UNIVERSITY OF PRISHTINA "HASAN PRISHTINA"

Electronics, Automation and Robotics

Bachelor of Science

Re accreditation

REPORT OF THE EXPERT TEAM

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1. INTRODUCTION

1.1. Context

Date of site visit:

Expert Team (ET) members:

- *Dr. Anastasios Dagiuklas*
- *Dr. Seifedine Kadry*
- *Dr. Flavio Canavero*
- *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***

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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* *Vlora Shileku* *Rreze Rudi*
10:40 – 11:50	*Meeting with the heads of the study programme*	Lavdim Kurtaj Vjosa Shatri Vezir Rexhepi Dhuratë Hyseni Milaim Zabeli Faton Maliqi
11:50 – 12:50	*Lunch break*	-
12:50 – 13.40	*Visiting Facilities*	-
13:40 – 14:30	*Meeting with teaching staff*	*Sabrije Osmanaj* *Qamil Kabashi* *Mimoza Ibrani* *Arben Gjukaj* *Hana Maloku* *Nora Sadiku-Dushi* *Drilon Bunjaku* *Valdete Rexhbeqaj* *Nuri Berisha* *Kadrie Simnica* *Yllka Kabashi* *Petrit Emini*
14:35 – 15:20	*Meeting with students*	*Altina Haxha* *Altin Lushtaku* *Bleart Pista* *Luan Canolli* *Butrint Ramadani* *Rinesa Hamiti* *Fatlum Telaku* *Herolind Huruglica* *Enkelena Haxhija* *Hazir Miftari* *Ermal Jashari* *Fitim Halimi*
15:25 – 16:10	*Meeting with graduates*	*Bujar Kamberi* *Getoar Ramadani* *Gentrit Fejza*

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		Arbnor Shabani *Shkelqim Syla* *Uran Rakovica*
16:15 – 17:00	*Meeting with employers of graduates and external stakeholders*	*Dijon Vula* *Zahir Koci* *Rexhep Selimi* *Diell Boshnjaku* *Rexhep Bunjaku* *Caner Topko*
17:00 – 17:15	*Internal meeting of KAA staff and experts*	-
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, the 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.

2. PROGRAM EVALUATION

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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 must 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.

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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

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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 center 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.

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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.

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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 employment procedures follow the Labour Law and the Administrative Instruction on Accreditation of Higher Education Institutes. The BSc program in Electronics, Automation, and Robotics includes thirty (30) Academic staff. Their CVs include all required information in terms of academic qualifications, working experience, papers published in international journals and conferences and participation in research, mobility and consultancy projects. The information presented regarding publications is not homogeneous. I am encouraging the academic staff to use either IEEE or Harvard format for referencing research outcomes (papers). Twenty-one (21) out of thirty (30) academics are PhD holders; that corresponds to 70%. Approximately, 50% of academics with PhD, have done their PhD in another institution. There are four (4) PhD candidates that participate in the study programme as research assistants. Five (5) research assistants have not registered to the PhD programmes. The academic staff is also engaged with other courses that the School offers (MSc field of study). Twenty-three (23) out of thirty (30) academic staff have been employed full-time, that corresponds to 76%.

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The holders of this BSc program are the following: Prof. Ass. Dr. Lavdim Kurtaj, Prof. Ass. Dr. Vjosa Shatri, Prof. Ass. Dr. Vezir Rexhepi, Prof. Ass. Dr. Dhuratë Hyseni. These Academics have got professional training in accordance with the provisions of the Administrative Instruction of the Ministry of Education, Science and Technology of 2018, Article 26, point 5.3.

The study program in Electronics, Automation and Robotics held at the Faculty of Electrical and Computer Engineering includes 180 ECTS. This is in full compliance with the provisions of the Statute, with the internal regulation of the Faculty of Electrical and Computer Engineering, as well as with the provisions of the Administrative Instruction of the Ministry of Education, Science and Technology of 2018, article 26, point 5.3.4.

In terms of the academic unit, the Faculty has signed cooperation agreements with European Universities allowing student and staff mobility. This is an opportunity for academic staff and students to be exposed to different environments. However, there is not a strategy to support students that may face difficulties. There is a need to provide mentoring support for junior academics, both in teaching and research.

