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University "Ukshin Hoti" - Prizren Faculty of Computer Science Information and Telecommunication Technologies BSc

REACCREDITATION

REPORT OF THE EXPERT TEAM

06 May 2022, Zagreb, Croatia



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1. INTRODUCTION

1.1. Context

Date of site visit:

14 April 2022

Expert Team (ET) members:

- Prof. Dr. Damir Kalpić
- Mr. Giga Khositashvili (student expert)

Coordinators from Kosovo Accreditation Agency (KAA):

- Shkelzen Gërxhaliu, KAA Officer
- Ilirjane Ademaj, KAA Officer
- Arianit Krasniqi, KAA Officer

Sources of information for the Report:

- [1] Self-Evaluation Report, University "Ukshin Hoti" Prizren, Faculty of Computer Science, Information and Telecommunication Technologies,BSc
- [2] Self-Evaluation Report appendices:
 - o [3] Decision on the establishment of the Industrial Advisory Board (IAC)
 - o [4] Regulation on determining the criteria for master studies
 - [5] Regulation on personal income of academic staff, allowances for functions, fees and permanent commissions at the University "Ukshin Hoti" Prizren
 - o [6] Statute of the University "Ukshin Hoti" Prizren
 - [7] Student Handbook
 - o [8] CSF Strategic Plan
 - o [9] Regulation on Scientific Research
 - o [10] Regulation on Quality Assurance
 - [11] Course Syllabuses



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- [12] Sample of an evaluation report, 22 Apr 2021, Zagreb, Croatia
- [13] KAA Accreditation Manual
- [14] KAA Manual Annex
 - [15] Template of the External Review Report for inst...
- [16] CVs
- [17] Annexes
- [18] Regulation on the definition of criteria for basic studies
- [19] Documents related to quality management, accessed on 12 Apr 2022 at <u>https://www.uni-prizren.com/en/quality-assurance/documents/ ()</u>
- [20] Faculty of Computer Sciences (2021), accessed on 12 Apr 2022 at https://www.youtube.com/watch?v=TIkgQMWvRNY

Criteria used for institutional and program evaluations

• KAA-Accreditation-Manual

1.2. Site visit schedule

Within the schedule of the meeting, the short notes considering different topics that have been made during the virtual visit, are included.

Time	Meeting	Participants
09:30 - 10:15	Meeting with the management of the Faculty where the programme is integrated Main discussed issues:	 Zirije Hasani dean Arta Misini, Head of teaching Arianit Krasniqi, KAA
	1. ET started with the question of main problems encountered and how are they addressed?	
	• Improved premises quality is achieved due to new Wi-Fi equipment from Germany and to co-operation with Centre for innovation, Ministry of economy, Kosovo	
	 There is a need for more smaller labs. Now are at disposal 4, 	

Site Visit Programme



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······		
	dedicated to Erasmus projects: robotics, IT scanners, book	
	scanners.	
	• There is co-operation with the Innovation training park.	
	Co-operation with the Ministry of economy also includes	
	students, provides SW from the Cloud, MS SQL Server, 3D	
	modelling, help for exercises.	
	• Among the students, on-line teaching was preferred to	
	classical.	
	They apply Erasmus project and Hybrid methods of	
	teaching.	
	• Many students are already employed, what was also used	
	while they were working on their theses. This custom	
	promotes practical work.	
	• The proposal of the ET was to consider enrolling only 120	
	students each year. The ET's argument was that it might	
	increase the quality of incoming students, make the teaching	
	simpler and more effective and avoid the feeling that	
	"anybody can enrol".	
	• Smart agriculture, smart cities are the sources to collect data	
	for research.	
	• One research topic is analysing university web sites.	
	• Robotic arms are developed.	
	2. ET asked what was unique, and the opinion about	
	competitors?	
	• Offered is a mix of software and telecommunications and	
	knowledge of adapting to companies' requirements. There is	
	an Advisory board.	
	• They are trying to offer what the market needs.	



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	• Alumni are working as educators, in companies for IT&TC,		
	some are self-employed, or establish start-ups.		
	3. What is the role of commission mentioned in Self-		
	evaluation report [1], that include students who are selected		
	according to regulations as proposed by students?		
	• There is a Quality assurance commission consisting of 4		
	Faculty staff members and 2 students.		
	• Literature in Albanian/Bosnian is insufficient, but most		
	students know English.		
	• Erasmus project nominated 2 students for Sweden for MS		
	study.		
10:20 - 11.00	Meeting with quality assurance representatives and	1.	Ercan Canhasi
	administrative staff	2. 3.	Naim Baftiu Arber Beshiri
	The ET started with the questions regarding the enquires	4.	Arbnore Shehu/Secretary
	regarding the educational process:	5.	Valon
	1. Publication of enquiry results?	6.	Ibraimi/Student Zemira Brasilla
	2. Consequences of protractive negative evaluations?		Dakaj- Administrate
	3. Protecting the dignity of educators?		7 Killinistrute
	The Faculty staff answered that they were preparing the		
	questionnaires, they are anonymous and protected. Dignity		
	protection of educators is under control.		
	They have never had negative report, meaning below 50%. The		
	enquiries are performed every semester.		
	The educators are predominantly younger and well-prepared		
	people.		
	Reaction to unsatisfactory results also requires some diplomacy		
	and is relying on multiple pillars.		
	4. Are there any changes in the programme due to enquiries		



