



Republika e Kosovës
Republika Kosova - Republic of Kosovo



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

UBT College
***MASTER (MSc) IN COMPUTER SCIENCE AND
ENGINEERING***

PROGRAM REACCREDITATION

REPORT OF THE EXPERT TEAM

April 2022, Prishtina



Republika e Kosovës
Republika Kosova - Republic of Kosovo



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

Table of Contents

1. INTRODUCTION.....	3
1.1. Context	3
1.2. Site visit schedule.....	5
1.3. A brief overview of the institution under evaluation.....	6
2. PROGRAM EVALUATION.....	8
2.1. Mission, Objectives and Administration	8
2.2. Quality Management.....	10
2.3. Academic Staff.....	13
2.4. Educational Process Content	16
2.5. Students	21
2.6. Research	23
2.7. Infrastructure and Resources	26
3. FINAL RECOMMENDATION OF THE ET.....	29



1. INTRODUCTION

1.1. Context

Date of site visit: 7.04.2022

Expert Team (ET) members:

- *Peeter Normak*
- *Rebecca Maxwell Stuart*

Coordinators from Kosovo Accreditation Agency (KAA):

- *Flamur Abazaj*, Senior Officer for Monitoring and Evaluation
- *Ilirjane Ademaj Ahmeti*, Senior Officer for Monitoring and Evaluation

Sources of information for the Report:

- *The Self-Evaluation Report, Master (MSc) in Computer Science and Engineering (SER, including four Annexes).*
- *Statute of UBT College HEIPP (Statute)*
- *Regulation for Academic Advancement*
- *Code of Ethics*
- *Development Plan of the Faculty*
- *Handbook of Student*
- *Research Strategy of the Faculty*
- *Regulation for Student Registration*
- *Regulation for Student Assessment*
- *Quality Assurance Regulation*
- *Syllabi of the subjects*
- *CVs of the academic staff*
- *Videos of the Facility and the Equipment*



- Templates of the questionnaires for different stakeholder groups
- Faculty decision-making bodies
- Career office report and contracts with ICT companies for work and internship
- Other documents (Notes of an Industrial Board meeting, investments of UBT, Description of labs' equipment etc).

Additional documents

1. *Staff Professional Development Plan. Academic Year 2022/23*
2. *Regulation and Procedure for Staff Recruitment*
3. *Regulation on Labor Relations and Responsibilities for Working Duties of the UBT Based in Prishtina*
4. *Law on Copyright and Related Rights*
5. *Law on Scientific Research Activities*
6. *Regulation on Scientific Research and Publications*
7. *Regulation for the work of the Faculty Council*
8. *Regulation of the Second Cycle of Studies*
9. *Regulation for the Organization of Doctorate Study Programs*
10. *Guidelines for the Protection of Diploma Topics and Documentation Archiving*
11. Sample job description for academic and non-academic staff
12. Responsibilities of a Dean
13. Responsibilities of a Coordinator of a study program
14. Responsibilities of an Acting Head of a study program
15. Annual Report of the Computer Science and Engineering bachelor program for 2019/2020 academic year
16. Actual income and expenses for 2019/20 and 2020/21 academic years
17. Example of the Individual Development Plan
18. Example of the Self-Assessment of Individual Development Plan.

Criteria used for institutional and program evaluations

- *KAA Accreditation Manual.*
- *The Manual for External Evaluation of Higher Education Institutions.*



1.2. Site visit schedule

Time	Meeting	Participants
09:00 – 10:00	Meeting with the management of the faculty where the programme is integrated	<ol style="list-style-type: none">1. Rector: Edmond Hajrizi2. Dean: Bertan Karahoda3. Vice-Dean (for academic affairs): Besnik Qehaja4. Coordinator (master level): Ramiz Hoxha5. Coordinator (bachelor level): Diellza Berisha6. Head for research and development: Yll Haxhimusa7. Coordinator for research and development: Edmon Jajaga
10:05 – 10:55	Meeting with quality assurance representatives and administrative staff	<ol style="list-style-type: none">1. Ermal Lubishtani,2. Besnik Skenderi,3. Halil Bashota,4. Betim Gashi5. Blerim Zylfiu
11:00 – 11:50	Meeting with the heads of the study programme	<ol style="list-style-type: none">1. Yll Haxhimusa,2. Mehmet Shala,3. Xhafer Krasniqi,4. Edon Maliqi
11:50 – 12:20	Lunch break	
12:20 – 13:05	Meeting with teaching staff	<ol style="list-style-type: none">1. Krenare Pireva,2. Muhamet Gervalla,3. Agon Mehmeti,4. Dashmir Estrefi,5. Arber Percuku,6. Zijadin Krasniqi,7. Muhamet Avdyli,8. Gazmend Krasniqi
13:10 – 13:55	Meeting with students	<ol style="list-style-type: none">1. Shpat Braina,2. Taulant Dema,3. Drilon Gashi,4. Defrim Hasani,5. Dijar Kadriu



14:05 – 14:50	Meeting with graduates	<ol style="list-style-type: none">1. Vilsan Arifaj,2. Ragip Avdija,3. Edin Bula,4. Burbuqe Beqiraj,5. Faton Ferizi
14:55 – 15:40	Meeting with employers of graduates and external stakeholders	<ol style="list-style-type: none">1. Shpend Sadiku, Celonis,2. Avni Ternava, Crea-KO,3. Ilirjan Biblekaj, ILLCON SH.P.K,4. Vullnet Morina Blue Marketing,
15:40 – 15:50	Internal meeting of KAA staff and experts	
15:50 – 16:00	Closing meeting with the management of the faculty and program	

1.3. A brief overview of the institution under evaluation

UBT College (UBT or College) is a private college that was started in 2004, based on the *Institute for Enterprise Management and Engineering*. The college operates in six branches: *Prishtina* (the main campus), *Prizren*, *Lipjan*, *Gjilan*, *Ferizaj*, *Peja*. The acronym UBT comes from “the University for Business and Technology”.