The academics have published, on a regular basis, manuscripts in journals that are internationally recognised by Web of Science and Scopus. However, few of these publications are not related to the Field of Study:

- Afërina Skeja & Nora Sadiku-Dushi & Gülay Keskin, 2022. "Altruism and female entrepreneurship: evidence from the Turkish community in Kosovo," Journal of Enterprising Communities: People and Places in the Global Economy, Emerald Group Publishing Limited, vol. 17(6), pages 1275-1292, September.
- BEQIRI Gonxhe, SADIKU-DUSHI Nora, BEQIRI Theranda, « The Application of Non-Fungible Token (NFT) in Marketing », Management & Prospective, 2022/3 (Volume 39), p. 89-106. DOI : 10.3917/g2000.393.0089. URL : https://www.cairn.info/revue-gestion-2000-2022-3-page-89.htm
- Nora Sadiku-Dushi, Léo-Paul Dana, Veland Ramadani, “Entrepreneurial marketing dimensions and SMEs performance”, Journal of Business Research, Volume 100, 2019, Pages 86-99, ISSN 0148-2963, https://doi.org/10.1016/j.jbusres.2019.03.025.

RT encourages the academic staff to pursue research outcomes in international journals published by either IEEE or Elsevier or Springer. It is important for the academic staff to have access to scientific libraries that are important for teaching and research excellence (e.g. IEEExplore). The academic staff have presented their work in national and international conferences where manuscripts are peer reviewed. I am encouraging the academic staff to participate in International Conferences that are sponsored and supported by IEEE.

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Each academic has announced schedule consultations with the students, which is at least twice per week around 60 min. The academic staff are also engaged with research programmes that are supported either by European programmes or by the University. It is not clear how faculty funds are allocated fairly among the academic staff. More support should be provided to the junior academic staff.

At the end of each semester, the academic staff is subject to the self-assessment process, evaluating their performance in teaching, mentoring of diploma thesis and providing support through consultation to students. After analysing the information from the Dean and the Academic Development Coordinator, relevant reports are distributed to the academic staff and discussed separately with each one. It is not clear whether the Dean monitors the action plan that the academic staff must follow in case that criticism has been received by the self-assessment. The SER states that "coordinator undertake proportional actions for the identification and eventual improvement of certain weaknesses". However, such actions have not been defined. In case that weaknesses have been identified, experienced academic staff must be engaged with these courses.

Issues related to the regulation of employment relationships between academic staff and the University are defined in Article 170. It is clarified that employees cannot have another full-time employment contract at another university, and the retirement age for academic personnel is 65 years.

The University's Career Development Office offers training programs for new academic staff. The participation in the training program is compulsory. It is not clear whether training includes activities related to teaching, research, mentoring and administrative responsibilities.

The University has used an electronic system (SEMS) for self-evaluation. A number of questions have been used to evaluate the academic staff by the students. It is not clear whether the students evaluate the administrative staff and services provided by the University. This is important for continuous improvement, since not only academic staff but services related to laboratories and infrastructure are also important. It is not clear whether the Dean and the Academic coordinator establish an action plan required for the continuous improvement of the course's delivery. Additionally, incentives (teaching and research awards) must be established to encourage staff to contribute to the continuous improvements. However, there is no clear strategy regarding the improvements.

The academic staff performance is assessed in three key areas: Teaching (workload, quality, student feedback, supervision), Research (journal and conference publications, monographs, research projects), and Service (institution, community, society). A committee of three senior professors compiles the evaluation report, which undergoes discussion and approval at the faculty council and the University Senate.

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***Compliance level: Fully compliant**.*

ET recommendations:

1. *The ET recommends that all assistants are enrolled in the PhD programme.*
2. *The ET recommends that the Faculty must provide mentoring support to junior academic staff for both teaching and research.*
2. *The ET recommends that the workload is adjusted to academic staff that are research active using criteria such as Number of PhD students, number of research papers published and number of research projects engaged as Principal Investigators.*
3. *The ET recommends that a monitoring plan must be established by the Dean towards continuous improvement per course and to the academic staff engaged on it. A responsible academic staff for each course must be responsible for the implementation of continuous improvement.*
4. *The ET recommends that an incentive mechanism must be established to award academic staff yearly that has been excelled in teaching and research.*

2.4. Educational Process Content

The BSc program in Electronics, Automation, and Robotics is a program that aims to encompass students' knowledge, skills and expertise in the field of electronics, automation, and robotics, preparing them for work in the high-tech industry. The SER provides professional graduate profiles in the areas of electronics, automation and robotics. I would suggest that the Faculty will take into consideration the IEEE recommendations (https://teaching.ieee.org/topics/curriculum-design/).

