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**Title:** D5.5 Report on tools for monitoring students enrolment and employability/employment/entrepreneurial statistics of graduates.

**Lead Organization:** FERIT

**Participating Organizations:** UL, UNI-KLU, UNSA, UNI, ENT, FERIT

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Deliverable data	Work Package and Outcome ref.nr	WP5 D5.5
	Title	Report on tools for monitoring student's enrollment and employability/employment/entrepreneurial statistics of graduates.
	Type	<input type="checkbox"/> Teaching material <input type="checkbox"/> Event <input type="checkbox"/> Learning material <input checked="" type="checkbox"/> Report <input type="checkbox"/> Training material <input type="checkbox"/> Service / Product
	Description	<p>The teaching material is prepared and provided in electronic form for all the modernized courses (selected in WP2) and enriched with teaching methodologies (selected in D3.1). Final teaching material is available as part of the web repository for class material and remote classes (within D3.4 as a web service).</p> <p>The report describes the teaching material, which will be made available in the WB partner countries' languages to promote integration. Part of the teaching material will be prepared also in English to foster internationalization.</p>
	Date	
	Language	
Target groups	<input checked="" type="checkbox"/> Teaching staff <input checked="" type="checkbox"/> Students <input checked="" type="checkbox"/> Trainees <input type="checkbox"/> Administrative staff <input checked="" type="checkbox"/> Technical staff <input checked="" type="checkbox"/> Librarians <input checked="" type="checkbox"/> Industry partners, WB Higher education authorities	
Dissemination level	<input type="checkbox"/> Department / Faculty <input type="checkbox"/> Local <input type="checkbox"/> National <input type="checkbox"/> Institution <input type="checkbox"/> Regional <input checked="" type="checkbox"/> International	
Lead Organization	UL	
Participating Organizations	UL, UNI-KLU, UNSA, UNI, ENT, FERIT	

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Version	Date	Author(s)	Organization(s)	Brief description of change
release 1	01. 08. 2020	M. Zajc, U. Burnik	UL	
release 2	05. 10. 2020	N. Maleš-Ilić	UNI	Additions regarding employment statistics in Serbia and general comments
release 3	11. 1. 2021	U. Burnik	UL	Added information on employment in BiH. Deleted 1 chapter proposal, as the results are merged in Chapter 3. (data is commented together with description of methods.
release 4	25. 1. 2021	U. Burnik	UL	Added information from student surveys ("UNTZ – employability survey" and "Course quality evaluation survey".
release 5	9. 2. 2021	N. Maleš-Ilić D. Bošković, U. Burnik	UNI UNSA UL	Added enrolment statistics for 2020/21. Improvements based on reviewers' comments.

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## 1. Introduction

The deliverable D5.5 “Report on tools for monitoring students enrolment and employability/employment/entrepreneurial statistics of graduates” reports the utilized tools for monitoring statistics of varied student and graduates indicators such as course enrolment, graduates employability as well as their employment and entrepreneurial status. The deployed tools utilize different methods of data gathering and are designed to outlast the period of BENEFIT project duration. The Report directly incorporates the activities related to Tasks T5.6 “Monitor student enrolment statistics in the region” and T5.7 “Establish a monitoring system for employment statistics of graduates in telecommunications engineering” while it may also use the methods proposed by T5.5 “Collect questionnaires and surveys via social networks”, where the exact data cannot be obtained directly from official sources. In addition, the methods proposed by T5.8 “Establish a monitoring system for entrepreneur attitude and newcos created by graduates in telecommunications engineering (by means of surveys, data bases, etc.)”

The relationships with WP tasks are shown in Figure 1: D5.5 among other WP5 tasks and contributions to the project goalsFigure 1.

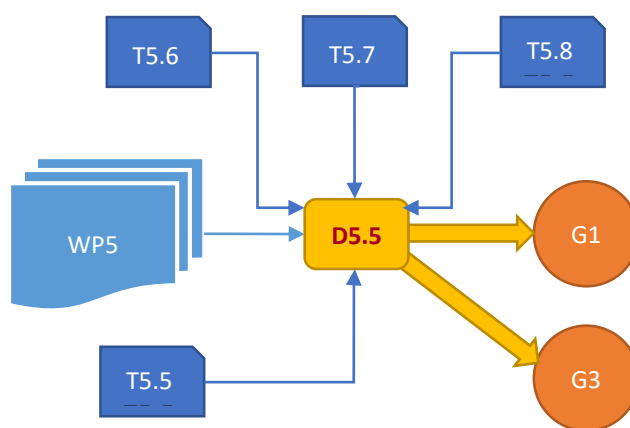


Figure 1: D5.5 among other WP5 tasks and contributions to the project goals

The results of the report are the indicators providing the success metrics related to evaluation of the main project goals:

**G1:** Modernize teaching methodologies by adopting novel learning/teaching methods.

**G3:** Increase the attractiveness of ICT studies through the development of joint e-platform.

The deliverable D5.5 is organized in six sections. After the Introduction with relations to other WPs and contributions to the main project goals, the Section 2 describes the objectives of the deliverable D5.5. The Section 3 gives an overview of the tools, specifically covering the students’ enrolment statistics, graduates employability and employment statistics and entrepreneurial attitude of graduates complemented by a collection of recent results. The summary and main conclusions are drawn in the Section 4.

## 2. Objectives of the Deliverable

The main objectives of the deliverable are to present tools and methods of data collection related to student enrolment and employability of students, including students’ entrepreneurial attitude. The collected indicators represent a direct success metrics of the main three project goals, which are (G1) Modernize teaching methodologies by adopting novel learning/teaching methods, (G2) Upgrade the lab infrastructure through the development of novel thematic joint industry-academia labs and (G3)

Increase the attractiveness of ICT studies through the development of joint e-platform. The student enrolment in ICT studies is a direct metrics of success to G3, while the employability and entrepreneurial attitude of students indirectly measures whether the novel teaching methodologies and labs have reflected in better preparation of students to enter the job market.

### **3. Tools for monitoring students' enrolment, employability, employment and entrepreneurial statistics of graduates.**

The Tools described here are aimed to collect information on student enrolment in ICT studies, monitoring employment statistics of graduates and separately to monitor entrepreneurial attitude of enrolled students. Direct collection of data is being deployed where available. In cases where there is no direct method of data collection, surveys collected via online questionnaires will be deployed in order to collect statistical information among selected student and graduate population. The exact method differs on the type of data collection and is described in the following subsections.

#### **3.1. Students enrolment statistics**

Statistical information on students enrolled in telecommunication and ICT studies is one of the possible indicators that demonstrate the interest of students in these studies. Administrative office at the faculty of the Universities included into project collects and processes data referred to the student enrolment statistics. Every year, the relevant information is updated and are available for the interested subjects.

Each participating University possesses a specific structure of study programmes and study modules. In addition, some of the participants offer Bachelor and Masters engineering studies in periods of 3+2 years, while the others maintain the 4+1 scheme. With many differences present, we have decided to maintain enrolment statistics individually per each participating institution. We have defined an institution-specific table where enrolment figures are entered per each specific year of enrolment.

Student enrolment data are monitored annually at the level of each project beneficiary from BiH and Serbia. Initially, enrolment data have been collected for the period from study year 2016/17 onwards. BENEFIT representative from each institution will collect the new data following each new enrolment period in October and will take care the data will be appended in the predefined tables.

The enrolment information covering the period 2016/17 to 2020/21 per each individual institution are provided and included in Annex I and merged in unique excel table.

##### **3.1.1 Bachelor academic study programme**

On the bases of the enrolment statistics data provided by six Universities from Serbia and Bosnia and Herzegovina, Figures 2 to 7 show the data for the Bachelor academic study programmes for six Universities (UB, UNS, UNI, UNSA, UBL and UNTZ) per school years. The figures include data for students enrolled in budget financing or self-financing programme for four years of Bachelor study. Only, for the University of Sarajevo Figure includes statistics for three years of Bachelor study since UNSA has three years BsC programme. Moreover, we may observe numbers of total enrolled students and students who enrolled again the specified school year. The enrolment statistics are given mostly starting from the 2<sup>nd</sup> year of study since specified study programmes of modules relating to Telecommunications begins from the second year. Some Universities (UBL and UNSA) have given the numbers even for the 1<sup>st</sup> year of study; therefore, those numbers are also included into the graphic representations. Additionally, these figures show data of total enrolled students for each study

year/per school year including cumulative number of enrolled students per school year regarding all 6 Universities.

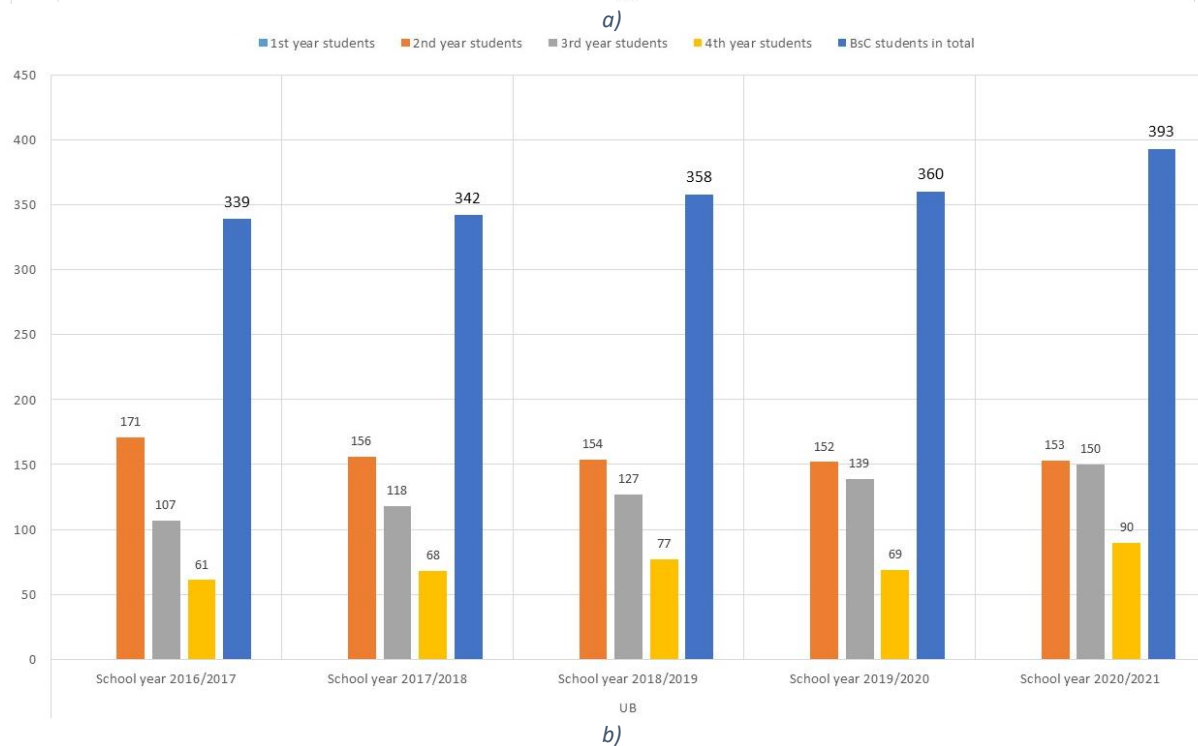
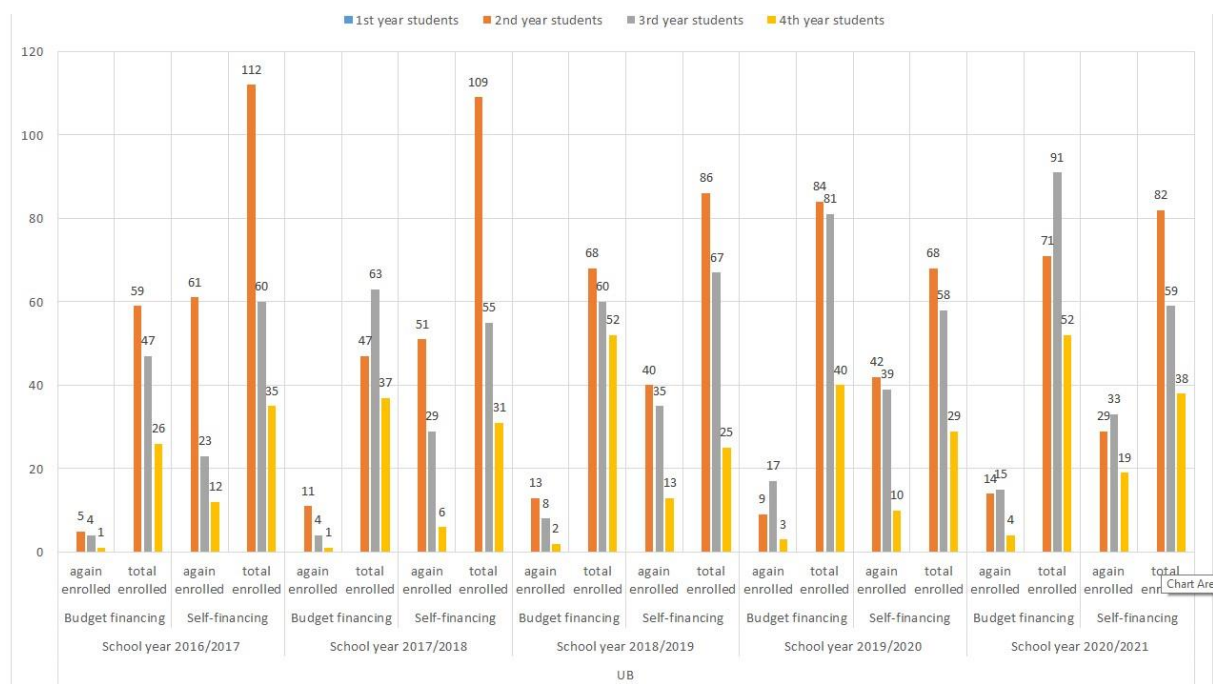
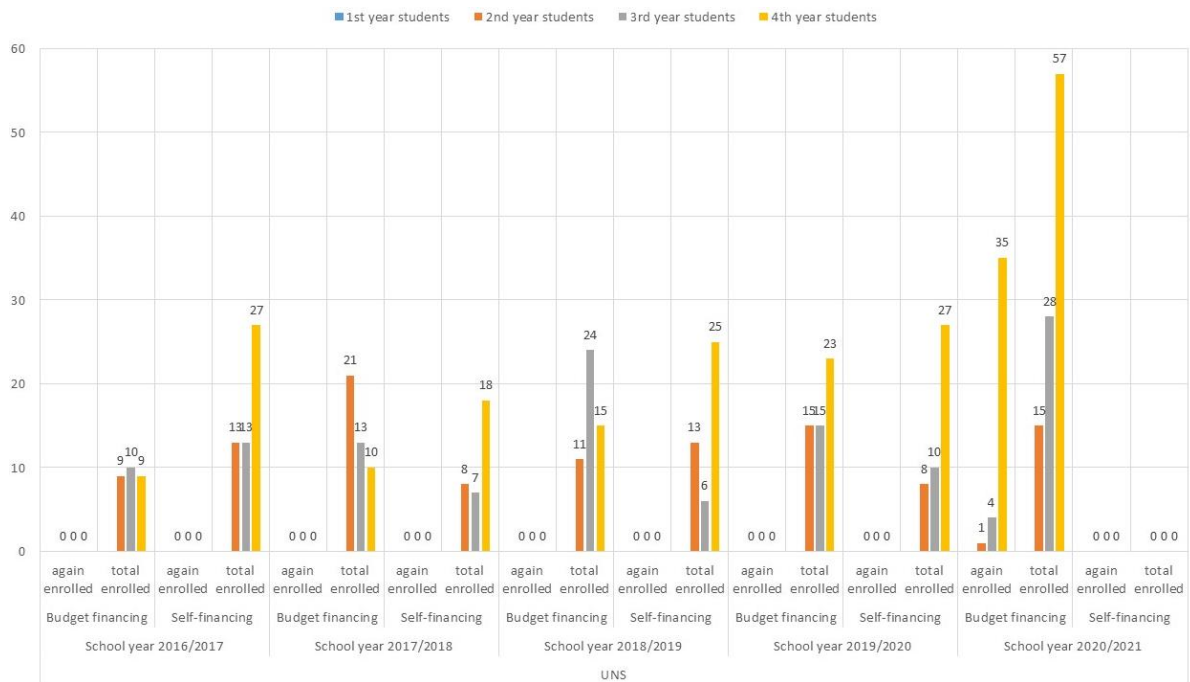
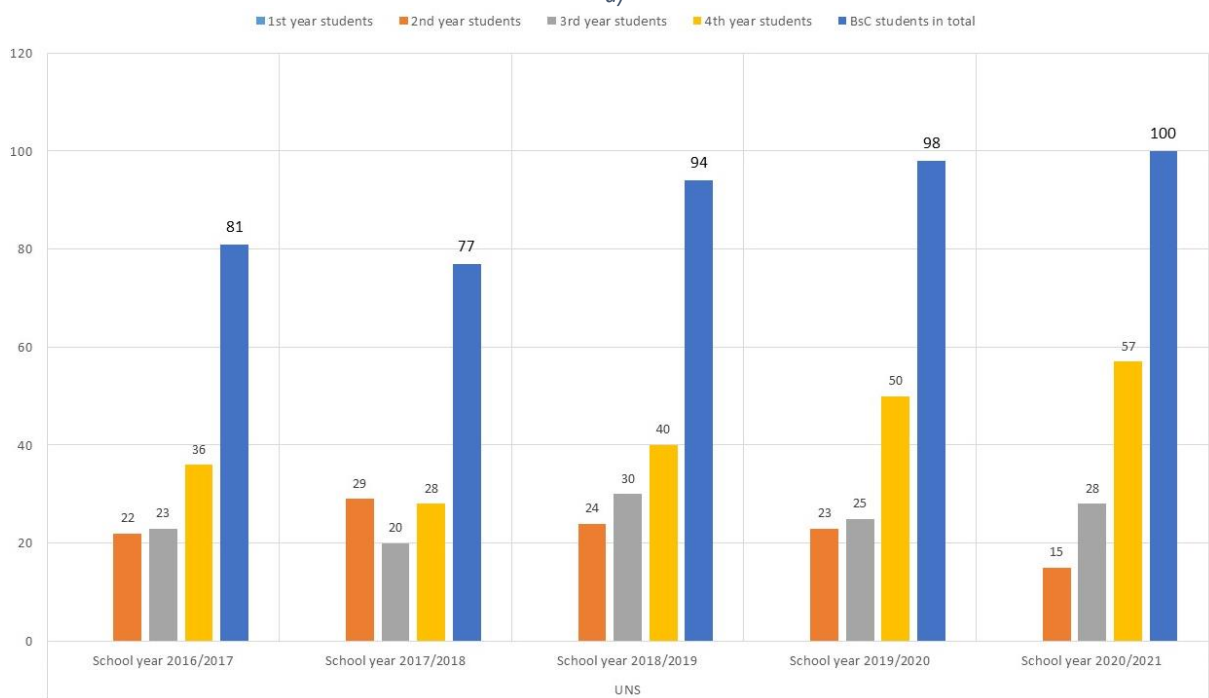


Figure 2: Bachelor study enrolment statistics for University of Belgrade-UB: a) BSc students in budget financing or self-financing programme per school year, b) Total BSc students per study year and school year



UNS

a)



UNS

b)

Figure 3: Bachelor study enrolment statistics for University of Novi Sad- UNS: a) BsC students in budget financing or self-financing programme per school year, b) Total BsC students per study year and school year