According to the *Statute*, the mission of UBT is

- a) To create, convey, develop and generate knowledge through teaching, research, aiming to prepare qualified specialists and future scientists;
- b) Provide opportunities to benefit from lifelong higher education;
- c) To assist economic development at national and regional level;
- d) Contribute to the enhancement of the standards of democracy and civilization of society and in the preparation of young people for such a society;
- e) Realizes basic and applied research by means of organizational, core and subsidiary units;
- f) Provides service to third parties, in compliance with the mission and legal status.



Republika e Kosovës
Republika Kosova - Republic of Kosovo



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

The focus areas of UBT are: life sciences, law and social sciences, business, technology, medicine and health sciences, system design and management.

The master program in *Computer Science and Engineering* is offered in the main campus at the *Faculty of Computer Science and Engineering* (Faculty). The study program was accredited in 2013 and reaccredited in 2016 for five years. In 2016, the ET made only two recommendations:

- 1) Formulate the objectives and expected learning outcomes on the concentrations and revise the courses accordingly if necessary.
- 2) Determine priority research and development (R&D) areas and build up internationally competitive R&D groups in these areas.

Moreover, the 2016 *Final Report* included some remarks. For example, the adequacy of the name of the study program was questioned and the absence of international joint research projects in the field of IT was mentioned.

It is also pertinent to note here that the self-assessment report was structured according to the standards, which greatly facilitated ET's preparation for interviews. However, in many cases the text was very general and did not contain factual data on which to assess compliance with the standard. This in turn increased the role of interviews in finding out the real situation.



2. PROGRAM EVALUATION

2.1. Mission, Objectives and Administration

- 1.1. Although the mission of the study program is described in very general terms (“The graduate program’s primary focus is computer technologies and engineering for the benefit of the people. The purpose of a master program is to provide students with the deeper knowledge and skills in applying their competences necessary for a professional career or doctoral studies.”), it can be concluded that the mission of the study program is in compliance with the overall mission statement of UBT.
- 1.2. As to the professional advice considered when defined the intended learning outcomes, the *Association for Computing Machinery (ACM)* and the *International Association for Computer Information Systems (IACIS)* are mentioned. The Faculty has formed an Industrial Board that includes members from six companies. Curriculum development is one of the topics discussed at board meetings. Note that the adequacy of the name of the study program was questioned already during previous (2016) assessment. The name “Computer Science and Engineering” is understood as “Computer Science and Computer Engineering”. However, the study program does not deal with fundamental aspects of Computer Engineering such as digital design, electronics, embedded systems, computer architecture etc.
- 1.3. The didactic and research concept of the study program is thoroughly described within the SER. Among the main principles used are active learning, practical application of the knowledge, project and research based learning, student centrality.
- 1.4. There are regulations dealing with recurring procedural or academic issues: *Statute of UBT College HEIPP*, *Regulation of organizing the Master Studies*, *Regulation on the Disciplinary Procedure at UBT College*, *UBT Quality Manual*, etc. The main documents are publicly available on the university website (<https://www.ubt-uni.net/en/ubt-en/about-ubt/regulations-and-policies/>). However, some important documents are still not publicly available in English language (for example the *Regulation of Student Enrolment* and *Regulation of Internship*).



- 1.5. The main document regulating the ethical conduct is the Code of Ethics. This document considers the issues of integrity, co-operation, responsibility, academic freedom as well as the responsibilities and procedures of different subjects involved.
- 1.6. All university regulations that were available to the ET are adopted or amended during the last three years. Some documents (for example the templates of questionnaires) did not contain the date of their approval. The competence to amend these documents lies with the central bodies of the university, not the Faculty.

Standard	Compliance	
	Yes	No
<i>Standard 1.1.</i> The study program mission is in compliance with the overall mission statement of the institution.	+	
<i>Standard 1.2.</i> Relevant academic and professional advice is considered when defining the intended learning outcomes which are consistent with the National Qualifications Framework and the Framework for Qualifications of the European Higher Education Area.	+	
<i>Standard 1.3.</i> The study program has a well-defined overarching didactic and research concept.	+	
<i>Standard 1.4.</i> There are formal policies, guidelines and regulations dealing with recurring procedural or academic issues. These are made publicly available to all staff and students.	+	
<i>Standard 1.5.</i> All staff and students comply with the internal regulations relating to ethical conduct in research, teaching, assessment in all academic and administrative activities.	+	
<i>Standard 1.6.</i> All policies, regulations, terms of reference and statements of responsibility relating to the management and delivery of the program are reviewed at least once every two years and amended as required in the light of changing circumstances.	+	

Compliance level: Fully compliant.

ET recommendations:

- 1. Make all regulations concerning the academic activities of the College freely available on the Internet also in English language.*
- 2. Consider removing the term “engineering” from the title of the study program.*



2.2. Quality Management

- 2.1. Staff members complete an annual template-based self-assessment report, which consists of three parts: 1) Pedagogy, Teaching and Didactics, 2) Research, and 3) Professional and Career Development. Each part is in turn divided into four sections: 1) An analysis of personal achievements over the last year, 2) Utilization of resources, 3) Achievement of target and 4) Recommendation for improvement. The self-assessment report based on the Individual Development Plan that has the same parts but different sections: 1) Contribution to CSE strategy, 2) Actions, 3) Resources, 4) Measures and 5) Target states/milestones. The reports are analyzed on a Committee that generalizes the recommendations. There is also a Compatibility Committee that checks the syllabi and gives recommendations to the Faculty Council for approval.
- 2.2. UBT has adopted a thorough (31 pages) *Quality Manual*. This is the main document that states the actors, their duties and the quality assurance processes. The Faculty has a Quality Assurance (QA) Sub-Committee which meets at least four times a year and a designated Quality Assurance Officer is appointed. The stakeholders and the key processes of quality assurance are identified. The QA Sub-Committee has five members – two members are proposed by Faculty Council, two members are proposed by the Dean and one member from the Student Union. QA processes in the Faculty are conducted in three stages (called *steps* in the SER) each having specific tools – quality meetings, roundtables with students, closed-door retreats, surveys, study audit, and annual meetings.
- 2.3. Quality assurance issues in UBT belong to the responsibilities of the Quality Manager. The *Quality Manual* specifies ten procedures for quality assurance, including: 1) design and approval of new study programs, 2) student assessment, 3) ongoing monitoring of study programs, 4) program evaluation etc. The overall quality assurance on the Faculty level is the responsibility of the Dean. Some responsibilities are delegated to the QA Officer who is also responsible for administrative support to the Quality Assurance Sub-Committee. The main tools used are: 1) Questionnaire for Graduates, 2) Questionnaire for Stakeholders, and 3) Students' Questionnaire. Students evaluate the quality of teaching at the end of each semester. Additionally, student passing rate is used as an indicator to assess the quality of both the study programme and the teacher.

