, etc*

2.5. Students

The university adheres to the requirement of having a clear and formally adopted admission procedure at the institutional level. The public call for student admission is announced, outlining all relevant requirements such as admission criteria, exam specifications, and the number of students to be admitted. The university specifies that admission to the ICT study program is contingent upon completing the Mathematics entrance exam. The proposal for the admission quota is made by the department, subject to approval by the faculty council and the university senate. Based on the information provided regarding the public call announced by UP (University of Prishtina), it appears that the university allows all candidates who have completed high school and the state matura exam to apply for admission to bachelor studies (https://apliko.uni-pr.edu/).

The university's ICT program establishes specific size limits for study groups: a maximum of 70 students for lectures, 25 for numerical exercises, and 12 for laboratory sessions. These limits ensure an effective teaching and learning environment, facilitating interaction and personalised attention, in line with the standard's requirements. During the on-site visit, laboratories and classrooms were inspected, and the available seating capacity for student groups was checked.

The university employs various assessment methods, including exams, colloquia, seminar papers, practical tests, and project presentations in engineering. Exams are typically conducted by course professors and teaching assistants within designated exam terms: January, June, and September. Additional exam terms may be announced if deemed necessary by the UP Senate, provided they do not disrupt regular teaching processes at FECE.

Students receive prompt and continuous notification of their exam results through various channels such as SEMS, the FECE website, or email. They also can request individual sessions with professors for clarification or if they are dissatisfied with their evaluation. In cases of disagreement with the assessment, students can file a written complaint to the Dean of FECE, which may prompt the appointment of a commission to reassess the examination.

The university maintains a systematic recording and confirmation of students' performance in various courses through the SEMS electronic platform (https://sems.uni-pr.edu/). At the end of each semester, students' achievements are documented and stored in SEMS, providing a comprehensive archive accessible to students, administration, faculty, and university management.

Upon successful completion of all obligations, including passing all courses and defending their thesis within the ICT study program, students are conferred the title of "bachelor of science".

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The university provides flexibility in the duration of studies, allowing students to complete their program within double the standard duration (up to 6 years). In special cases where students are unable to fulfil all study obligations within this timeframe, they have the option to request an extension from the faculty council. This extension may grant the student an additional year to complete their studies, subject to approval. If a student transitions to a new study program (reaccredited program), they are required to undertake any exams that were not part of their previous program. This ensures that students are appropriately assessed and meet the requirements of the new program.

At the university, the SEMS system archives records of student completion rates for all courses. These records are analysed at the department level to identify areas for improvement. If completion rates are low for a specific course, the course professor is invited by the department head to discuss potential issues and approaches for improvement. Furthermore, an analysis of completion rates for the program is conducted at the end of each academic year. This comprehensive evaluation allows the university to monitor overall progress and identify any systemic issues that may need addressing.

At FECE, measures have been implemented to safeguard the integrity, quality, and ethical aspects of research work and studies to prevent duplication or potential abuse by students. This includes the establishment of ethical and disciplinary commissions at the faculty level, where any suspected violations are reported and reviewed.

The university benefits from a system for plagiarism detection provided by central authorities at the University of Prishtina and the Ministry of Education, Science, and Technology (MEST) of the Republic of Kosovo. This system aids in detecting instances of plagiarism or academic misconduct. Despite the fact that the staff at FECE is equipped with approximately 20 licences for the web platform plagiarism check (https://plagiarismcheck.org/), which assists in detecting similarities in submitted work and generating unbiased results, they do not have software prepared for the rapidly growing field of artificial intelligence.

Students are promptly informed about their rights and obligations, as well as the relevant bodies to address any concerns regarding equitable treatment. These rights and obligations are outlined in the university statute, which is accessible on the university website (https://uni-pr.edu/desk/inc/media/661032D5-33DD-4CD6-B20F-BFE0AB89FB98.pdf). This ensures transparency and clarity regarding student rights and responsibilities.

Moreover, student interests are represented by various bodies within the university structure. At the university level, the Student Parliament serves as a platform for student representation and advocacy (https://uni-pr.edu/page.aspx?id=2,15). Additionally, at the academic unit level, each department or faculty typically has a Student Council tasked with addressing student concerns and promoting their interests (https://uni-pr.edu/page.aspx?id=2,55).