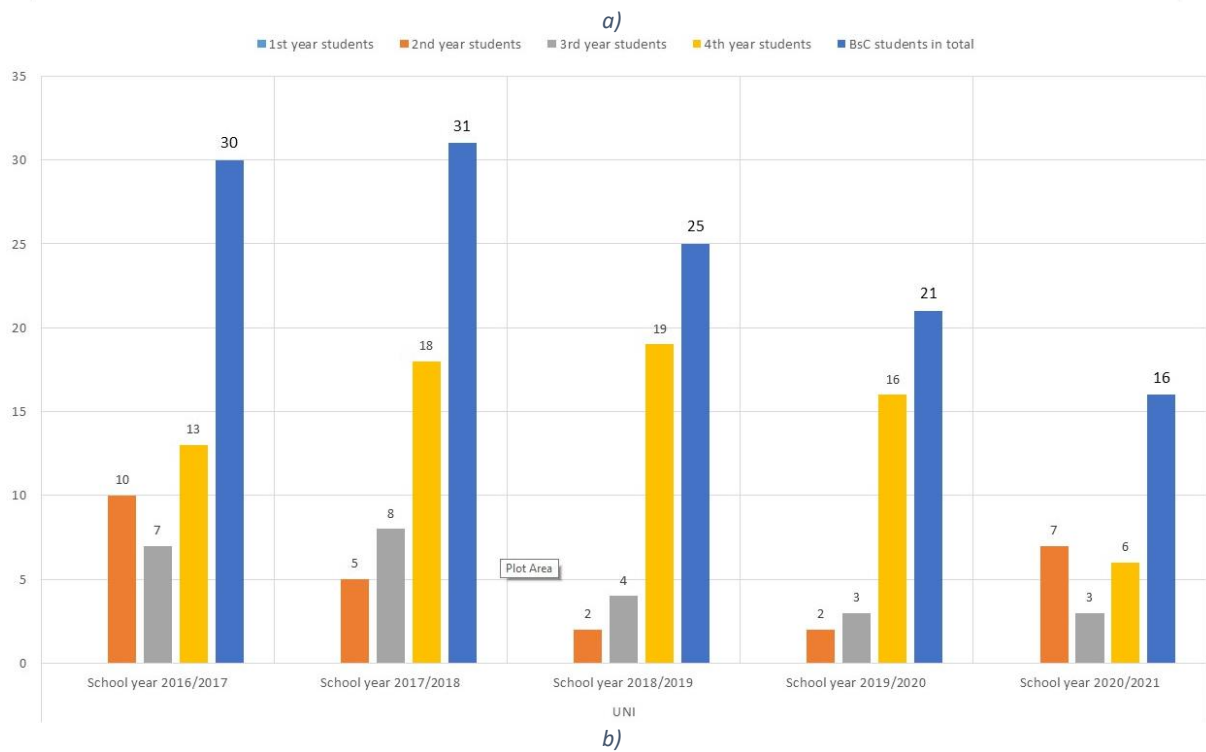
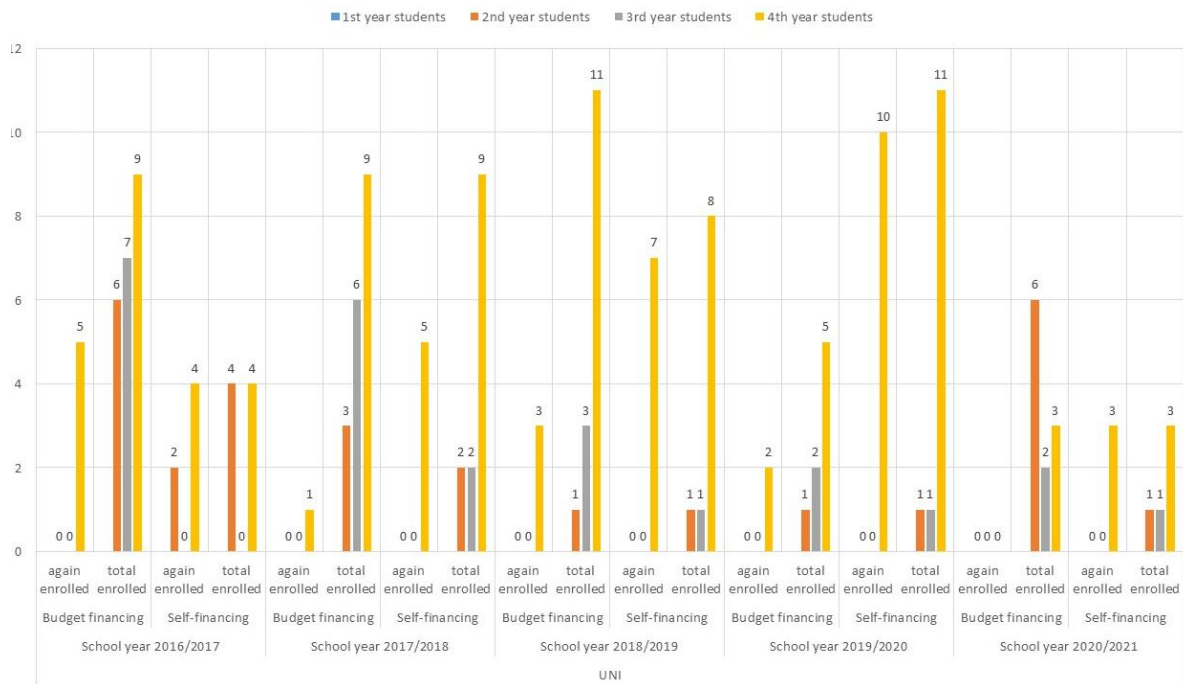
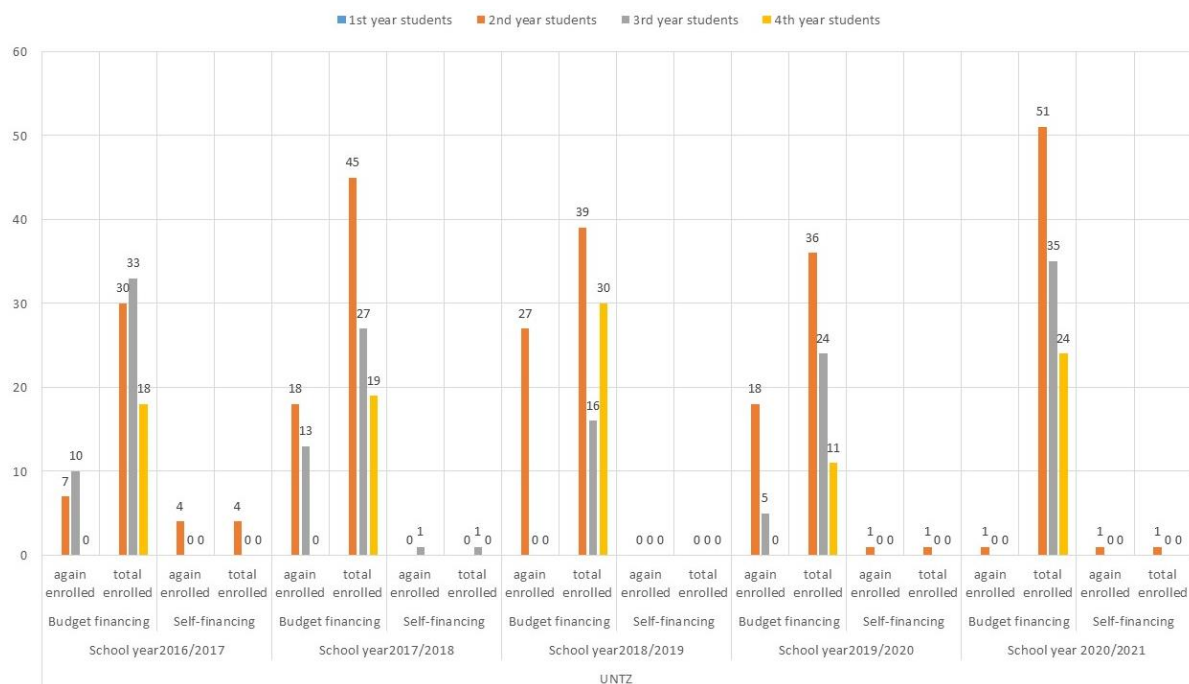
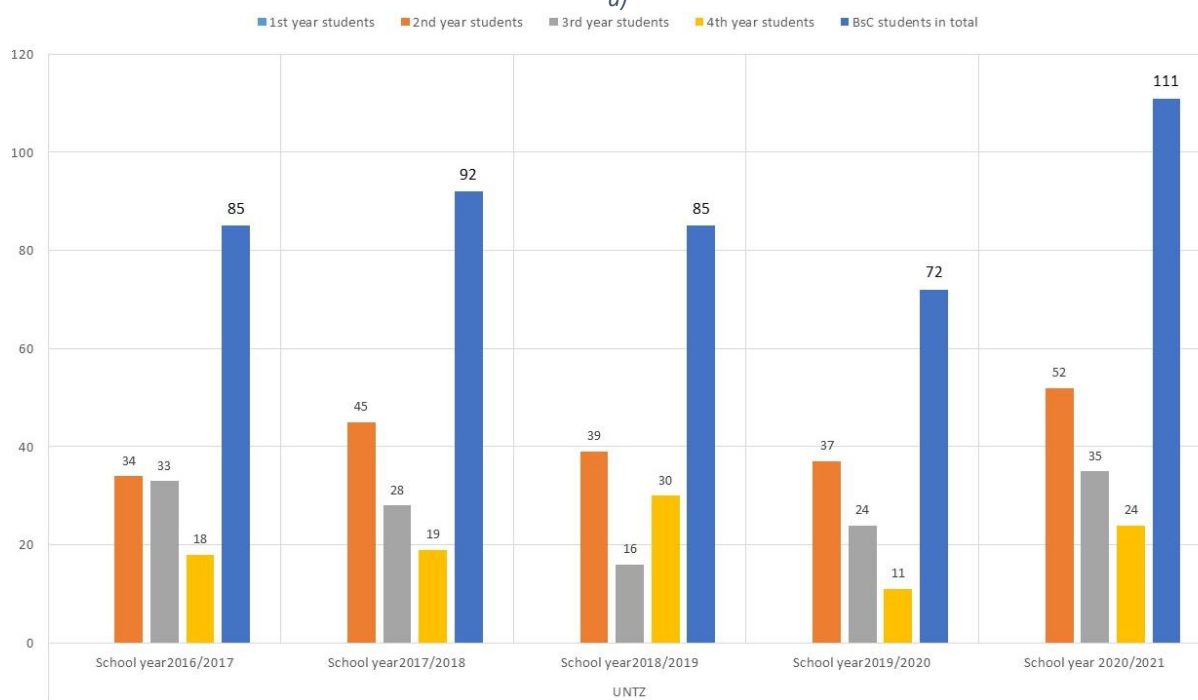


Figure 4: Bachelor study enrolment statistics for University of Nis- UNI: a) BSc students in budget financing or self-financing programme per school year, b) Total BSc students per study year and school year

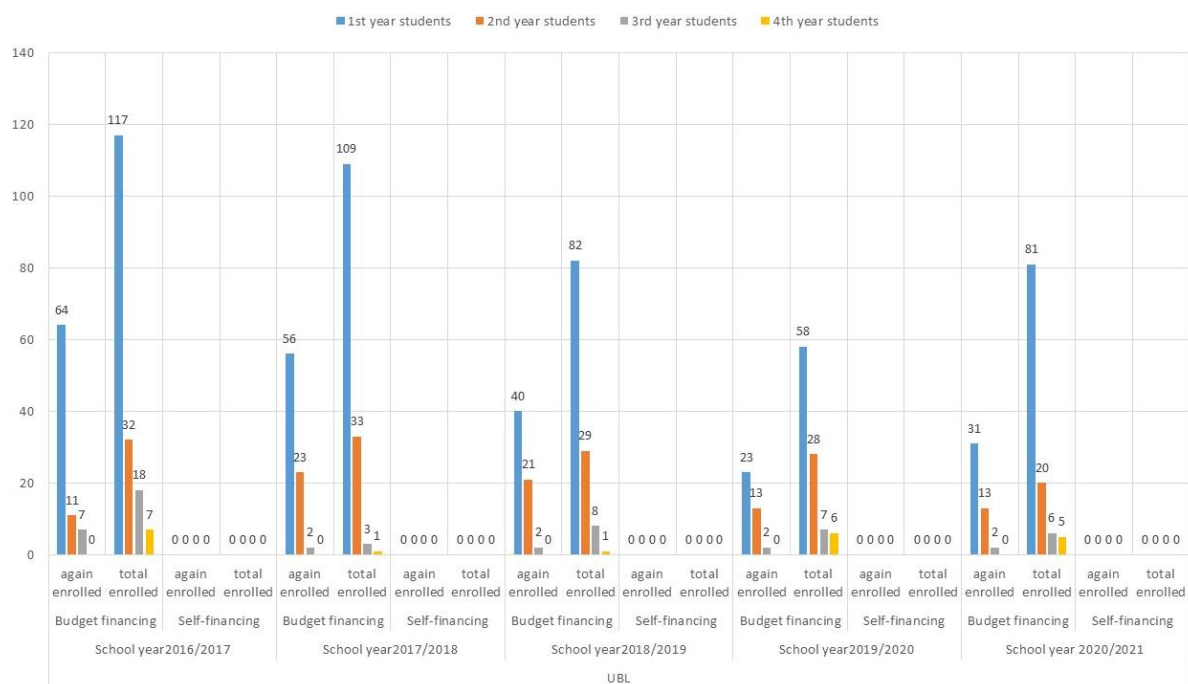


a)



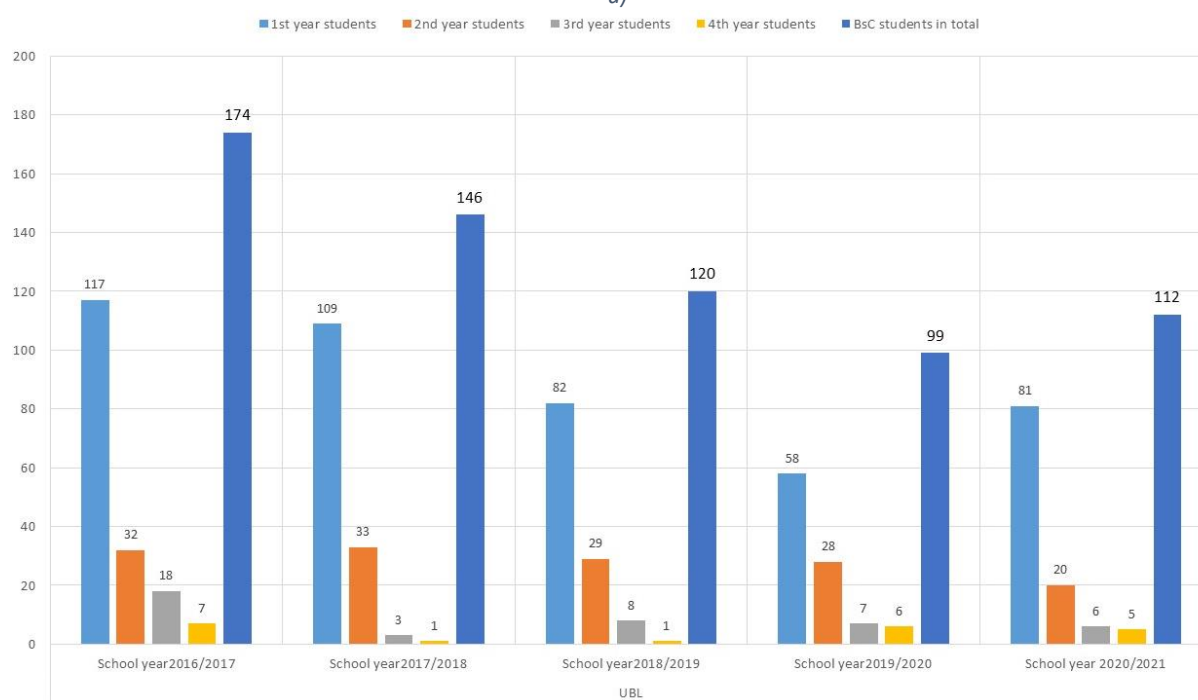
b)

Figure 5: Bachelor study enrolment statistics for University of Tuzla- UNTZ: a) BSc students in budget financing or self-financing programme per school year, b) Total BSc students per year and school year



UBL

a)



UBL

b)

Figure 6: Bachelor study enrolment statistics for University of Banja Luka- UBL: a) BsC students in budget financing or self-financing programme per school year, b) Total BsC students per study year and school year

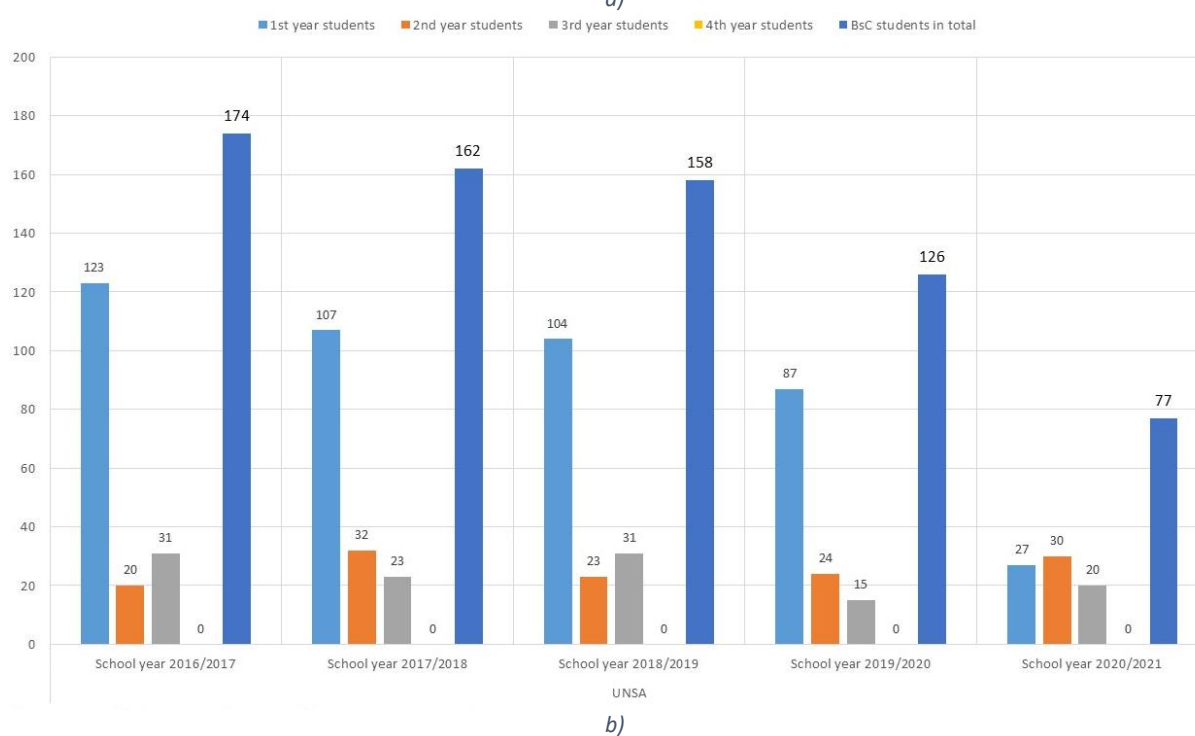
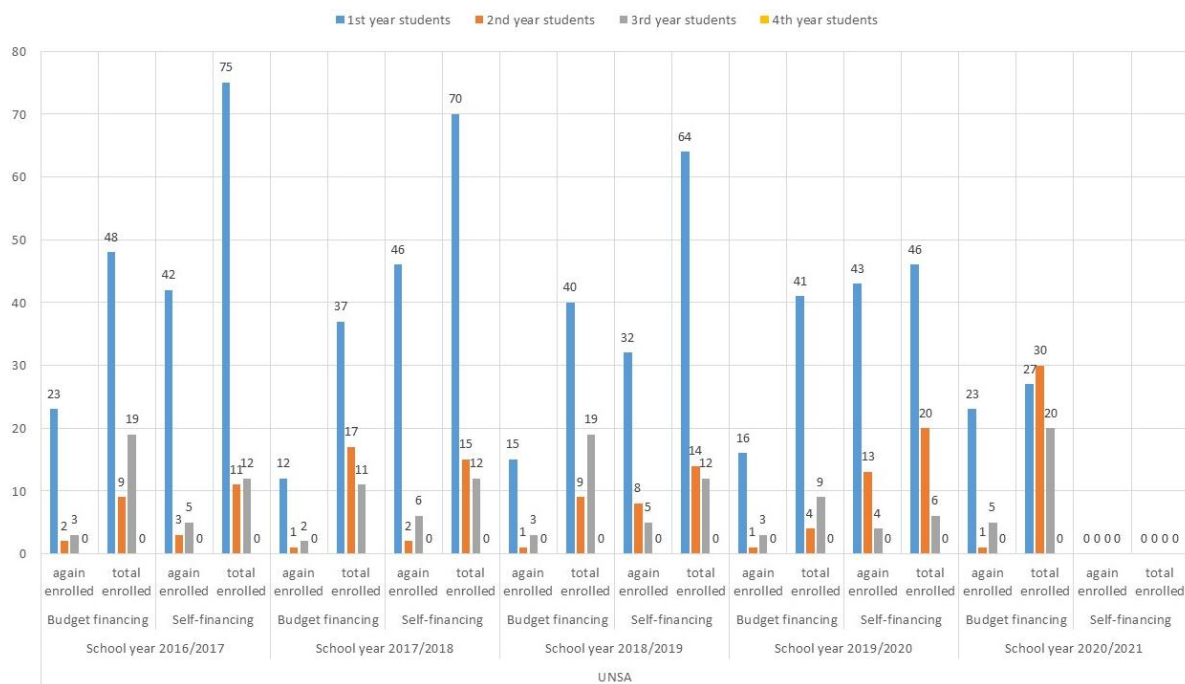