Initially, at the first year in the field of study, the students attend subjects and disciplines related to mathematics, physics, computer science and fundamentals in electronics. After the second year, there are technological subjects related to electronics and robotics and automation specialisation. Additionally, the curriculum is embedded with multi-disciplinary courses such as Communication Skills and Project Management that are important for the soft-based skills development. However, such courses are elective and not mandatory. The following multi-disciplinary courses are offered to the students: Marketing for Engineers, Entrepreneurship and Innovation and Management in Engineering. There are also elective technological courses that are offered to students.

Although the field of study includes topics related to computer science, a course in cyber security is missing from the curriculum, and this is an important skill and competence for the

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graduates in both areas. Additionally, the topics related to Artificial Intelligence and Machine Learning must be embedded in the curriculum as elective courses.

The field of study includes both theoretical, practical components and group-based activities in each course, allowing the students to obtain knowledge and skills in different areas. The role of Internships is quite important so that students obtain hands-on experience in the field.

This study program is developed in full compliance with the standards of the European Higher Education Area, consisting of 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 study programme follows a basic flow. The first year includes courses that include fundamentals in the areas of mathematics, physics, electronics and computer science that are important for the technological subjects that are covered in the second and third year. Learning outcomes have been defined for both Electronics and Robotics and Automation Field of Study.

The program is compiled in a form that meets the standards required by the Ministry of Education, Science, Technology and Innovation of Kosovo and the Kosovo Accreditation Agency which have defined European standards for study programs. Each course includes a description, course objectives, expected learning outcomes, and the student workload. Additionally, teaching methods, assessment methods, as well as basic and supplementary literature, have been provided within the course description. A few issues have been identified:

- It is not very clear how attendance is monitored on each course.
- There are no clear pre-requisites in each course.
- It is not clear the process that would follow in a case that a student fails in a number of modules within a year. These modules will be carried over next year. The workload must be realistic. A N+3 rule must be applied to each semester.
- It is not clear whether extra support sessions are provided to students that have failed in a course.

In accordance with University Statute, the courses will be taught in Albanian language. However, in the presence of either international or minority students, the academic staff offers a lecture summary and teaching material in the English language.

Within the program, students learn to utilize advanced technology to design, develop, and produce electronic devices, automatic systems, and robotics. They also study related subjects and disciplines such as mathematics, physics, computer science, materials, control systems, and engineering management.

The academic staff that teaches in the BSc Study Program in Electronics, Automation and Robotics is aware of the responsibility and accountability for their work as a lecturer, educator and mentor.

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The delivery of different subjects is done through lectures, teaching discussions, case studies and classroom presentations. Both formative and summative assessments, group-based and examinations have been considered. There is a need to consider a moderation process regarding coursework and examination paper specifications. It is not clear how individual contributions in group-based projects are assessed. There are no specific arrangements for students that may fail in courses. Extra support is needed and this needs to be reflected on students' timetable.

Students utilize knowledge of mathematics, physics, systems, control, circuits and basic engineering sciences in order to effectively analyze a diverse set of problems. For this reason, a variety of teaching methods has been used, including small group teaching, regular mentoring of research work, seminars, etc. It is not clear whether the Faculty provides support for students with disabilities.

The faculty has provided an electronic system (SEMS) allowing students to have direct access to lecture documents, literature and topics of research projects. At the beginning of each semester, the academic staff make their course delivery lecture roadmap and assessment methods clear, which is clearly reflected in the syllabuses.

Students have the right (Article 147 - Statute of UP) to complain about the quality of the teaching process or the university's infrastructure and also have the right to oppose a decision or action taken against them (e.g. marking). The students have the right to submit a written complaint to the Dean of the academic unit. The Dean of the academic unit forms the examination commission within one working day after the complaint has been accepted and appoints three members, excluding the examiner whose grade the student has appealed against. Besides the written complaint, there is a lack of hierarchical process, so that certain complaints can be resolved by the academic coordinator.