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12:50 – 13:35	Meeting with teaching staff	1. 2. 3.	Arsim Susuri Malush Mjaku Betim Maloku
12:00 - 12.45	Lunch break (lunch provided at place)		<u>.</u> .
	will be given.		
	Recommendations for the Educational process content chapter		
	The discussion has an impact on the formulation of ET.	2. 3.	Ercan Canhasi Zirije Hasani
1:05 - 12:05	Meeting with the heads of the study programme:	1.	Arsim Susuri Ercon Conhosi
	this "hard", there are also soft mentor's thresholds.		
	plagiarism. To a perpetrator is given a second chance. Except		
	EU anti-plagiarism tool is used. Threshold of >30% indicates		
	University level.		
	also Cheating & Plagiarism issues, regulations of ethics on the		
	regarding the Erasmus research methodology. Addressed are		
	"teach the teachers", creating project proposal, informing		
	There is a PhD mentoring course, how to teach, performed as		
	6. Is there any training of teachers?		
	high demand.		
	programme. Web design course became mandatory as being in		
	There was organising a visit and performing changes in the		
	5. Have any students' initiatives been completed?		
	for duration up to 4 years, if they continue in MS study.		
	with an average grade from the interval [9,10]. They are elected		
	Students in the Board are chosen by peer students, among those		
	questionnaires.		
	board, and faculty are observed for formulation of		
	elective courses. Recommendations from students, Advisory		
	was an update in SW management. Students can choose from		
	Students asked for improved HW and it was provided. There		
	outcomes?		



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3:40 - 14:20	Meeting with students	1.	Marigona Krasniqi
A A A A A A A A A A	for October.	4	
	• A future own centre of teaching excellence is planned		
	• Provided are trainings by the professors from Prishtina.		
	4. Is there any support for teachers?		
	easier for making modifications in the programme.		
	• The Faculty staff agreed that it was not realistic but		
	hours can be equal for all the courses?		
	3. ET raised the question whether ECTS points, and teaching		
	an examination panel of 3 professors is formed.		
	• A dissatisfied student may apply to Faculty council, and		
	students do not use this opportunity.		
	hours for insights in the tests, to see the mistakes. Many		
	• Tests are like case studies. There are foreseen consulting		
	for full examination. Oral examinations are rare.		
	• If unsatisfied with the obtained grade, student can ask		
	seminar work, practical work, attendance is recorded.		
	2+2 h is the weekly education load, there are 2 tests, a		
	for sketches, the teachers are standing while lecturing,		
	in English. Used are PowerPoint presentations, board		
	• Lecture notes are in Albanian, basic literature is mostly		
	2. What are the main teaching/assessment methods?		
	study prematurely. Often, they would find difficult to resume.		
	must be warned of serious consequences if they abandon the		
	Students go to work as soon as having learnt something. They		
	physical classes. Students mostly preferred the on-line approach.	7.	Naim Baftiu
	Students are reluctant to transition from on-line education to	5. 6.	Ercan Canhasi Endrit Fetahi
	1. The ET asked about the main problems encountered:	4.	Arber Beshiri



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1	. ET asked the students what are they most satisfied with, and	2. Ramadan Sezalla
	what are the problems?	 Nedim Faiku Shaban Zenelaj
	• They attend the second year of study. They achieved	5. Valon Ibraimi/Student
	good grades, acquired useful information, there is no	Toranin/Student
	dissatisfaction.	
	• A problem is the literature language. There is lack of	
	literature in Albanian. Professors prepare own lecture	
	notes.	
	• Students are satisfied, they do not see any need for	
	change.	
	• For enrolment are required some documents and tests.	
	• Evaluations are every semester.	
	• Professors translate the books to Albanian. Open	
	communication with professors is practiced.	
	• They get assignment for homework and labs. Feedbacks	
	are given on the next lesson.	
	• The education process is monitored, separate grades are	
	assigned for different aspects of learning. Grades are	
	recorded in system and reported.	
	• Teaching + consultation takes (6+2) hours. Research	
	and other publications are awarded. Conference related	
	to teaching is subsidised. Budget queue is formed.	
	• COVID challenges were present. On-line was successful	
	and the students liked it.	
	• Quizzes are applied to check the understanding rate.	
	• Student dissatisfied with the grade can reject it and	
	repeat the examination.	
	• Regarding the satisfaction with lecturers, the students	
<u>i</u>		