Figure 7: Bachelor study enrolment statistics for University of Sarajevo- UNSA: a) BsC students in budget financing or self-financing programme per school year, b) Total BsC students per study year and school year

It can be observed from the included figures that BsC students number in total increases in considered time period or school years for the Universities-UB and UNS, whereas UNTZ and UBL enrolled statistics shows downtrend and then raise in 2020/21 school year that can be considered as project results. However, numbers of enrolled students at UNI and UNSA decreases. It can be expected that the positive impact of project BENEFIT results to all project partners, (modernized and developed courses, applied new teaching methodologies and e-tools), will start to give results and influence on positive trend and rise in enrolled students in incoming years.

Additionally, Figures 8 to 12 show the comparisons between total enrolled students among six Universities for considered school years starting from 2016/17 to 2020/21.

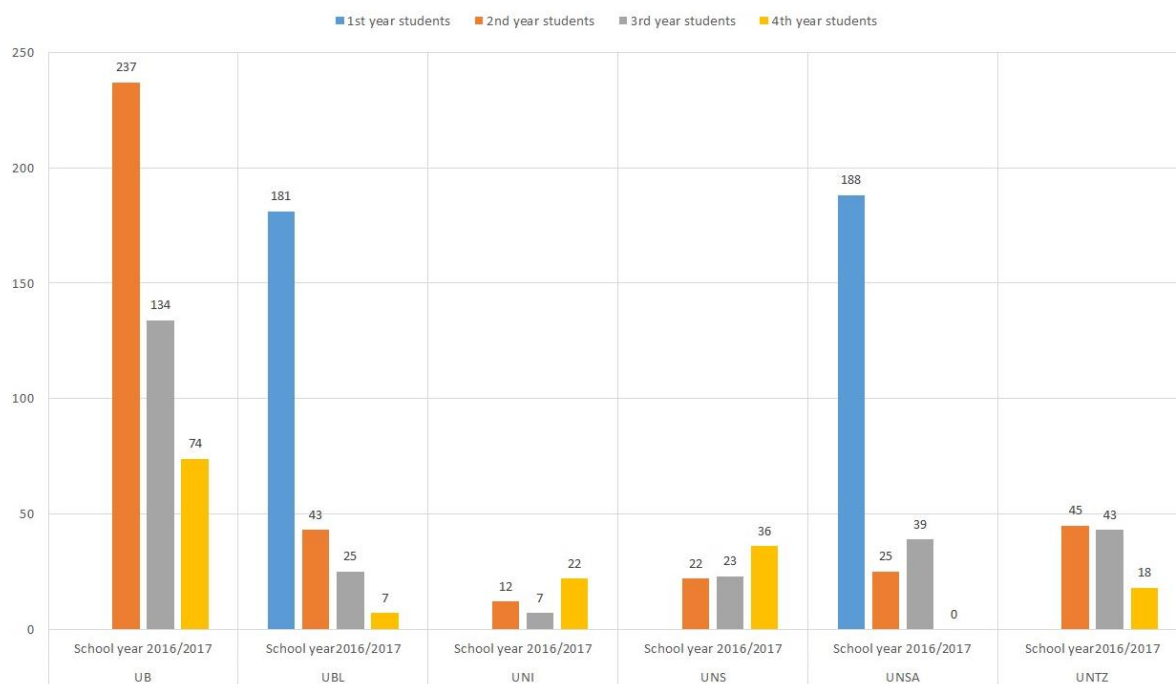


Figure 8: Bachelor study enrolment statistics for 6 universities for 2016/17 school year

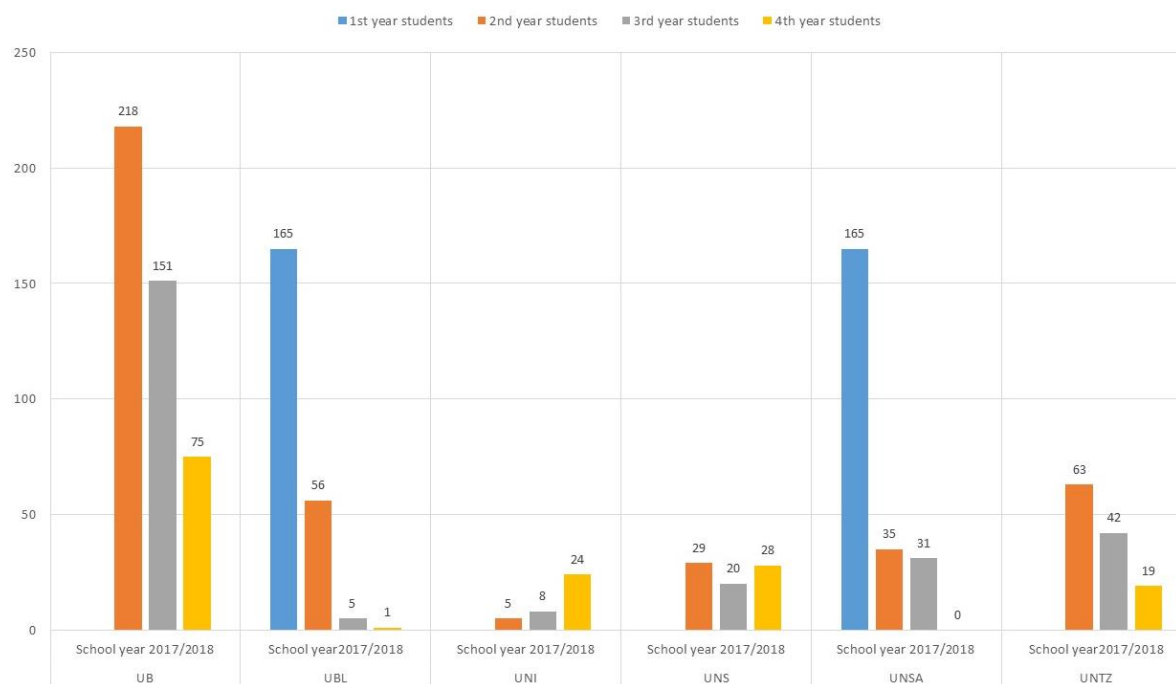


Figure 9: Bachelor study enrolment statistics for 6 universities for 2017/18 school year

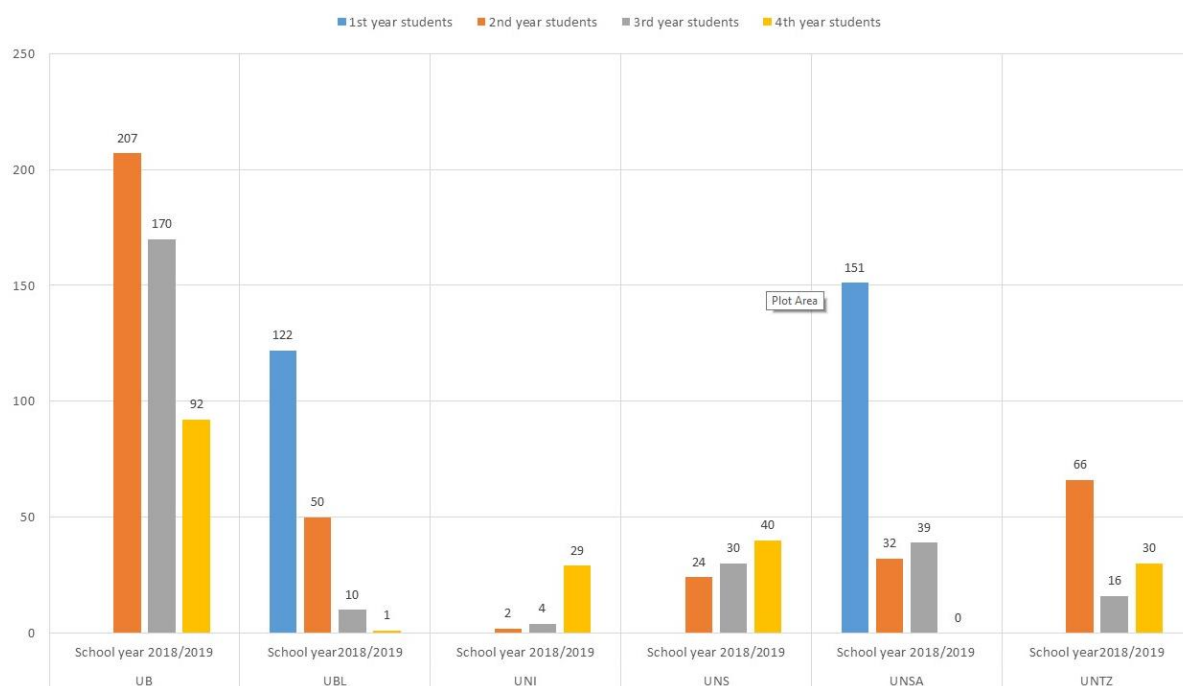


Figure 10: Bachelor study enrolment statistics for 6 universities for 2018/19 school year

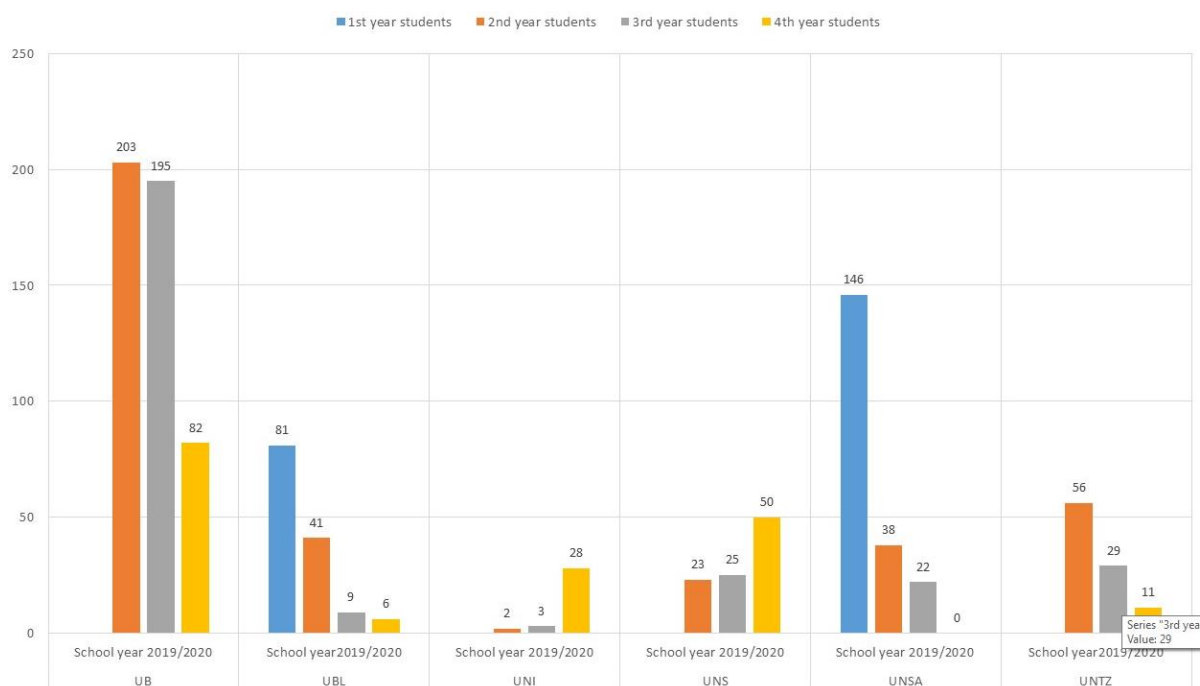


Figure 11: Bachelor study enrolment statistics for 6 universities for 2019/20 school year

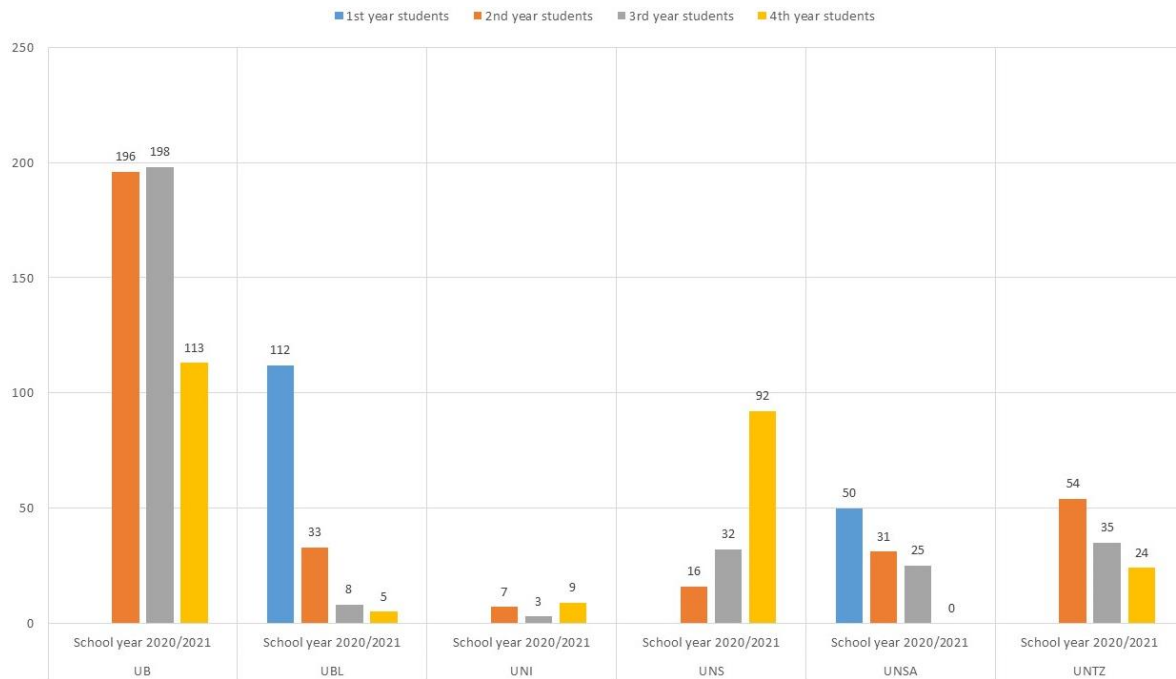


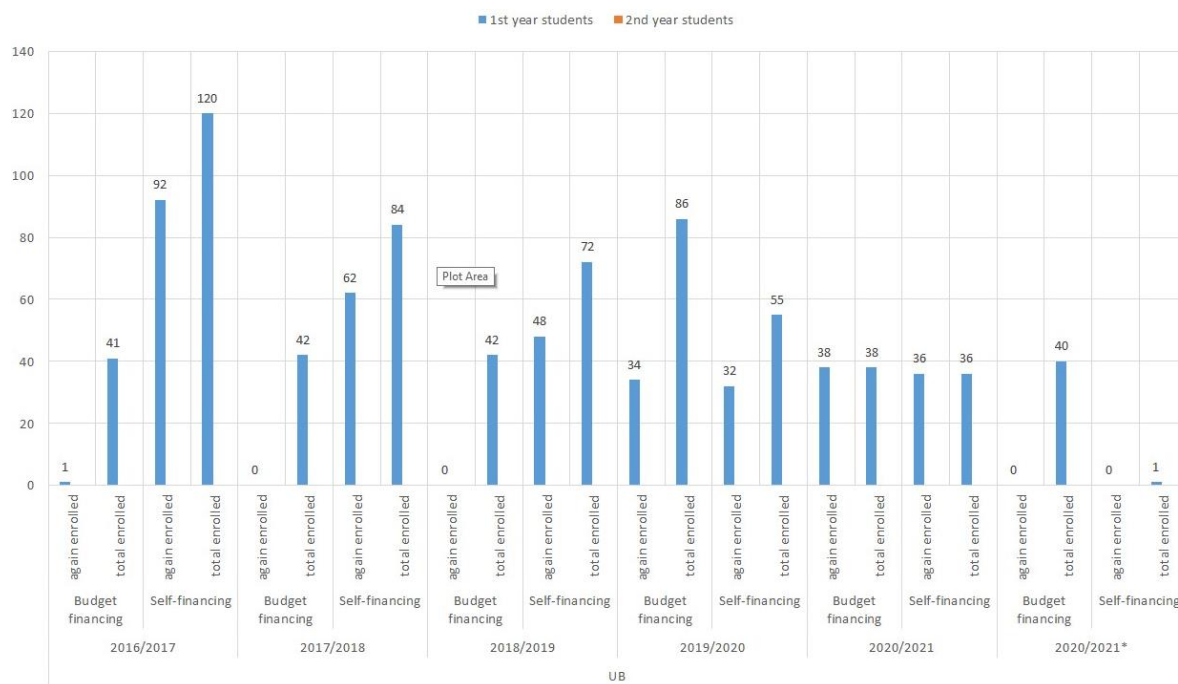
Figure 12: Bachelor study enrolment statistics for 6 universities for 2020/21 school year

It can be inferred that University of Belgrade as the biggest University centre has the greatest number of enrolled students at Telecommunications study programme. Moreover, the numbers go up during the years, as can be seen from Figures 2 to 7 b). Comparing other Universities it can be seen similar statistics of enrolled students-UNS, UNTZ, UBL and UNSA. The most noticeable lowering of enrolled students in module Telecommunications can be observed at University of Nis.