It is pertinent to note here that concerning the UBT level quality management, there is certain confusion in the regulations: the *Statute* states that the College has one Vice Rector called Deputy Rector; the *Quality Assurance Regulation* states that the rector authorizes a Vice-Rector for quality assurance. Moreover, during the meeting with the



ET, the quality assurance representatives were not able to name the immediate superior of the Quality Manager.

Another confusion concerns the responsibilities for quality assurance of the study program. There are two responsible persons – the Coordinator of the study program and the Acting Head of the study program. However, the Coordinator is not responsible for the quality (the word “quality” is not present in the description of his/her responsibilities). According to the description of the Head’s responsibilities, he “Is responsible for quality assurance in the activities of the Faculty in accordance with the Regulation on Quality Assurance and international standards”. However, the Regulation on Quality Assurance states the responsibilities of the Rector, Deans, the Academic Council, UBT Quality Assurance Committee, Faculty Council, Faculty Quality Assurance Sub-Committee and the Quality Manager, not a head of a study program (heads of study programs were not mentioned in this document at all).

- 2.4. Quality assurance focuses on the quality of the subjects. The questionnaires referred to in section 2.3 do not address the quality of the study program as a whole. Unfortunately, the SER also did not contain a substantive analysis of the quality of the study program as well – only general procedures were explained. The quality aspects of the streams as well as the satisfaction of the learning outcomes of the graduates were also not discussed. The ET was provided as example the Annual Report of the Computer Science and Engineering bachelor program for 2019/20 academic year, not of the master’s program. Moreover, the institutional reports do not provide a breakdown of responses per faculty. It is recommended that evaluations while centrally run include results that are faculty specific.
- 2.5. The quality assurance processes cover all important aspects – ongoing monitoring and evaluation of study programs, student assessment, staff selection and development, student services and infrastructure development.
- 2.6. Survey data are collected from students, graduates and employers (“stakeholders”). However, the questionnaires used for that purpose are of extremely narrow scope and almost do not touch the quality of study programs. For example, the questionnaire for master’s graduates consists of questions only related to the employment of the graduate. Moreover, the ET was unable to find results of evaluations on the public website of the university.
- 2.7. The *Quality Manual* states that “Quality assurance procedures and improvement initiatives are based on the analysis of information, data and reports gained through a structured process of evaluation, monitoring and feedback from internal and external stakeholders”. The College has adopted a document *Key Performance Indicators*.



Work Plan 2021-2023 that fixes 23 KPI-s in the category of “Enhance Student Success”. These include – among others – the following: student attendance rate, students passing rate, average grade, students drop-out, student satisfaction.

- 2.8. The document *Quality Manual* sets out the requirement for periodicity (every three years) of study program quality analysis. Enforcing this requirement is a task of the Quality Assurance Committee at the institutional level and Quality Assurance Sub-Committee at the Faculty level. As mentioned in section 2.4, the ET was provided the Annual Report of the Computer Science and Engineering bachelor program for 2019/20 academic year, not the master’s program. It is also pertinent to note that the text in SER explaining the satisfaction of Standard 2.8 was just copied from the relevant subsection of the *Quality Manual* and in fact did not contain any information on the actual stand.
- 2.9. The fact that the majority of the latest versions of the documents came into force within the last three years evidences that quality assurance arrangements for the study program are regularly evaluated and improved.

Standard	Compliance	
	Yes	No
<i>Standard 2.1.</i> All staff participate in self-evaluations and cooperate with reporting and improvement processes in their sphere of activity.	+	
<i>Standard 2.2.</i> Evaluation processes and planning for improvement are integrated into normal planning processes.	+	
<i>Standard 2.3.</i> Quality assurance processes deal with all aspects of program planning and delivery, including services and resources provided by other parts of the institution.	+	
<i>Standard 2.4.</i> Quality evaluations provide an overview of quality issues for the overall program as well as of different components within it; the evaluations consider inputs, processes and outputs, with particular attention given to learning outcomes for students.		+
<i>Standard 2.5.</i> Quality assurance processes ensure both that required standards are met and that there is continuing improvement in performance.	+	
<i>Standard 2.6.</i> Survey data is being collected from students, graduates and employers; the results of these evaluations are made publicly available.		+
<i>Standard 2.7.</i> Results of the internal quality assurance system are taken into account for further development of the study program. This includes evaluation results, investigation of the student workload, academic success and employment of graduates.	+	



<i>Standard 2.8.</i> The institution ensures that reports on the overall quality of the program are prepared periodically (e.g. every three years) for consideration within the institution indicating its strengths and weaknesses.	+	
<i>Standard 2.9.</i> The quality assurance arrangements for the program are themselves regularly evaluated and improved.	+	

Compliance level: Substantially compliant

ET recommendations:

- 1. It is recommended either to appoint a person responsible for the quality of the study program, or update the responsibilities of the Head of the study program with clauses on quality assurance of the study program. In both cases, it is also recommended to form a permanent Council of the study program, including representatives of employers, partners, students, graduates and some key academic staff. The task of the Council will be to propose recommendations for further improvements of the study program based on surveys of all stakeholders, international development trends of the academic area and the needs of society.*
- 2. Include faculty specific results of institutional evaluations reports.*
- 3. Strengthen evaluation questionnaires to be more specific to the study program, with special emphasis on Master's students evaluations.*
- 4. Develop and implement a system for receiving systematic feedback on the study program from alumni and employers.*

2.3. Academic Staff

- 3.1. The employment of staff is conducted according to the *Regulation and Procedure for Staff Recruitment*. The SER contained a complete list of 105 academic staff where for each person the qualification, the duration of the employment contract and the share of each type of academic activities – teaching, administrative work, research, community services – is indicated. The courses taught are listed in another table.
- 3.2. Legal requirements set for teaching staff are met: all teachers but four are full-time employees and are elected by open competition. The general quality assurance



procedures in the staff selection process, appraisal, and staff development are outlined in the *Quality Manual* and specified in the *Regulation on Labor Relations and Responsibilities for Working Duties*.

- 3.3. The formal requirements concerning employment of academic staff by other institutions are met – all full-time teachers indicated in their publications UBT as their only employer. According to the CVs submitted to the ET, UBT is the only employer for the majority of teaching staff; only a few have another employment somewhere else. Of the 23 academic staff members who have at least one course in the study program, 20 are listed in SER as having full-time position at UBT; similarly, 20 staff members have listed UBT as their employer on the Google Research portal. All staff members teaching on the study program hold a PhD degree. However, the employment data of some staff in *LinkedIn* and *Google Scholar* are not correct.
- 3.4. The vast majority (about 87%) of teachers belong to the regular staff, and consequently, they cover the vast majority of the courses.
- 3.5. Although the majority of teachers are listed among the teachers of more than one study program, the total amount of staff with a PhD is sufficient for all study programs: four staff members with a PhD are assigned specifically to the MSc in Computer Science and Engineering study program.
- 3.6. The Faculty has adopted the *Staff Development Plan*. For the coming year, every academic staff composes an *Individual Professional Development Plan* where (s)he specifies skills that need updating. The College has established the *Institute for Development of Education and Academic Affairs* that organises training of teaching staff.
- 3.7. The general responsibilities of teaching staff are defined in the Statute, with further detail in the *Standards for Election into Titles of Higher Education Teachers, Scientific Workers, Higher Education Associates and Research Associates at UBT* and other documents. These include engagement in the academic community, availability for consultations with students, community service and other responsibilities.
- 3.8. Evaluation of the teaching staff is administered by the Deans Office, according to the *UBT Staff Employment, Performance, and Progression Policy* and is done at the end of each year. According to the *Regulation for Staff Appraisal*, the results of the academic staff evaluation are taken into account in promotion of the academic staff and renewal of contracts. The Staff Evaluation Report is sent to the Faculty Council and UBT Academic Council Committee for Staff Selection, Promotion, and Assessment. However, there is no peer-evaluation of academic staff other than observing classes



and no mandatory development interviews with the superior implemented. Moreover, the results of the evaluation are not made publicly available.

- 3.9. The Development Plan of the Faculty for 2020-2025 sets in its Action Plan for Teaching and Learning among others the following targets: 1) Provide faculty development programs that enhance teaching skills and celebrate teaching best practices and achievements and 2) active learning will be supported with appropriate facilities and technology and state of the art equipment and materials both inside the classroom and outside it. The development of learning materials and their quality are not the subject UBT strategy documents.
- 3.10. There are no retired full-time teachers – the average age of full-time teaching staff is about 42 years.

Standard	Compliance	
	Yes	No
<i>Standard 3.1.</i> Candidates for employment are provided with full position descriptions and conditions of employment. To be presented in tabular form data about full time (FT) and part time (PT) academic/ artistic staff, such as: name, qualification, academic title, duration of official (valid) contract, workload for teaching, exams, consulting, administrative activities, research, etc. for the study program under evaluation.	+	
<i>Standard 3.2.</i> The teaching staff must comply with the legal requirements concerning the occupation of teaching positions included in the Administrative instruction on Accreditation.	+	
<i>Standard 3.3.</i> Academic staff do not cover, within an academic year, more than two teaching positions (one full-time, one part-time), regardless of the educational institution where they carry out their activity.	+	
<i>Standard 3.4.</i> At least 50% of the academic staff in the study program are full time employees, and account for at least 50% of the classes of the study program.	+	
<i>Standard 3.5.</i> For each student group (defined by the statute of the institution) and for every 60 ECTS credits in the study program, the institution has employed at least one full time staff with PhD title or equivalent title in the case of artistic/applied science institutions.	+	
<i>Standard 3.6.</i> Opportunities are provided for additional professional development of teaching staff, with special assistance given to any who are facing difficulties.	+	



<i>Standard 3.7.</i> The responsibilities of all teaching staff, especially full-time, include the engagement in the academic community, availability for consultations with students and community service.	+	
<i>Standard 3.8.</i> Academic staff evaluation is conducted regularly at least through self-evaluation, students, peer and superiors' evaluations, and occur on a formal basis at least once each year. The results of the evaluation are made publicly available.	+	
<i>Standard 3.9.</i> Strategies for quality enhancement include improving the teaching strategies and quality of learning materials.		+
<i>Standard 3.10.</i> Teachers retired at age limit or for other reasons lose the status of full-time teachers and are considered part-time teachers.	+	

Compliance level: Substantially compliant

ET recommendations:

1. *Implement individual development interviews of academic staff with the superior based on the yearly self-evaluations.*
2. *Make the results of the evaluation of academic staff available, at least in the Intranet of the College and in a generalized form.*
3. *Plan activities for the creation of training materials and ensuring their quality in the strategic documents of UBT.*