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are filling questionnaire forms. They get feedback. A group in class is 40 students for lectures, and 20 for practice exercises.
practice exercises.
2. ET tried to persuade the students that postponing of
examinations to the next year were counterproductive.
• However, students like the possibility of postponing
examinations to the next year.
3. Antiplagiarism and SW tools are used. Are there
instructions against plagiarism?
• On-line library exists but the students do not use it.
Teachers send them materials.
4. Do the students go abroad or prefer to finish the studies at
home?
• 2 students went recently to Turkey for 1 semester.
25 – 15:05 Meeting with graduates 1. Ardit Vezaj
1. What is the satisfaction with the acquired knowledge, what2. Albi Hoti 3. Suela Kryeziu
was lacking? What was excessive? 4. Ilir Krasniqi
2. Acceptance by employers?
One is employed as educator. His students like the way he
teaches. He can understand the children and knows how.
3. Suggestions for improvements?
• Try to teach at the study the currently most used
programming language, consult e.g.
https://www.northeastern.edu/graduate/blog/most-
https://www.northeastern.edu/graduate/blog/most- popular-programming-languages/
popular-programming-languages/



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	 satisfied with the University he attended. He was new in the field, without previous knowledge. Centre of careers contacted him and other good students, with an enquiry. They asked him to present in companies new technologies. He chose to continue in Germany the MS 	
	 study of Computer science with accent on HW. Another student continues with master study in Prizren because she cannot find a job. She would prefer to work. She is looking for job in Java script and learns that language. 	
	 4. Chance for internships during the study? There are invitations to students. Students use mostly own computers. They regard the University as well organised. 	
15:10 - 15:50	 Meeting with employers of graduates and external stakeholders 1. Satisfaction with alumni knowledge, what was lacking or should be improved? Constantly are organised meetings with University management. Employers are also occasionally engaged in giving lectures, offering internship, participating in Job Fairs, are enabling work on final theses for students. 2. Suggestions and comments? The students are well prepared. One as EEIng complements the programme. Advisory board for industry promotes applying to internship programmes offered to students. New project is the Innovation and training park, realised by 	 Enis Qafleshi <u>Agim Morina</u> Lamir Shkurti
	Kosovar and German government.	



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	program	
16:00 - 16:10	Closing meeting with the management of the faculty and	
	Prefer to stick with 180.	
	1. Enrolment of only 120 students/year?	
15:50 - 16:00	Internal meeting of KAA staff and experts	
	like elevator, toilets, etc.	
	• For people with special needs there are adapted facilities	
	matches demand with offer. Valuated as good.	
	Advisory board performs surveys of companies,	
	achieving results, they are not evaluating.	
	the company. They only assess contribution in	
	• Assessing of internship is performed by supervisor from	
	students/year as a good number.	
	• The employers regard the current 180 enrolled	
	employment offers.	
	• University graduates of IT, or networking have best	
	complete their theses.	
	• There is a list of companies enabling students to	
	larger employments.	
	workshops, hackathon There is intensive opportunity for	
	Good quality, suggestions are accepted, organised are	
	3. Protection of intellectual property and technology transfer?	

3.1. A brief overview of the institution and program under evaluation

There is no history description in [1]. Information is taken from [6]:

University "Ukshin Hoti" based in Prizren, was established by decision no. 01/87 of the Government of the Republic of Kosovo on 09.10.2009 as the second public university in the



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Republic of Kosovo which started with the first generation of students in the academic year 2009/10, respectively 01.10.2010. The Assembly of the Republic of Kosovo on 30.05.2013 approved the Statute of the University "Ukshin Hoti" based in Prizren.

According to [8], the Faculty of Computer Science (FCS) was founded in 2010.

4. PROGRAM EVALUATION

4.1. Mission, objectives and administration

The mission and objectives are well described and sound convincingly. The students of that profile might be in demand in Kosovo and abroad.

Regarding the administration, not much information is presented, except the expectance that it would fulfil its necessary tasks.

There is a Secretary at the Faculty Level and the Student Service Officer (Administration Structure of the Faculty of Computer Science). The Secretary of the Faculty is also part of the quality assurance commission. Part of administration is also an IT officer who deals with the maintenance of laboratories. Regulations can be seen on a University web site.

Compliance level: Fully compliant/Substantially compliant/Partially compliant/Non-compliant

ET recommendations:

- 1. More available information regarding the administration might be welcome.
- 2. B
- 3. C

The above recommendation has been already accepted.

4.2. Quality management

In the Self-evaluation report [1] there is a link [19] <u>https://www.uni-prizren.com/en/quality-assurance/documents/</u> (accessed on 12 Apr 2022) to the list of documents related to the quality management:

- Questionnaires and Reports (Evaluation)
- Quality assurance regulation



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- Questionnaire for subject and teacher evaluation by students
- Questionnaire for inter-collegial evaluation
- Assessment Report by the Dean
- Evaluation report for scientific publications and conference attendance
- Assessment report on university contribution and contribution to society
- Questionnaire for student evaluation of study programs, administration services, faculty, library and infrastructure management bodies
- Questionnaire for Dean's Performance Evaluation
- Questionnaire for evaluation by graduate students
- Questionnaire for evaluation by academic staff
- Questionnaire for evaluation by administration staff
- Questionnaire for employers (Industrial Advisory Boards)
- Dropout monitoring questionnaire
- Intercollegiate classroom observation form
- Questionnaire for teacher self-assessment
- Teacher/assistant professional development plan
- Tracking students of "Ukshin Hoti" University Prizren
- Guidelines for the evaluation of academic staff, course evaluation, and the use of evaluation results at the "Ukshin Hoti" University Prizren

It is stated that "for assessing the performance of the academic staff, self-assessments are undertaken, and assessments undertaken by students. At the end of each semester, students have the opportunity to express their satisfaction or remarks by completing the forms of assessment made for each professor and teaching assistant."