### 3.1.2 Master academic study programmes

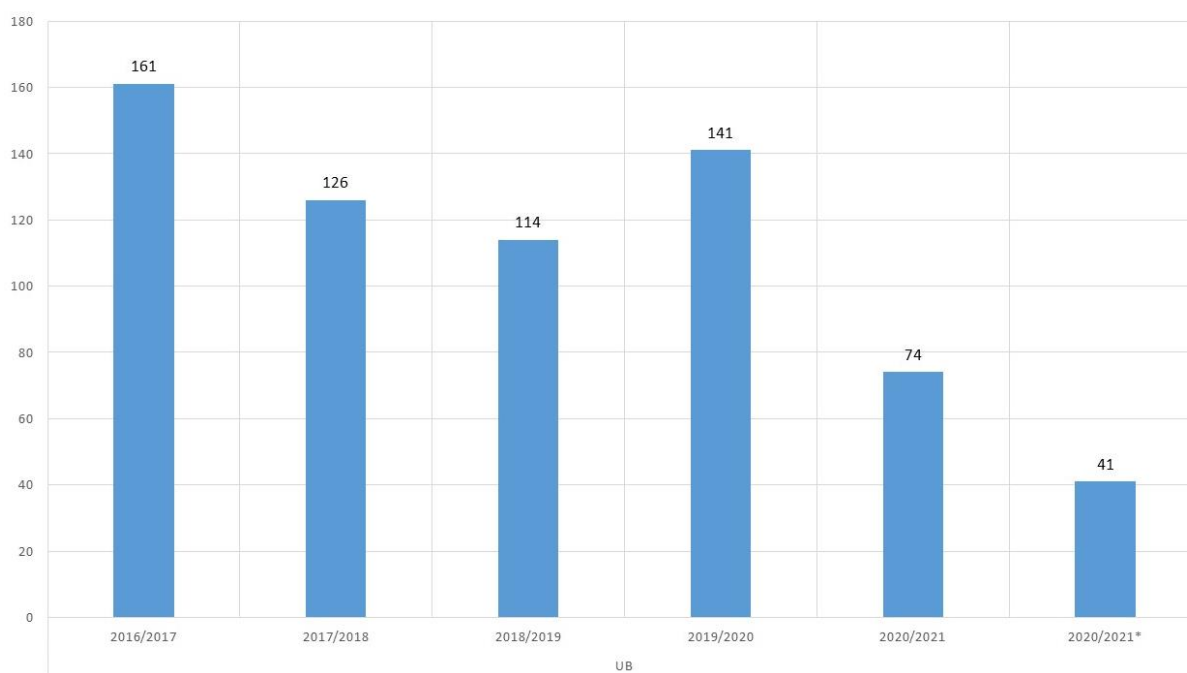
Figures 13 to 18 represent the data for the Master academic study enrolment statistics for six Universities per school years including data for students enrolled as budget financing or self-financing for Master study programmes, which last a year for all Universities except University of Sarajevo that is in duration of two years. Figures show the numbers of total enrolled students and students who are enrolled again at the specified school year. Moreover, these figures illustrate summation number of MsC enrolled students for each University per school year.

Additionally, the comparisons between total enrolled students among six Universities for considered school years starting from 2016/17 to 2020/21 at Master study programmes are shown in Figures 19 to 23.



a)

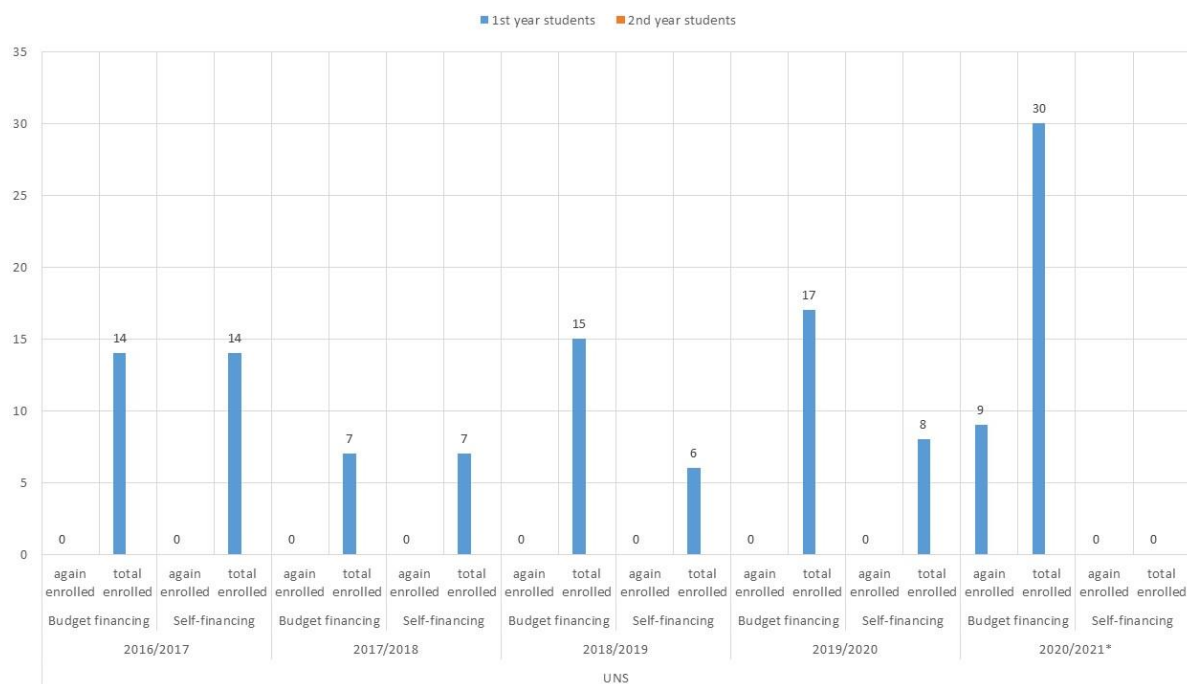
### MSc students in total



b)

Figure 13: Master study enrolment statistics for University of Belgrade-UB: a) MSc students in budget financing or self-financing programme per school year, b) Total BSc students per study year and school year

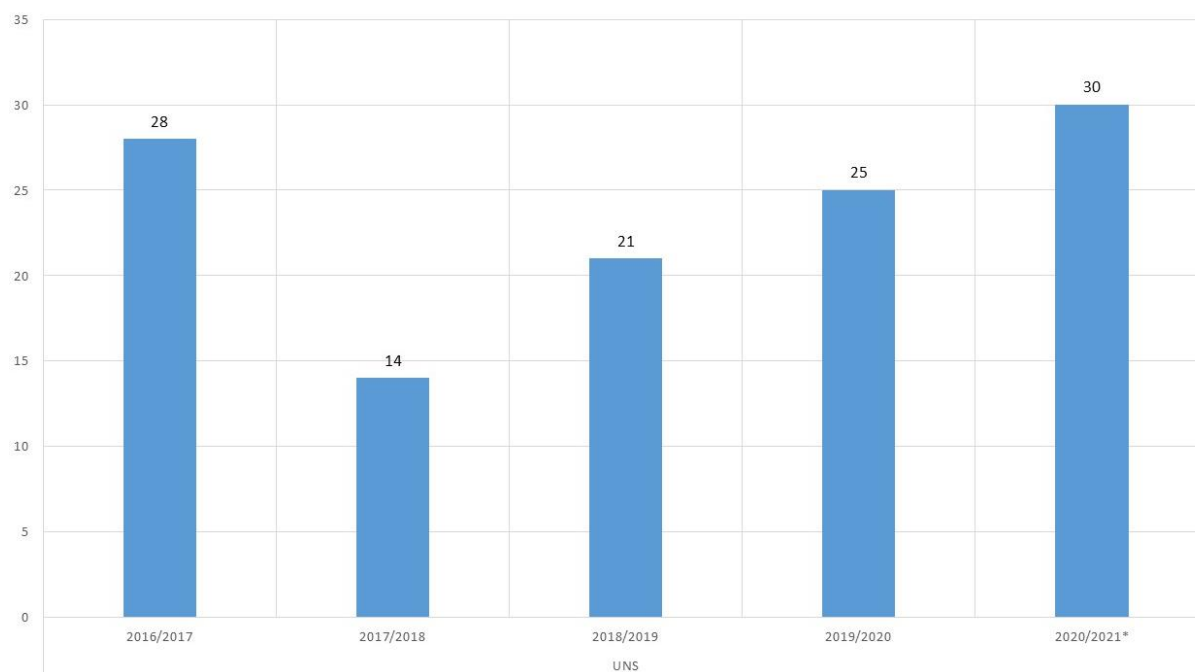




UNS

a)

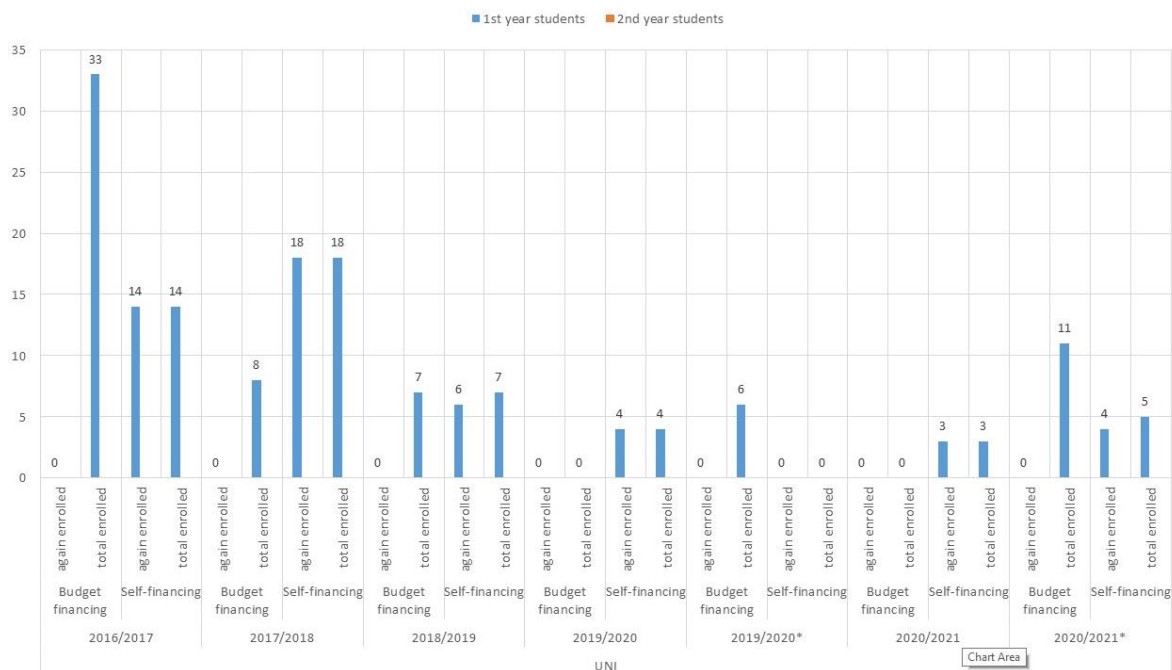
### MsC students in total



UNS

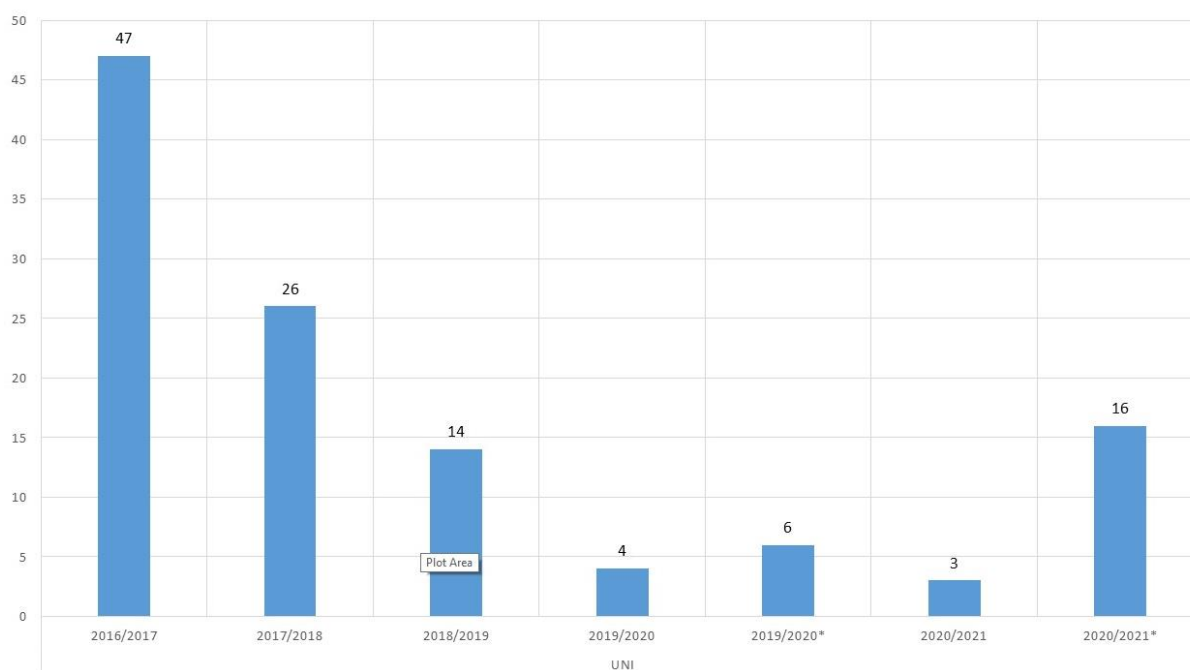
b)

Figure 14: Master study enrolment statistics for University of Novi Sad-UNS: a) MsC students in budget financing or self-financing programme per school year, b) Total BsC students per study year and school year



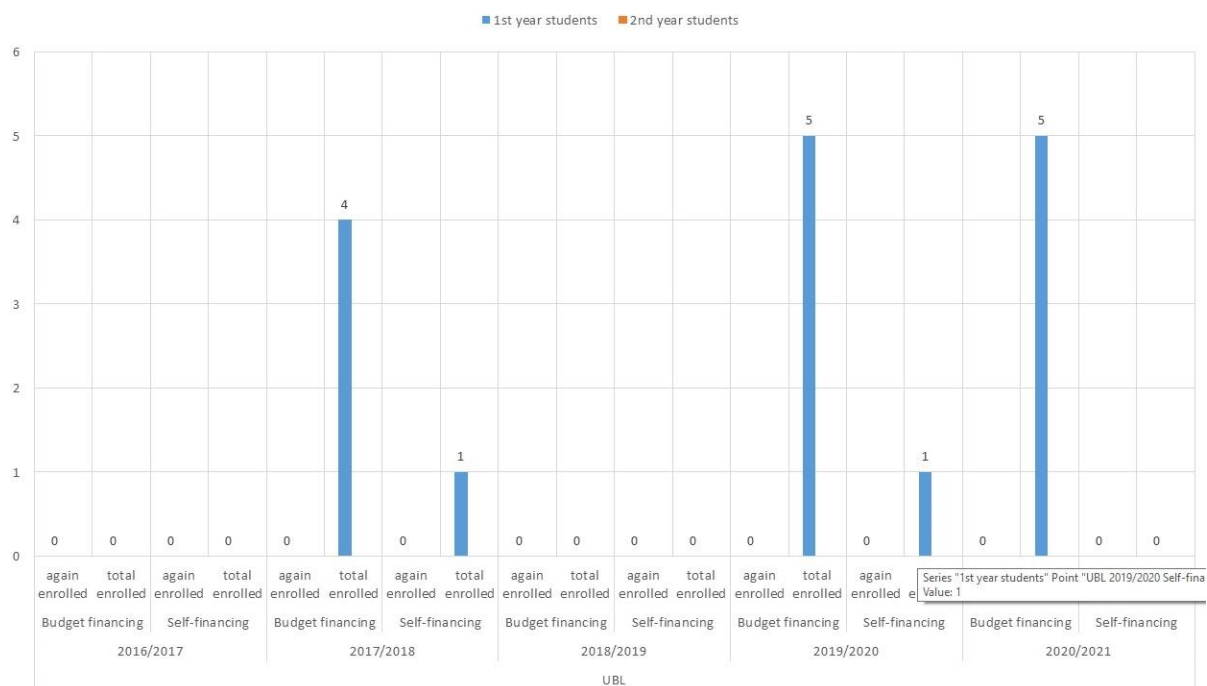
a)

### MsC students in total



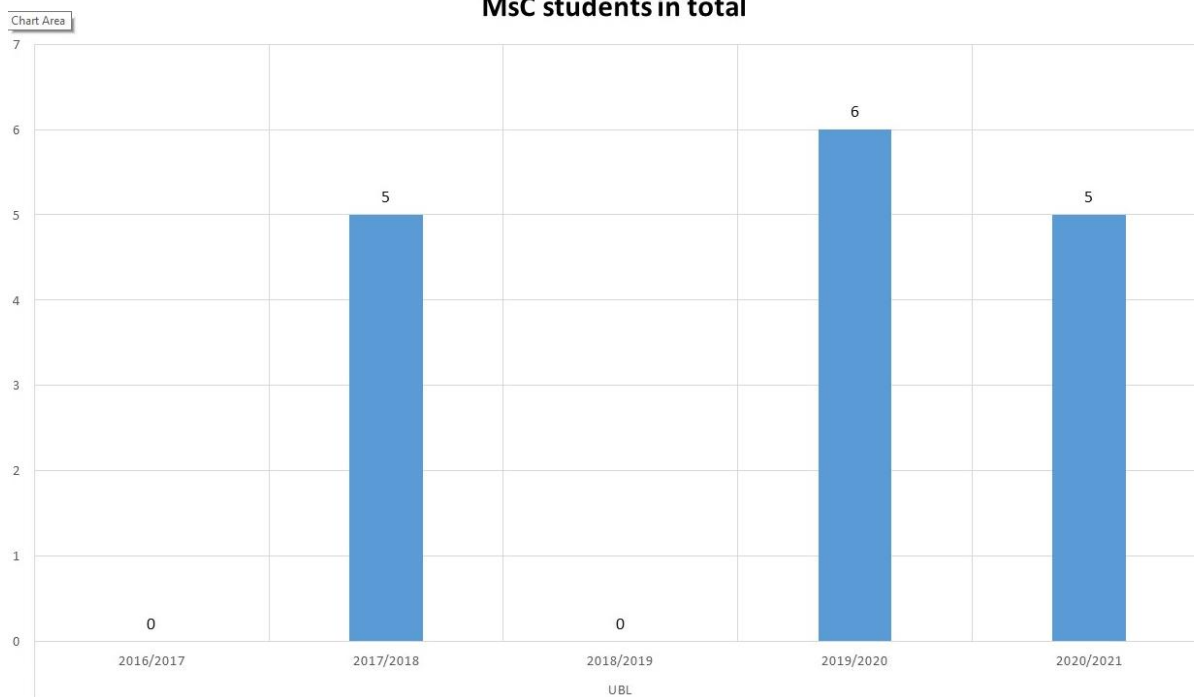
b)

Figure 15: Master study enrolment statistics for University of Nis-UNI: a) MsC students in budget financing or self-financing programme per school year, b) Total BsC students per study year and school year