The process for student transfers is outlined in the university's statute. According to this statute, students have the right to transfer between study programs if they have passed at least 50% of the courses in the previous program that are relevant and accepted in the new study program. To initiate a transfer, the student must submit a request to the study committee of the faculty where they wish to continue their studies, providing evidence of meeting the

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transfer criteria. The decision for the transfer is made by the faculty council, based on the recommendation of the study committee.

These regulations also apply to students transferring from other universities to the University of Prishtina. Additionally, the transfer of students is governed by normal legal and statutory provisions of the university, with special regulations in place for the transfer of ECTS credits.

During the first lecture of each course, the teacher presents the course syllabus along with the scheduled consulting hours. These consulting hours are published on the FECE website and displayed outside the offices of faculty staff, ensuring easy access for students (https://sems.uni-pr.edu/OrariLU).

In addition to scheduled consulting hours, students are encouraged to approach teaching staff for any relevant requests or needs. This promotes an open-door policy, fostering a supportive learning environment where students feel comfortable seeking assistance when needed.

Furthermore, in special cases and upon students' request, consultations can also be conducted online. This accommodates students who may face scheduling conflicts or prefer remote assistance.

Compliance level: 91% Fully compliant

ET recommendations:
1. *The career centre should be focused specifically on the faculty rather than being generalised for the entire university.*
2. *Continue improving the plagiarism detection system and update it with artificial intelligence (AI) technologies.*
3. *Integrating a psychological counseling service and actively promoting the importance of mental health awareness.*

2.6. Research

The research objectives and activities of the ICT Department are aligned with strategic documents at the national level, as well as strategic documents at the University level. The FECE Institute, established in 2021, supports the academic staff in applying for research grants and projects and facilitates the project management aspects. The Institute will also oversee and manage research and consultancy services rendered to third parties by academic staff.

The research objectives of the programme, as stated by the Mission and Objectives, are in line with all internal Mission and Vision documents. The research objectives of this study programme are focused on:

- encouraging and fostering critical thinking, creativity and innovation among the students

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- introducing students to research methodology and teach them about independent work, responsibility, work ethic and teamwork
- offering a solid foundation to pursue post graduate degrees or a career in research
- contributing to the creation of a knowledge-driven society aiming to shape the technological development of the country, region and beyond.

Students are introduced to research concepts and to the scientific method in various courses. Students in the ICT BSc Programme are expected to contribute to research conducted at faculty level by participating in studies, experimental and measurement campaigns and other research activities. In particular, students will be expected to perform independent applied research work during their internship placement and thesis work.

The expectations for teaching staff involvement in research and scholarly activities are specified in the regulations for appointment of Academic Staff, as follows:

- Assistant Professor (recruitment) must have at least one paper published in a reputable international journal as a first or corresponding author, and one monograph in addition to teaching experience
- Associate Professor (promotion) must have at least 3 papers published in reputable international journals as a first or corresponding author, and more than one monograph
- Full Professor (promotion) must have at least 5 papers published in reputable international journals as a first or corresponding author, and more than one monograph. In addition, the candidate must have participated in at least 3 scientific conferences, of which at least one is international. They also must have participated in at least one research project (individually or as part of a research group), and have mentored at least two Master's students and one PhD student.

The regulation also defines which types of publications and publication venues are acceptable, and how they are weighed when evaluating the scientific contribution of the academic staff during recruitment and promotion processes.

However, citations -as a metric to measure researchers' impact- are not taken into account.

Scientific research activities are regulated at the national and university level. There are currently two Regulations addressing research outcomes of the University academic staff. Articles published in journals indexed by Web of Science (SCIE, SSCI and AHCI), articles in journals not included in Web of Science but indexed in Scopus, monographs, books and book chapters published under the affiliation of the University of Prishtina by reputable publishing houses (the list is provided in the Regulation) are acceptable research activities; also, the participation in international conferences, congresses, symposia, or national events organised under the tutelage of international editorial boards are valid research activities; finally,

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individual and group research projects are also acceptable with the condition that the outputs are properly disseminated.

A Committee for Ethics in Scientific Research was established at the University level, and the Code of Research Conduct and Research Ethics -at the Faculty level- defines good scientific research practices and details the code of ethics for all researchers.

The academic staff of the ICT department produced significant research outputs and published results related to their research, as demonstrated by the publication list. Some research topics are integrated in the ICT BSc Programme in Semesters III-VI.