The in Self-evaluation report are mentioned the weaknesses:

- Lack of funding for maintaining the quality assurance process.
- Lack of motivation among students to engage in quality assurance procedures.

They seem to be present in reality, because there is scarce information given regarding the students' enquiries, their regularity, outcomes, public presentation, and effects in practice.

The SWAT analysis is rather generic and lacks some more concrete information.



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The FCS feedback states that the budget is dedicated at the University level for the Quality Assurance Process. The quality assurance process and the necessary documents can be found on the University. The evaluation result is sent to each individual (academic staff) via email to be notified of his/her performance.

Compliance level: Fully compliant/<u>Substantially compliant</u>/Partially compliant/Non-compliant

ET recommendations:

- 1. Each individual is informed via e-mail regarding the assessed performance but more available public summary anonymous information regarding the information collected via questionnaires would be welcome.
- 2. B
- 3. C

4.3. Academic staff

There is no full professor engaged but can be expected to emerge from the current staff. The associated professors and their main fields of interest are:

- Samedin Krrabaj, PhD in Mechanical Engineering; optimization and modelling, computer applications and algorithms
- Ercan Canhasi, PhD in Computer science; documents processing
- Arsim Susuri, PhD in Computer science; security, machine learning, evaluations
- Zirije Hasani, PhD in Computer science; data bases, big data
- Naim Baftiu, PhD in unspecified technical field; mostly industrial applications but also a wide field of interests and activities
- Malush Mjaku, PhD in unspecified technical field; various considerations of steel quality.

It is worth mentioning that 3 of them hold PhD in Computer science, and they are declared as responsible for the Information Technologies and Telecommunication programme. The 3 slightly older colleagues achieved their PhDs when computer science was not so widely present. The conclusion could be that the senior educational staff is of appropriate quality and profiles.



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According to the sent list of CVs, containing 16 names, 12 of them hold PhD what is 75%, what corroborates the strengths expressed in the Self-evaluation report.

The weakness "Lack of application of online courses and online learning" was probably alleviated through introductions of distant learning due to CORONA 19 pandemics.

Together with the HERAS Plus project, the University is in the process of creating a centre of excellence, the regulation of which has already been drafted and is under public discussion.

Compliance level: <u>Fully compliant</u>/Substantially compliant/Partially compliant/Non-compliant

ET recommendations:

- 1. The expressed weakness that "The institution does not provide training programs for new or current staff on developing their teaching skills" could be solved or improved in tighter co-operation with related academic institutions, what seems to be already practiced to some extent.
- 2. B
- 3. C

4.4. Educational process content

Comments regarding each course from [11] are given below. In the brackets, "M" denotes "Mandatory course" and "E" stands for "Elective course". The figure, currently everywhere "6", denotes the respective count of ECTS points.

Semester 1

Mathematics 1 (Mandatory, 6 ECTS)

The course corresponds mostly to a secondary school syllabus. There is no mention of analytical geometry (Cartesian system).

Programming (M, 6)

Learning of both languages is mentioned in Concretization means / IT for this course. Two programming languages, Java and C++, are excessive. The declared *Java* should be sufficient.



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Matrices are treated before learning them in Mathematics II. Multidimensional arrays would be a more appropriate term here.

Digital Technology (M, 6)

Do the topic Numerical systems include presentation of integers and real numbers, their limited range of values, precision of real numbers; or is it treated in Discrete mathematics?

Is a single week sufficient for the topic Linear algebra, what is somewhere taught as a complete course?

Introduction to Networking (M, 6)

Good introductory course. Some overlapping may happen later, and attention should be paid to keep it under control.

Data Communication Fundamentals or Fundamentals of Information

Communication? (Elective, 6)

Decision should be made regarding the course name.

IT and Entrepreneurship (E, 6)

The course is comprehensively well described to enough detail and if properly taught can prove being very useful.

English Language I for Computer Science (E, 6)

The course is comprehensively well described to enough detail. One detail was uncritically copied and probably does not apply to this course: "The course is a combination of lectures, discussions, **<u>numerical</u>** and laboratory exercises, ...

New Media and Multimedia (E, 6) Good description of this elective course.

Semester 2

Algorithms and Data Structures (M, 6)

A well-conceived course.

Mathematics II (M, 6)

Analytical geometry is mentioned but it cannot be found in the Weekly study plan. There is no mention of presentation of functions in the coordinate system.



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Sensors and Interfaces (M, 6)

Referenced exercises starting with:

Project 1 https://learn.sparkfun.com/tutorials/sik-experiment-guide-for-arduino---v32/introduction-sik-arduino-uno cannot be accessed.

Computer Architecture and Operating Systems (M, 6)

Good course description.

English Language II for Computer Science (E, 6)

An objection can be that the course description contains English spelling errors like "Proffesional", what is not a good recommendation for the course.

Information management (E, 6)

It seems that it is a predominantly descriptive course, while topics like Data bases deserve a separate more exact-oriented course.