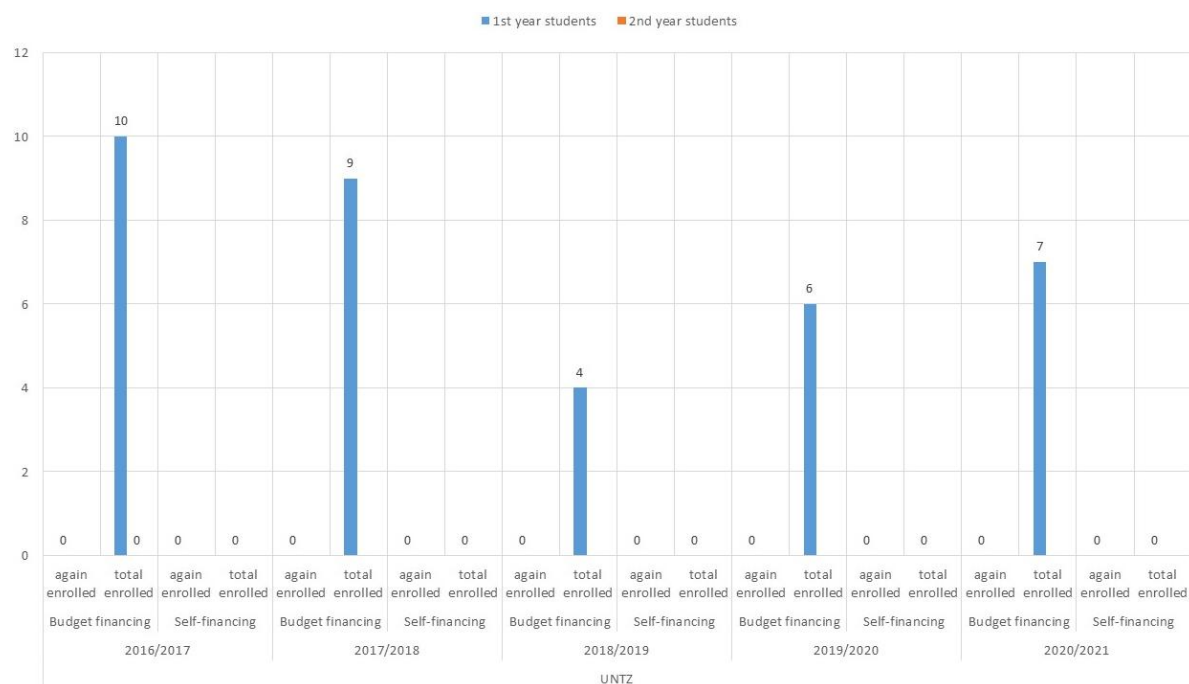
a)

### MsC students in total



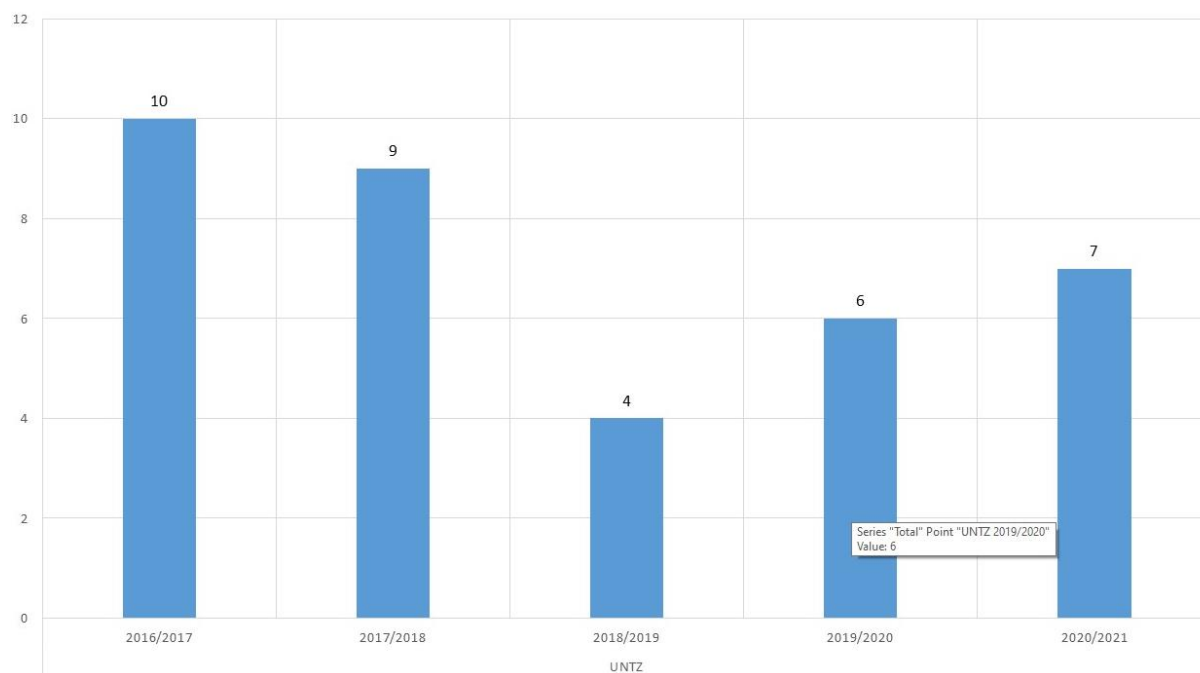
b)

Figure 16: Master study enrolment statistics for University of Banja Luka-UBL: a) MsC students in budget financing or self-financing programme per school year, b) Total BsC students per study year and school year



a)

### MsC students in total



b)

Figure 17: Master study enrolment statistics for University of Tuzla-UNTZ: a) MsC students in budget financing or self-financing programme per school year, b) Total BsC students per study year and school year

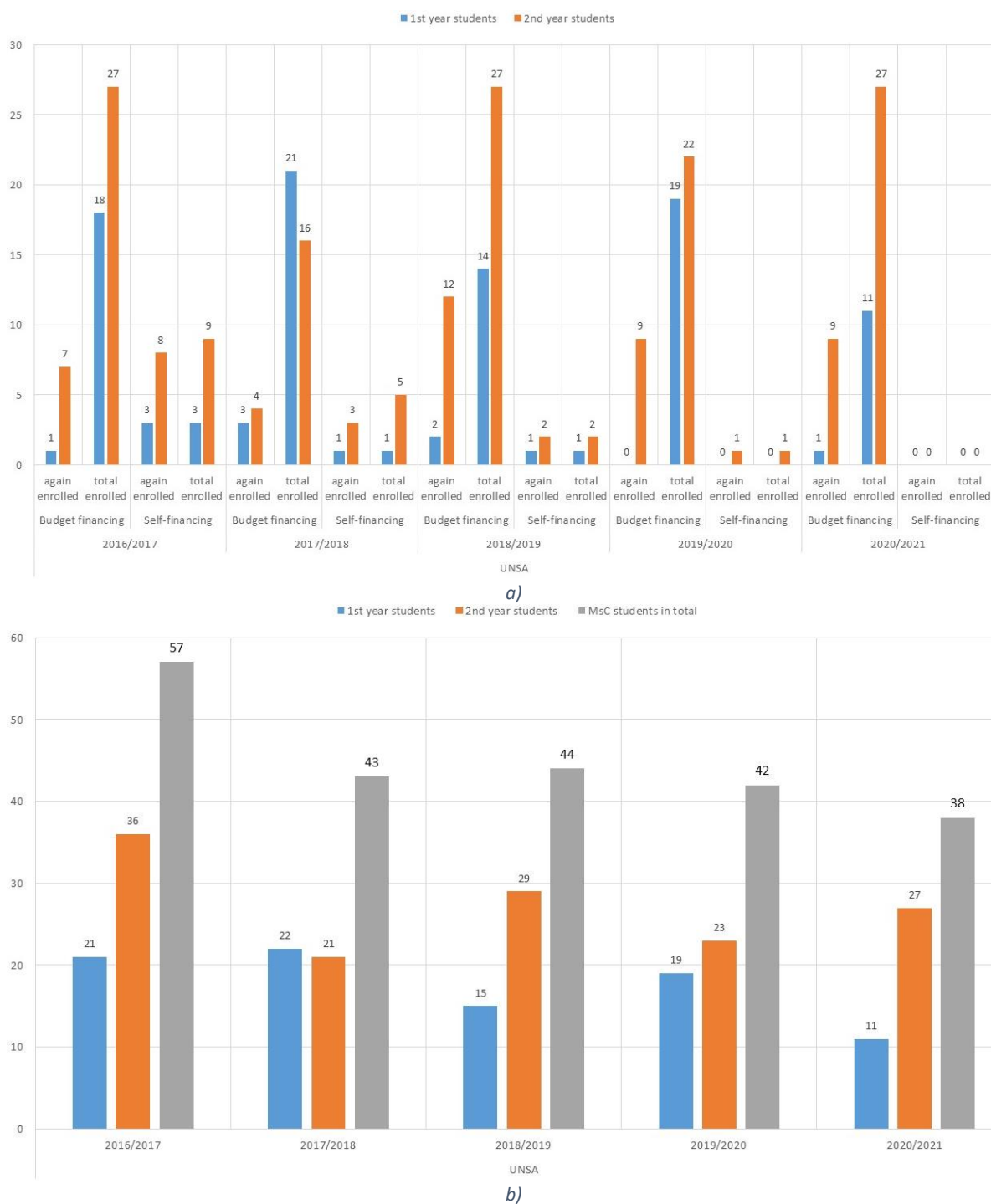


Figure 18: Master study enrolment statistics for University of Sarajevo-UNSA: a) MSc students in budget financing or self-financing programme per school year, b) Total BsC students per study year and school year

It can be inferred from these figures that number of enrolled students considering Master academic programme was boosted during the project BENEFIT regarding all 6 Universities as the results of modernization and improvements of education programme. It should be noted that, starting from 2019/20 school year, there are two parallel MSc programmes at UNI and also at UB and UNS in 2020/21 school year (\* relates to new accredited study programme). UNSA and UBL do not show increase in enrolled students but the numbers are pretty constant.

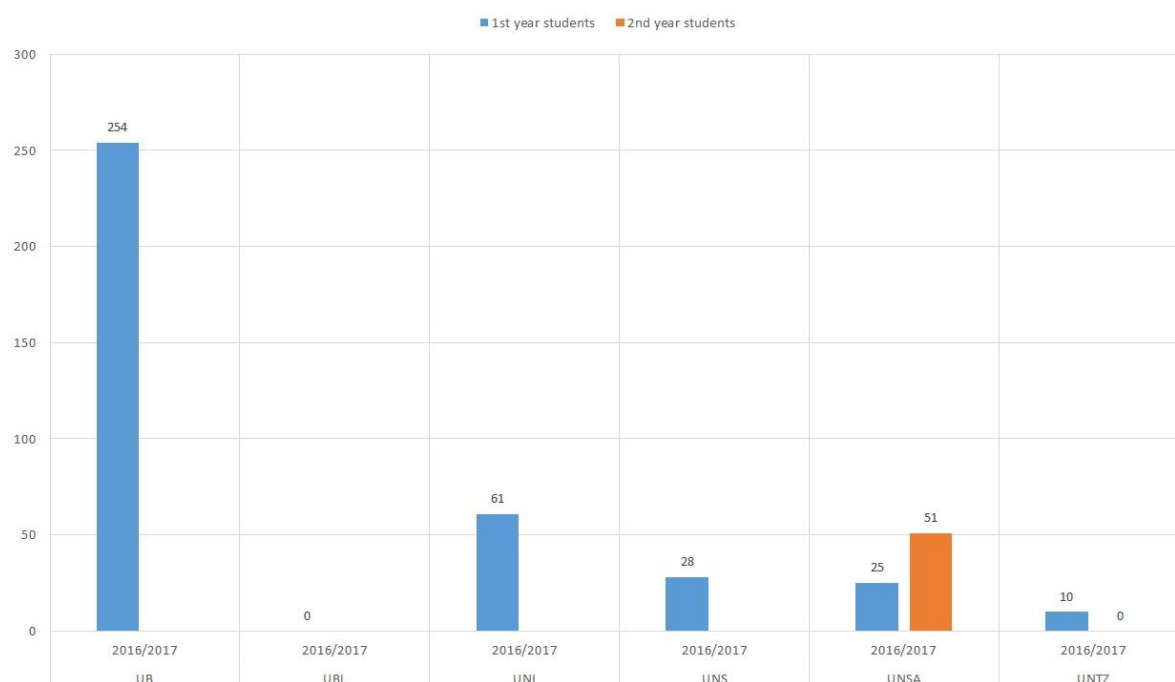


Figure 19: Master study enrolment statistics for 6 universities for 2016/17 school year

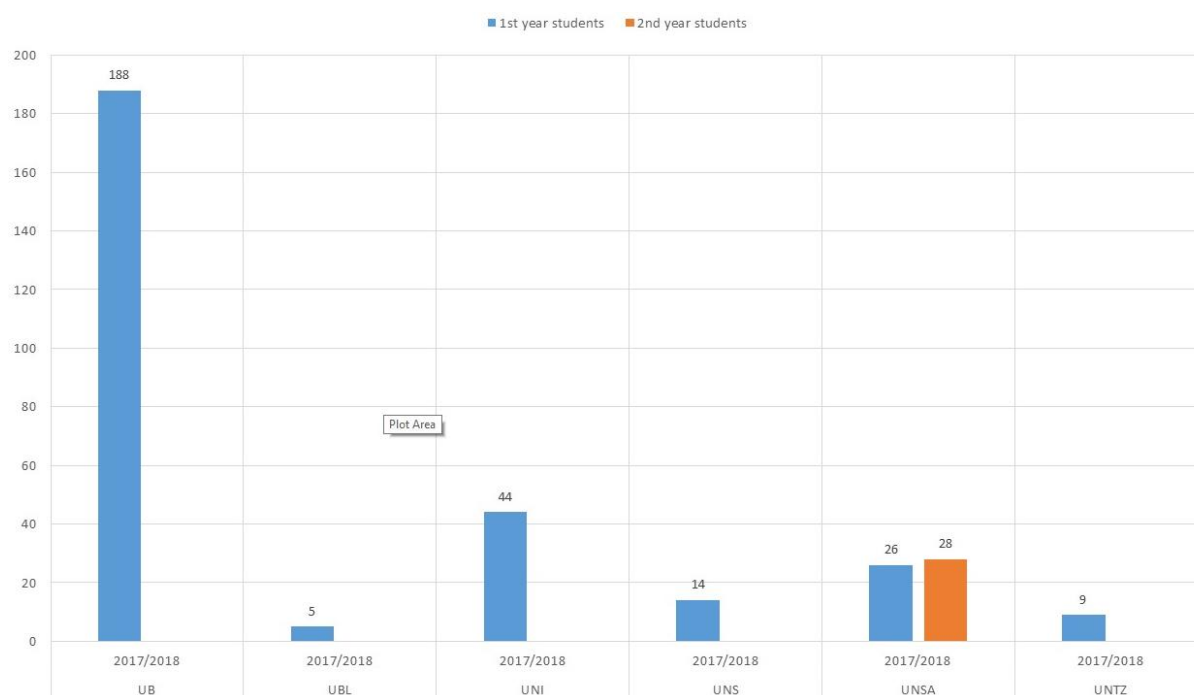


Figure 20: Master study enrolment statistics for 6 universities for 2017/18 school year

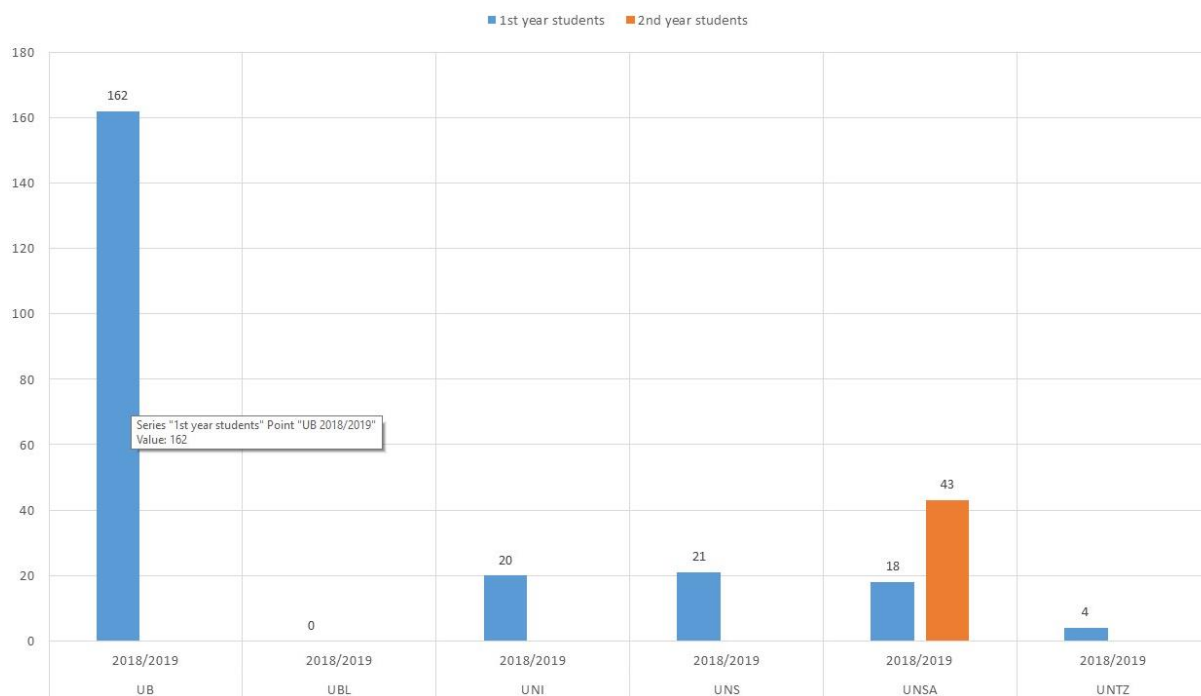


Figure 21: Master study enrolment statistics for 6 universities for 2018/19 school year

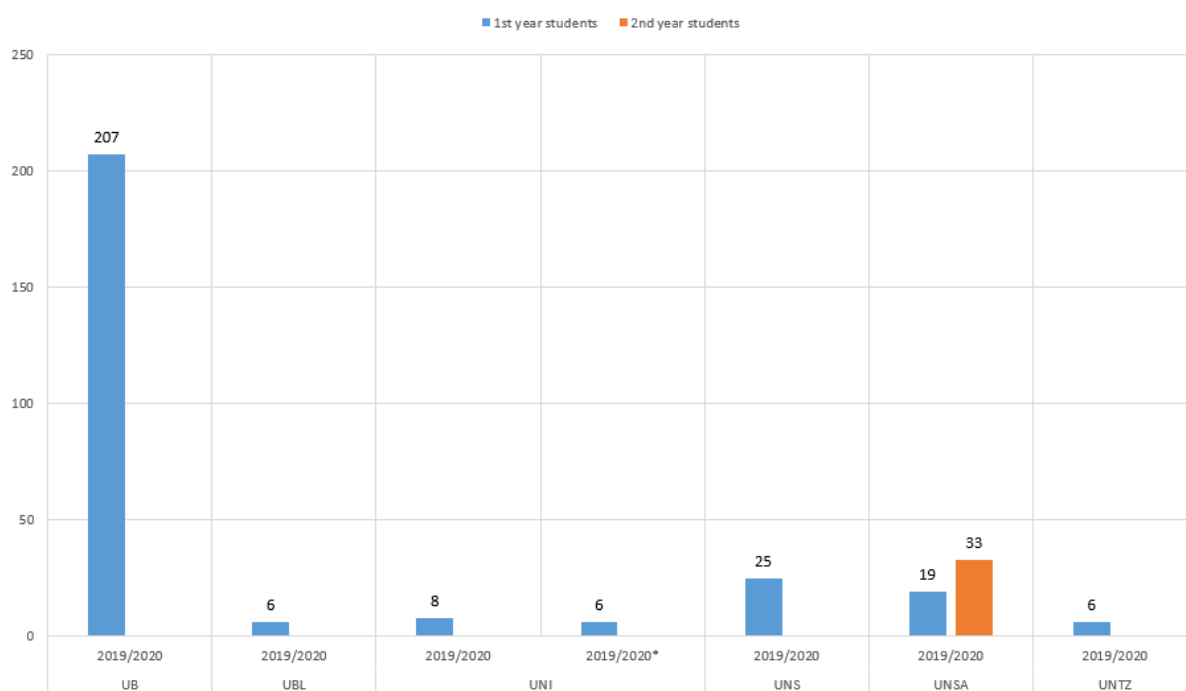


Figure 22: Master study enrolment statistics for 6 universities for 2019/20 school year

