

Republika e Kosovës Republika Kosova - Republic of Kosovo Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency



UNIVERSITY OF PRISHTINA "HASAN PRISHTINA"

Computer and Software Engineering Bachelor of Science

Re accreditation

REPORT OF THE EXPERT TEAM



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1. INTRODUCTION

1.1. Context

Date of site visit: 26.03.2024

Expert Team (ET) members:

- Dr. Seifedine Kadry
- 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	<i>Meeting with the management of the faculty where the programme is integrated</i>	Isak Shabani Qamil Kabashi Milaim Zabeli Bujar Krasniqi

09:55 - 10.35 10:40 - 11:50	Meeting with quality assurance representatives and administrative staff	Besnik Loxha Dhuratë Hyseni Qerim Behrami Vlora Shileku Rreze Rudi
10:40 - 11:50	Meeting with the heads of the study programme	Avni Rexhepi Valon Raça Qefsere Doko Gjonbalaj Isak Shabani Artan Mazrekaj
11:50 - 12:50	Lunch break	-
12:50 - 13.40	Visiting Facilities	-
13:40 - 14:30	Meeting with teaching staff	Blerim Rexha Kadri Sylejmani Lule Ahmedi Lavdim Kurtaj Besmir Sejdiu Vigan Raça Labeat Arbneshi Mergim Hoti Blendi Arifaj Dalina Vranovci Adrian Ymeri Arbena Musa
14:35 – 15:20	Meeting with students	Roni Kukaj Dea Rexha Florian Saqipi Alba Thaqi Erina Blakiqi Eriona Mustafa Ndriçim Halili Qlirim Hoti Valeza Grainca Desara Qerimi Elsa Krasniqi Avdyl Krasniqi Puhizë Doçi
15:25 - 16:10	Meeting with graduates	Ardit Baloku Nderon Hyseni Eni Azemi Vigan Dika Rinor Ahmeti Andi Ahmeti Zana Guda Erna Hulaj Dredheza Braina
16:15 - 17:00	Meeting with employers of graduates and external stakeholders	Vjollca Qavolli Albert Aliu Elton Bellopoja

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		Rilind Mehmeti Vigan Abdurrahmani Nue Nikolla Drin Zeqiraj Valdete Zenuni
17:00 - 17:15	Internal meeting of KAA staff and experts	-
17:15 – 17:25	<i>Closing meeting with the management of the faculty and program</i>	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 Computer and Software Engineering bachelor study program was accredited in 2021 for three years and was confirmed as being substantially compliant with the standards, with a number of 150 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.a.: 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, student academic mobility, and disciplinary procedures for academic staff and students. 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 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 centre 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;

CSE staff - response to this recommendation: the institution has agreed to establish a Monitoring and Evaluation (M&E) team comprising experienced academic staff tasked with overseeing plan implementation and monitoring strategic indicators, that will include the following activities:

- Assess plan objectives and align with measurable indicators;
- Outline KPIs, data collection methods, frequencies, and reporting mechanisms;
- Set up systems for accurate data collection, storage, and management;
- Track progress, analyze trends, strengths, weaknesses, and areas for improvement;
- Share monitoring findings with stakeholders (i.e. office of the rector, office of the dean, council of the faculty, industrial board, etc.) through clear, concise reports;
- Periodically evaluate plan effectiveness, incorporate lessons into future efforts for strategic planning.
- 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;

CSE staff - response to this recommendation: the institution has agreed to coordinate with the rectorate and UP management to create necessary functionality in SEMS for specific summary reports on feedback regarding recommended issues. The plan includes the following activities:

- Set up channels to collect feedback from stakeholders (academic staff, administrative staff, students, employers and graduates) through surveys, interviews, and focus groups;
- Determine specific areas for feedback, such as teaching quality, administrative processes, student services, career readiness, and alumni experiences;
- Create standardized templates tailored to stakeholder needs, ensuring clarity and simplicity;
- Schedule annual intervals for collecting feedback to ensure ongoing improvement, considering different timelines for each stakeholder group;
- Aggregate and Analyze Feedback: Compile data into summary reports, using qualitative and quantitative analysis to identify trends and areas for improvement;
- Generate FECE-level reports, highlighting key findings and actionable insights;
- Share reports with relevant stakeholders, ensuring transparency and accessibility of feedback results.

