Agency for Quality Assurance and Accreditation Austria

Review Report of the Expert Panel

International University Sarajevo

Bachelor programme "Electrical and Electronics Engineering"
Master programme "Electrical and Electronics Engineering"

10 August 2016

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1 General information

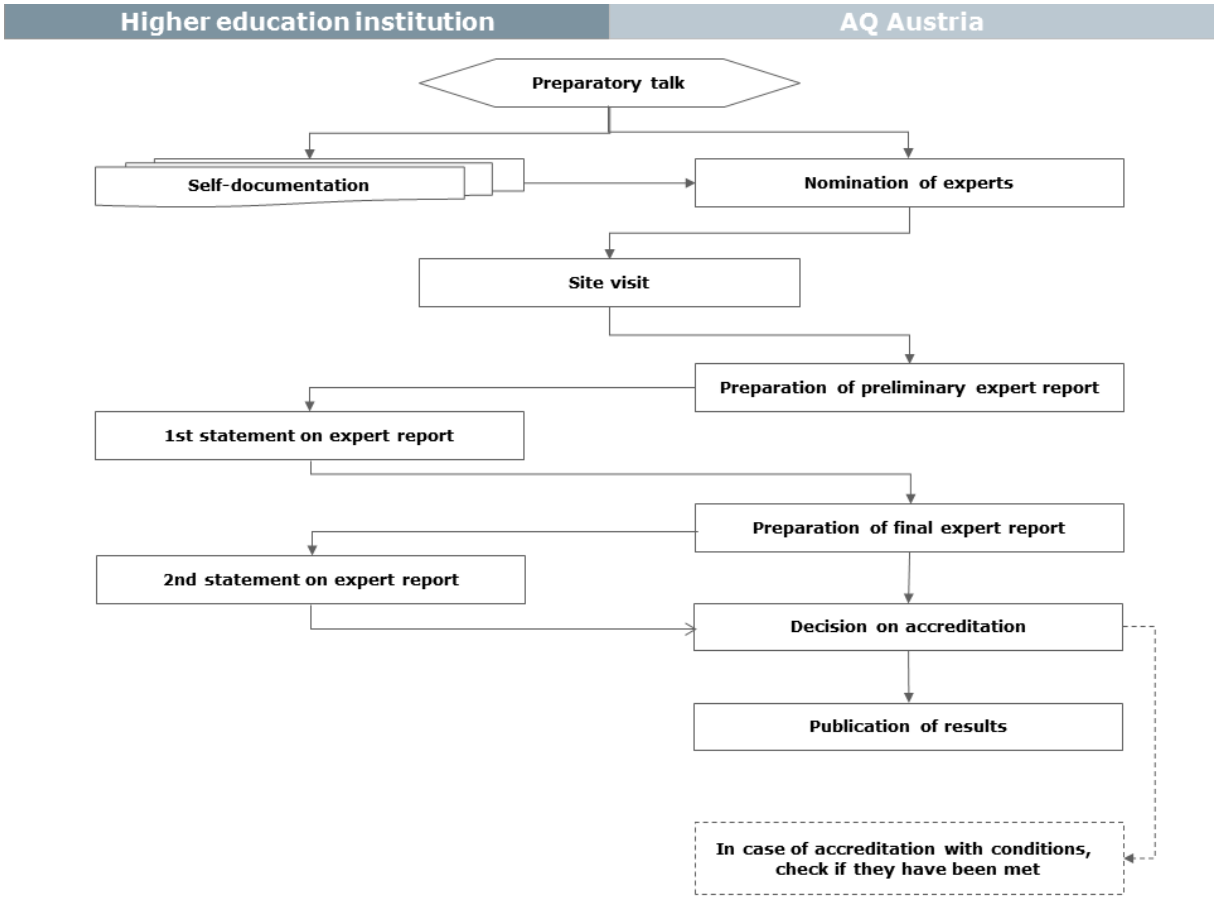
1.1 Basic principles of the procedure

AQ Austria is the Austrian agency for quality assurance and accreditation in higher education. The agency is operating in Austria and other countries of the European Higher Education Area (EHEA). It is committed to serving the common good and is based on the values of the EHEA, in particular the autonomy and diversity of higher education institutions and independent quality assurance.

By granting international accreditation to a study programme, AQ Austria confirms the compliance of the study programme with European quality standards. These standards are derived from the principles laid down in the Bologna Process and the Standards and Guidelines for Quality Assurance in Higher Education (ESG).

Standard 1 Study programme and programme management
Standard 2 Staff
Standard 3 Quality assurance
Standard 4 Funding and infrastructure
Standard 5 Research and development and appreciation of the arts
Standard 6 National and international cooperation

The accreditation pursues the principles of peer review and follows the procedural steps:



The accreditation report of the review panel and the higher education institution's statement constitute the basis for the accreditation decision, which is taken by the 14-members-board of AQ Austria. There are three options for the decision:

Accreditation without conditions

The quality requirements are being met. Any recommendations given on the basis of expert opinion are supposed to help the higher education institution to continuously develop the study programme. The agency grants the accreditation for a period of six years.

Accreditation with conditions

Deficiencies have been detected which are likely to be corrected within nine months. The higher education institution proves that the conditions have been met, and this will be verified by AQ Austria.

Denial of accreditation

Serious deficiencies have been detected which are not likely to be corrected within nine months.

If the accreditation decision is positive, AQ Austria will issue a certificate to the higher education institution.

1.2 Accreditation procedure at the International University Sarajevo

Timetable of the accreditation procedure

Procedural step	Date
Delivery of Self-documentation report by IUS	13 April 2016 03. June 2016 (revised and amended)
Decision on review panel members by the Board of AQ Austria	03. May 2016
Preparatory virtual conference of the review panel	27. June 2016
Site visit to IUS by the review panel	13. July 2016
Review report of the expert panel	10 August 2016
Formal statement by IUS	
Final report of the review panel	If necessary
Statement on the final report by IUS	If necessary
Accreditation decision by the Board of AQ Austria	20./21 September 2016 (expected)

1.3 Members of the review panel

Name	Institution	Role
Simo Särkkä	Associate Professor & Academy Research Fellow, Aalto University; Technical advisor & Director, IndoorAtlas Ltd.	Head of the expert panel Expert from academia
Thomas Kienberger	Head of the Chair of Energy Network Technology at the University of Leoben. Head of the Bachelor- and Master-program "Industrial Energy-Technology"	Expert from academia
Inka Seger	Senior Manager Product Engineering at Intel Austria GmbH	Expert with professional practice
Daniel Funk	Student of Electrical Engineering at Graz University of Technology	Student Expert

AQ Austria project coordinators

Maria E. Weber, Kristina Svensson

2 Higher education system

The adoption of the Framework Law on Higher Education in Bosnia and Herzegovina (FLHE, The Official Gazette of BiH, No. 59/07 and 59/09) in 2007 represents a key reform act for higher education in BiH. The FLHE allowed further necessary reforms in higher education in line with the European Higher Education Area (EHEA).

BiH has joined the Bologna Process in 2003 and committed itself to implement the principles of the EHEA. In this context, BiH is dedicated to set up a quality assurance system, as one of the primary goals defined by the Bologna Declaration (1999), and specified through the Standards and Guidelines for Quality Assurance in the European Higher Education Area (established at the European Education Ministerial Conference in Bergen in 2005 and revised by the Ministerial Conference in Yerevan in May 2015). As for BiH, the Ministry of Civil Affairs (MoCA) is representing the country in the Ministerial Conference.

Regulations and legislation regarding the higher education in BiH have to be in line with the Constitution of the country; therefore legislating is subject to the entity of the Republika Srpska (RS), 10 cantons in the Federation of BiH (FBiH) among which, one is the Canton Sarajevo, and the Brčko District of BiH (BiH BD).

Competent education authorities at this level, in case the Ministry for Education of the Canton Sarajevo, are held accountable for adopting laws in the area of (higher) education, determining budgets (for public higher education institutions), establishing education policies and having all other rights and obligations in their area of responsibility. According to the law (latest: Sarajevo Canton Law on Higher Education, SC OG No. 22/10) a higher education institution, either being a university or a college can be established as a public institution or as a private institution.

In line with the FLHE, universities are, as of its aims and objectives, obliged to undertake both education and research, to offer academic degrees in all three cycles. Accordingly the title university- only refers to higher education institution offering studies in at least five different subject groups in at least three scientific areas – natural sciences, technical sciences, biomedicine and health, biotechnical sciences, social sciences and humanities.