The condition for having a successful internship (professional practice) is that it aligns with the student's education and the study program. For this reason, students will be required to undertake internships in institutions and companies in Kosovo, the region, and abroad relevant to the field of their study program. Students' professional internships are credited with ECTS and are coordinated in advance with the professors. Additionally, the Office for Professional Practice of the University facilitates these internships.

The study programme has embedded an Internship course with 8 ECTS credits. The Office for Professional Practice of the University facilitates these internships. Upon the completion of the internship by the student, a department-level commission or program director verifies the professional practice. Students must provide official documentation from the institution or company where they completed the professional internship and accompany it with a written report detailing their work. The workload for this course must be under the NE sub-component.

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The Faculty has received feedback from Industry Advisory Board and graduates in order to get feedback towards continuous improvement of the curriculum. However, limited information is provided about the process that has been followed and how many times does FECE meet with industry representatives and graduates.

The Faculty of Electrical and Computer Engineering has a significant number of agreements signed with European and regional universities for the student's academic exchange. This has enabled a number of students to go for one (or more) semesters at various European Universities.

Compliance level: Fully compliant

ET recommendations:

1. *The ET recommends that courses related to soft-based skills are made mandatory (Communication Skills and Project Management).*
2. *The ET recommends that the Program must include Cyber Security course as compulsory in both Electronics and Robotics and Automation fields of study.*
3. *The ET recommends that the Program must include Artificial Intelligence and Machine Learning courses as elective in both Electronics and Robotics and Automation fields of study.*
4. *The ET recommends that prerequisites are required on each course description.*
5. *The ET recommends that the Program must clarify the maximum number of attempts yearly on each course.*
6. *The ET recommends that there is a cap on the maximum number of courses that can be carried out from the previous year to the next year (No more than 3 courses per semester must be carried over in the next academic year).*
7. *The ET recommends that a moderation process regarding coursework and examination paper specifications must be introduced.*
8. *The ET recommends that specific arrangements must be done for students with disabilities.*
9. *The ET recommends that extra support sessions must be provided to students before the resit attempt.*
10. *The ET recommends that extracurricular activities (e.g. hackathon, IEEE student branch, etc) are established to provide extra support to students.*

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2.5. Students

The Council of the Faculty has consistently chosen the field of Mathematics for the entry examination requirement. Currently, approximately 330 students are enrolled in the Electronics, Automation, and Robotics program to pursue their three-year bachelor's studies. According to the SER, 57 students have successfully completed their bachelor's degree in Electronics, and 43 have graduated from the Automation and Robotics program. Out of these graduates, 51 have opted to further their education by pursuing a master's degree in the MSc program of Electronics, Automation, and Robotics within the Faculty, while a few have chosen to study abroad. Almost all the graduates are employed in national and international companies.

The SER does not provide statistics regarding the drop-rates and the average number of years spent for completing the studies. From the statistics provided, approximately thirty percent (30%) of the students fail to progress from Year 1 to Year 2 and from Year 2 to Year 3. It is not clear from the information provided, about the average number of years to complete the studies. The Faculty must adopt a strategy to improve the drop-out and reduce the number of years of study.

The article 103 of the University Statute provides general details on admission requirements, which are applied to all candidates. The selection of students to be enrolled in the study programs has used three criteria: previous achievement in high school (30%), state matura exam points (30%), and mathematics entrance exam points (40%).

The students must submit their original secondary school diplomas and grade certificates as well as original certificate of state matura exam points in order to be admitted to the Programme. The SER does not provide insights about the selection process followed, if the number of applicants exceeds the number of available positions.

The Electronics, Automation and Robotics study program teaching and learning process, includes group work among students and a collaborative approach has been followed regarding presentations, and research activities. Besides seminars, group work, discussions, and presentations, the practical aspect of student work will involve laboratory work, research, and presenting results. The grouping per activity is outlined as follows:

- Lectures: Up to 70 students per group
- Numerical exercises: Up to 25 students per group
- Laboratory exercises: Up to 12 students per group

This is a reasonable allocation for both lecture and practical-based activities.