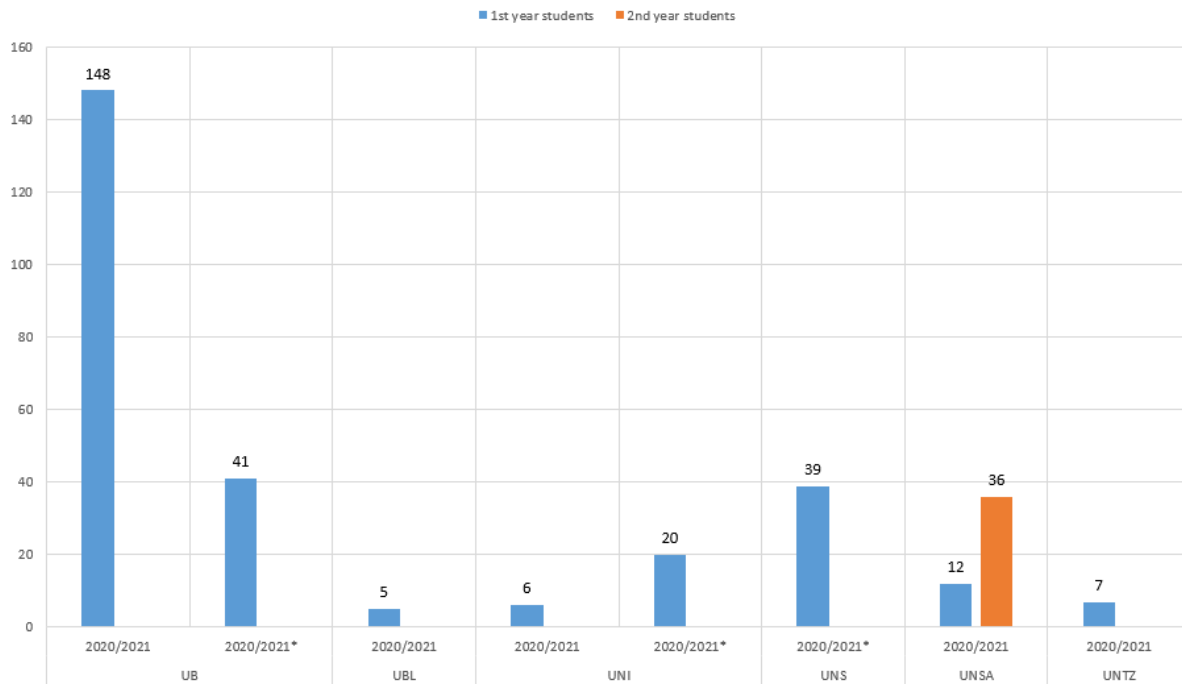


Figure 23: Master study enrolment statistics for 6 universities for 2020/21 school year

Some general observation is that the greatest number of enrolled student at Master level is at UB while the number of enrolled students at Master programme at other 5 Universities is almost the same and slightly increases during the time as the result of project. It should mention that in 2019/20 school year at UNI two Master programmes are run in parallel (\* relates to new accredited study programme), as well as in 2020/21 at UB and UNS.

## 3.2. Graduates employability and employment statistics

### 3.2.1. Employment statistics

Participating Universities belong to regions where a unique sourcing to official employment statistics provided by regional and/or national employment agencies is not available. Therefore, based on regional specifics, participating Universities obtain official statistical data on graduates' employment using their own procedures.

*For Serbia, employment statistics is available at national level. The data obtained from National employment agency are given in the Annex II.*

Table 1 represents statistics for different electrical engineer profiles, including graduated electrical engineer for Telecommunications and Information technologies.

			Unemployed persons		Were employed / employed	
			Total	Women	Total	Women
	712700	Graduated electrical engineer for telecommunications (VII - 1SSS)	18	6	13	4
	712800	Graduated electrical engineer for computer science (VII - 1SSS) / master engineer of electrical engine	6	5	12	4
	712815	master engineer of electrical engineering and computer science	13	3	3	1
	712820	Graduated engineer of electrical engineering and computer science	42	19	8	3
	712839	Graduated engineer of information technologies	5	2	0	0
	712840	Master engineer of information technologies	1	1	0	0
	712845	Graduated engineer of information technologies and systems	1	1	1	1



*Table 1: Statistics for different electrical engineer profiles*

For Bosnia and Herzegovina, adequately detailed employment statistics at national level does not exist. We have tried to collect the obtainable data at regional administrative level for each University.

University of Sarajevo monitors the tentative employment statistics bound to graduates employment through the assistance of the Institute for statistics of Federation BH. The statistical report enlists only critical professions with the highest number of unemployed. The collected information is given for each canton, and UNSA belongs to Canton Sarajevo. Level of education is indicated per column and tertiary (university level) is VSS. From the sample it is evident that the telecommunication/ICT engineers are not on the list of professions critical for unemployment.

*For University of Tuzla, the unemployment statistics is collected and analysed at cantonal level using the data registered by "Employment service of Tuzla Canton" agency. The electrical engineering totals are provided in the Annex II. The information related to telecommunication and ICT engineering graduates are extracted in*

Table 2.

Occupation	Number of unemployed on date 31.12.2018.	Number of persons deleted from unemployment list in 2018.	Number of unemployed on date n 31.12.2019.	Number of persons deleted from unemployment list in 2019.	Number of unemployed on date 31.08.2020.	Number of persons deleted from unemployment list in 2020.
Engineer of Computational Electronics	10	2	1	0	0	0
Engineer of Telecommunications	11	4	4	3	0	0
Engineer of Telecommunication devices and networks	2	4	1	1	0	0
IT expert	5	1	7	4	3	2

*Table 2: Unemployment data for Tuzla kanton*

For University of Banja Luka, information on registered unemployed engineers in the domain of Telecommunications and ICT is unavailable. According to representatives of the University, their students are, at present, being employed immediately after graduation or even earlier, hence there is no evidence of applications to the Employment Bureau (Zavod za zapošljavanje), and the given institution has no statistics on the employment of electrical engineers.

Based on the collected results we may claim that the sole employability of engineers in the domains of telecommunications and ICT, as well as in the overall domain of electrical engineering is at present not critical and it remained as is throughout the duration of the project. The limited methods of monitoring as in use by the employment authorities in Republika Srpska (University of Banja Luka) and in Canton Sarajevo (University of Sarajevo) may not provide a complete set of data, but are still able to provide sufficient level of information in case of a sudden negative change in employment trends.

The main purpose of the project was not to improve the employability of the graduates but to ensure new requirements of the industry will be followed, both to ensure long term employability as well as to maintain a competitive advantage for the employers. However, presented information on employment status of graduates, both for Serbia and Bosnia and Herzegovina, demonstrates that graduated students do not have difficulties in finding jobs.

### 3.3. Student and alumni surveys

#### 3.3.1 Graduate employability survey

Within the framework of the ERASMUS+ KA2 Project BENEFIT, Faculty of Electrical Engineering at University of Tuzla designed the survey specifically to gather data on how many former students have found jobs after enrolling in Communications or Telecommunications study programs. The survey included gathering input from students who have successfully completed one of those two programs. Fifty-one (51) former students responded to the survey. Of the 51 respondents, 49% (N=25) got *bachelor's degree* in Communication, while the remaining 51% (N=26) of respondents got degree in Telecommunications (Figure 24).

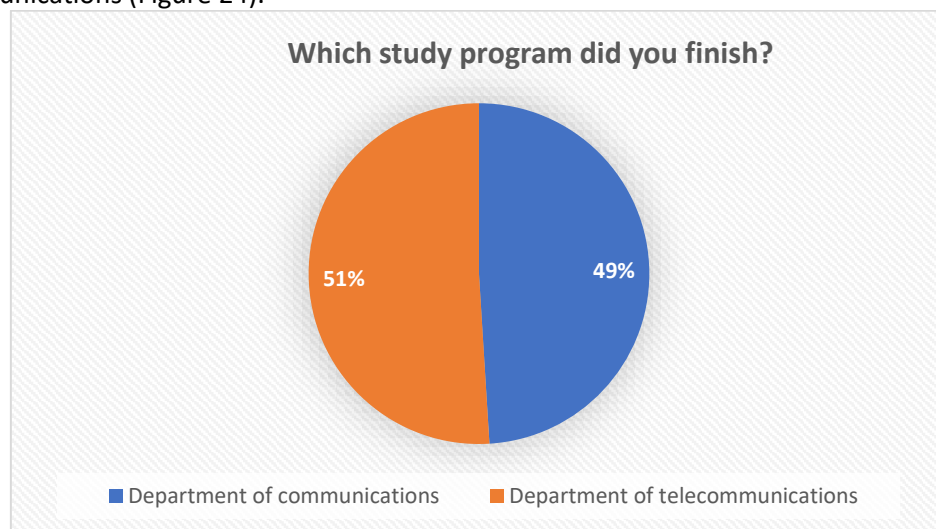


Figure 24 Study program

The majority of respondents (86%) found first job in the companies from Bosnia and Herzegovina, while fewer respondents found first job in the companies from Germany (6%), Austria, Sweden, Slovenia and Belgium (2%) (Figure 25)

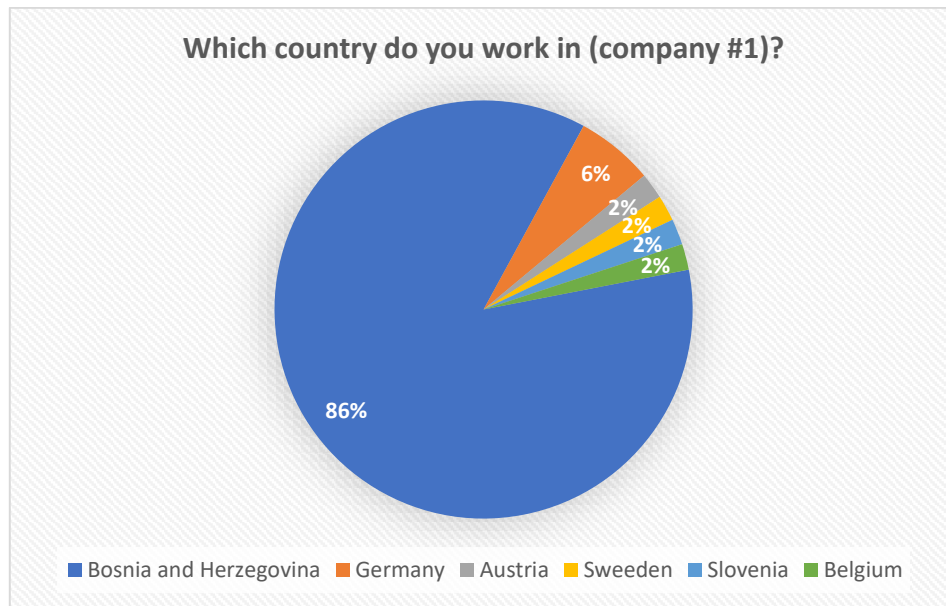


Figure 25 First employment

Additionally, the largest number of respondents worked in Software development (53%) and the rest of respondents worked in Telecommunications 24%, Electronics/embedded 7%, Automaton and Schools 5% and 2% of respondents worked in Technology development, Water industry and as Technical support (Figure 26).

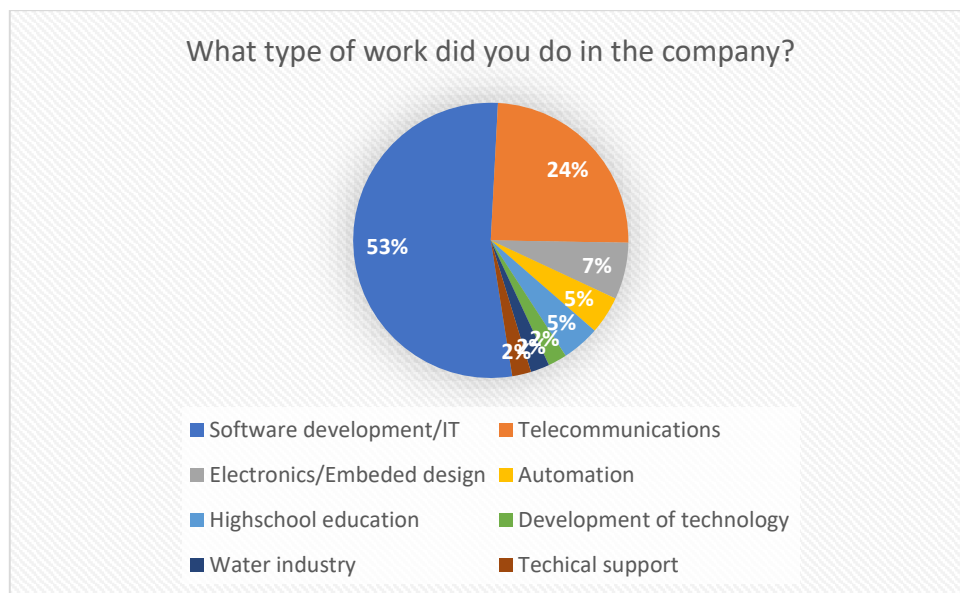


Figure 26 Field of work

Of the 51 respondents, 46% are still working in the same company, while the remaining 54% respondents worked in more than one company (Figure 27).

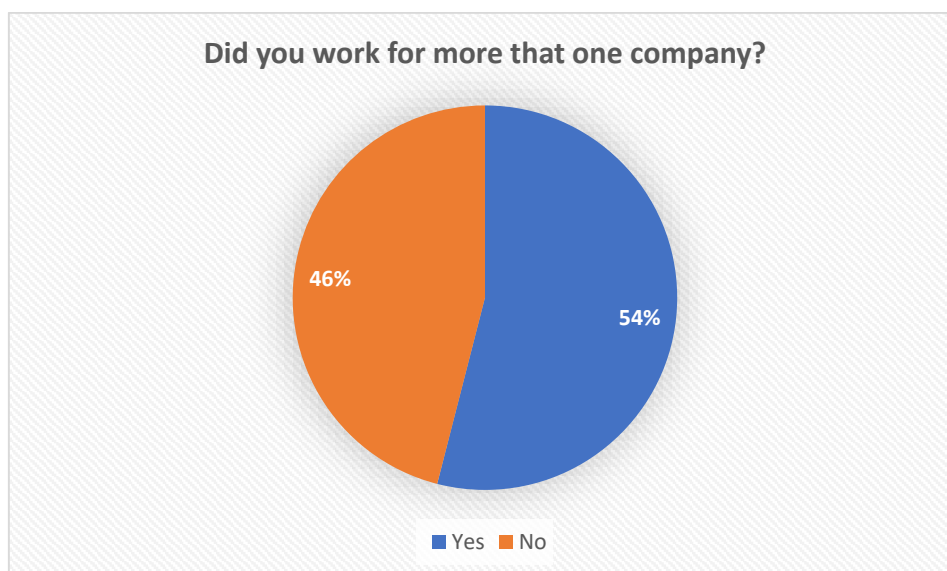


Figure 27 Working for more that one company

Of the 27 respondents who worked in more than one company, 77% worked for the companies from B&H, 12% of respondents found first job in the companies from Germany, 8% Austria and 4% of respondents worked for companies from USA (Figure 28).

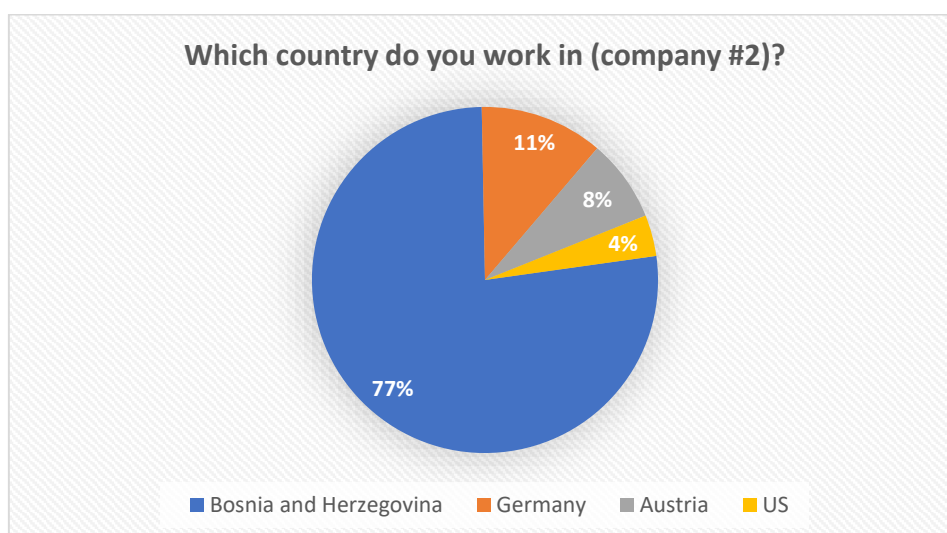


Figure 28 Second company location

The majority of respondents worked in Software development (52%) while others worked in Telecommunications 28%, Electronics/embedded 10%, 7% Teaching assistants and in Sales 3% (Figure 29).

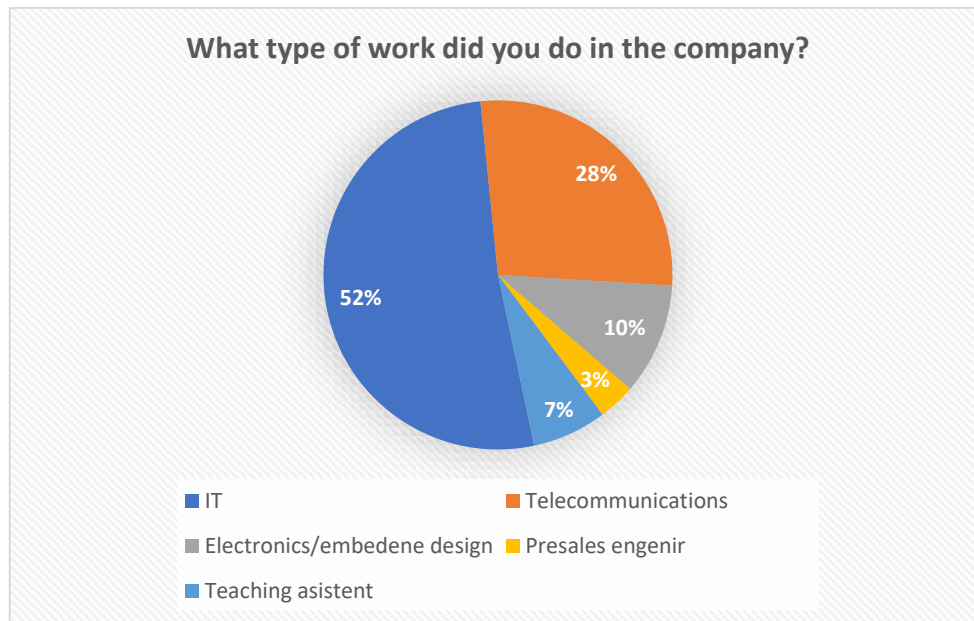


Figure 29 Field of work

Of the 27 respondents who listed their second workplace, 78% are still working in the same company, while the remaining 22% of respondents worked in more than two companies 22% (Figure 30).