2.4. Educational Process Content

- 4.1. The study program has three streams: 1) Software Systems Engineering, 2) Communication Engineering, 3) Data Science and Artificial Intelligence. There are seven mandatory (including *Seminar & Lab in Multidisciplinary Application*) and 19 elective courses in four lists from which every student should select one from each list. Each stream has five mandatory courses. Therefore, the total number of courses in the master program is 41! From the point of view of students, the general conception and composition of the study program is reasonable. Although compared with the study program of 2016 it is more focused (the number of streams is reduced from seven to three), offering such a study program is relatively resource intensive. The following



conclusions can be drawn from the submitted documents and conversations with lecturers, students, graduates and employers of alumni:

- 4.1.1. The SER contained two different lists of learning outcomes: one – more thorough – on pages 15-17 and another on page 66. These lists are not explicitly related.
- 4.1.2. Considering the fact that out of 41, only seven courses are mandatory, the learning outcomes of the study program are of very general character. The learning outcomes of the streams are not specified. Therefore, the learning outcomes do not give an adequate description of the topical competences of the graduates. For example, the learning outcome “Apply the knowledge from computer science and mathematics, into solving the most challenging problems” does not say in what subareas of extremely wide area of computer science and mathematics the graduate is able to apply his/her knowledge. It is also worthwhile noting that the study program contains only one course in computational mathematics.
- 4.1.3. Some courses – for example, Internet of Things (IoT) – belong both to a stream as well as to the list of elective courses, their relation to each other was not explained: for example, when a student takes the stream that contains the IoT course, can (s)he also select another IoT course from the list of electives? Although the heads of the study program explained to the ET, that these IoT courses are different from each other, the syllabi were identical. Moreover, according to the syllabi, both these IoT courses are mandatory!?
- 4.1.4. It is claimed in the SER (page 60) that “the study program ... intends to develop a process-oriented spirit and encourage students to link their theoretical understanding with concrete real-life practical applications in the industry”. However, the study program does not contain any internship. This is especially unexpected because the importance of internship was repeatedly mentioned by the employers of the graduates. The fact that the majority of master’s students are employed cannot be an argument, because the purpose of an internship at the master’s level is not just to acquire working skills, but to develop the ability to **innovate** in a real work environment by applying competences acquired during studies.
- 4.2. Although there was no explicit analysis of compliance of the study program provided with the *National Qualifications Framework* and the *Framework for Qualifications of the European Higher Education Area* was provided in the SER, the study program and its expected learning outcomes complies with these frameworks.



- 4.3. In general, the courses are in a logical flow and are compatible with relevant study programs delivered by other universities. On the other hand, a sentence "... the curriculum is mostly oriented in creating different information systems" in the SER (page 65) was confusing since the study program does not cover important aspects like enterprise architecture and designing of information systems.
- 4.4. The syllabi contain all the necessary components and were submitted in electronic form. In general, they are detailed enough to get an adequate understanding on the content and other aspects of the subjects. However, it was found that some data was missing in some syllabi, was incorrect or even confusing. For example, the size of *Computer Science Theory* is 4 ECTS in the syllabus, but 6 ECTS in the study program; it is obligatory in the syllabus, but marked as elective in the study program.
- 4.5. The language in which the study program is offered is Albanian.
- 4.6. Students receive an induction session prior to the commencement of each academic year. Applicants who do not have necessary competences in ICT (for example those who have an undergraduate degree in a non-ICT related field) will be admitted after completing the Computer Science Preparation Package (60 ECTS). The students and graduates that ET met were very positive about the student-teacher relationship.
- 4.7. The college has adopted a *Competency Based Approach*. This means that teaching is research-based, inquiry and critical thinking is promoted and students are engaged in interactive way of learning where they have periodic presentations as one of the elements of assessment.
- 4.8. General principles and criteria of student assessment are stated in the *Regulation on Basic Studies at Higher Education Private Provider (HEPP) UBT College* and in the *Regulation for the second cycle of studies*. Students with whom the ET met did not complain about the assessment.
- 4.9. The grading system that is used in all Balkan countries is used. The grades are 5, 6, 7, 8, 9, 10 where 5 marks failing and 6-10 are positive. The passing level is 50% as widely used in Europe.
- 4.10. Students who are not satisfied with the evaluation of their work have the right to submit a written complaint to the Dean. The procedures are described in the *Statute of the University* and in the *Procedure of Complaints*.
- 4.11. As already mentioned in section 4.1.4, the study program does not contain internship. However, some company representatives expressed their readiness to offer more guest lectures for informing students more about the international trends and what happens in companies.



4.12. Since the study program does not contain internship, this standard is not applicable as well (although some company representatives the ET met confirmed that they have agreements with the college on internship).

Standard	Compliance	
	Yes	No
<i>Standard 4.1.</i> The study program is modelled on qualification objectives. These include subject-related and interdisciplinary aspects as well as the acquisition of disciplinary, methodological and generic skills and competencies. The aspects refer especially to academic or artistic competencies, to the capability of taking up adequate employment, contributing to the civil society and of developing the students' personality.	+	
<i>Standard 4.2.</i> The study program complies with the National Qualifications Framework and the Framework for Qualifications of the European Higher Education Area. The individual components of the program are combined in a way to best achieve the specified qualification objectives and provide for adequate forms of teaching and learning.	+	
<i>Standard 4.3.</i> The disciplines within the curriculum are provided in a logical flow and meet the definition and precise determination of the general and specific competencies, as well as the compatibility with the study programs and curricula delivered in the EHEA. To be listed at least 7 learning outcomes for the study program under evaluation.	+	
<i>Standard 4.4.</i> The disciplines within the curriculum have analytical syllabuses which comprise at least the following: the discipline's objectives, the basic thematic content, learning outcomes, the distribution of classes, seminars and applicative activities, students' assessment system, the minimal bibliography, etc. The full course description/ syllabuses of each subject/ module should be attached only in electronic form to the self-assessment report for the study program under evaluation.	+	
<i>Standard 4.5.</i> If the language of instruction is other than Albanian, actions are taken to ensure that language skills of both students and academic staff are adequate for instruction in that language when students begin their studies. This may be done through language training prior to the commencement of the program.	n.a.	
<i>Standard 4.6.</i> The student-teacher relationship is a partnership in which each assumes the responsibility of reaching the learning outcomes. Learning outcomes are explained and discussed with students from the perspective of their relevance to the students' development.	+	