On-line platforms (SEMS, Google Drive, and Google Classrooms) are used to provide answers and solutions to assessment tasks. The SER does not provide information about the penalties

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that may be applied to students with high-similarity scores on submitted coursework reports. It is not clear whether the academic staff have been trained to apply penalties on plagiarism.

The University regulation describes rules and procedures of the detailed information that must be stored in the SEMS electronic system. This system allows various access modalities for viewing the student academic progress that include offices such as: (1) office of the dean (including the vice dean for teaching and student affairs) and (2) office of the student's service for bachelor studies. It is not clear whether SEMS complies with GDPR.

Students, in accordance with the University's Statute (Article 150), have the possibility of an extended duration of studies and exams in special cases. According to the SER, the permitted length of studies may not exceed double the standard duration of three years. Additionally, with a justified request and approval from the Faculty Council, this deadline can be extended for an additional year. The Faculty does not have a strategy to reduce the number of years in the field of study.

It is not clear whether extra support is provided to students with disabilities.

The University uses RF jammers for integrity in the examinations . However, RF jammers don’t just block only cell phone signals, but they will interfere with public safety infrastructure. That can result in disruption to important communications. The University must liaise with the National Regulatory for Communications, since this approach may be illegal. Students are required to sign a form declaring that their bachelor thesis or any submitted coursework report is original, and any cited material is appropriately referenced. A specific tool has been used to analyse similarity index of courseworks submitted in the Albanian language. It is not clear whether this tool can detect generative AI text. A disciplinary commission at the Faculty level handles the reporting and processing of potential violations. SEMS generates electronic reports to analyze statistical data, such as the pass/fail rates of each course.

The rights and duties of students are clearly defined in the Statute of the University and regulation for bachelor studies, which can be accessed through the university and faculty websites. Students are entitled to specific rights as well as obligated to fulfil certain responsibilities.

Additionally, article 145 of the Statute of UP covers the right to appeal academic decisions, which is further elaborated in article 20 of the Regulation of UP for bachelor studies. Other articles within the regulation also address the rights and responsibilities of students.

The procedures for transferring students from one study program to another, either within the university or to/from other higher education institutions, are outlined in the Regulation for bachelor studies of UP, specifically in articles 13, 14, 15, and 16.

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Students have the opportunity to apply for the acceptance of ECTS credits earned in their previous study program before starting the new academic year (In September in each academic year). Requests from students related to the switching or changing of study programs, continuation of studies, and recognition of exams undergo review by the Studies Commission of the Faculty..

The Commision of the Faculty proposes which courses can be transferred and identifies any additional courses required to complete the transferred study program. The final approval for student transfers is granted by the faculty council.

According to the Senate, faculty staff must provide consultation services for students, which include two meeting slots per week where students can visit the office of the professor or university assistant to discuss any questions or concerns they may have. Furthermore, professors are also required to offer additional consultation options, either in person or virtually, to provide guidance and support for students.

Moreover, the assistants provide tutoring (either through physical or online meetings) and additional lab exercises to assist students with their case study projects, typically conducted in groups.

Compliance level: Substantially compliant

ET recommendations:

1. *The ET recommends that a more clear selection process must be defined.*
2. *The ET recommends that policies must be applied to manage drop-rates.*
3. *The ET recommends that a strategy must be adopted to reduce the number of years in the field of study.*
4. *The ET must reconsider "RF Jamming" policy, regarding the examination integrity.*
5. *The ET recommends that academic staff must be trained to check plagiarism on reports and apply penalties to poor academic practice.*
6. *The ET must adopt a process with respect to Extenuating Circumstances to coursework deadlines and examination participations.*

2.6. Research

The BSc study program in Electronics, Automation and Robotics has defined a research strategy that is aligned with the University's plan. The department's staff is actively involved in research, mobility and consultancy projects.

The Faculty has implemented a Memorandum of Understanding with the Albert-Ludwigs University of Freiburg (Germany), allowing both academic staff and students mobility to obtain

international experience, knowledge and expertise. Additionally, the Faculty has participated in a number of national and international projects. The vast majority of these projects are Erasmus+ projects aiming to promote mobility. I am encouraging the Faculty to strengthen incoming mobility from abroad. There are five programmes that have been implemented in the last 4 years. There is a need to increase the number of research projects in order to enhance and improve the research quality outcomes.