- 3. To ensure that the suggestions included in the summary reports result in certain actions for improvement and that their implementation is monitored.
 CSE staff response to this recommendation: the institution has agreed to organize meetings to discuss feedback findings, prioritize action items, and involve stakeholders in developing strategies; track implementation of action plans, assess their impact, and monitor feedback trends to align with stakeholder needs; solicit feedback on the collection process and make adjustments to improve participation rates, data quality, and reporting effectiveness.
- 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.

CSE staff - response to this recommendation: the institution has agreed to implement surveys during the internship phase, establish regular consultation sessions with the industrial advisory board and utilize surveys during the preparation phase of the study program for the upcoming accreditation cycle.

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;

CSE staff - response to this recommendation: the institution has agreed to collect data on student progression and dropout rates for bachelor and master programs, identify common risk factors associated with student dropout, such as academic challenges, or lack of engagement, develop targeted intervention strategies to address the identified risk factors, enhance communication channels with students and collaborate with faculty, staff, students, and relevant stakeholders to develop and implement dropout prevention initiatives collaboratively.

6. Explore additional tools for obtaining quality and meaningful feedback from the students.

CSE staff - response to this recommendation: the institution has agreed to explore additional tools such as online feedback platforms, interactive polling systems, focus group discussions, and peer-to-peer feedback mechanisms to enhance student feedback quality.

2.3. Academic Staff

The central governing institution (UP) calls for open positions once or twice a year. Each academic unit proposes a list of positions to open for its annual review. The public call provides a detailed description of the available positions, employment conditions, and selection criteria.

Full-time employees work 40 hours a week, divided between teaching, research, and administrative activities. Senior academic staff is required to have at least 6 hours of lectures per week, while junior academic staff is required to have at least 10 hours of labs/exercises per week. Exams are held three times a year, with additional irregular terms. Academic staff must hold open consultations for two hours per week and participate in various faculty forums and committees. The remaining working hours are devoted to research and supervising master's and bachelor's. Personal data of academic persons are presented in the SER in tabular form. The courses

taught are listed in another table.

The Kosovo Accreditation Agency ensures that the requirements and instructions for teaching positions and research criteria align with the Law on Higher Education in Kosovo, which is the foundation for the statutes and regulations. According to Tables 1, 2, and 3 in the SSR, all the employees listed meet the required qualifications/grades (minimum Dr.Sc/Dr.Techn for lecturers, minimum MSc for teaching/lab assistants). All full-time employees possess the appropriate Academic Title awarded in compliance with the Statute and Regulation requirements (minimum Asst. Prof. for lecturers, minimum Asst. for teaching/lab assistants).

The formal requirements concerning the employment of academic staff by other institutions are met as per Table 4 in the SSR.

The current ratio of full-time and part-time CSE academic staff in the core and program areas. The ratio of full-time core CSE academic staff to all core CSE academic staff is 63.1%, and the ratio of full-time CSE program academic staff to all CSE program academic staff is 78.8%. Additionally, it states that full-time CSE program staff covers more than 90% of lectures and labs. The ratio of full-time core CSE academic staff to all core CSE academic staff currently stands at 63.1% (12 full-time employees, seven part-time employees). The ratio of full-time CSE program academic staff currently stands at 78.8% (26 full-time employees, seven part-time employees). Full-time CSE program staff (core staff plus fundamentals) covers more than 90% of lectures and labs.

There are 20 full-time teachers in the study program who hold a Ph.D. degree. Although about half of the teachers are listed among the teachers of the master's program, the total number of staff with a Ph.D. is sufficient for both study programs.

UP has established the Center for Teaching Excellence to provide specialised training opportunities for its academic staff. The training programs offered by the CTE aim to keep the staff updated with the latest teaching and learning practices, covering active learning, curriculum design, assessment methods, technology in education, and differential learning.

The academic staff actively engage with the scholarly community, participate in scientific conferences, publish in reputable scientific journals, work collaboratively with peers on scientific projects, and network with other experts in their field. These activities are essential for staying current with the latest field developments and career advancement. Additionally, the academic staff supports students and engages in community service by utilising their specialized knowledge and skills to provide expert consultations to government institutions and the judiciary.