<i>Standard 4.7.</i> Teaching strategies are fit for the different types of learning outcomes programs are intended to develop. Strategies of teaching and assessment set out in program and course specifications are followed with flexibility to meet the needs of different groups of students.	+	
<i>Standard 4.8.</i> Student assessment mechanisms are conducted fairly and objectively, are appropriate for the different forms of learning sought and are clearly communicated to students at the beginning of courses.	+	
<i>Standard 4.9.</i> Appropriate, valid and reliable mechanisms are used for verifying standards of student achievement. The standard of work required for different grades is consistent over time, comparable in courses offered within a program, and in comparison with other study programs at highly regarded institutions.	+	
<i>Standard 4.10.</i> Policies and procedures include actions to be taken in to dealing with situations where standards of student achievement are inadequate or KAA inconsistently assessed.	+	
<i>Standard 4.11.</i> If the study program includes practice stages, the intended student learning outcomes are clearly specified and effective processes are followed to ensure that those learning outcomes and the strategies to develop that learning are understood by students. The practice stages are allocated ETCS credits and the work of the students at the practical training organisations is monitored through activity reports; students during practice stages have assigned tutors among the academic staff in the study program.	n.a.	
<i>Standard 4.12.</i> In order to facilitate the practice stages, the higher education institution signs cooperation agreements, contracts or other documents with institutions/organisations/practical training units. <i>*To be inserted the overview of the program (with all areas to be filled out)</i>	n.a.	

Compliance level: Fully compliant

ET recommendations:

1. *Include internship as compulsory subject in the study program.*
2. *Revise syllabi to remove confusion in names and in the content of the courses.*



2.5. Students

- 5.1. The admission procedure is transparent and is stated in the *Regulation for Student Registration*. The Faculty Council decides about the criteria. Admission to the studies is done on the basis of a public call.
- 5.2. Admission to the master level studies includes candidates who have an undergraduate degree either in *Computer Science and Engineering, Information Systems, Mechatronics, Electrical Engineering/Electronics, Information technology* or have graduated from other fields, who demonstrate prior work experience in computer science and engineering or have completed the *Computer Science Preparation Package* (60 ECTS equivalent to one-year study in bachelor level). In the latter case, a concrete list of courses is given that the students should take.
- 5.3. The number of students per lecture and seminar is up to 50. This was possible having admitted about 40 students a year. However, new principles of deciding on the size of a study group should be elaborated when the admission numbers will be considerably increased, to ensure and maintain an effective and interactive teaching and learning process.
- 5.4. There are some instruments for giving feedback to students, for example, midterm evaluations or a mentorship program. Lecturers have weekly consultations of students; *Moodle* is also used for feedback. Students receive more thorough and systematic feedback during the preparation of their Master's thesis.
- 5.5. The Faculty has a database where they keep records of all student grades and students can get a printout of their grades if they need it.
- 5.6. The students confirmed that the Faculty is flexible and respects the wishes concerning the dates of exams. The staff also assists students with disabilities if necessary. However, one student complained that he had to repeat an exam because he accidentally pushed the wrong button, which caused the rejection of his grade. This highlighted the need to ensure that students are competent in the technology during examinations.
- 5.7. The Faculty maintains a list of student records: examination register, application, list of students taking the examination in the given examination period, examination report, students' logbook, student files containing information on students' re-examination activities and final grades earned during these activities. The Examination Log and applications are administered using the *Student Management Information System*. Student progress statistics are a subject to the QA processes at Faculty level.



The QA representatives explained to the ET how all these data are used to inform reports and decisions about the quality and improvement of the study program.

- 5.8. The Faculty implemented a plagiarism detection software *Turnitin*. Although the general principles of ethical conduct are regulated, the concrete procedures and responsibilities concerning plagiarism detection are not specified.
- 5.9. The rights (including appeal procedures) and obligations of students and issues of non-academic conduct are stated in the *UBT Statute* and in the *Handbook of Student* which are publicly available documents.
- 5.10. The students' transfer between higher education institutions, faculties and study programs is regulated in the *Regulation of transfer from one academic institution to another*, *UBT Statute* and in the *Regulation of organizing the Master Studies*. All students' rights and obligations are made publicly available.
- 5.11. Both the students and the graduates claimed to the ET that academic staff are available at sufficient scheduled times for consultation and advice to students. However, one student mentioned more support could be given during thesis writing.

Standard	Compliance	
	Yes	No
<i>Standard 5.1.</i> There is a clear and formally adopted admission procedure at institutional level that the study program respects when organising students' recruitment. Admission requirements are consistently and fairly applied for all students.	+	
<i>Standard 5.2.</i> All students enrolled in the study program possess a high school graduation diploma or other equivalent document of study, according to MEST requirements.	+	
Standard 5.3. The study groups are dimensioned so as to ensure an effective and interactive teaching and learning process.	+	
<i>Standard 5.4.</i> Feedback to students on their performance and results of assessments is given promptly and accompanied by mechanisms for assistance if needed.	+	
<i>Standard 5.5.</i> The results obtained by the students throughout the study cycles are certified by the academic record.	+	
<i>Standard 5.6.</i> Flexible treatment of students in special situations is ensured with respect to deadlines and formal requirements in the program and to all examinations.	+	



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

Compliance level: Fully compliant

ET recommendations:

1. *Stipulate in the university regulations the obligations of lecturers regarding giving feedback to students.*