Besides being funded by tuition fees and funds provided by its founder the International University of Sarajevo (IUS) as, like all other public/private higher education institutions in the Canton Sarajevo operates according to the given legal framework. This in particular means e.g. organizational structure, appointment of rector, head of units, requirements for academic titles, teaching hours of academic staff, students assignment, grading system and scale, organization of study programmes etc. are determined and regulated according to the respective law.

The obligation, stipulated by the FLHE was to, within six months from its entering into force, harmonize the laws on (higher) education by competent education authorities. However, the legislative framework was only fully established in March 2013. At the same time, the number of licensed higher education institutions in BiH was rapidly growing. Licensing of new higher education authorities lies within the competence of the competent education authorities at entity level. For example:

- in the academic year 2009/10 33 Higher Education Institutions (HEIs)[1]
- in the academic year 2010/11, 37 HEIs
- in the academic year 2011/12 43 HEIs
- in the academic year 2014/15, 47 HEIs
- in the academic year 2015/16, 49 HEIs

According to the relevant legal regulations licensed higher education institutions are obliged to undergo an institutional accreditation process in a given period. As for the higher education institutions located within the Canton Sarajevo, out of the five licensed higher education institutions (as of the academic year 2015/16), four have received institutional accreditation decisions for a four-year period, as foreseen in the relevant regulations (Cantonal Law on higher education in line with the FLHE).

Licensed and institutional accredited higher education institutions are listed in the *National Register of Accredited higher education institutions* by September 2015:[2]

- University Sarajevo School of Science and Technology, Sarajevo Canton, 03/07/2014 (Private University)
- University of Sarajevo, Sarajevo Canton, 26/09/2014 (Public University)
- International University of Sarajevo, Sarajevo Canton, 26/09/2014 (Private University)
- International Burch University, Sarajevo Canton, 26/09/2014 (Private University)

All institutional accredited higher education institutions are obliged to apply for study programmes according to the relevant legal framework. The IUS has submitted relevant applications to the competent ministry; however the process of study programme accreditation has not started yet.

Notwithstanding the IUS has decided to seek for international accreditation with a number of representative study programmes.

3 International University of Sarajevo

The International University of Sarajevo (IUS) has been established in 2003. The founder of IUS is the Foundation for Education Development Sarajevo (*SEDEF – Sarajevo Education Development Foundation*). The Foundation was founded 2001 as a non-governmental organization with characteristic of endowment according to the relevant legal framework in BiH respective the Canton Sarajevo.

The foundation is registered as a legitimate institution whose purpose is to seek and create academic, material and legal conditions for the advancement of education in Bosnia and

[1] Universities and colleges as of the FLHE.

[2] http://hea.gov.ba/akreditacija_vsu/Default.aspx

Herzegovina. Beside of IUS, the foundation also operates a kindergarten and a primary school.[3]

IUS is, as mentioned before, licensed and as well institutional accredited according to the relevant legal frameworks in BiH by the competent ministry of the Canton Sarajevo. In addition IUS is also accredited by the Turkish Council for Higher Education (YÖK).

IUS offers, as of the academic year 2015/16, 53 study programmes in total in all cycles organized within five faculties:

- Faculty of Business and Administration
- Faculty of Engineering and Natural Sciences
- Faculty of Arts and Sciences
- Faculty of Law
- Faculty of Education

All study programmes are offered in English. IUS is open to students from all over the world; however the majority of students are from the Republic of Turkey. As of the academic year 2015/16 1931 students are enrolled. 1201 are foreign students and 730 from BiH. Out of the 1201 1053 are from the Republic of Turkey.

According to its own vision and mission IUS considers itself as one of the largest educational projects in the Balkan region and being a hub between east and west.

In the first twelve years since its establishment IUS was operating primarily as a teaching university. Available resources in terms of financial, material and human were spent on institution building processes. Only since the last years and with re-locating the campus from the center of Sarajevo to Illidza, where the new campus is located, IUS is strengthening all its efforts towards becoming a research university. As it is stated in its *Strategic Plan 2016-2020* the vision of IUS is to become an internationally recognized higher education and research institution and a center of excellence and quality through shared efforts of the founders, academic and administrative staff, students and all stakeholders.

IUS is an associate member of European University Association (EUA), and a full member of International Association of Universities (IAU) and European Consortium of Political Research (ECPR).

3.1 Profile and concept of the study programmes

Name of the programme	Electrical and Electronics Engineering
Academic degree awarded	Bachelor
Date of introduction	23 June, 2004/ Pursuant to the Article 14 of the Law on Higher Education (Official Gazettes of the Canton Sarajevo, issues No.17/99, 14/00, 15/01, 13/02, 12/03 and 15/03)

[3] www.sedef.ba and www.ius.edu.ba/foundation-education-development-sarajevo

Regular study period	8 semesters/ 4 years
Number of ECTS credits	240
Full time/Part time	Fulltime
Tuition fees	As per Semester in EUR for academic year 2016/17: **Foreign students:** First cycle: EUR 2,750/semester Second Cycle: EUR 1,250/ semester Third cycle: EUR 3,000/ semester **BiH citizen:** First Cycle: EUR 1,925/semester Second Cycle: EUR 1,250/ semester Third cycle: EUR 3,000/ semester
Name of the programme	**Electrical and Electronics Engineering**
Academic degree awarded	Master
Date of introduction	23 June, 2004/ Pursuant to the Article 14 of the Law on Higher Education (Official Gazettes of the Canton Sarajevo, issues No.17/99, 14/00, 15/01, 13/02, 12/03 and 15/03)
Regular study period	2 semesters/ 1 year
Number of ECTS credits	60
Full time/Part time	Fulltime
Tuition fees	As per Semester in EUR for academic 2016/17: **Foreign students:** First cycle: EUR 2,750/semester Second Cycle: EUR 1,250/ semester Third cycle: EUR 3,000/ semester **BiH citizen:** First Cycle: EUR 1,925/semester Second Cycle: EUR 1,250/ semester Third cycle: EUR 3,000/ semester

4 Statement and Assessments

4.1 Standard 1: Study programme and programme management

1.1 The study programme is aligned with the objectives of the institution and is logically connected with its strategies and goals.

Statement (including findings and analysis)

According to the self-documentation and the International University of Sarajevo (IUS) Strategic Plan for 2016-2020, the university provides high-quality education and excellent research. In education, IUS teaches their students both in Bachelor (BA) and Master (MA) programmes to be ready for working in industry as well as in academia. Especially in the BA programme, IUS works with an interdisciplinary approach. Besides the focus on Electrical and Electronics Engineering they also facilitate knowledge from Computer Engineering, Industrial Engineering, Mechanical Engineering, Bioengineering, Economics, and Humanities.
The panel found that both the Bachelor (BA) programme and the Master (MA) programme are aligned with the objectives of IUS. In order to provide research-based education, the students are confronted with research problems at latest within their Bachelor's thesis. The research-projects, from which these works are obtained from, are either developed by the academic-staff and funded by IUS or directly funded by industry.

Recommendations
Bachelor and Master: Although research and teaching is coupled to an appropriate extent, this should be improved in the future by enhancing the research activities via more granted projects and higher extend of directly funded industrial projects.

1.2 The qualification objectives of the study programme (learning outcomes of the study programme) have been clearly defined and meet the technical, scientific and professional requirements and are in accordance with the respective levels of the qualification framework of the European Higher Education Area.

Statement (including findings and analysis)
The IUS structures its study programme in Electrical and Electronics Engineering (EEE) to a 4-year Bachelor (BA) programme (I cycle) and a 1-year Master (MA) program (II cycle). The first year of the BA programme aims at leveling the students' skills due to different prior knowledge and skills. Therefore, generic subjects are given – separated into "faculty courses" and "university courses".

According to the self-documentation, "university courses" have to be taken by all IUS-students. According to the report, the courses on Years 2 and 3 deliver basic education in electrical and electronic engineering aiming at a sound knowledge in mathematics, natural sciences, and engineering in order to explain the complex phenomena peculiar in electrical engineering technology, in electrical circuits, analogue and digital electronics, electromagnetism, signal processing, control theory, and power systems. Skills should be facilitated for solving a broad variety of engineering problems in electrical and electronics engineering using software and hardware tools, as well as laboratory equipment. Most of the subjects given ("faculty courses" and "university courses") are compulsory subjects. Year 4 of the Bachelor programme consists mostly of electives ("programme courses") aiming at a research-based education. The Master programme (1 year) prolongs this approach, aiming to offer education with a clear research focus in a particular field of electrical and electronics engineering. Therefore, besides a compulsory course in advanced mathematics, the study programme offers a variety of elective courses in the fields of communication engineering, power systems, electronics and microelectronics, and automation engineering.