The course description states: "...and provides students with a solid background for taking advanced courses in the program". If it is so, how can an elective course assure that?

E-Business (E, 6)

The term "Security" is mentioned only once, among the objectives. It is an important aspect, and more attention should be paid to it.

Internet Protocols (E, 6)

Thanks to being an elective course, the danger of overlapping with similar courses can be easier controlled.

Semester 3

Transmission Methods (M, 6)

Would the students be able to understand spectra without knowing Maclaurin and Taylor series, Fourier transformations, derivatives, and integrals?



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Object Oriented Analysis and Design (M, 6)

Some errors in weekly plans: Retro (?), dhe methods, Intefaces.

Discrete Mathematics (M, 6)

Possible overlapping with Mathematics I, but not critical.

Electronic Devices (M, 6)

It appears to be a very ambitious course covering useful knowledge from usually multiple courses like Fundamentals of electricity, Electrical circuits, Electronic elements, Management skills, Salesman's skills etc.

English Language III for Computer Science (E 6)

Good course description.

Internet of Things and its Applications (E 6)

According to the description, a promising course.

Software Engineering (M 6)

A surprise comes in the plan for the second week "...Rational <u>Undefined</u> Process (RUP)...". Obviously, it should be "Unified", and it must be corrected, like some repeated errors, e.g. "inteface".

Individual or group projects would be welcome, within this course or somewhere else in the syllabus.

Artificial Intelligence (E, 6)

Here is the term "Probability" mentioned for the first time and its understanding is essential, also as basic knowledge and understanding of statistics and statistical tests. First addressing of probability in the penultimate week is too little and too late.

Semester 4

TCP/IP Technology (M, 6)

Good course description.

Attention should be paid to avoid overlapping with "Introduction to Networking",



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"Data Communication Fundamentals" (or "Fundamentals of Information Communication"), and "Internet protocols".

Microcontrollers (M, 6)

Attention to possible overlapping with the course "Sensors and Interfaces", lectured by the same person.

Citing the *Microcontrollers* Objectives:

"The objectives of the course are to provide Undergraduate students of Information Technologies and Telecommunication students with a practical, working knowledge of modern **sensor** technologies and **interfaces**."

Authentication and Cryptography (M, 6)

Good course description.

Research Methods (M, 6)

Lack of a course in Statistics might be alleviated due to this course but it is a question whether skills in applications alone, without understanding what stands behind, were an appropriate approach.

Consideration of a course of Probability and statistics as a prerequisite should not be neglected.

The Weekly study plan is partly not very informative, for containing mostly the texts:

- Discussions/seminars
- Questions for discussion
- Study cases

The 6 weeks, currently 10-15, could maybe be better used at the beginning of this course to teach probability and basics of statistics. This can be later illustrated in practice according to the already existing topics within this course.

English Language IV for Computer Science (E 6)

As it is an advanced English language course, an objection to the course objective description is that instead of "with" in "The main objective of the course is to introduce students **with** the general language skills" should be "to": "The main objective of the



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course is to introduce students **to** the general language skills". "Visiting britain" should be corrected to "Visiting Britain".

Human-Computer Interaction (E 6)

Appears to be a mostly narrative course. 6 ECTS points could be too much.

Web Design (E 6)

Closer to skills rather than course. 6 ECTS points could be too much. However, the expressed importance of this course, as demonstrated in high demand should not be neglected.

3D Modelling and Animation (E 6)

Closer to skills rather than course. 6 ECTS points could be too much. Contents of the Weekly study plan for exercises does not differ from the lectures, what is not very informative.

Semester 5

Databases Systems

Very modest approach. Not mentioned are multiuser environment, backup, recovery, maintenance, user authorizations, etc.

Security in IT Networks

Security appears to be well covered, but the data can be endangered also without malicious activities. Such cases should be covered by the course Database Systems.

Advanced IP-Technologies and Networks

Weekly exercises study plan could be more informative. Attention to possible overlapping with courses Internet protocols, TCP/IP Technology, etc.

Introduction to Web Languages and Technologies

The Weekly study plan of exercises contains mainly the text "Exercises", what is not very informative.



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Quality Management

Statistics may be lacking as a prerequisite. Do the students know what is "Sigma" in "Six sigma", if they have not learnt any statistics?

Tools for Internet Security

Good course description.

Finite Automata and Formal Languages

An elective course for advanced students.

Network Programming

Plan of exercises is a copy of lectures. Otherwise, good elective course description.

Semester 6

Web Engineering Dynamic Content Good course description.

Mobile Telecommunication Concepts

Plan of exercises is not informative. Otherwise, good course description. Is this the only course where telecommunication is treated?