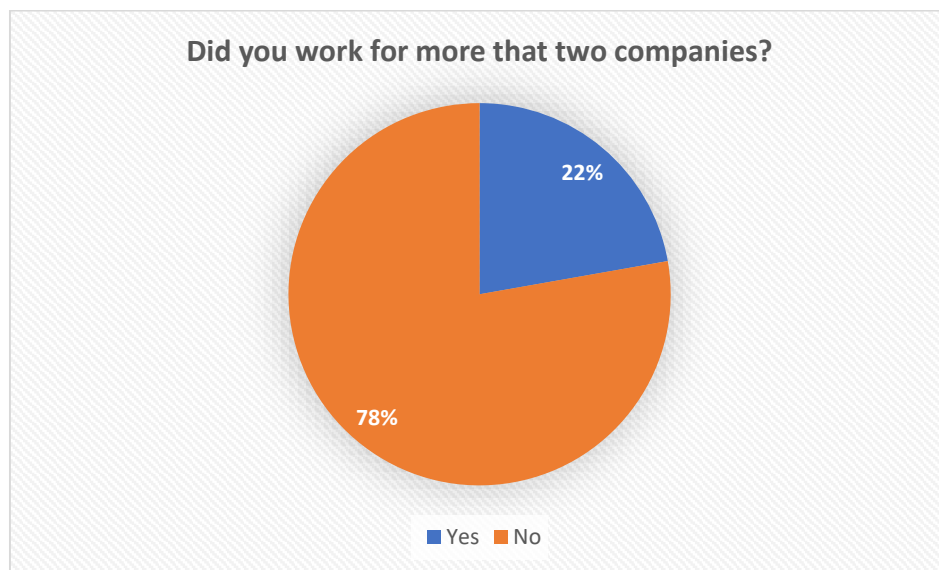


Figure 30 Working for more than two companies

In the last section of survey which is referring to Master degrees study programs and Faculty of electrical engineering at University of Tuzla, out of 52 respondents 29 (55.8%) are already MSc program student, while 22 or (55.8%) respondents finished only BSc program.

Of the 29 respondents who are taking MSc programs, 86% respondents enrolled in an MSc degree program at FET Tuzla, 7% at Ljubljana and 3% at Sweden and (Figure 31).

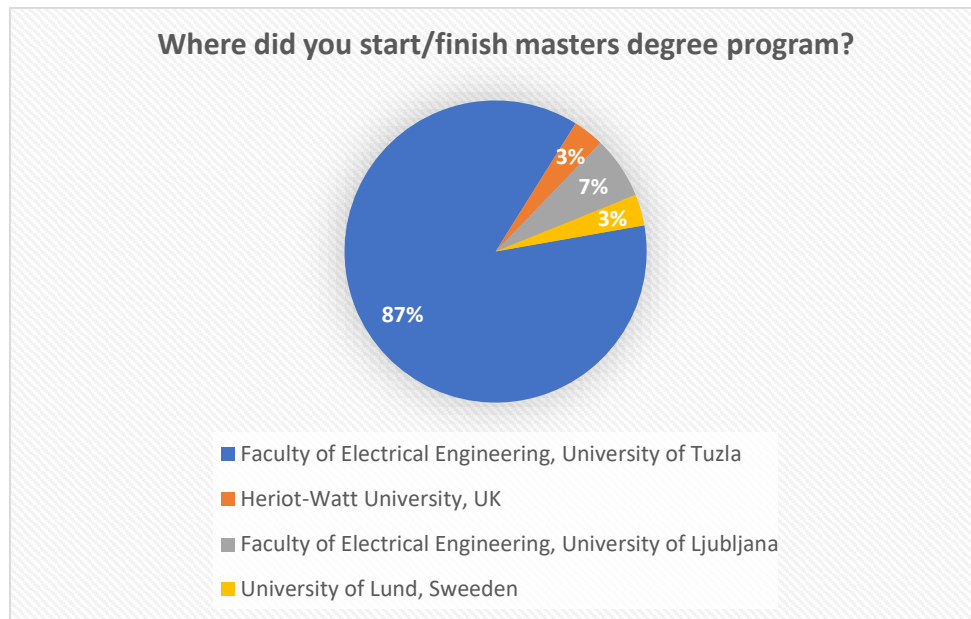


Figure 31 MSc program - location

Of the 22 respondents who finished only BSc program, 52% of respondents are interested in taking MSs program at FET, while 48% of respondents are not interested in applying for any MSs programs (Figure 32).

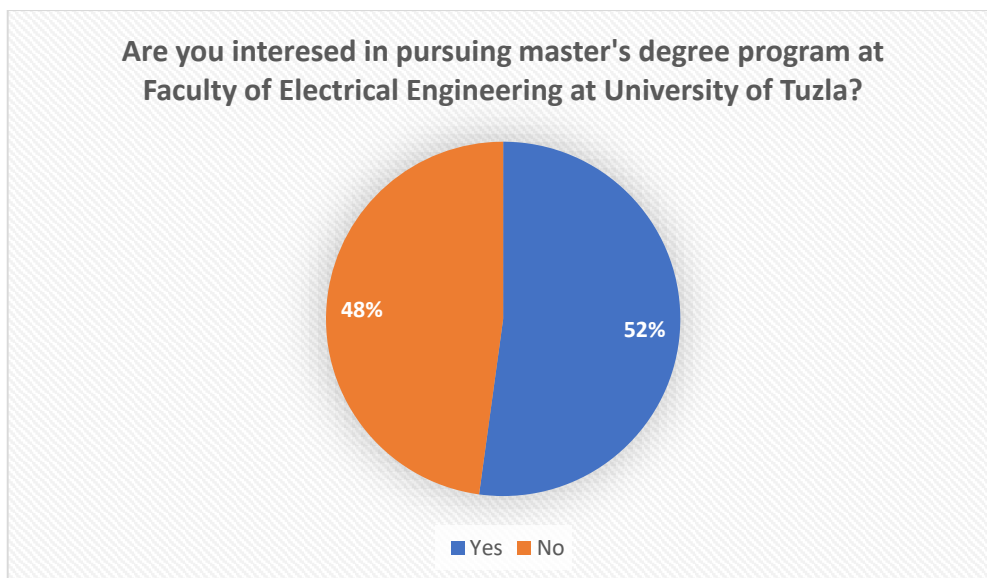
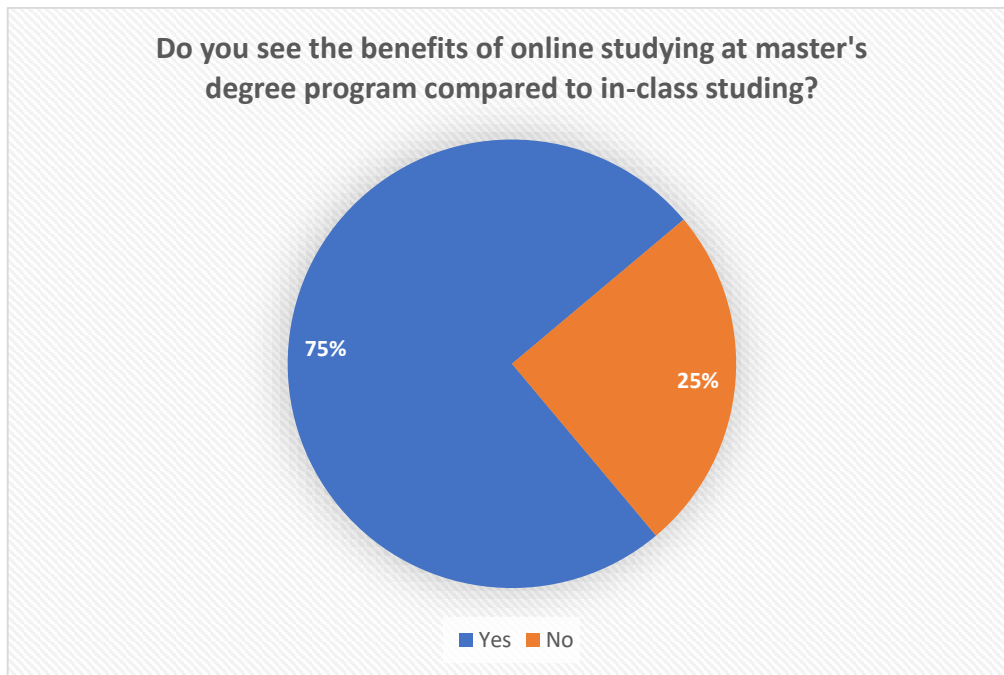


Figure 32 MSc program interest

Of the 51 respondents, 75% of respondents see the benefits of online studying at MSc programs compared to in-class studding (Figure 33).



*Figure 33 Benefits of online studying at MSc program*

### **3.3.2 Course quality evaluation survey**

In order to acquire students' response to adapted courseware we have decided to disseminate a survey among the targeted students on the quality of the implemented material and learning methodologies. We have decided to develop a questionnaire consisting of 8 to 10 questions in a simple format and use it to evaluate quality of the material developed for the course, the learning methodologies and the timeliness of the course. As a starting point, we have utilized a questionnaire that is used in Nis at the end of courses to gather student feedback. As a framework, we have used the LimeSurvey tool offered by UNI-KLU.

The Quality Board has discussed the proposed survey and created some updates to the questionnaire. The survey questions have been prepared in English and later translated to Serbian, Croatian and Bosnian language. The survey consisted of 2 pages. The first page was used to collect information on the University study semester, course and lecturer as taken by the participating student. The second page utilized 9 specific questions to which students had to response on a 5-point Likert scale ranging from Strongly agree (5) to Strongly disagree (1). The question referring laboratory equipment could be left opened as non-applicable regarding the specific course. A complete list of questions is provided in Annex III.

In the period of February 6<sup>th</sup> 2020 to December 13<sup>th</sup>, 2020 a total of 297 valid responses have been collected. These numbers include 132 responses from University of Belgrade, 5 responses from University of Niš, 116 responses from University of Banja Luka, 11 responses from University of Sarajevo and 33 responses from University of Tuzla. Students have evaluated a total of 30 different courses of which 7 were from University of Belgrade, 3 from University of Niš, 10 from University of Banja Luka, 6 from University of Sarajevo and 4 from University of Tuzla.

The overall results demonstrate a high level of student satisfaction in all categories of evaluation. The answer histograms are collected in Figures 34 to 42. In Figures, the x-axis represent student score on a Likert scale while y-axis represent number of student responses belonging to the score.

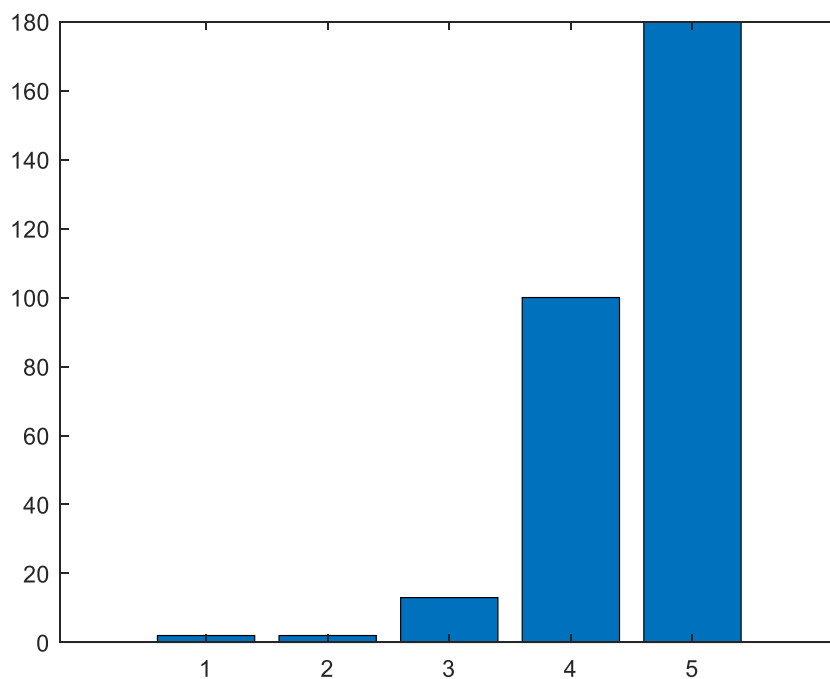


Figure 34: Teaching methods (lectures, exercises, practice, seminars, projects...) correspond to the content of the course

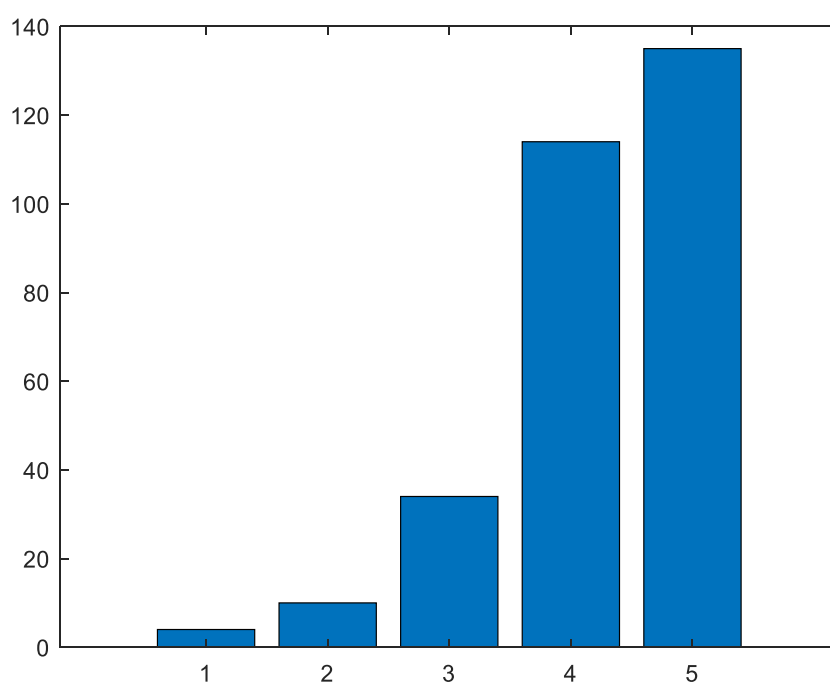


Figure 35: Class was interactive and included timely case studies



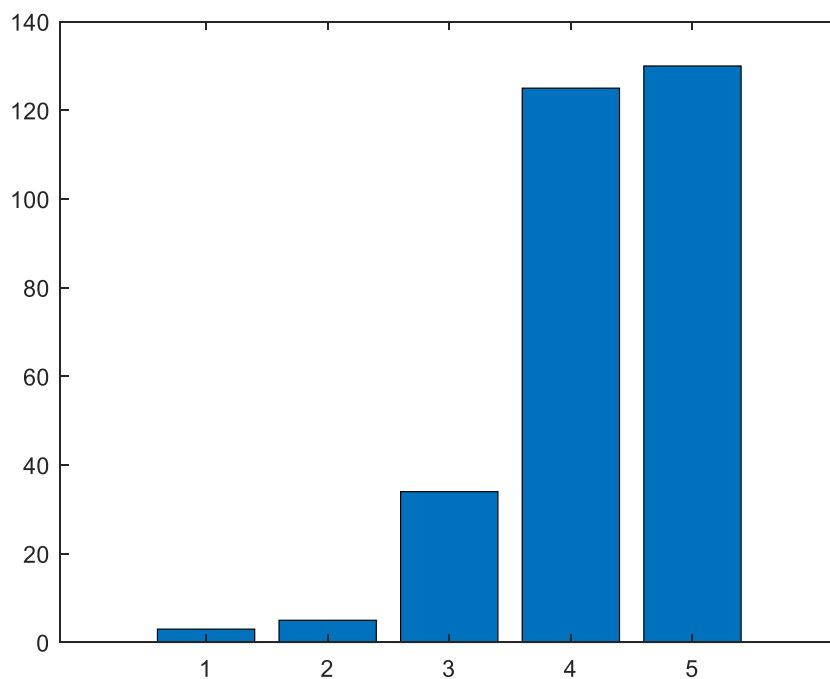


Figure 36: The content of the course provides the expected knowledge and practical skills

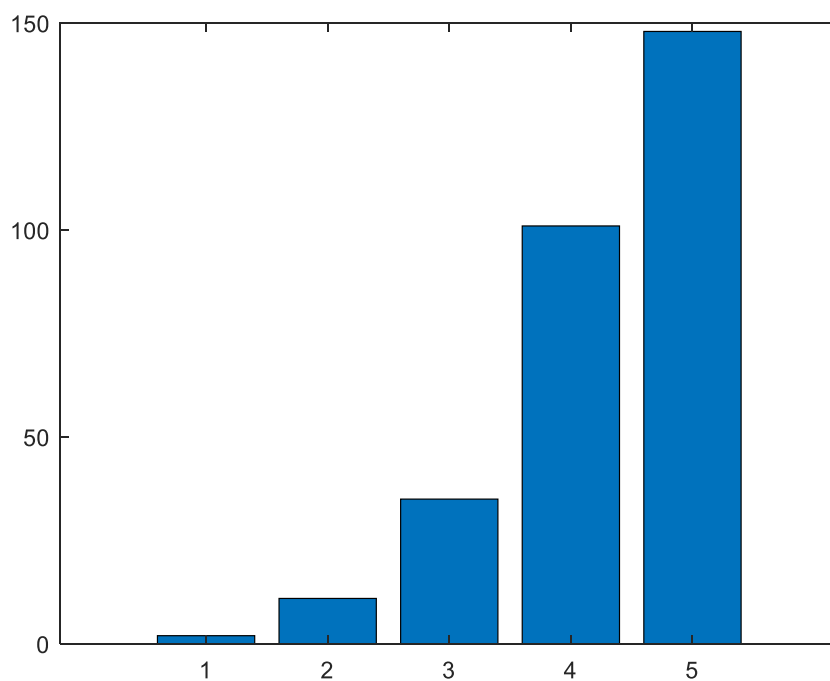


Figure 37: The material of the course is clear, complete and technically sound

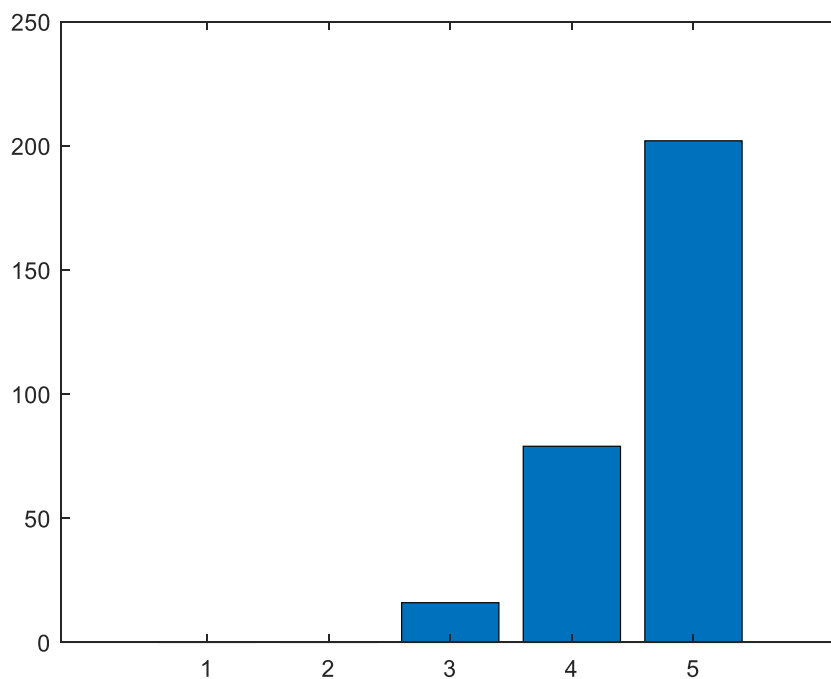


Figure 38: The teaching staff applied the literature provided in the course specification