Bachelor (BA) programme (I cycle): The panel found that the qualification objectives of the Bachelor-programme are basically aligned with the qualification framework of the EHEA. However, the Bosnian/Turkish language-courses (Spoken Turkish/Bosnian 1 and 2) in the first BA year do not contribute to the quality objectives claimed in the Self-documentation.

Additionally, the requirements of the 1st year university course "Freshman-English" are higher than what is stated in the course description – according to the interviews the course is not offering beginner-level education, but more advanced English.

Master (MA) programme (II-cycle): As long as IUS facilitates research orientated education in all of the offered fields of specialization (signal processing, power systems, electronics and microelectronics, and automation engineering) on a regular (yearly) basis, the qualification objectives of the Master-programme are aligned with the qualification framework of the European Higher Education Area. However, the panel learned from academic staff as well as from Alumni that this is not entirely the case.

Recommendation
Bachelor programme (I cycle): The 1st year university-course "Freshman-English" should be renamed according to the applied teaching-standard ("Advanced English").

1.3 The contents, structure and scope of and teaching methods applied to the curriculum and the modules meet the technical, scientific and professional requirements and are suited to achieve the intended learning outcomes.

Statement (including findings and analysis)
The statement of section 1.1 already describes the structure and the scope of both the 4-year BA programme and the 1-year MA programme of IUS's Electrical and Electronics Engineering. Besides the language courses in the first year of the Bachelor programme ("university courses") and some "elective faculty courses", all courses are credited with 6 ECTS-credits. The panel learned from the academic staff and the syllabi that in all of those courses there is a strict distribution between theory and practical work on a ratio of 3-to-2. For teaching theoretical contents IUS staff uses mostly Power Point type of slides and/or textbooks. For the practical work, they use methods as exercises, laboratory-demonstrations and/or homework. The scientific works (BA and MA theses) are done under the direct supervision of the faculty's professors. Regarding their quality assurance, no specific measures are taken into account.

Bachelor programme (I cycle): The contents of the courses given, the teaching methods and materials seen (based on Power Point type of lectures and textbooks) and the laboratories visited (labs and the lab equipment are simple but appropriate), are in accordance to the levels to be reached. Regarding the 3-to-2 distribution between theory and practical work (exercises, lab demonstrations), the panel sees this as not always useful. For instance, courses like "Engineering Graphics" (CAD) do not need intensive theoretical treatment. However, for other more theoretical subjects it is the other way round (e.g. in "Electromagnetism"). Academic staff explained that they know this. In their practical approach, they do not stick to the strict 3-to-2 distribution. Furthermore, as there is no instrument assuring the formal quality (structure of the work, literature citations, correct use of abbreviations, footnotes) for BA theses, the formal correctness of the works seen vary.

Master programme (II-cycle): The contents of the courses given, the teaching methods and materials seen (based on Power Point type of lectures and textbooks) and the laboratories visited (GSM lab and smart grids lab) are in accordance to the levels to be reached. Also in Master programme, regarding the 3-to-2 distribution between theory and practical work (exercises, lab demonstrations) the panel sees that as not always useful. For instance, courses such as "Planar Antenna Design" do not need intensive theoretical treatment. However, for other more theoretical subjects it is the other way round (e.g. in "Advanced

Antenna Theory"). Academic staff explained that they know this and that they do not stick to the strict 3-to-2 distribution. Also, as there is no instrument assuring the formal quality (structure of the work, literature citations, correct use of abbreviations, footnotes) for MA theses, the formal correctness of the works seen vary.

Recommendation
Bachelor programme (I cycle): Introduce quality assurance-measures ensuring formal scientific requirements (structure of the work, literature citations, correct use of abbreviations, footnotes) of scientific works (e.g. BA theses). This can be done, for instance, with appropriate templates.

Master programme (II-cycle): Introduce quality assurance-measures ensuring formal scientific requirements (structure of the work, literature citations, correct use of abbreviations, footnotes) of scientific works (e.g. MA theses). This can be done, for instance, with appropriate templates.

1.4 The application of the European Credit Transfer System (ECTS) is appropriate and plausible. It meets the recommendations of the European Commission[4].

Statement (including findings and analysis)
As already stated, EEE's Bachelor programme is scheduled with 4 years and 240 ECTS-credits credits. In each semester, 30 credits have to be accomplished. Most of the courses are credited with 6 ECTS-credits, as well as the BA thesis. The EEE's Master-program is 1 year and 60 ECTS-credits. Analog to the Bachelor-program, each semester also embraces also 30 credits. As the Master thesis is 24 ECTS-credits, 6 courses, 6 ECTS-credits each, have to be accomplished.

Although the study distribution with a 4-year Bachelor and a 1-year Master programme is unusual in comparison to most of the other Electrical Engineering programmes, it is in accordance with the rules of the European Higher Education Area. Crediting most of the courses with 6 ECTS-credits as well as crediting the Bachelor thesis with 6 ECTS-credits and the Master-thesis with 24 ECTS-credits, respectively, is appropriate and plausible.

Recommendation
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4 http://ec.europa.eu/education/lifelong-learning-policy/doc/ects/guide_en.pdf (ECTS Users' Guide)

1.5 The study programme is structured consistently with regard to formulated qualification objectives.

Statement (including findings and analysis)
The IUS EEE study programmes content, structure, and scope of both BA and MA programmes, are designed in a way that they meet the formulated qualification objectives as of Section 1.1. Therefore they apply a structure with compulsory "university courses" in the first year of the Bachelor programme (48 ECTS-credits). This is prolonged with a total number of 22 compulsory courses ("faculty courses" and "programme courses") credited with 132 ECTS-credits to be done in Years 1, 2 and 3. In total, 54 ECTS-credits have to be accomplished out of electives (+ 6 ECTS-credits for the Bachelor thesis). Most of them have to be done in 4th year of the Bachelors programme.

The EEE Master programme is, as already stated, one year and 60 ECTS, to be done in 6 elective courses at 6 ECTS-credits each (36 ECTS-credits) plus the Master thesis with 24 ECTS.

Bachelor programme (I cycle): IUS aims to offer research-oriented education already in the Bachelors programme. The panel learned that this is mostly done in the 4th year. The electives of the 4th year should also provide specialization to the students in one of the research fields the academic members are attached to (communication engineering, power systems, electronics and microelectronics, and automation engineering). Therefore "student-advisors" are nominated (from the academic staff) having the task of designing the 4th-year lecture-plan specifically for each student. The panel sees this approach as not consistent, since there is no formal coupling regarding the formulated qualification objectives. Besides that, the Bachelor programme is appropriately structured.

Master programme (II-cycle): The panel learned that the elective courses to be done in 1-year Master-program are chosen by the students in accordance with the "student-advisor". There is no formal connection to the specialization chosen by the specific student in his/her Bachelor programme. There is no formal requirement to choose the elective courses with regard to one specific field of electrical and electronics engineering (e.g., communications engineering, power systems, electronics and microelectronics, and automation engineering). Besides that the Master programme is appropriately structured.

Recommendation
Bachelor programme (I cycle): Organize the student-advisors in institutional level in order to cope with the increasing number of students.

Master programme (II-cycle): Formulate conditions for students who want to change their field of specialization from the Bachelor programme to the Master programme.

1.6 The students' workload required for the study programme is devised in a way so as to allow them to reach the aspired qualification objectives in the study period specified.

Statement (including findings and analysis)
From the Self-Assessment Report can be seen that in the 240 ECTS-credits Bachelor programme each semester contains 30 ECTS-credits. Assuming a mean work-time of 25 hours per an ECTS-credit this leads to an overall workload of 750 hours per semester or 1500

hours per year. The Master programme is 60 ECTS-credits or approximately 1500 hours per year. Hence, IUS's EEE-studies are claimed to be full-time studies.

Bachelor programme (I cycle): The panel learned from students and alumni that the EEE Bachelor programme can be studied within the intended period (4 years). The workload aligns with the framework of the EHEA and is appropriate for the programme.

Master programme (II cycle): The panel learned from students and alumni that the EEE Master programme can be studied within the intended period (1 year) as long as the individual student takes one of the elective-courses offered in the specific year. The workload aligns with the framework of the European Higher Education Area and is appropriate for the programme.

Recommendation
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1.7 The examination methods are suitable to assess whether the defined learning outcomes have been achieved.