Cloud Computing

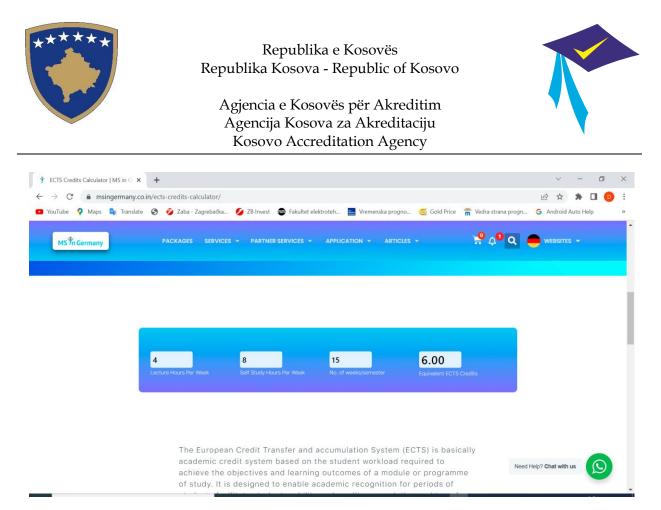
Good course description.

Thesis

A more detailed description then given in [7] of the related activities would be welcome.

Remarks regarding the ECTS points

According to the <u>https://msingermany.co.in/ects-credits-calculator/</u> accessed on 30 MAR 2022, the ECTS points for the courses were checked.



In order to correspond to 6 ECTS points and considered that all the courses in the syllabus have 2+2 hours per week through 15 weeks, it follows that all the courses would equally require 8 self-study hours per week.

It is hardly realistic that every course equally needs 2+2 hours per week. Even if it does, the numbers of assigned ECTS points should obviously be reconsidered due to the undoubtfully different count of self-study hours.

The Faculty members state that assessment methods are designed well in advance, before the course starts and are given in detail in the course syllabus. The methods vary from course to course. All the assessment activities are conducted at the university, even during the pandemic, all the exams were on site. The ET double checked this information with students and found out that the syllabuses are accessible from the information system that the university is using, and students can check the assessment methods, as well as the course content in the system. Students state that there is a possibility of complaint with regard of grading. If they do not agree on the grade, they can address the Dean within the two working days.

According to the academic staff, the course assessment consists of mid-term and final exams, assignments, projects, and oral presentations. They all are used as part of the overall assessment.



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There are several agreements with private organizations who guarantee the internships for the students to be hosted by them. The ET asked how this was organized and found out that after completing the <u>internship</u> or practical activities in the organization, the hours they spent there are calculated into the ECTS credits. The students pointed out that they had been informed about this before they went to the internships.

Compliance level: Fully compliant/<u>Substantially compliant</u>/Partially compliant/Non-compliant

ET recommendations:

1. Reconsider the declared egalitarian teaching load for all the courses and the count of respective ECTS points, although it complicates programme revisions.

2. Introduce a basic probability and statistics course. It can be modest, as the prevalence is on HW oriented courses.

3. Pay attention to possible uncontrolled overlapping among courses. Revision and merging of similar courses could free space for additional mathematical courses. Topics that might be lacking:

- Presentation of functions in Cartesian system
- Arithmetic and geometric progressions and series.
- Limes
- Derivatives
- Finding of maxima and minima
- Integrals
- Probability
- Normal and binomial distributions
- Statistical tests

They should be mentioned at least on an intuitive level. Otherwise, lacking are the prerequisites for Research Methods, Artificial Intelligence and for tentative at least elective Theory of information, which is totally absent.

- 4. On the other hand, some topics are repeatedly present in multiple courses and precaution against partial unnecessary overlapping is suggested. Here are some examples:
- *TCP/IP is present as topic in:*



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Introduction to Networking, Internet protocols, TCP-IP Technology, Advanced IP and Networking technologies, Mobile communications concepts

- Courses that could be considered for merging: Sensors and Interfaces, Microcontrollers Security in IT networks, Internet security tools
- 5. For the topics Big data and Data mining in the course Information management, as prerequisites should be Data bases and elements of statistics. Quality management may also require some knowledge of statistics.
- 6. A course like Project could be welcome for training of teamwork on some concrete tasks, like development of a computer application. As it may already exist, encourage this practice.
- 7. Seminar might be useful for presentation skills, where each student presents within a course to the colleagues in 10-20 minutes some topic which has not been in the curriculum but could be of interest.
- 8. It is recommended to conduct professional development trainings more actively for academic staff, in order to enhance the assessment strategies within the courses.
- 9. Include monitoring of the education process, assign separate grades for different aspects of learning. Grades should be recorded in system and reported.

The FCS management in their feedback expressed the intention to attempt actions according with the above recommendations.

4.5. Students

An informative Students Handbook is available on-line. An objection could be that it was too generic, while treating mostly not much changeable information.

Article 22 of the Regulation on the definition of criteria for basic studies [18]:

1. The student has the right to enrol in the second year of studies, if he/she has passed 70% of the exams, out of the total number of exams, or has obtained 41 credits from the first-year courses.



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2. In the third year of studies, the student can enrol, if he/she has completed 35% of the exams, respectively if he/she has earned 20 credits, out of the total number of credits for the second year of study.