The Rectorate administers evaluation of the teaching staff. At the end of each semester, it is done through the questionnaires posted on the SEMS (Electronic student management system) platform. The results of the academic staff evaluation are considered for promotion of the academic staff and renewal of contracts. The performance of each professor is measured based on the university's staff promotion regulations. No questionnaires have been developed for peer and superior evaluations.

The Center for Teaching Excellence of the University of Prishtina offers two courses to improve teaching and assessment skills. One contains training material for basic teaching aspects, such as presentation skills, assessment methods, interactive teaching methods, syllabus design, etc. In contrast, the other one provides more advanced training material tailored to the master's and PhD level teaching professors. These two courses are mandatory for all professors who want to get promoted. Also, through various national and international projects, the academic staff is continuously trained for advancement in teaching methods and preparation of contemporary teaching materials and teaching tools.

There are no retired full-time teachers. The retirement age at the University of Prishtina follows the guidelines set by the Kosovo law, which mandates that individuals retire at the age of 65, regardless of their gender or previous work experience. All full-time employees who reach the retirement age of 65 must retire on September 30th, as per the Kosovo Law on Labor.

Compliance level: Substantially compliant

ET recommendations:

1. Develop and implement regular measures for academic staff assessment and support, including annual personal development interviews with the superior.

CSE Staff—Response to this recommendation: The institution has agreed to this recommendation, and they mentioned in their response that FECE, and management in particular, will focus on developing and implementing regular measures to evaluate and support academic staff.

2.4. Educational Process Content

The study program's broad scope encompasses computer and software engineering, uncommon in most ICT curricula. Although the program combines two disciplines of 180 ECTS in 3 years, it can be considered justified as it covers the major competencies recommended by ACM for both disciplines. However, some courses can be merged, such as Fundamentals of Elec. Eng., to leave some space for the missing competencies as per ACM recommendation, so the program will better serve the Kosovo market and international needs. The communication skills and Legal, Ethical, and Social Issues in ICT courses must be mandatory (currently, they are elective, SER page 66). The embedded systems and Signal Processing courses should be added to the curriculum. Students graduating from the CSE bachelor's study program will have acquired some competencies covered in elective courses, such as bioinformatics.

This study program is a Bachelor's program designated Qualification Level 6, type A, Bachelor – Bologna 1st cycle. The program is designed to align with the Kosovo National Qualifications Framework's and European Qualifications Framework's objectives. It draws up to 70% of its curriculum from European universities and combines this with local market needs in Kosovo. The program is structured to enable gradual skill acquisition and theoretical background to form students as competent computer and software engineers. All courses are fully weighted according to the European Credit Transfer and Accumulation System (ECTS) to ensure that students can transfer credits earned to other European universities with ease.

The coursework is well-planned to provide a systematic learning experience that commences with the essential mathematical concepts and engineering principles. The course progresses methodically to help the students develop core computer and software engineering competencies. Finally, the program concludes by focusing on advanced topics in CSE, emphasizing interdisciplinary skills development, including entrepreneurship and innovation. The study program has 12 learning outcomes that are logically connected and meet the definition and precise determination of the general and specific competencies.

The electronic syllabi submitted include all the required elements, which gives a sufficient overview of the content and other aspects of the subjects in general. However, in some instances, discrepancies exist in how certain aspects are explained across different documents. For example, a professional internship is called an internship in the syllabus. The Diploma thesis doesn't have a syllabus!

The language in which the study program will be offered is Albanian.

The teacher discusses the course syllabus with students during the first class and outlines learning outcomes, objectives, and teaching plan, emphasising the skills students will acquire. The teacher seeks and analyses feedback from students during the first class and at the end of the semester to make any necessary adjustments to the syllabus. This approach ensures that the

syllabus is adapted to best meet the student's needs and expectations. From the interviews with the students and teachers, the relationship is a partnership.