Statement (including findings and analysis)
According to the Self-Assessment Report and the "Study Rules for the First and Second Study Cycle", for the successful completion of each course, student assessment takes place. Assessment is a continuous process and it includes, but is not limited to, written exams, oral exams, practical work, seminar papers, tests, projects, and collegia. Within examination, often so-called "Quizzes" are applied. Such Quizzes are supposed to be short tests, done various times within the course period. A course is accomplished positively if more than 55% of the learning objectives are mastered.

The panel sees the examination methods in both, the Bachelor programme and the Master programme as suitable in regard to the framework of the EHEA.

Recommendation
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1.8 Issuance of a diploma supplement is guaranteed.

Statement (including findings and analysis)
According to the self-documentation, IUS offers in its EEE programme a diploma-supplement.

The panel sees the issued diploma-supplement to be in accordance with the framework of the EHEA.

Recommendation
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1.9 Admission requirements for the study programme are clearly defined, meet the statutory requirements and contribute to achieving the educational goals of the study programme. Recognition rules for external achievements pursuant to the Lisbon Recognition Convention[5] and achievements outside of higher education institutions have been defined.

Statement (including findings and analysis)
In order to enroll to the IUS's EEE Bachelor programme each individual student has to have a valid high-school diploma, proving a minimum of 4 years of secondary education. As teaching is done in English, each individual student also has to prove sufficient English skills, for instance with a TOEFL-test (or equivalent) or a positively accomplished proficiency Exam organized by IUS's English Language School. In addition, students from Turkey have to pass an "undergraduate studies entrance exam" as well. An evaluated personal interview accompanies the application process.

In order to apply for the 2nd cycle (Master programme) students must have accomplished IUS's EEE 1st cycle (Bachelor programme) or must have a Bachelor of Science degree in Electrical and Electronics Engineering or another related field according to the Bologna Process. Within an evaluated personal interview, each individual student has to prove scientific capability for doing the Master programme.

Bachelor programme and Master programme: The panel learned that students of both, the Bachelor and Master programmes have sufficient English skills to follow study programmes in English.

Bachelor programme (I cycle): The panel sees that the admission criteria as in accordance with the framework of the European Higher Education Area and as appropriate for the programme.

Master programme (II cycle): The panel learned that a formulation of enrollment-conditions can be result of the personal interview. IUS uses this measure for the purpose of adjustment in the case when students with a 180 ECTS-credits Bachelor apply for the 60 ECTS-credits Master programme. Due to this measure, the panel sees that the admission criteria is in accordance with the framework of the European Higher Education Area and is appropriate for the EEE programme.

Recommendation
Master programme (II cycle): Clarify in the "Study Rules for the First and Second Study Cycle" that in the case when students with a 180 ECTS-credits Bachelor apply for IUS's 60 ECTS-credits Master in Electrical and Electronics Engineering, enrollment-conditions will be stated.

1.10 *Not applicable:* If e-learning, blended learning and distance learning are part of the programme, suitable didactic, technical, organisational and financial preconditions have been created to ensure the achievement of the study programme's qualification objectives.

1.11 *Not applicable:* The organisation of the study programme and the workload of a part-time study programme can be reconciled with a regular job.

[5] Applicable to states that have ratified the Lisbon Recognition Convention and where it has come into force. See: http://conventions.coe.int/Treaty/Commun/ChercheSig.asp?NT=165&CM=1&DF=07/10/2009&CL=ENG

1.12 Placements form an educationally relevant part of the curriculum. The job profile, the selection, support and assessment of placements contribute to achieving the study programme's qualification objectives.

Statement (including findings and analysis)
A 30-day internship is an integrative part of the BA programme. As at the moment there are not so many MA students enrolled, most of the internship placements are facilitated by the university's academic staff.

Bachelor programme (I cycle): Although a 30-day internship is integrated in the BA curriculum, it is not credited. While today the individual facilitation of internships is appropriate, with rising numbers of students (according to the university strategy) this can become too work-intensive.

Recommendation
Bachelor programme (I cycle): Developing a more standardized process of the selection, support, and assessment of internships can be beneficial when the number of BA-students arises.

1.13 *Not applicable:* Criteria for PhD Programmes
1.14 *Not applicable:* Criteria for Joint Programmes

4.1.1 Study Programme Bachelor:

(a) Summary Statement
The International University of Sarajevo (IUS) offers a 4-year and 240 ECTS-credits Bachelor programme in Electrical and Electronics Engineering. The first year of the Bachelor programme aims at levelling the student's skills due to different prior knowledge and skills. Therefore generic subjects are given. They are separated into "faculty courses" and "university courses". Year 2 and 3 deliver basic education of electrical and electronics engineering aiming at a sound knowledge in mathematics, natural sciences, and engineering in order to explain the complex phenomena peculiar in electrical engineering technology, in electrical circuits, analogue and digital electronics, electromagnetism, signal processing, control theory, and power systems. Skills should be facilitated for solving a broad variety of engineering problems in electrical and electronics engineering using software and hardware tools, as well as laboratory equipment. Most of the subjects given are compulsory subjects. Year 4 of the Bachelor programme consist mostly of electives in a research-based education. In the 4th year of the programme, also a Bachelor thesis has to be written under the supervision of the faculty's professors. Besides the generic courses of the first year of the Bachelor programme include some "elective faculty courses", all courses are credited with 6 ECTS-credits. Today in the courses of the BA programme, there is a strict distribution between theory and practical work on a ratio of 3-to-2. For teaching theoretical contents IUS-staff uses mostly Power Point type of slides and/or textbooks. For the practical work they use methods as exercises, laboratory demonstrations and/or homework.

(b) Assessment
The panel has assessed the standard as **"partially met"** under the following **conditions**:

1. Substitute the language courses “Spoken Turkish/Bosnian 1 and 2” with subjects aligned with the quality objectives of the framework of the European Higher Education Area. This can be done, for instance, by exchanging them with a 4-ECTS-credited programme elective course.
2. Adjust the distribution-ratio between theoretic-lessons and practical-lessons in all courses to level that fulfils the requirement of the specific course (instead of the constant 3-to-2-ratio).
3. Introduce fields of specialization (e.g. communication engineering, power systems, electronics and microelectronics, and automation engineering) in 4th year of the Bachelor programme. Each field of specialization shall comprise a variety of elective courses. The individual students shall, for instance together with their “student-advisor”, choose for one field of specialization.
4. Issue an appropriate number of ECTS-credits (e.g. 6 ECTS-credits) for the internship.

4.1.2 Study Programme Master:

(a) Summary statement

The International University of Sarajevo (IUS) offers a 1-year and 60 ECTS-credits Master programme in Electrical and Electronics Engineering. The Master programme offers education with a clear research focus in a particular field of electrical and electronics engineering. Therefore, besides a compulsory course in advanced mathematics, the study programme offers a variety of elective courses in the fields of communication engineering, power systems, electronics and microelectronics, and automation engineering. Within the courses, there is a strict distribution between theory and practical work on a ratio of 3-to-2. For teaching theoretical contents IUS-staff uses mostly Power Point type of slides and/or textbooks. For the practical work they use methods as exercises, laboratory demonstrations and/or homework. In the 2nd semester a Master thesis (36 ECTS-credits), assigned to a particular field of electrical and electronics engineering has to be written, under the supervision of the faculty’s professors.

(b) Assessment

The panel has assessed the standard as **“partially met”** under the following **conditions**:

1. All offered Master courses (electives and compulsories) must be regularly available on a yearly basis.
2. Adjust the distribution-ratio between theoretic-lessons and practical-lessons in all courses to level that fulfils the requirement of the specific course (a 3-to-2-ratio is not always useful).
3. Introduce fields of specialization (e.g. communication engineering, power systems, electronics and microelectronics, and automation engineering) for clustering the electives in the Master programme. Each field of specialization shall comprise a variety of elective-courses. The individual students shall, for instance together with their “student-advisor”, choose for one field of specialization.

4.2 Standard 2: Staff

2.1 A sufficient number of scientific or artistic teaching and research staff is available for the study programme, who are scientifically qualified, have adequate vocational experience and are qualified in terms of their teaching methods.

Statement (including findings and analysis)
According to the self-documentation the faculty consists of 7 full-time professors, 2 part-time professors, 5 senior assistants, 1 assistant and 1 student demonstrator. This amounts to student/teacher ratio of 12 to 1 which according to the provided documentation is planned to be increased. Based on their CVs, many of the academic staff have PhDs from well-recognized universities abroad and have good publication records in refereed international journals and conferences. The workload of a lecturer is 9 hours a week of teaching. The staff members are regularly evaluated by students and institution.