Is there any benefit of allowing students to enrol in the next year of study without having completed the requirements from the previous year? In this way a significant part of student population may be present on lectures and exercises in enrolled year, while learning for the examinations from the previous year in parallel. Electrical engineers may remind this "shift in phase" to reactive power in power engineering. The students perceive the current regulation as favourable for them. However, it might be questionable. In ancient times students allegedly could enrol all the courses without passing a single examination. It was supposed that they can do it afterwards. The studies could have lasted for many years and very many students have never graduated, and this practice had been abandoned long ago. Maybe a radical change should not be appropriate, but an experiment monitoring the outcome if the criteria are slightly tightened, e.g. 80% instead of 70%, could be informative?

According to the regulations for bachelor's studies when applying for the study programme, applicants must have a school diploma together with the grading of the school even if they have not passed the Matura Exam. This rule is in accordance with the requirements designed by the Ministry of Education and Science and each applicant is assessed based on his/her school grade or Matura grades and entry exam success. When submitting the applications together with birth certificate and high school grades, the applicants need to submit the high school diploma. ET had a chance to double check these details with students and they stated to have gone through this procedure.

Students state that the number of the students during the classes are divided in a way it does not affect the quality of teaching and learning. According to the university regulation, the maximum number of the students in each group can be up to 60 on theoretical mandatory courses. ET was interested in how large the groups were in case of Lab works, as stated by the Faculty members and also as noted in the regulation, where the maximum number of students for the Lab works is twenty. The ET declares that these numbers will not have any negative influence on the teaching process.

During the interviews with Faculty members, it was identified that the outcomes of the assessment activities are communicated to students through the consultations, the ET tried to find out how long does it take for an instructor to grade the students work. According to the

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responses, that varies from subject to subject and can be from two to three or four days. The same was confirmed during the interviews with students. All the grades are recorded in the study management system, what creates individual records for each student.

According to the SER and interviews with academic staff, the Faculty is using a similarity detection software to guarantee that the principles of academic integrity are met. However, this practice is not implemented in the courses under the programme and is more oriented on the final theses. Neither students, nor alumni and academic staff can recall any example of plagiarism they had detected during their studies. The ET believes there is a necessity to conduct trainings for academic staff in plagiarism-related issues, as well as the usage of these systems should be mandatory in each and every subject where students have a writing assignment. In addition to this, students could not remember any training/service regarding the principles of academic integrity they received during their studies. It is extremely important that those activities are being enhanced during the implementation of the study programme.

During the interviews with students, it was stated that they were familiar with the student's self-government body who represent them in different councils at the university level. In addition to this, students are familiar with their rights and state that every single regulation is freely available for them. In addition to this, they are familiar with the rules related to mobility, either in the institution or outside of the university. There is a chance for students to change their profession and prolong their studies in a different field.

The ET also noted that the students wish to participate in the international exchange programmes, but the variety of options is not that big currently. ET believes that exchange programmes for both students and staff would positively impact on the programme development.

Compliance level: <u>Fully compliant</u>/Substantially compliant/Partially compliant/Non-compliant

ET recommendations:

- 1. Student handbook should be issued every academic year reflecting the actual status. A calendar of educational activities and examinations would be welcome because it does change every year, at least due to the characteristics of the common calendar.
- 2. Consider restricting the number of not passed examinations as the prerequisite to regular enrolment in the higher year of study. That would enforce studying in parallel



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with the performed education procedures, what is to benefit for students, even if they tend to wrongly believe that the more compliance was to their benefit.

- 3. It is recommended that student support academic services are designed for supporting them in preventing plagiarism and in general, raise awareness about cheating.
- 4. It is recommended that the number of the international collaboration projects are increased and more possibilities are created for students to make mobilities in EU.
- 5. Try to enforce students' engagement for Thesis completion in industry. If successful, that may bring multiple benefits:
 - Informing the educators what topics are interesting for industry
 - Enabling the tentative employers to make acquaintance with their possible future professional workforce.
 - *Giving opportunity to students to get informed regarding tentative employers.*
 - Strengthen the connections and appreciation of the study in industry.

According to the feedback from FCS, the academic calendar is in the process of compilation and from this year on, FCS will begin with the academic calendar. The University states that they use similarity detection software but the awareness about the academic integrity in general should be addressed in each activity. The University states that they plan to establish links with EU partner institutions to initiate new mobilities, both for students and academic staff.

4.6. Research

The following opportunities mentioned in [1] should be in focus:

- Increase co-operation with industry and the business community.
- Involvement of students in scientific projects.

• Generating revenues by writing and/or realizing projects and developing strategies for relevant businesses and institutions.

If properly activated, they could tame the first in [1] mentioned threat:

• The need to stimulate academic staff to do research and write scientific projects.



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If the Kosovar legislation allows, real-life projects should be commensurably valued as the publications. Bibliometric criteria seem to be omnipresent world-wide and adopted without the necessary reserve. Real-life projects reflect the reality and do not represent the solutions of problems in obscure fields, that were sometimes artificially constructed by the researchers themselves (especially in less developed countries), just to be able to publish as required. It happens that such achieved solutions and respective publications remain not noted in the public. On the other hand, real-life projects bring money and if successful, increase locally the reputation of the higher education institution. The consequence can be that alumni would be better accepted in local industry and economy, good quality of incoming students would be enforced, the syllabuses would also follow the local requirements. Finally, reporting successful applications can be published also in respected journals. However, the published paper is then a by-product of successful project and not its primary and often only aim.