The CSE faculties use different teaching strategies for different courses taught during the first, second, and third years of studies. During the first year, classical teaching methodologies, such as lectures and numerical exercises, are used, and the assessment is done through tests during the semester or via final content-based assessment. In the second and third years, a more interactive teaching methodology is followed, which includes numerical and lab exercises, practical projects, homework assignments, seminar paper talks, and quizzes. Assessment for lab work, homework assignments, and projects can be obtained only during the semester and are combined with the final content-based evaluation for grading.

The CSE program communicates assessment methods for each course on the first day of class. Students can also find detailed information on assessment methods in each course outlining specific assessment methods aligned with the course's learning outcomes and objectives. This approach ensures students have a clear understanding of expectations and how they will be evaluated.

The grading system for students per the UP Statute, Article 109. A passing grade is six, which requires an overall evaluation of at least 50%. The grade increases with each 10% increase in the general assessment up to a maximum of 10, which is achieved with at least 90% in the overall evaluation. This grading system ensures consistency in student achievement standards over time and comparability within courses offered within a program and with other study programs at highly regarded institutions.

The CSE/FECE has implemented policies and procedures to address situations where student achievement standards are inadequate or inconsistently assessed. Grade reports are analyzed using the SEMS system after each exam term, and any significant deviations from expected norms are identified and discussed during bi-weekly or monthly meetings. Appropriate measures are taken to avoid such cases, including additional assessments, evaluations, or support to ensure students meet the required standards.

The learning outcomes and other aspects of the syllabus for Professional Practice (Internship) are described in very general terms and do not specify the learning outcomes. The syllabus should describe the responsibilities of the university tutor.

FECE has signed three agreements with universities abroad to use shared laboratories for research in Bachelor, Master, and PhD studies, with the possibility of exchanging academic staff and students for joint research projects. FECE has also implemented an industry advisory board to facilitate partnerships with industry stakeholders and signed MoUs with various industry bodies and companies to provide students with practical training opportunities and internships.

Compliance level: Substantially compliant

ET recommendations:

1. The communication skills and Legal, Ethical, and Social Issues in ICT courses must be mandatory.

CSE Staff—Response to this recommendation: The institution has agreed to this recommendation, and they mentioned in their response that The subjects "Communication Skills" and "Legal, Ethical and Social Issues in ICT" will be mandatory in the new curricula/program.

2. The embedded systems and Signal Processing courses should be added to the curriculum.

CSE Staff—Response to this recommendation: The institution has agreed to this recommendation, and they mentioned in their response that "Signal Processing" and "Embedded Systems" will be added to the curriculum.

3. Students graduating from the CSE bachelor's study program will have acquired some competencies covered in elective courses, such as bioinformatics. Either to update the study program competencies or to make the course (s) mandatory.

CSE Staff—Response to this recommendation: the institution will keep the course as elective.

In this case, the expert team recommend the program to update the study program competencies by removing the competency of bioinformatics as it is elective.

4. Develop the syllabus of the diploma thesis.

CSE Staff—Response to this recommendation: The institution provide a short syllabus of the diploma thesis.

In this case, the expert team is requesting the KAA office to follow up on this for implementation.

5. Update the internship syllabus to clearly state the learning outcomes and outline the roles and responsibilities of all parties - company, university, and intern.

CSE Staff didn't Response to this recommendation. We kindly ask the KAA office to follow up on this for implementation.

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 study program is contingent upon completing the Mathematics entrance exam. The department proposes the admission quota, subject to approval by the faculty council and the university senate. Based on the information provided regarding the public call announced by UP, 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 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 records and confirms 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 completing all obligations, including passing all courses and defending their thesis within the study program, students are conferred the title of "bachelor of science".

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 must undertake any exams that were not part of their previous program. This ensures that students are appropriately assessed and meet the new program's requirements.

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 department head invites the course professor 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 adequately 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 to address student concerns and promote 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 faculty study committee where they wish to continue their studies, providing evidence of meeting the transfer criteria. The

decision for the transfer is made by the faculty council based on the study committee's recommendation.

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 relevant requests or needs. This promotes an open-door policy, fostering a supportive learning environment where students feel comfortable seeking assistance when needed.