The qualifications and the number of research staff are sufficient for the study programme. The student/teacher ratio is currently very good. 9 hours of contact teaching can be quite much and it might limit the amount of time for scientific research, but it is still appropriate.

Recommendation
-

2.2 The composition of the faculty meets the requirements of a profound scientific and artistic education and ensures adequate student support.

Statement (including findings and analysis)
According to the self-documentation, all except for two academic members contributing to EEE programme are full-time employed at the IUS and their expertise-areas cover all the required areas of the programme topics. The staff is partially shared with Mathematics, Mechanical Engineering, and Computer Engineering via elective courses. Many of the staff members are originally from Bosnia-Herzegovina although have studied and/or made their PhDs abroad. The strategic plan of the university includes the plans to hire “rising stars” to the faculties. The international exchange of staff at the programme is currently quite limited, although there is a strategic plan to improve it.

The composition and qualifications of the staff are adequate for scientific education and student support. According to discussions with staff-members it is hard to attract people from abroad to join the university due to limited funding resources, which explains the national origin of the staff. However, the lack of international visits and visitors limits the international exchange of scientific and educational knowledge.

Recommendation
Bachelor and Master: Increase the international in/out mobility of staff.

2.3 Teaching and research staff have access to human resource development and further education measures.

Statement (including findings and analysis)

The IUS strategic plan includes clear aims for development of teaching and research by supporting the staff. The aims include excellence in faculty, education, research, and staff. Currently, research publications are encouraged by providing financial support. Conferences and seminars are also organized by the university.

Although in the strategic plan there are clear human resources development aims, it is unclear how they actually will be implemented. However, encouraging the publications and organizing conferences is a good start.

Recommendation

-

4.2.3 Study Programme Bachelor:

(a) Summary Statement

Overall the composition of staff is adequate for the BA programme and benefits from staff from other programmes' elective courses. However, in general, the international visits to and from the university are recommended to be increased and the human resources plan could be made more concrete.

(b) Assessment

The panel has assessed the standard as **"met"**.

4.2.4 Study Programme Master:

(a) Summary Statement

Overall the composition of staff is adequate for the MA programme. However, in general, the international visits to and from the university are recommended to be increased also in the Master programme.

(b) Assessment

The panel has assessed the standard as **"met"**.

4.3 Standard 3: Quality assurance

3.1 The study programme is supported by the institution's quality management system.

Statement (including findings and analysis)

In IUS, there is a quality assurance (QA) office as independent unit on university level, directly reporting to the rector. The quality assurance responsibility is split between QA office on university level and faculty QA teams. The QA office is cooperating with the faculty QA teams and provides assistance and support. This includes statistical evaluation of UNIPA database data, the data preparation, and information distribution. UNIPA database includes, as stated in the self-documentation, among others, student progression and success rates, profile of student population, and average duration of study in each study programme.

Apart from that, information and feedback is collected via various surveys, analyzed and shared by the QA office. Surveys are conducted not only with students to determine satisfaction with courses, curriculum, teachers and teaching methods but also with alumni and exchange students as well as exchange teachers. The selectable marks in the surveys range from 1 to 5 (5 is best) and the target is to achieve mark of 4. Reports about the survey results are compiled for different levels from university, faculty, department and study programme to individual report for the academic staff and each single course.

However the QA office is actually one person only supported by one student.

Quite some efforts are spent to systematically gather data and feedback which is regularly compiled, distributed to different bodies and committees and analyzed. Although it is several times mentioned in the self-documentation, the panel found it hard to find evidence of concrete actions and plans resulting from the survey results. The QA office capabilities are limited due to the low staffing.

Recommendation

Bachelor and Master: Ensure evolvement and effective enhancement of the university as well as of the faculties and study programmes, the QA office staff should be increased adequately. The QA office should compile a condensed plan from the actions and measures defined and agreed by the different bodies and committees. This plan should include completion dates for each task and the progress should be regularly reviewed as well as finally the effectivity.

3.2 The study programme is part of a regular quality assurance and enhancement process which takes into account the curriculum, the study conditions and the programme organisation, and which involves all relevant groups as well as external experts.

Statement (including findings and analysis)

As already mentioned above, a lot of effort is spent to systematically gather statistical data and conduct surveys, not only for students but also for alumni, exchange students, and exchange teachers. The results of these comprehensive investigations are regularly compiled, distributed to different bodies and committees and analyzed. External stakeholders such as employers and professional experts are approached and involved in various review and enhancement processes as well. Clear rules are defined how to classify and approve changes of existing study programmes as well as for the review and acceptance process of new study programmes.

An established process, with respect to quality assurance and enhancement of Bachelor and Master theses, is that Bachelor and Master students must defend their thesis and the committee will evaluate and decide on the acceptance. However, there is no specific course in the study programme focusing on the scientific quality of the theses. This is addressed during other courses and constantly trained and improved by homework, writing laboratory reports and small project reports up to bigger project reports.

During the on-site visit the panel had the chance to look through some Bachelor and Master theses and actually observed that the formal quality of the seen theses varies a lot. During the on-site interviews the panel also learned about the initiative to further improve Bachelor and Master theses quality in content and look by officially publishing guidelines and templates with next academic year.

Regarding applying from other universities to Master's programme at IUS there didn't seem to be an established procedure. These applications should be reviewed via an official procedure.

The Quality Assurance process is conducted very inclusively. Relevant internal and external stakeholders are involved in the process. The academic staff is very ambitious and enthusiastic, striving for continuous improvement of the study programme. Nevertheless there is a gap between will and reality when it comes, for instance, to the quality of theses. The application procedure for applying to Master's programme from other universities should be formalized. As specialization at IUS already starts in the 4th year of the Bachelor,

Bachelors from other universities might need to attend additional courses to be accepted for the IUS EEE Master programme.

Recommendation
Bachelor and Master: Referring to what was already stated and recommended in section 1.3, it would be important to put into practice the plans described above to officially publishing guidelines and templates with next academic year to improve the quality of Bachelor and Master theses.

3.3 The participation of students in reflections on the study programme, the study conditions and the programme organisation has been institutionalised.

Statement (including findings and analysis)
The student surveys are the main instrument for students to give feedback and influence the study programmes, their conditions, and organization. During the on-site visit, the QA office manager did provide evidence about the contribution of students in the quality assurance process via student surveys of the attended courses to determine satisfaction with courses, curriculum, teachers, and teaching methods. The student feedback is given anonymously and is conducted between the last lecture and the final exam of each course. The students' evaluation results are only provided to the lecturer after the exam.

The QA office manager did show to the panel different reports derived from analysis of the survey data from university level to individual report for academic staff and single course. The higher level reports included comparison of the survey results from the previous semesters. Students can access the results via their representatives in various university governance bodies. The integration of students as full members in all committees and university bodies as well as on faculty or programme level is another prove for systematic inclusion of students in the enhancement of the study programme overall.

Students are well represented and have wide range of possibilities to express their opinion and influence the study programme. Students have access to survey results reports. Nevertheless on the staff report seen during the on-site visit, a 30% participation rate in the student survey had been mentioned.

Recommendation
Bachelor and Master: Set target for the expected survey participation rate, reflect why survey participation is low, and take actions to increase the student participation.

4.3.5 Study Programme Bachelor:

(a) Summary statement
The quality assurance process is conducted very inclusively with regard to involvement of internal and external stakeholders. The academic and non-academic staff generally appeared to be very ambitious and striving for continuous improvement of the study programme. Even when taking into account that the study programme is relatively new, there are some gaps which should be closed as pointed out in the various recommendations. However, the minimum requirements are still met.

(b) Assessment
The panel has assessed the standard as **"met"**.

4.3.6 Study Programme Master:

(a) Summary Statement

In addition to what has been stated already for the Bachelor programme, to ensure also the quality of the students for Master's programme, student applications for Master's from other universities should be evaluated by some formal procedure. As specialization at IUS already starts in the 4th year of the Bachelor, Bachelors from other universities might need to attend additional courses to be accepted for the Master programme. Regardless of these minor gaps, the minimum requirements for the programme are met.

(b) Assessment

The panel has assessed the standard as **"met"**.

4.4 Standard 4: Funding and infrastructure

4.1 Transparent documentation of the funding of the study programme is available.

Statement (including findings and analysis)

The self-documentation has provided not only an overview of the current financial situation, but also the Strategic Plan for 2016-2020. The documentation includes an overview of the staff and infrastructure investment planned for the future, as well as the list of investments in the past. According to documentation and interviews the funding is currently 80% student fees and 20% other, but this is going to be changed to 70%/30% by increasing research grants.