Although the strategic plan includes activities aimed at enhancing the research work of the academic staff by publishing research papers in international journals and conferences, there is no clear strategy on how undergraduate students can participate in these activities. The Faculty does not have access to IEEE scientific publications that are relevant to the field of study and this is a bottleneck. It is important to keep the academic staff updated on state-of-the-art technologies trends and evolutions.

The Faculty organises seminars and workshops containing training materials tailored to the specific needs of faculty members. Additionally, the Faculty encourages the engagement of academics from diaspora in scientific research work. However, it is not clear whether there is a strategy to establish collaboration with academics from the diaspora.

The expectations for the involvement of teaching staff in research and scholarly activities are explicitly outlined in the Regulation on Selection Procedures for Appointment, Re-appointment, and Promotion of Academic Staff. Although there are expectations regarding the promotion of academics at a specific rank, there is a lack of constantly assessing research performance of academics in terms of research outputs and project participation.

It seems that from the provided CVs, the academic staff meet the expectation in the rank that they have been recruited. However, the CVs are not homogeneous. I am encouraging the academic staff to use either IEEE or Harvard to reference their research outcomes. Not all research assistants have been enrolled in the PhD programme. It is not clear if University assistants' contracts are renewed after the end of the third year, in case they do not finish their PhD studies within three years.

The University has established a procedure to evaluate the performance of the academic staff in terms of research outcome expectations. This includes articles published in journals indexed by Web of Science (SCIE, SSCI and AHCI). Articles in journals that are not included in Web of Science can be indexed in Scopus, monographs, books and book chapters published under the affiliation of the University of Prishtina by reputable publishing houses. Acceptable research activities also include participation in international conferences, congresses, symposia, or national events that are organized under the review of international editorial boards. The SER does not state whether an ethics approval process has been followed in cases where humans participate in experiments.

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The academic staff have published research output related to signal processing, computer engineering applications, power Electronics, renewable energy, digital electronics, automation, and robotics. There is no information how these research activities are embedded in the curriculum and course delivery.

The Faculty has organised a few events related to the field of study. An annual research seminar has been mentioned in SER, but it was organised only in 2021. Five academic staff are engaged in COST Actions, which is an important instrument to establish international research collaborations. There is a better research strategy to establish research international collaboration.

The research work of the academic staff of the Faculty is validated through scientific publications in journals and conferences and applied research and development work within the FECE Institute.

Out of 23 academic professors, 6 do not meet the criteria of producing at least an average of one scientific/applied research publication or artistic outcome/product per year for the past three years. No information is provided for the assistants. The Faculty needs to adopt a strategy so that this criterion is met by all academic staff.

All full-time staff members publish their research work under the affiliation of the University of Prishtina. It is stated in the SER that this policy does not necessarily cover research work that was published while a staff member was completing their research/doctorate at another institution. It is recommended that both affiliations are used for the academic staff falling in this category.

The description of the courses does not include information related to academic staff's research and scholarly activities.

The University has established an entity, VentureUP, which is an incubator and entrepreneurship centre which serves as a bridge between education and the labor market. It is not clear how VentureUP support the academics. The academic staff must obtain training by inviting successful entrepreneurs from abroad about the Technological Readiness Level (TRL) and how a concept developed in the lab can be converted either to a product or a service through a spin out.

The SER states a number of opportunities for students to participate in research projects. It is not clear how students are selected and how these opportunities are announced to the students.

Compliance level: Substantially compliant

ET recommendations:

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1. *The ET recommends establishing a strategy fostering research collaboration with academics from the diaspora.*
2. *The ET recommends that the Faculty must adopt a strategy so that all academic staff and researchers meet criteria required by KAA regarding research outcome.*
3. *The ET recommends that the Faculty must subscribe to access to IEEE scientific publications.*

2.7. Infrastructure and Resources

The Faculty of Electrical and Computer Engineering has made good progress in upgrading its infrastructure and laboratory equipment with new and modern tools for Electronics, Automation and Robotics study programs. During the evaluation visit at the Institution, the ET had the opportunity to assess the infrastructure and the labs. The labs in the area of power engineering are rather old; however they are functional to support the practical activities. The labs in microcontroller, robotics and electronics are equipped with modern and updated infrastructure and tools.