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

Compliance level: 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 program of study for Computer and Software Engineering at the bachelor's level has set scientific research targets that correspond with the research aims of the Institute of Electrical and Computer Engineering and the Faculty of Electrical and Computer Engineering. These targets are incorporated in the Faculty's biannual strategic plan that outlines the budgetary and logistical requirements needed to accomplish these goals. The most recent strategic plan for the Faculty of Electrical and Computer Engineering, which covers the period of 2021-2023, has been extended to 2025.

The work contract, Statute of the University, and Regulation on the Selection Procedures Related to the Appointment, Reappointment, and Promotion of the Academic Staff at the University of Prishtina "Hasan Prishtina" define the expectations for teaching staff's involvement in research and scholarly activities and specify their performance in relation to these expectations.

The University of Prishtina's regulation on selecting, appointing, reappointing, and promoting academic staff specifies the standard of acceptable research work. The regulation excludes papers submitted to journals listed under Beall's list and only accepts papers published in journals listed by Thomson Reuters Web of Science and Elsevier's Scopus as research work. The academic staff receives different points in their selection and promotion procedures based on categorising the indexes. The indexing system provides a clear and objective standard for evaluating the quality and impact of research work.

The CSE core staff is actively engaged in research and contributing to their respective fields. Their research areas include information security, data engineering/data science, theory and application of algorithms, distributed systems and cloud computing, and parallel architectures and parallel computing. Through their research projects, they provide opportunities for students to engage in projects and gain valuable experience that can prepare them for successful careers in technology.

The academic staff's research has gained international visibility on platforms like Google Scholar (GS). All teachers have a commendable GS h-index, and most have published papers with high citation scores. The teachers have been actively participating in international conferences.

The research work of the academic staff of FECE is confirmed through different mechanisms: Scientific publications in journals and conferences based on the criteria defined in the Regulation of UP for selection procedures about appointment, re-appointment, and advancement of academic staff. Participation in research and professional development projects with partners from the industry with whom FECE has signed cooperation agreements. Still, the university needs to regulate or support technological transfer.

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.

The academic staff within the Faculty publishes papers under the name of the University of Prishtina. No evidence was provided that academic staff are encouraged to include information about their research and scholarly activities relevant to their courses and other significant research developments in their teaching.

The university has not yet established intellectual property ownership policies or regulations; however, this is in process.

The Faculty of Electrical and Computer Engineering is currently involved in three research projects, including the security of e-voting with blockchain technologies, cooperative projects that solve real problems using IoT technology, and automated examination timetabling in the Faculty of Electrical and Computer Engineering - University of Prishtina. Students and academic staff are also involved in capacity-building projects sponsored by the Erasmus+ schema of the European Commission.

Compliance level: Substantially compliant

ET recommendations:

1. Develop and implement a regulation on technology transfer.

CSE Staff—Response to this recommendation: The institution has agreed to this recommendation, and they mentioned in their response that FECE will convey the recommendations to the central level for the acceleration of the work on the drafting of a regulation for the transfer of technology.

2. Despite the study program being for the bachelor level, it is recommended that the academic staff include scholarly activities relevant to their courses in their teaching. A reference to their work might be included in the syllabi for their courses.

CSE Staff—Response to this recommendation: The institution has agreed to this recommendation, and they mentioned in their response that FECE will arrange for academic staff to include in teaching and promote scientific activities related to their subjects and the inclusion of references to their work in the syllabi for their courses.

3. It is recommended that the university establish an intellectual property ownership policy.

CSE Staff—Response to this recommendation: The institution has agreed to this recommendation, and they mentioned in their response that FECE will convey the recommendations to the central level for the acceleration of the work related to the intellectual property policy.

2.7. Infrastructure and Resources

According to SER table 19, page 122, and the facilities tour during the visit, the faculty has enough premises, human resources, and equipment to satisfy the needs of the study program. However, SER page 155 mentions a "Lack of technical staff for maintenance of laboratories."

The financial plan of UP includes expenditure figures for the past years and estimated expenditures for the upcoming years. The estimated expenses for all UP academic units for 2023 and 2024 are 32.5 and 34.8 million euros, of which 5.4 and 6.4 are capital investments, respectively. FECE will have approximately 2.3 and 2.4 million euros for years 2023 and 2024, respectively, while for capital investments, it will have at disposal approximately 0.38 and 0.45 million euros for years 2023 and 2024, respectively. FECE will use these financial means to advance its infrastructure, laboratories, and IT infrastructure for all its study programs.