The transparent funding of the program is being provided for 80%, currently coming from student fees, and there is a clear plan to downgrade it to 70% by concentrating more on research. All investments in laboratories and libraries are listed, delivering a clear picture of how the programme will be funded during the years of 2016 to 2020 and beyond. The increase in staff is however rather low, especially in consideration of the increase in students over the time. This has to be put in the framing of the development of the whole faculty (FENS) as many staff members teach in different programmes.

Recommendation

-

4.2 Adequate rooms and technical facilities required for the study programme are available.

Statement (including findings and analysis)

IUS has moved to the campus in 2010. In 2014-2015, the current research center was established. It has given the EEE programme more space to develop their original styled laboratories beyond the current minimum demands. This means the center has free space, which the programme can occupy and develop. IUS has already done so by forming the 'Smart Grid Lab' that will be focusing on fault protection with their main industry collaborator Siemens. In addition, the course rooms are adequate and have enough space. With the faculty of Engineering being the biggest faculty (currently up to 700 students) the facilities are being constantly updated and big enough to take in more students. The 'GSM Laboratory' also has actual 2G equipment which is adequate for teaching basics of GSM technology. The computers, computer software as well as hardware/software development kits are also adequate for teaching.

The panel got a good insight of the lab situation. The rooms are in a centralized administration and also have extra staff working only at the research center, making it possible for students to access the labs also outside of their course times. During the time in the labs, the students receive health and safety instructions as well as extra course material. The programme has enough rooms and material to establish adequate studies and is focused on establishing more partnerships with industries to get the labs more specialized (contracts with Microsoft, local telecommunication providers).

Recommendation (if necessary)
-

4.4.7 Study Programme Bachelor:

(a) Summary Statement
Currently, as stated in the documentation, the programme is being financed 80% via student fees. The plan is to shift this to 70% fees and 30% research grants by increasing the research proportion. The facilities for the programme are adequate.

(b) Assessment
The panel has assessed the standard as **"met"**.

4.4.8 Study Programme Master:

(a) Summary Statement
The funding for the MA programme is also well documented. The facilities are the same for BA and MA students.

(b) Assessment
The panel has assessed the standard as **"met"**.

4.5 Standard 5: Research and development and appreciation of the arts

5.1 The objectives and perspectives for research and development defined for the study programme are consistent with the strategic orientation of the institution.

Statement (including findings and analysis)
According to the self-documentation, the plans for the programme development follow the IUS strategic plan. The plans include becoming the programme of choice in the area, multidisciplinary research, increasing of academic staff and national/international cooperation as well as increasing the number of students contributing to research and development. The programme is also committed to collaboration with the local industry in form of both research and student projects. The computer equipment, computer software, and the basic laboratory equipment seem to be suitable for both research projects and teaching. Although some equipment are not state-of-the-art (e.g., the 2G GSM equipment), they are still sufficient and there are plans for upgrading them.

The objectives and perspectives of the programme are aligned with the institution strategy. The laboratory resources would benefit from upgrading, but are still sufficient.

Recommendation
-

5.2 The scientific and/or artistic staff is involved in the institution's research activities and/or activities regarding the development and appreciation of the arts. The interaction between research and teaching is ensured.

Statement (including findings and analysis)
As documented in the provided bios and CVs, the staff members are involved in research projects nationally and internationally. The student projects are often connected with research projects, what was also confirmed in interviews with the staff and students. The laboratory equipment used for teaching is often the same as is used for the research projects. The academic merits of the staff also show their involvement in international research, and the topics of teaching are related to the research topics of staff members.

The staff is adequately involved in research and interaction with teaching is ensured.

Recommendation
-

5.3 To the extent required by the type of study programme, students will be integrated into research projects and/or projects regarding the development and appreciation of the arts.

Statement (including findings and analysis)
The students are actively participating in the research projects led by the senior staff-members. This is shown by the project table given in the self-documentation of the EEE programme, and was discussed with the staff and students. The BA and MA theses are often combined with research/industrial projects.

The panel found that the students are well integrated with research projects.

Recommendation
-

5.4 The (*planned*) organisational and structural framework conditions are sufficient and suitable to implement the scheduled research activities and/or activities regarding the development and appreciation of the arts.

Statement (including findings and analysis)
According to the provided documentation, the current staff is already almost enough to execute the projects. However, the programme is going to recruit more people to meet the future research objectives. The research background of the staff and the executed projects also seem to support this conclusion.

The conditions are sufficient and suitable for the purposes.

Recommendation
-

4.5.9 Study Programme Bachelor:

(a) Summary Statement

The research and development plans are well aligned with the institutional plans and the staff is actively involved in research. Already in BA level the students get integrated to research projects. All the required conditions are met.

(b) Assessment

The panel has assessed the standard as **"met"**.

4.5.10 Study Programme Master:

(a) Summary Statement

The research and development plans are well aligned with the institutional plans and the staff is actively involved in research. In MA theses the students are often involved in research projects. All the required conditions are met.

(b) Assessment

The panel has assessed the standard as **"met"**.

4.6 Standard 6: National and international co-operations

6.1 In line with the study programme's profile, national and/or international co-operation projects with higher education institutions or institutions outside the higher education sector have been established.

Statement (including findings and analysis)

IUS has established partnerships with over 80 higher education institutions. As Bosnia-Herzegovina is not eligible to take part in Erasmus+ programme as a so-called programme country, it is dependent on European Universities to invite IUS to exchange programmes and to cooperate. IUS is taking part in Mevlana Exchange programme. Mevlana Exchange programme is aiming to exchange of students and academic staff between higher education institutions of other countries and Turkish higher education institutions. IUS has set up exchange agreements with main Turkish Universities and has already sent many students but as well academic staff abroad.

The IUS also does encourage professors to come to the university for sabbaticals or short seminars.

The panel has acknowledged the efforts being undertaken during the current strategic plan and has seen the goals of the University to establish more lasting cooperation with European Universities. IUS considers itself as being a hub between East and West and has also taken part in Mevlana exchange programme, funded by the Turkish government. While having more than half of its students currently coming from Turkey, IUS is only exchanging Bosnian or non-Turkish students with Turkish Universities.

Currently IUS has only two outgoing persons with European Universities and has stated in its self-documentation that there is potential for improving. The panel learned that PhD students are encouraged to participate in regional conferences but are not given adequate assistance in doing so. Even though IUS has allocated specific budgets for exchange visits in the programme, the panel learned that all exchange visits have to be organized by the professors

themselves, adding to their workload. Students also have limited financial support for travelling abroad to attend conferences.

Recommendation
Bachelor and Master: Provide more institutionalized and coordinated support for junior research personnel to establish lasting cooperation with European Universities.

6.2 The co-operation projects encourage and support the advancement of the study programme and the mobility of students and staff.

Statement (including findings and analysis)
Erasmus+ programme is only possible with European partners. Within Erasmus+, Bosnia and Herzegovina is not a Programme Country, but only a Partner Country. It is challenging for IUS to gain partners as European Universities are, as of IUS opinion, hesitating to grant exchange visits. The panel learned that the Mevlana programme seems to be more approachable for IUS, since it has already established numerous good cooperations with main Turkish Universities. IUS is supporting incoming professors and research personal to fit in the current curriculum. This has helped the EEE programme to implement some new fields and has helped IUS compensate some losses in academic staff.

Regarding the economic and socio-political situation in Bosnia-Herzegovina as well as in whole Europe, it is challenging for IUS to establish long-term partnerships and cooperation with European Universities. In addition, only being a partner but not a programme country within Erasmus+ does not facilitate establishing cooperation and mobility.

However, IUS, or more precisely, its staff, has already proven to be in the position to cooperate with European Universities, it has yet to provide partnerships on a more institutionalized level.

IUS leadership has given evidence that it acknowledges the challenge and is willing to invest more financial resources regarding international cooperation.

The diverse background of the staff is helping the programme a lot regarding international cooperation. Professors and assistant teaching staff are in contact with their Alma Maters and try to engage students in cooperation projects with international universities. First attempts towards becoming a hub between East and West have been made.

Due to the short 1-year Master programme and the economic situation of most MA students, the panel did not meet any students of the second cycle that went abroad during their studies. Beside of economic reasons, the panel considers also the short and therefore intensive schedule of the Master programme as a source for limited mobility of students.