The academic staff consistently publish their work in recognized international journals covered by Web of Science or indexed in Scopus, as well as present and participate in international and national conferences.

The academic and research staff also provide expertise and consultancy services to third parties through the FECE Institute. Most notably, the academic staff is actively engaged in providing expertise services to the courts, regarding matters related to ICT, within the framework of an MoU between the University and Kosova Judicial Council.

The research conducted at FECE is mainly validated through publications in peer-reviewed reputable international journals and national conferences.

The academic staff of the ICT department has participated and led several research projects, as well as benefited from Erasmus+ capacity building projects.

FECE staff, in particular those in the Telecommunication/ICT Department have consistently performed research and produced research output above the required threshold of one publication per year. The drop in publication numbers in 2021 -due to pandemics- was promptly overcome in 2022.

All FECE full-time academic staff publish under the affiliation of Faculty of Electrical and Computer Engineering, University of Prishtina, as documented by their Google Scholar profiles.

The appointment of courses in the ICT programme are matched to the academic staff based on their scientific competences. For new staff, the openings aim at recruiting staff members to cover all subjects of the programme.

At the national level, the policies for ownership of intellectual property are defined within the Law on copyright and related rights.

University of Prishtina has established an incubator and entrepreneurship center (VentureUP), with the aim of facilitating the commercialization of innovative ideas generated from staff and students during research activities.

At the Faculty level, commercialization of research outputs and services is formalised through the new established FECE Institute.

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Industry representatives recommend easing the procedures for approving research contracts: a bottleneck at the level of the University Administration appears to slow down or even impede the completion of the bureaucratic process or research contracts and donations as well. This limits the possibilities of researchers to promptly respond to Industry needs and reduces the chances of the academic staff to acquire resources that are profitable not only for themselves, but also for the Institution.

Students are engaged in research projects, as well as other activities such as organising networking activities with industry. An example was provided of a measurement campaign to characterise the electromagnetic environment generated by wireless networks.

Compliance level: Substantially compliant

ET recommendations:

1. *Consider the possibility of introducing the number of citations (as a proxy for impact) in the metrics for the performance evaluation of academic staff.*

2. *Revise administrative procedure to ease the approval of research contracts with Industry, thus benefiting the academic staff and the Institution.*

2.7. Infrastructure and Resources

Spaces assigned to FECE consist of teaching rooms, amphitheatres, laboratories, offices, a meeting room, a library, a Faculty hall and a ceremony room, plus storage and technical spaces amounting to approx 8700 sq metres.

The following equipped laboratories belong to the faculty:

- Laboratory of Electrical Engineering and Circuits
- Laboratory of Physics
- Laboratory of Electronics
- Laboratory of Telecommunication and Applied Electromagnetics
- Advanced laboratory of computer and wireless networks
- Laboratory of Multimedia
- Laboratory of Programming
- Laboratory of IoT and Optical Communications
- Laboratory for research and innovation

Both students and graduates recommend renovating laboratory equipment. Visits to the labs evidenced that in many cases the instrumentation is obsolete, and some items are not functional.

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The financial plan is managed by the rector's office. The financial plan includes all resources utilised by FECE, which offers four bachelor's degree programs and three master's degree programs. The estimated expenses for all academic units in 2023 and 2024 are 32.5 and 34.8 million euros, respectively, out of which 5.4 and 6.4 million euros are designated for capital investments. The 14 academic units at UP will receive approximately 2.3 and 2.4 million euros each for the years 2023 and 2024, respectively, with 0.38 and 0.45 million euros set aside for capital investments.

The Faculty of Electrical and Computer Engineering (FECE) at University of Prishtina holds property deeds for a technical faculties complex comprising laboratories, student canteens, and university apartments.

Concerning software licences for the disciplines of the study program, the curriculum largely relies on open-source or free software licences, such as community or academic editions, for most of its courses. In addition, as a public university, the faculty receives three software licences from the Government of Kosovo on a regular basis for the Microsoft Operating System, Microsoft Office 365 and Microsoft Azure.

The FECE library is equipped with 186 study carrels, while the hall of the faculty has 23 group study carrels that can accommodate 170 students. In addition, within the hall of the faculty, there are 16 separate sitting zones, with a total of 91 seats, which can be used for large group work or discussions. The project "Access to Scientific Libraries" of the US embassy provided 44 books and 62 new textbooks were provided by the Erasmus+ DiMTV project, exclusively for the courses of this study program.