The Faculty has already established its own research institute, which has a governing board of five members, its director and secretary. Limited information is provided about the mission and objectives of the Institute, its structure with respect to research groups and engagement of the academic staff.

The Faculty offers sufficient infrastructure and resources to ensure high-quality development of the study program in Electronics, Automation and Robotics. The SER includes a list of offices, laboratories and tools to support the field of study. The ET had the opportunity to assess laboratory space. They are enough and are equipped with sufficient equipment and consumables to support practical activities. There are few commercial software used to support the practical activities. I am encouraging the academic staff to use open-source software and tools to support certain practical activities.

Besides the academic staff, the Faculty employs administrative staff to support the field of study. It is not clear why services related to library and IT are not provided centrally from the University.

The budget of the study program is provided by the University of Prishtina, which is provided by the government. Additional funds are provided by other research activities that are funded either from the European Commission or from various development agencies, etc. The budget allocated by the University are used to support innovation in the classroom and laboratory, purchase consumables and support various research activities (e.g. participation in conferences and competitions, study visits, publications in scientific journals etc.), staff activities in

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curriculum development and change, and any ad-hoc activities that might arise. According to the information of the budget provided, 11% of the budget has been allocated for these activities. The allocated budget for these activities is rather low and it must be further increased.

Additional budget is provided through the participation in research projects and training programmes. It is not clear how many academic staff are engaged in bringing additional projects.

The faculty uses space that has been divided in three faculties: Faculty of Electrical and Computer Engineering, Faculty of Civil Engineering and Faculty of Mechanical Engineering. It is recommended that these facilities are shared among the three Faculties. This would lead to a better resource optimisation model.

The ET did not have the time to visit the Library to assess the electronic resources. The Faculty does not have access to IEEE (IEEExplore) that publishes scientific journals and organises conferences relevant to the field of study. Although there are group-based activities, there are not enough facilities (rooms) so that students can jointly work on the group-based projects.

The SER includes information about the number of rooms, their size and the type of teaching used. There are enough rooms to support all activities in the field of study. It is not clear how students with mobility impairments have access to these facilities.

The SER provides information regarding specifications as defined in Standard 7.5. The Workrooms for Electronics, Automation and Robotics study program meets the required criteria. However, I cannot assess the library requirements. I cannot comment on the books that are available in the library. The library gives access to electronic resources such as Elsevier and Perlego. However, there is no access to IEEE (IEEExplore).

All students and teaching staff have access to Microsoft resources such as its operating systems volume licence keys, office tools, and its editing and working tools.

Compliance: Substantially Compliant

1. *The ET recommends that the Program must ensure adaptation of the infrastructure so that students with special needs can have access to the facilities.*
2. *The ET has provided an estimated budget for the next year with an average of 583 students per year in 2024 reaching to an average of 683 students in 2026. However, the Faculty does not have enough academic staff to support these intakes.*
3. *The ET recommends that the budget in the next three years for consumables and support in research activities is rather low and must be further increased by 10%.*

4. *The ET recommends that both IT and library services must be provided centrally.*
5. *The ET must provide facilities so that students with mobility impairments have access to lecture theatres and laboratories.*
6. *The ET recommends that appropriate research groups must be established for the Research Centre to maintain the research activities.*
7. *The ET recommends that the Faculty must subscribe to IEEExplore.*

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 fields of Robotics and Electronics and to do so IEEE develops a guide for that. (https://www.ieee-ras.org/educational-resources-outreach/educational-material-in-robotics-and-automation)

The ET has provided the recommendations in each criterion. The following table highlights the compliance level for each standard.

Standard	Compliance level
1. Mission, objectives and administration	Fully compliant
2. Quality management	Substantially compliant
3. Academic staff	Fully compliant
4. Educational process content	Fully compliant
5. Students	Substantially compliant
6. Research	Substantially compliant
7. Infrastructure and resources	Substantially compliant
Overall compliance	**Substantially compliant**

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In conclusion, the Expert Team considers that the study program Bachelor of Electronics, Automation and Robotics, 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.

Compliance level: Substantially compliant
Student quota recommended/Three Years

Expert Team

Member

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(Signature)	(Print Name)	(Date)

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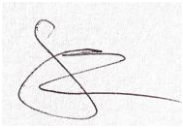	**Stefania Armaselu**	**14-05-2024**
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