Recommendation
Bachelor and Master: The IUS, the particular study programme, should strive for more systematized cooperation agreements with European universities, in order to underline being a hub between east and west.

4.6.11 Study Programme Bachelor:

(a) Summary statement

The socio-political and economical surroundings in Europe are not easy for the relatively young study programme. Until 2016 there has only been one Western European University, University of Jena, which has signed an agreement with IUS. The university is improving this by trying to establish more agreements, not only in Europe, but also in South East Asia. BA students are encouraged to take part in exchange programmes, even though IUS is currently sending only non-Turkish students to Turkey within the Mevlana program.

To enable junior staff and excellent students more travel abroad and into the region of the West Balkans, IUS should establish a separate unit for assistance on faculty or university level. However, the minimum requirements for the programme are met.

(b) Assessment

The panel has assessed the standard as **"met"**.

4.6.12 Study Programme Master:

(a) Summary statement

Due to the short 1-year Master programme and the economic situation of most MA students, the panel did not meet any students of the second cycle that went abroad during their studies. Though this is a problem in practice, the program itself does not prevent any students from going abroad. The standards are therefore fulfilled.

(b) Assessment

The panel has assessed the standard as **"met"**.

5 Summary and final assessment

Summary
The panel found that the objectives of the Bachelor and the Master programme in Electrical and Electronics Engineering are in general well aligned with the overall strategic goals of the university. The scientific qualifications of teaching and research staff are adequate, education delivered follows quite well the qualification framework as of the EHEA (see below), and the facilities are sufficient, even though the funding resources are quite limited. The internal quality assurance procedures are adequate although the quality assurance office at university level, responsible for overall support to all faculties, is understaffed.

The current situation with the Bachelor and Master programme is not perfect yet, but the panel sees that by fulfilling recommendations and conditions issued accreditation can be granted. The required conditions should be fulfilled feasible during a 9-month period as they are related to structuring of course groups and documentation of their contents.

The main criticisms (leading to **conditions**) in Bachelor programme are related the structure of the studies:

1. The panel found that some of the language courses should be replaced with other subjects that are more aligned with the qualification framework of the European Higher Education Area,
2. the strict 3-to-2 ratio between theory and practice should be relaxed, and
3. fields of specialization should be introduced to 4th year of Bachelor programme.

The main criticisms (leading to **conditions**) in Master programme are related the structure of the studies:

1. In the Master programme the main criticisms (leading to conditions) are related to timing of the studies:
2. it must be ensured that the Master's level courses can be practically taken during 1-year of Master's studies,
3. the strict 3-to-2 ratio between theory and practice should be relaxed also in the Master's studies, and
4. fields of specialization should be introduced to Master programme.

As minor criticisms the panel **recommends** introducing a more strict quality assurance for Bachelor's and Master's theses, renaming some courses, and clarifying the Master programme requirements. The international visits in/out are also recommended to be increased as much as funding and teaching loads permit and their coordination could be more organized.

Final Assessment

The Review Panel recommends the accreditation of the Bachelor programme “Electrical and Electronics Engineering” with conditions.
The Review Panel recommends the accreditation of the Master programme “Electrical and Electronics Engineering” with conditions.

Bachelor programme

Standard	Assessment	Conditions
Standard 1 - Study programme and programme management	“partially met under the following conditions”	1. Substitute the language courses “Spoken Turkish/Bosnian 1 and 2” with subjects aligned with the quality objectives of the framework of the European Higher Education Area. This can be done, for instance, by exchanging them with a 4-ECTS-credited programme elective course. 2. Adjust the distribution-ratio between theoretic-lessons and practical-lessons in all courses to level that fulfils the requirement of the specific course (instead of the constant 3-to-2-ratio). 3. Introduce fields of specialization (e.g. communication engineering, power systems, electronics and microelectronics, and automation engineering) in 4th year of the Bachelor programme. Each field of specialization shall comprise a variety of elective courses. The individual students shall, for instance together with their “student-advisor”, choose for one field of specialization. 4. Issue an appropriate number of ECTS-credits (e.g. 6 ECTS-credits) for the internship.
Standard 2 - Staff	“met”	
Standard 3 - Quality assurance	“met”	
Standard 4 - Funding and infrastructure	“met”	
Standard 5 - Research and development and appreciation of the arts	“met”	
Standard 6 - National and international co-	“met”	

operations		

Master programme

Standard	Assessment	Conditions
Standard 1 - Study programme and programme management	"partially met under the following conditions"	1. All offered Master courses (electives and compulsories) must be regularly available on a yearly basis. 2. Adjust the distribution-ratio between theoretic-lessons and practical-lessons in all courses to level that fulfils the requirement of the specific course (a 3-to-2-ratio is not always useful). 3. Introduce fields of specialization (e.g. communication engineering, power systems, electronics and microelectronics, and automation engineering) for clustering the electives in the Master programme. Each field of specialization shall comprise a variety of elective-courses. The individual students shall, for instance together with their "student-advisor", choose for one field of specialization.
Standard 2 - Staff	"met"	
Standard 3 - Quality assurance	"met"	
Standard 4 - Funding and infrastructure	"met"	
Standard 5 - Research and development and appreciation of the arts	"met"	
Standard 6 - National and international co-operations	"met"	

Recommendations of the panel

Bachelor programme

Standard	Recommendations
Standard 1 - Study programme and programme management	• Although research and teaching is coupled to an appropriate extent, this should be improved in the future by enhancing the research activities via more granted projects and higher extend of directly funded industrial projects. • The 1st year university-course “Freshman-English” should be renamed according to the applied teaching-standard (“Advanced English”). • Introduce quality assurance-measures ensuring formal scientific requirements (structure of the work, literature citations, correct use of abbreviations, footnotes) of scientific works (e.g. BA theses). This can be done, for instance, with appropriate templates. • Organize the student-advisors in institutional level in order to cope with the increasing number of students. • Developing a more standardized process of the selection, support, and assessment of internships can be beneficial when the number of BA-students arises.
Standard 2 - Staff	• Increase the international in/out mobility of staff.
Standard 3 - Quality assurance	• Ensure evolvement and effective enhancement of the university as well as of the faculties and study programmes, the QA office staff should be increased adequately. The QA office should compile a condensed plan from the actions and measures defined and agreed by the different bodies and committees. This plan should include completion dates for each task and the progress should be regularly reviewed as well as finally the effectivity. • Referring to what was already stated and recommended in Section 1.3, it would be important to put into practice the plans described above to officially publishing guidelines and templates with next academic year to improve the quality of Bachelor theses. • Set target for the expected survey participation rate, reflect why survey participation is low, and take actions to increase the student participation.
Standard 4 - Funding and infrastructure	
Standard 5 - Research and development and appreciation of	

the arts	
Standard 6 - National and international co-operations	• Provide more institutionalized and coordinated support for junior research personnel to establish lasting cooperation with European Universities. • The IUS, the particular study programme, should strive for more systematized cooperation agreements with European universities, in order to underline being a hub between east and west.

Master programme

Standard	Recommendations
Standard 1 - Study programme and programme management	• Although research and teaching is coupled to an appropriate extent, this should be improved in the future by enhancing the research activities via more granted projects and higher extend of directly funded industrial projects. • Introduce quality assurance-measures ensuring formal scientific requirements (structure of the work, literature citations, correct use of abbreviations, footnotes) of scientific works (e.g. MA theses). This can be done, for instance, with appropriate templates. • Formulate conditions for students who want to change their field of specialization from the Bachelor programme to the Master programme. • Clarify in the “Study Rules for the First and Second Study Cycle” that in the case when students with a 180 ECTS-credits Bachelor apply for IUS’s 60 ECTS-credits Master in Electrical and Electronics Engineering, enrolment-conditions will be stated.
Standard 2 - Staff	• Increase the international in/out mobility of staff.
Standard 3 - Quality assurance	• Ensure evolvement and effective enhancement of the university as well as of the faculties and study programmes, the QA office staff should be increased adequately. The QA office should compile a condensed plan from the actions and measures defined and agreed by the different bodies and committees. This plan should include completion dates for each task and the progress should be regularly reviewed as well as finally the effectivity. • Referring to what was already stated and recommended in section 1.3, it would be important to put into practice the plans described above to officially publishing guidelines and templates with next academic year to improve the quality of Master theses. • Set target for the expected survey participation rate, reflect why survey participation is

	low, and take actions to increase the student participation.
Standard 4 - Funding and infrastructure	
Standard 5 - Research and development and appreciation of the arts	
Standard 6 - National and international co-operations	• Provide more institutionalized and coordinated support for junior research personnel to establish lasting cooperation with European Universities. • The IUS, the particular study programme, should strive for more systematized cooperation agreements with European universities, in order to underline being a hub between east and west.