2.6. Research

- 6.1. The study program has “Demonstrate the skill required to participate in research work or to work in other advanced IT projects” and “Demonstrate in depth knowledge and understanding within the field of computer sciences and engineering, as well as insights into current state of the art research methods and technologies” among the learning outcomes and “Research Methods in Engineering” as one of the courses. The Master Thesis has 30 ECTS which allows planning and completing a decent master thesis. The whole process from submitting the application for the master thesis until the provision of the documents to the student after successful defence of the thesis is thoroughly described in the *Guidelines for the Protection of Diploma Topics and Documentation Archiving*.
- 6.2. Expectations for teaching staff involvement in research and scholarly activities and performance in relation to these expectations are specified in the work contract, in the *UBT Statute* and in the *Regulation on Scientific Research and Publications*. The College has the *Research Center for Computer Science and Engineering*, which offers



research projects in Artificial Intelligence, 5G networks, smart system development and public administration; health care and IT systems; Enterprise process management systems, big data, visualization, analysis, data mining, information modeling and simulation, internet security and automation. As it was explained to the ET, the Faculty has Artificial Intelligence and related topics (including deep learning, data science, data analytics and data visualization), telecommunications (including Internet of Things) and Cyber Security as their priority development areas.

- 6.3. Research objectives, activities, responsibilities and indicators are determined in the *Development Plan of the Faculty of Computer Science and Engineering for years 2020-2025*. The role of different stakeholders is determined in the *Regulation for Scientific Research and Publications*.
- 6.4. All 23 academic staff who have at least one course on the study programme have a positive *Google Scholar* h-index. However, three of them (including the responsible for the study program) have indicated in Google Scholar a different employer than UBT. The research of the academic staff does in the majority of cases harmonize with the topics they teach.
- 6.5. The research of academic staff is internationally visible (for example, in *Google Scholar*). The publications of some academic staff – Astrit Ademaj, Yll Haxhimusa, Zhilbert Tafa, Edmond Hajrizi – have relatively high citation scores. However, some other important instruments for high level research – active research groups, regular research seminars, involvement in international research projects etc – are not sufficiently developed. In addition, there is an extremely low number of joint publications that include at least two academic staff members of the Faculty.
- 6.6. Research is basically validated by scientific publications. Technological transfer is not regulated nor supported by the university. This is not facilitated by the salary system either, as salaries are unified and do not depend on cooperation with companies. A peculiar situation has developed with regard to cooperation with companies: both parties - both UBT and companies - are interested in intensifying cooperation, but it is still relatively scarce. Nevertheless, the College offers a number of services: software development for municipalities and banking sector, development of simulation tools to vocational education, digitalization of educational processes, etc.
- 6.7. The list of publications was provided in a separate document (Annex C to the SER). As there were publications from a much longer period than the last three years and several entries were incomplete, checking this list was extremely time-consuming. Formally, almost all but two or three staff members have published at least an average of one scientific/applied research publication per year for the past three



years. Here the question arises as to what publications can be qualified as a scientific/applied research publication. One of the possible options would be: those reflected in Google Scholar.

- 6.8. The academic staff within the Faculty publishes papers under the name of the UBT.
- 6.9. No evidence was provided that academic staff are encouraged to include within their teaching information about their research and scholarly activities that are relevant to courses they teach, together with other significant research developments in the field. On the other hand, as the research of the teachers harmonizes quite well with the topics they teach, there is high potential to use their research results in teaching.
- 6.10. The university has not yet established intellectual property ownership policies or regulations, although the *Statute of the College* claims that “Funds are generated from various sources, such as: ... e) *Use of Intellectual Property of UBT College HEIPP*; ”.
- 6.11. Since the study program contains a mandatory subject *Research Methods in Engineering* and relatively large number of credits (30 ECTS) is assigned to the Diploma Thesis, good preconditions are created for engagement of students in research projects. Some students are involved in conducting research projects, both local and international. Some conference papers and articles have been prepared jointly with some students.

Standard	Compliance	
	Yes	No
<i>Standard 6.1.</i> The study program has defined scientific/applied research objectives (on its own or as part of a research centre or interdisciplinary program), which are also reflected in the research development plan of the institution; sufficient financial, logistic and human resources are allocated for achieving the proposed research objectives.	+	
<i>Standard 6.2.</i> Expectations for teaching staff involvement in research and scholarly activities are clearly specified, and performance in relation to these expectations is considered in staff evaluation and promotion criteria.	+	
<i>Standard 6.3.</i> Clear policies are established for defining what is recognized as research, consistent with international standards and established norms in the field of study of the program.	+	
<i>Standard 6.4.</i> The academic staff has a proven track record of research results on the same topics as their teaching activity.	+	
<i>Standard 6.5.</i> The academic and research staff publish their work in speciality magazines or publishing houses, scientific/applied/artistic products are presented at conferences, sessions, symposiums, seminars etc. and contracts,		+



expertise, consultancy, conventions, etc. are provided to partners inside the country and/or abroad.		
<i>Standard 6.6.</i> Research is validated through: scientific and applied research publications, artistic products, technological transfer through consultancy centres, scientific parks and other structures for validation.		+
<i>Standard 6.7.</i> Each academic staff member and researcher has produced at least an average of one scientific/applied research publication or artistic outcome/product per year for the past three years.	+	
<i>Standard 6.8.</i> Academic and research staff publish under the name of the institution in Kosovo they are affiliated to as full-time staff.	+	
<i>Standard 6.9/6.8.</i> Academic staff are encouraged to include in their teaching information about their research and scholarly activities that are relevant to courses they teach, together with other significant research developments in the field.	+	
<i>Standard 6.10.</i> Policies are established for ownership of intellectual property and clear procedures set out for commercialization of ideas developed by staff and students.		+
<i>Standard 6.11.</i> Students are engaged in research projects and other activities.	+	

Compliance level: Substantially compliant

ET recommendations:

1. *Form research groups in the priority areas of the Faculty and introduce the necessary research instruments (regular research seminar, conducting joint research, preparing joint publications etc).*
2. *Develop and implement a regulation on technology transfer.*
3. *The university is recommended to establish an intellectual property ownership policy.*

2.7. Infrastructure and Resources

- 7.1. UBT has a modern infrastructure. In total, the college had 37 132m² at its disposal. After new building was completed, it increased to about 60 000m². The Faculty has seven laboratories, shared with the Faculty of Information Systems. Some more



laboratories assigned to other faculties can also be used. A new building with 27 000m² where about 30% is assigned to the Faculty is under construction. A video was provided about the facilities. It seems that the Faculty has enough premises. However, the lecture halls and computer labs are made up of rows of school benches that do not support group work. The structure of the premises also does not meet the requirements of modern university education – there are very few small seminar and group work rooms. With the construction of a new building, these problems have been partly solved. 5G-enabled connectivity is established in the campus. Students noted that the premises could be more suitable for socializing.