Eleven rooms are owned by the faculty and are utilised for various purposes such as lectures, numerical exercises, and laboratory exercises. The lecture rooms can accommodate up to 70 students per group, while the numerical exercise rooms can hold up to 25 students per group. Thirteen laboratory spaces allocated to exercises and practical work: they can accommodate up to 12 students per group.

Concerning the library space and equipment:

- The number of seats in the reading rooms is 200, which is on average 2.3 seats per student.
- The number of seats in the group work rooms is 170, which is on average 2.1 seats per student.
- The stock of books in the library is 197; on average, there are 2.1 books per student.
- The number of books for the first year is 88, for the second year is 70, and for the third year is 39.
- The University of Prishtina has the two following subscriptions to publication platforms and periodicals: Elsevier journal library and Perlego digital online library.

The infrastructure of FECE is also adapted to the students with special needs that include the following facilities:

- The building of the faculty has a wheelchair ramp at the entry,
- The elevator inside the building is functional,

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- The first row of chairs at the amphitheatres is at the floor level and reserved for people with special needs,
- The teaching rooms are all flat and with dedicated zones for wheelchairs.

Compliance level: Substantially compliant

ET recommendations:

1. *Renovate laboratory instrumentation*

3. FINAL RECOMMENDATION OF THE ET

The Panel would like to commend the programme development team for their proactive engagement with the Panel during the accreditation visit. It is evident that a good level of care and attention has been given to the development of the new programme.

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

The overall compliance is assessed by the experts at the level of **Substantially Compliant.**

However, the following recommendations need to be considered in relation to the reaccreditation:

1. *Strengthening collaboration between industry and FECE to improve the study programme and contribute to the further development of society through the use of modern technological advancements;*

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2. *To perform analysis on the implementation of the FECE Strategic Plan and monitor the indicators related to all strategic aims;*

3. *To produce summary reports on the feedback from academic staff, administrative staff, students, employers and graduates not only on the University level but also on the FECE level specifically;*

4. *To ensure that the suggestions included in the summary reports result in certain actions for improvement and that their implementation is monitored;*

5. *To complement the recently introduced practice of surveying employers and graduates with certain actions at the FECE level, either by directly receiving the data collected on the central level or by introducing complementary activity on the FECE level, to get immediate and up-to-date feedback;*

6. *To take a close attention to student progression and drop-out rates in all FECE programmes, in particular on the bachelor level, in order to investigate the reasoning and prevent drop-out;*

7. *Explore additional tools for obtaining quality and meaningful feedback from the students;*

8. *Apart from the teaching load, the time dedicated by staff members to research and community service should be quantified and statistical information should be provided. Instead of a simple list of activities other than teaching, a quantitative estimate of the time spent by staff for different categories of activity should be provided;*

9. *A quantitative estimate of the staff members involvement in different activities, apart from teaching, should be specified; e.g., how many individuals are reviewers for international journals, how many are part of public committees, how many provide expertise to Court, etc.;*

10. *Include in the syllabus an introduction to cybersecurity;*

11. *Make the teaching of soft skills more practical, assuring that students acquire better communication skills, leadership and team building abilities, critical thinking, etc;*

12. *The career centre should be focused specifically on the faculty rather than being generalised for the entire university;*

13. *Continue improving the plagiarism detection system and update it with artificial intelligence (AI) technologies;*

14. *Integrating a psychological counseling service and actively promoting the importance of mental health awareness;*

15. *Consider the possibility of introducing the number of citations (as a proxy for impact) in the metrics for the performance evaluation of academic staff;*

16. *Revise administrative procedure to ease the approval of research contracts with Industry, thus benefiting the academic staff and the Institution;*

17. *Renovate laboratory instrumentation.*

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In conclusion, the Expert Team considers that the Bachelor programme in Information and Communication Technologies offered by the Faculty of Electrical and Computer Engineering of the University of Prishtina "Hasan Prishtina" is **substantially compliant** with the standards included in the KAA Accreditation Manual and, therefore, recommends to accredit the above study programme for a duration of **three** years with **80** students to be enrolled on the programme.

Expert Team

Member

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Member

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