6 Annex: Documents to support the review report

- Self-documentation (as of 3 June 2016)

On-Site:

- A selection of BA, MA and as well PhD theses
- Suggested study plan for EEE Bachelor degree
- Student evaluation survey
- Examples of teaching material (books, power point slides, scripts etc.)

7 Annex: Glossary

BiH	Bosnia and Herzegovina
BiH BD	Brčko District of BiH
BA	Bachelor
FBiH	Federation of BiH
FLHE	Framework Law on Higher Education
EEE	Electrical and Electronics Engineering
ECTS	European Credit Transfer System
ECPR	European Consortium of Political Research
EHEA	European Higher Education Area
ESG	Standards and Guidelines for Quality Assurance in Higher Education
EUA	European University Association
HE	higher education
HEI	higher education institution
IAU	International Association of Universities
IUS	International University of Sarajevo
MA	Master
MoCA	Ministry of Civil Affairs
QA	quality assurance
RS	Republika Srpska
SC	Sarajevo Canton
SD	Self-documentation
SEDEF	Sarajevo Education Development Foundation
TOEFL	Test of English as a Foreign Language
UNIPA	student information system
YÖK	Turkish Council for Higher Education

Agency for Quality Assurance and Accreditation Austria

Agenda

Tuesday, 12 July 2016

Hotel Hollywood
Dr. Mustafe Pintola 23
Ilidža, Sarajevo 71000, BH

The preparatory meeting will be at Hotel Hollywood, *Conference Room 14 D ground floor*.

Top	Time	Topic(s) inter alia	Participants / Interview partner(s)
1	14:30-19:30	Preparatory meeting	Expert panel and AQ Austria coordinator
2	20:00	Dinner (Hotel)	Expert panel and AQ Austria coordinator

Wednesday, 13 July 2016

International University of Sarajevo (IUS)
15 Hrasnička Cesta,
Sarajevo 71000, BH

Meeting 1 until the end of the site-visit will be held in the Senate Room, Building A, Ground Floor G-30.

Top	Time	Topic(s) inter alia	Participants / Interview partner(s)
1	09:00-09:15	Short welcome and presentation of IUS	Prof. Dr. Yücel Oğurlu, Rector Assoc. Prof. Dr. Ali Gürsel, Vice-Rector for Int. Cooperation & Research Assist. Prof. Dr. Mirsad Karic, Vice-Rector for Academic & Student Affairs Assist. Prof. Dr. Muhamed Ali, Vice-Rector for General Affairs Prof. Dr. Fuat Gurcan, FENS Dean Assist. Prof. Dr. Sadina Gagula-Palalic, Program Coordinator Edina Hadziahmetovic, QA Office Manager Ibrahim Inal, Finance Manager
2	09:15-10:00	Standards to be discussed: Organisation, strategy, funding of IUS (alignment of study programmes to strategical framework of IUS)	
3	10:00-10:15	Internal discussion	Expert panel and AQ Austria coordinator
4	10:15-12:00	Standards to be discussed: Study programme and programme management (inter alia: staff, national and international co-operation)	Prof. Dr. Fuat Gurcan, Dean Assist. Prof. Dr. Sadina Gagula-Palalic, Program Coordinator Assoc. Prof. Dr. Emir Karamehmedovic Assoc. Prof. Dr. Muhamed Hadziabdic MSc. Tarik Namas MSc. Indira Rustempasic
5	12:00-13:00	Lunch break, IUS Canteen	Expert panel and AQ Austria coordinator
6	13:00-14:00	Visitation of IUS library and other premises	Assist. Prof. Dr. Sadina Gagula-Palalic, Program Coordinator

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		relevant for the study programmes	Merima Arslankadic, Library Manager
7	14:00-14:45	Standards to be discussed: Research and development (inter alia: national and international cooperation)	Assist. Prof. Dr. Sadina Gagula-Palalic, Program Coordinator Assoc. Prof. Dr. Emir Karamehmedovic Prof. Dr. Migdat Hodzic MSc. Indira Muhic Prof. Dr. Fuat Gurcan, Dean Assoc. Prof. Dr. Ali Gürsel, Vice-Rector for Int. Cooperation & Research Assoc. Prof. Dr. Izudin Dzafic *(only via skype for the last 15 minutes)*
8	14:45-15:30	Standards to be discussed: Quality assurance	Edina Hadziahmetovic, QA Office Manager Faculty QA Team members: Assist. Prof. Dr. Sadina Gagula-Palalic, Program Coordinator Adnan Beganovic, Legal Advisor
9	15:30-16:00	Coffee break / Internal discussion	Expert panel and AQ Austria coordinator
10	16:00-16:45	Standards to be discussed: Study programme and programme management (inter alia: national and international co-operation/mobility)	**BA cycle students:** Kanita Krdzalic Lamija Herceg Said Cosic Nejra Dahic **MA cycle students:** Sejla Dzakmic Naida Fetic
11	16:45:17:30	Standards to be discussed: Relevance of the study programme for the job market (inter alia: national and international co-operation/mobility)	Medina Hromo, Alumni Dalila Hodzic, Alumni Nadir Durmic, Alumni Amar Kratovac, Alumni **Employers:** ALEM SISTEMI, Ms. Nadja Halebic *(only via skype the first 15 Minutes)* SysTech, Mr. Edin Drljevic PROIng, Mr. Armin Susa
12	17:30-18:45	Internal discussion	Expert panel and AQ Austria coordinator
13	18:45-19:00	Final meeting with IUS management	Prof. Dr. Yücel Oğurlu, Rector Assoc. Prof. Dr. Ali Gürsel, Vice-Rector for Int. Cooperation & Research Assist. Prof. Dr. Mirsad Karic, Vice-Rector for Academic & Student Affairs Assist. Prof. Dr. Muhamed Ali, Vice-Rector for General Affairs Prof. Dr. Fuat Gurcan, FENS Dean Assist. Prof. Dr. Sadina Gagula-Palalic, Program Coordinator Edina Hadziahmetovic, QA Office Manager
14	20:00	Dinner	Expert panel and AQ Austria coordinator

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Name	Position
IUS Staff:	
Yücel Oğurlu, Prof. Dr.,	Rector
Ali Gursel, Prof. Dr.,	Vice-Rector for Int. Cooperation & Research
Mirsad Karic, Assist. Prof. Dr.,	Vice-Rector for Academic and Student Affairs
Muhamed Ali, Assist. Prof. Dr,	Vice-Rector for General Affairs
Fuat Gurcan, Prof. Dr.,	Dean, Faculty of Engineering and Natural Sciences (FENS)
Sadina Gagula-Palalic, Assist. Prof. Dr	Program Coordinator
Emir Karamehmedovic, Assoc. Prof. Dr.	Teaching and research staff EEE
Indira Muhic, MSc.	Teaching and research staff EEE
Indira Rustempasic MSc.	Teaching and research staff EEE
Izudin Dzafic Assoc. Prof. Dr	Teaching and research staff EEE
Migdat Hodzic, Prof. Dr	Teaching and research staff EEE
Muhamed Hadziabdic Assoc. Prof. Dr	Teaching and research staff EEE
Tarik Namas MSc.	Teaching and research staff EEE
Adnan Beganovic,	Legal Advisor
Ibrahim Inal	Finance Manager
Edina Hadziahmetovic,	QA Office Manager
Merima Arslankadic,	Library Manager
Bachelor cycle students	
Kanita Krdzalic	2nd year, 4th sem.
Lamija Herceg.	2nd year, 4th sem
Said Cosic	2nd year, 3rd sem.
Nejra Dahic	4th year, 8th sem.
MA cycle students:	
Sejla Dzakmic,	1st year, 1st sem.
Naida Fetic	1st year, 1st sem
Alumnae:	
Amar Kratovac,	Engineer/ ALEM Sistem
Dalila Hodzic	Electrical Engineer/ Bosna Petroleum Company – BPC and also MA Student at IUS
Medina Hromo,	Junior Electrical Engineer/Municipality of Ilidža and also MA Student at IUS
Nadir Durmic	Director / Tipteh d.o.o
Employers:	
Ms. Nadja Halebic	ALEM SISTEMI

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Mr. Edin Drljevic, CTO and owner	SysTech, www.systech.ba
Mr. Armin Susa, company owner and alumni	PROing, www.proingbh.com

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