The Faculty of Electrical and Computer Engineering at the University of Prishtina owns a complex of technical faculties, including laboratories, canteens, and university apartments. The Kosovo Cadastral Agency has issued the legal documents for the property. The faculty uses open-source software and free licences for most of its courses but also receives two software licences from the Government of Kosovo for Microsoft Operating System and Microsoft Office 365. Additionally, the faculty has purchased the software licence for the Burp Suite software within the framework of an Erasmus+ project for lab experiments related to computer security. The FECE library has 186 study carrels, while the hall of the faculty has 23 group study carrels and 16 separate sitting zones for large group work or discussion.

Currently, the number and size of teaching classrooms and laboratories are adequate. Laboratories equipped with IT equipment are used for the applicative activities of the specialty disciplines included in the curricula. The applicative activities are conducted in these laboratories.

The University of Prishtina has a well-equipped university library with a large amount of literature in all fields, including a departmental library. The library has 186 seats in the reading rooms and 170 in the group work area. The library has 197 unique titles, 28 of which were acquired in 2022. The university also has subscriptions to Elsevier Journal Library and Perlego Digital Online Library. However, the SER page 156 mentions a "lack of faculty funds for the purchase of textbooks and equipment for the courses being taught."

The infrastructure is adapted to students with special needs.

Compliance level: Substantially compliant

ET recommendations:

1. It is recommended to recruit or have a plan with a near deadline to increase the number of technicians to maintain the labs.

CSE Staff—Response to this recommendation: The institution has agreed to this recommendation, and they mentioned in their response that With the implementation of the study program, we will have additional staff for the laboratories.

2. The FECE has a budget but not on the study program level. For sustainability purposes, it is recommended that FECE develop a budget plan for the study program.

CSE Staff—Response to this recommendation: The institution has agreed to this recommendation, and they mentioned in their response that FECE will work on developing a budget plan for the study program.

3. The weakness in standard 7.5 has still not been entirely resolved since the previous accreditation.

CSE Staff—Response to this recommendation: The institution has agreed to this recommendation, and they mentioned in their response that FECE will take measures so that the weakness in standard 7.5 is fully resolved as soon as possible, in coordination with the central level.

3. FINAL RECOMMENDATION OF THE ET

The general impression of the study program is positive; however, there is room for improvement to fully meet the standards and move the study program to a higher level. The study program needs to be aligned with the international required competencies in the two fields of Computer Engineering and Software Engineering and to do so ACM develops a guide for that, i.e. CC2005 and CC2016.

(https://www.acm.org/education/curricula-recommendations)

Some important areas, such as technology transfer and intellectual property, are not regulated yet, so some policies need to be developed.

To attract international and Erasmus+ students, an English version of the university/study program must be developed.

It is recommended that the university's management initiate talks with other faculty regarding ICT to explore opportunities for collaboration and resource sharing in the field of ICT. This should be done regardless of whether the university has a dedicated ICT faculty.

Standard	Compliance level
1. Mission, objectives and administration	Fully compliant
2. Quality management	Substantially compliant
3. Academic staff	Substantially compliant

4. Educational process content	Substantially compliant
5. Students	Fully compliant
6. Research	Substantially compliant
7. Infrastructure and resources	Substantially compliant
Overall compliance	Substantially compliant

In conclusion, the Expert Team considers that the study program Bachelor of Computer and Software Engineering offered by the University of Prishtina is Substantially compliant with the standards included in the KAA Accreditation manual and, therefore, recommends reaccreditation of the study program for a duration of 3 years with a number of 250 students to be enrolled in the program.

Expert Team

Seifedine Kadry

22.04.2024

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Member

Seifedire

(Signature) (Print Name) (Date) Member Michalot **Damian Michalik** 22.04.2024 (Signature) (Print Name) (Date) Member **Anastasios Dagiuklas** (Signature) (Print Name) (Date) Member **Asnate Upmace** 1st May 2024 (Print Name) (Date) (Signature)

Member

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Flavio Canavero (Print Name) 1st May 2024

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Member



(Signature)

Stefania Armaselu

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3rd May 2024

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(Date)