- 7.2. Although the revenues and expenditures of the study program is balanced, the share of different types of revenues and expenditures is relatively unique in Kosovo. Project revenue accounts for 67,42% of total revenue which is extremely high. On the other hand, the staff costs are extremely low, less than 25% of the expenditures. This is contrary to the budget of the Faculty for 2022-2024: the tuition fees accounts for around 92% revenues, while revenues from research projects for only around 5% and service revenues for less than 2%. Staff costs accounts for about 50% of the expenditures. The revenues are in a stable increasing trend indicating a sustainability of a study program.
- 7.3. UBT owns the training buildings and practically all the equipment it uses. The college has a central library of 417,8 m² with 100 seats. The library contains around 250 000 books with about 52 000 titles. Since the number of copies was not indicated, it is not possible to judge about the satisfactory amount of textbooks. Although the SER and most of the syllabi did not contain a list of the software used, the description of the content of the subjects shows that it most probably exists.
- 7.4. A complete list of rooms (amphitheatres, classrooms, laboratories, reading halls etc) with a total area of 15 448 m² was provided. Considering the number of students, the number and size of teaching classrooms and laboratories is adequate. At the same time, it seems that there is not enough environment in the public space for students to work outside of class, apart from the library.
- 7.5. The library and library services are well described in the SER – the rooms, number of seats in reading and group work rooms, electronic resources, physical books, and other services the library offers.
- 7.6. The infrastructure is certified to meet the minimum standards for students with physical disabilities. On the other hand, the students expressed their wish to have more sport facilities, as well as better conditions (“friendly environment”) to enhance social life.



Standard	Compliance	
	Yes	No
<i>Standard 7.1.</i> The adequate long-term implementation of the study program is ensured in quantitative terms as regards premises, human resources and equipment. At the same time, it is guaranteed that qualitative aspects are also taken into account.	+	
<i>Standard 7.2.</i> There is a financial plan at the level of the study program that would demonstrate the sustainability of the study program for the next minimum three years.	+	
<i>Standard 7.3.</i> The higher education institution must demonstrate with adequate documents (property deeds, lease contracts, inventories, invoices etc.) that, for the study program submitted for evaluation it possesses the following, for the next at least three years: a) owned or rented spaces adequate for the educational process; b) owned or rented laboratories, with the adequate equipment for all the compulsory disciplines within the curriculum, wherever the analytical syllabus includes such activities; c) adequate software for the disciplines of study included in the curriculum, with utilisation licence; d) library equipped with reading rooms, group work rooms and its own book stock according to the disciplines included in the curricula.	+	
<i>Standard 7.4.</i> The number of seats in the lecture rooms, seminar rooms and laboratories must be related to the study groups' size (series, groups, subgroups); the applicative activities for the speciality disciplines included in the curricula are carried out in laboratories equipped with IT equipment.	+	
<i>Standard 7.5.</i> The education institution's libraries must ensure, for each of the study programs: a) a number of seats in the reading rooms corresponding to at least 10% of the total number of students in the study program; b) a number of seats in the group work rooms corresponding to at least 10% of the total number of students in the study program; c) their own book stock from Albanian and foreign speciality literature, enough to cover the disciplines within the curricula, out of which at least 50% should represent book titles or speciality courses of recognised publishers, from the last 10 years; d) a book stock within its own library with a sufficient number of books so as to cover the needs of all students in the cycle and year of study the respective discipline is provided for;	+	



e) a sufficient number of subscriptions to Albanian and foreign publications and periodicals, according to the stated mission.		
<i>Standard 7.6.</i> The infrastructure and facilities dedicated to the implementation of the program is adapted to students with special needs.	+	

Compliance level: Fully compliant

ET recommendations:

1. *Furnish the new building in such a way that it offers to the students opportunities to enhance their social life.*

3. FINAL RECOMMENDATION OF THE ET

The following recommendations need to be considered in relation to the program accreditation and further development:

1. The college is applying for an annual enrollment of 150 students. This would mean nearly fourfold increase compared with the current yearly enrollment. This would also require considerable increase of the teaching staff. Considering the fact that the College is also applying for a considerable increase of the number of bachelor students, the ET believes that such a large increase in the number of students carries the risk of a decline in the quality of teaching. All the more so as the college has made the development of research a priority in the coming years. Therefore, we recommend an annual admission limit of 100 students in the following period.
2. Another problem is the lack of opportunities to continue doctoral studies in Kosovo for graduates of the study program. Considering the resources available and the performance to date, UBT has the greatest potential to offer PhD programs in Computer Science in Kosovo. Therefore, UBT should find ways to launch doctoral studies, preferably in collaboration with a recognized foreign university in the field of ICT.



Overall compliance:

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

In conclusion, the Expert Team considers that the study program Master of Computer Science and Engineering offered by UBT College is *Fully compliant* with the standards included in the *KAA Accreditation manual* and, therefore, recommends *to re-accredit* the study program for a duration of 5 years with a number of 100 students to be enrolled in the program.

Expert Team

Chair

22.04.2022

(Signature)

Peeter Normak

(Date)

Member

22.04.2022

(Signature)

Rebecca Maxwell Stuart

(Date)