Compliance level: Fully compliant/<u>Substantially compliant/</u>Partially compliant/Non-compliant

ET recommendations:

- 1. Continue with your attempts to properly stimulate the scientific and professional activities.
- 2. Adequately valuate the real-life scientific and professional projects
- *3. Financially stimulate the staff in proportion to the income from their professional and scientific activities*
- 4. Encourage staff to report in respected publications their successful real-life projects

4.7. Infrastructure and resources

The premises according to the presentation [20] seem to be satisfactory. The statement from the Self-evaluation report "As such, this object offers favourable conditions for the development of the learning process as well as a reactionary environment around it", should be modified for a single word. Instead of "reactionary", it should be "recreationary", even if luckily the times have gone when for praising "reactionary", one could have easily finished in jail!

The infrastructure and resources seem to be initially fully supported and afterwards faced the problems deriving from lack of money. That is a familiar problem in medium-developed and developing countries. Extra earnings through real-life professional projects can also in this



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aspect be found helpful. The institution submitted the video recording of the building, that was additional evidence for the ET to make the decision regarding the infrastructure. Namely, there are several classrooms for theoretical classes, recreation space for the students, also offices for administrative and academic staff. In addition to this, due to the field specification, there are several labs with all the required resources that can be needed for practical tasks. The library presented the list of the books and journals that are accessible in their repository.

According to the interviews with the management of the Faculty, it was stated that the major income in the programme budget is the amount given by the Ministry of Education and Science in accordance with the number of the students. In addition to this, there might be some donations. The institution has not presented any document related to the budget, the detailed report on incomes and expenditures. It is recommended that budgeting should be planned in accordance to strategic development plan of the institution and specifically for this study programme.

According to the SER, the institution presented the calculation of physical space required for students. Students state that they use library often, borrowing some textbooks. However, when asked whether they had used any academic database that might be accessible in the library, no one could name any. In addition to this, students cannot remember any academic service library offered to them. It is recommended that the library designs a training session for students (in information seeking, referencing, etc.) and promote the usage of academic databases widely.

According to the video that the institution submitted, the infrastructure is currently fully adapted to students with special needs.

Compliance level: Fully compliant/<u>Substantially compliant</u>/Partially compliant/Non-compliant

ET recommendations:

- 1. It is recommended the library develops student support services in working with academic databases and delivers these trainings at least twice in semester.
- 2. It is recommended the programme budget to be designed and monitored throughout the programme lifecycle, in order to decrease the risk related to incomes and expenditures variations.



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- 3. It is recommended that the academic staff enhance their work in order to diversify the sources of income for the programme development by participating in international capacity building or research projects.
- 4. Introduce a basic probability and statistics course. It can be modest, as the prevalence is on HW oriented courses.

3. OVERALL EVALUATION AND RECOMMENDATION OF THE EXPERT TEAM

The accreditation procedure would be more reliable if a real-life visit could have been performed. However, many indicators suggest that it is a well-founded study with mostly young and quality staff, with actual and former satisfied students, and satisfied employers. The sample might have been too small, but we can trust that KAA has taken care that not a distorted impression could have been achieved. Please find the full information in the ET recommendations below.

Compliance level: Fully compliant/<u>Substantially compliant</u>/Partially compliant/Non-compliant

ET recommendations:

- 1. Supply more information regarding the administration procedures and its level of computerisation.
- 2. Reconsider egalitarian policy of equal ECTS and teaching load to all the courses
- 3. Enforce and motivate the engagement of the Faculty staff in real life projects
- 4. Stimulate the best performing educators, according to possibilities allowed by legal regulations.
- 5. Try to introduce some fundamental topics from mathematics, at least as concepts on an intuitive level for Presentation of functions in Cartesian system, Arithmetic and geometric progressions and series. Limes, Derivatives, Finding of maxima and minima, Integrals.
- 6. Try to introduce basic statistical concepts, at least on intuitive level and combined with respective software tools: Probability, Normal and binomial distributions, Statistical tests.
- 7. Carefully analyse the question of the number of allowed non passed examinations while enrolling in the subsequent year of study.
- 8. Try to objectively deliberate regarding the optimum number of students to enrol yearly. It seems that you enrol yearly less students than your declared capacity. A



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better policy might be to enrol slightly less than the number of applicants. Competition is not always humane but is generally accepted as welcome.

9. The ET believes there is a necessity to conduct trainings for academic staff in plagiarism-related issues, as well as the usage of these systems should be mandatory in each subject where students have a writing assignment.

In conclusion, and after having received the FCS's comments, the Expert Team considers that the study programme **BSc Information and Telecommunication Technologies** offered by the Faculty of Computer Science, University "Ukshin Hoti" – Prizren, Kosovo is **Substantially compliant** with the standards included in the KAA Accreditation manual and, therefore, recommends **reaccrediting for the five years** the study programme for enrolling **180 students** every year.

Expert Team

Chair

Dans fall >

(Signature)

Member

(Signature)

Giga Khositashvili (Print Name)

Damir Kalpić

(Print Name)

06 MAY 2022 (Date)

06 MAY 2022 (Date)