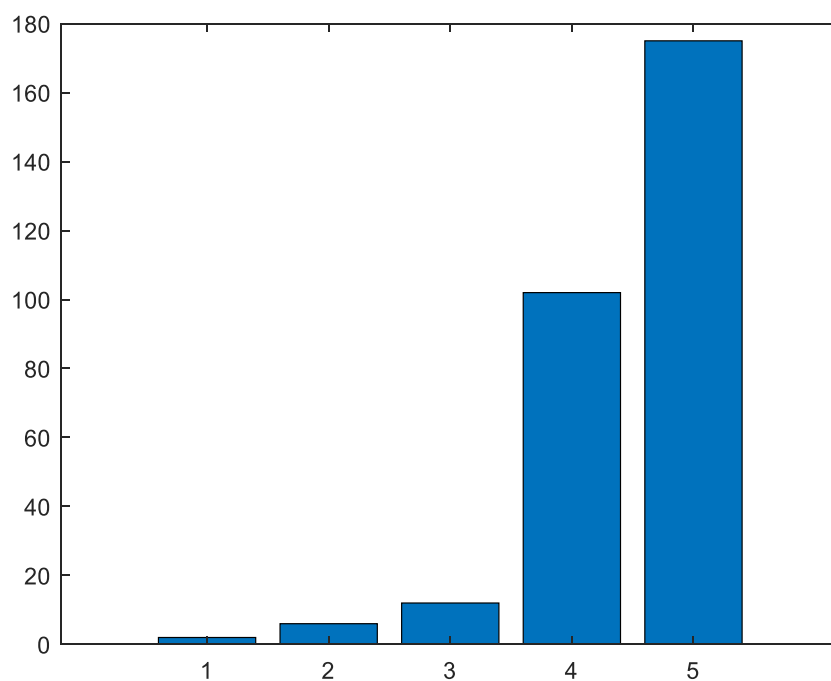


Figure 39: The teaching staff taught efficiently and professionally

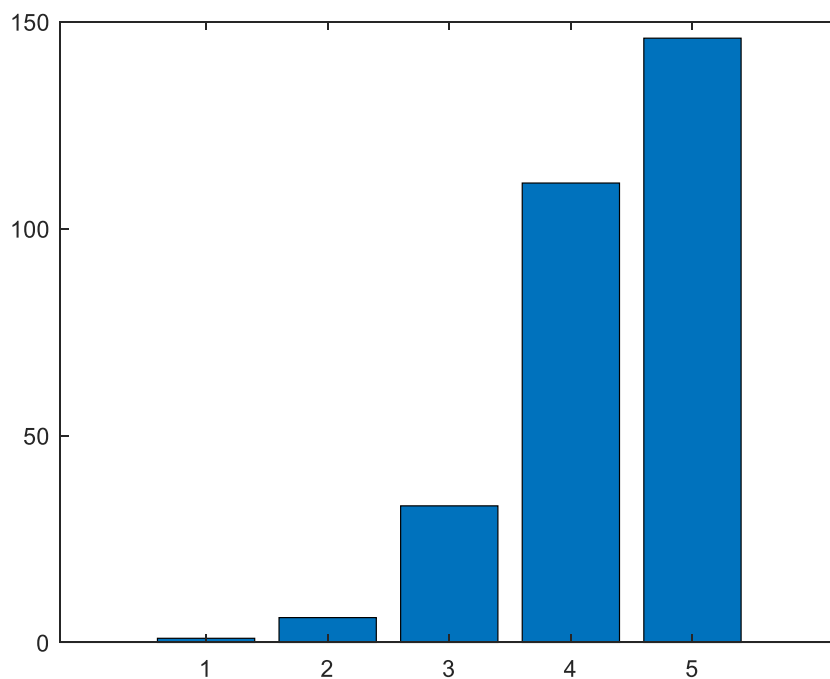


Figure 40: The student workload is in accordance with the proposed amount of ECTS

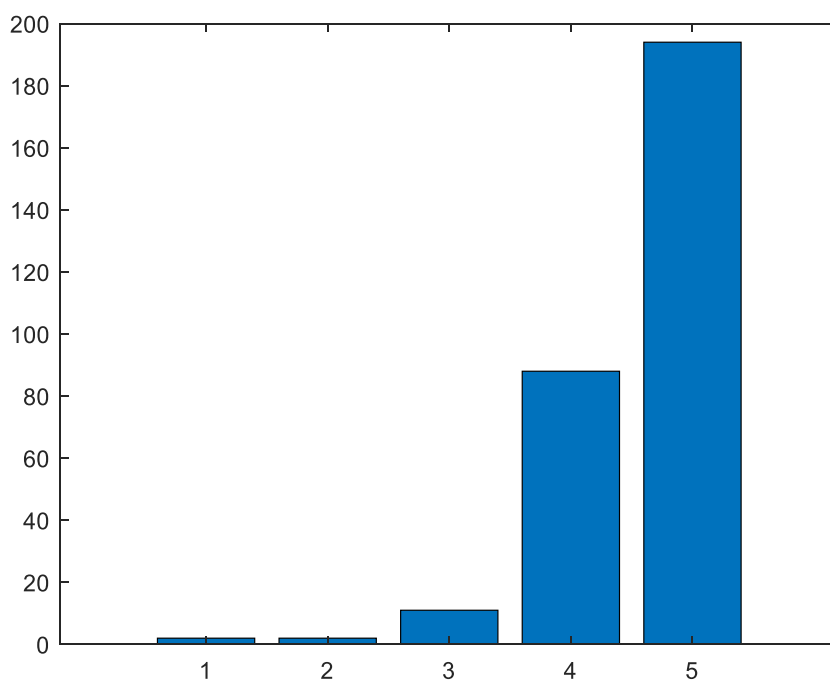


Figure 41: Student evaluation (during course and exam) is done professionally and in accordance with defined criteria

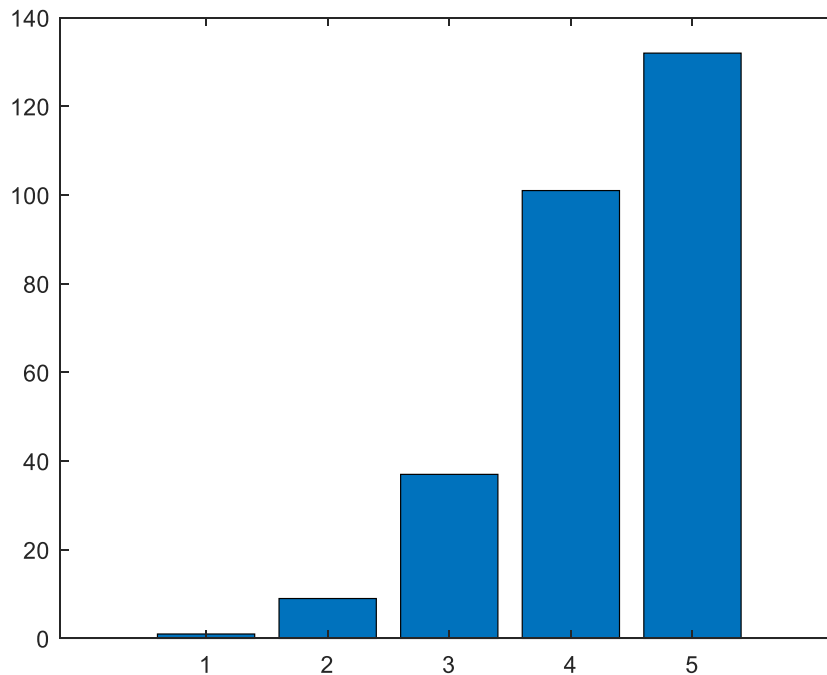


Figure 42: Laboratory equipment and e-tools used in the teaching process adequately support the content of the course

### 3.4. Monitoring Entrepreneurial attitude of graduates.

The presented results were obtained under the task T5.8 “Establish a monitoring system for entrepreneur attitude and newcos created by graduates in telecommunications engineering (by means of surveys, databases, etc.)” within the WP5 “Quality control and monitoring”. The work was coordinated by UL and FERIT who lead the establishment of the presented monitoring system.

As a part of these activities, FERIT has provided the questionnaire about entrepreneurial attitudes of graduates in telecommunications engineering in the partner countries (Bosnia and Herzegovina and Serbia). The draft procedure for evaluation of entrepreneurship attitude of graduates was based on clusters' current practices, base on which the final questionnaire has been developed and disseminated. The questionnaire has been prepared and coordinated with partners from BIT Center, University of Tuzla and University of Novi Sad.

This questionnaire has been prepared in Bosnian language for the final year students of the Electrical Engineering to help them answer the question if they possess the qualities of a successful entrepreneur.

The questionnaire consists of 28 questions (Annex IV. Questionnaire in English language). The questions are selected to check the most common traits of successful entrepreneurs. Every question is graded 0 to 5 points. Maximum number of points that could be collected is 140.

The interpretations of entrepreneurial traits are given at the end of the questionnaire.

The questionnaire has been provided using survey collection tool 1ka (<https://www.1ka.si/>), an open-source tool, in the period from November 2019 to February 2020.

## Score report and short analysis

The total number of students that filled the questionnaire is 61. The distribution of results is presented in Figure 43. As expected, most of the students got between 70 and 90 points (cca 66%), and therefore we could conclude that majority of students have moderate entrepreneur traits. Only 18% of interviewed students obtained more than 90 points.

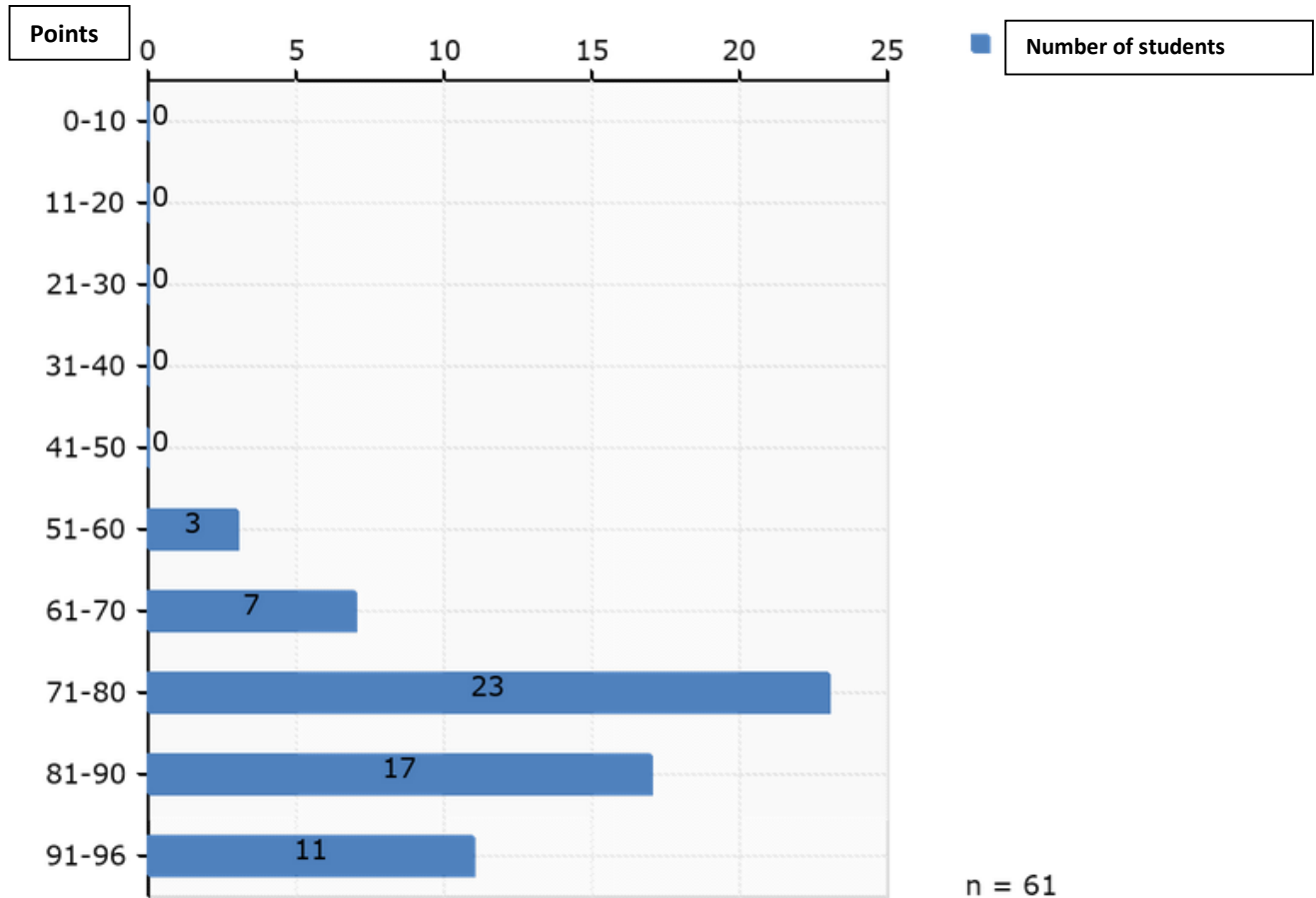


Figure 43: Distribution of students by total number of collected points

The average number of collected points is 79.3 (minimum 57, maximum 96) and standard deviation is 9.91.

The results of questionnaire give us a feedback from students and sort of insight in the attitude of students to enter the job market and also through potential entrepreneurial initiatives as the creation of start-ups.

## 4. Conclusions

As described in the deliverable, the tools and results of students and graduates monitoring are accessible in electronic form on the project's intranet site and are available for continuous monitoring of project success metrics after the project.

This deliverable provides valuable metrics for monitoring the main project goals such as the overall increase of attractiveness of ICT studies and readiness of students for the job market both at corporate and at start-up level.

## **Annexes**

## **Annex I. Student enrolment information**

University	Academic year	Financing	Number of students	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	Total BSc students
UB	School year 2016/2017	Budget financing	total enrolled		59	47	26	132
UB	School year 2016/2017	Budget financing	again enrolled		5	4	1	10
UB	School year 2016/2017	Self-financing	total enrolled		112	60	35	207
UB	School year 2016/2017	Self-financing	again enrolled		61	23	12	96
UB	School year 2017/2018	Budget financing	total enrolled		47	63	37	147
UB	School year 2017/2018	Budget financing	again enrolled		11	4	1	16
UB	School year 2017/2018	Self-financing	total enrolled		109	55	31	195
UB	School year 2017/2018	Self-financing	again enrolled		51	29	6	86
UB	School year 2018/2019	Budget financing	total enrolled		68	60	52	180
UB	School year 2018/2019	Budget financing	again enrolled		13	8	2	23
UB	School year 2018/2019	Self-financing	total enrolled		86	67	25	178
UB	School year 2018/2019	Self-financing	again enrolled		40	35	13	88
UB	School year 2019/2020	Budget financing	total enrolled		84	81	40	205
UB	School year 2019/2020	Budget financing	again enrolled		9	17	3	29
UB	School year 2019/2020	Self-financing	total enrolled		68	58	29	155
UB	School year 2019/2020	Self-financing	again enrolled		42	39	10	91
UB	School year 2020/2021	Budget financing	total enrolled		71	91	52	214
UB	School year 2020/2021	Budget financing	again enrolled		14	15	4	33
UB	School year 2020/2021	Self-financing	total enrolled		82	59	38	179
UB	School year 2020/2021	Self-financing	again enrolled		29	33	19	81
UNI	School year 2016/2017	Budget financing	total enrolled		6	7	9	22
UNI	School year 2016/2017	Budget financing	again enrolled		0	0	5	5
UNI	School year 2016/2017	Self-financing	total enrolled		4	0	4	8



University	Academic year	Financing	Number of students	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	Total BSc students
UNI	School year 2016/2017	Self-financing	again enrolled		2	0	4	6
UNI	School year 2017/2018	Budget financing	total enrolled		3	6	9	18
UNI	School year 2017/2018	Budget financing	again enrolled		0	0	1	1
UNI	School year 2017/2018	Self-financing	total enrolled		2	2	9	13
UNI	School year 2017/2018	Self-financing	again enrolled		0	0	5	5
UNI	School year 2018/2019	Budget financing	total enrolled		1	3	11	15
UNI	School year 2018/2019	Budget financing	again enrolled		0	0	3	3
UNI	School year 2018/2019	Self-financing	total enrolled		1	1	8	10
UNI	School year 2018/2019	Self-financing	again enrolled		0	0	7	7
UNI	School year 2019/2020	Budget financing	total enrolled		1	2	5	8
UNI	School year 2019/2020	Budget financing	again enrolled		0	0	2	2
UNI	School year 2019/2020	Self-financing	total enrolled		1	1	11	13
UNI	School year 2019/2020	Self-financing	again enrolled		0	0	10	10
UNI	School year 2020/2021	Budget financing	total enrolled		6	2	3	11
UNI	School year 2020/2021	Budget financing	again enrolled		0	0	0	0
UNI	School year 2020/2021	Self-financing	total enrolled		1	1	3	5
UNI	School year 2020/2021	Self-financing	again enrolled		0	0	3	3
UNS	School year 2016/2017	Budget financing	total enrolled		9	10	9	28
UNS	School year 2016/2017	Budget financing	again enrolled		0	0	0	0
UNS	School year 2016/2017	Self-financing	total enrolled		13	13	27	53
UNS	School year 2016/2017	Self-financing	again enrolled		0	0	0	0
UNS	School year 2017/2018	Budget financing	total enrolled		21	13	10	44
UNS	School year 2017/2018	Budget financing	again enrolled		0	0	0	0

University	Academic year	Financing	Number of students	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	Total BSc students
UNS	School year 2017/2018	Self-financing	total enrolled		8	7	18	33
UNS	School year 2017/2018	Self-financing	again enrolled		0	0	0	0
UNS	School year 2018/2019	Budget financing	total enrolled		11	24	15	50
UNS	School year 2018/2019	Budget financing	again enrolled		0	0	0	0
UNS	School year 2018/2019	Self-financing	total enrolled		13	6	25	44
UNS	School year 2018/2019	Self-financing	again enrolled		0	0	0	0
UNS	School year 2019/2020	Budget financing	total enrolled		15	15	23	53
UNS	School year 2019/2020	Budget financing	again enrolled		0	0	0	0
UNS	School year 2019/2020	Self-financing	total enrolled		8	10	27	45
UNS	School year 2019/2020	Self-financing	again enrolled		0	0	0	0
UNS	School year 2020/2021	Budget financing	total enrolled		15	28	57	100
UNS	School year 2020/2021	Budget financing	again enrolled		1	4	35	40
UNS	School year 2020/2021	Self-financing	total enrolled		0	0	0	0
UNS	School year 2020/2021	Self-financing	again enrolled		0	0	0	0
UBL	School year 2016/2017	Budget financing	total enrolled	117	32	18	7	174
UBL	School year 2016/2017	Budget financing	again enrolled	64	11	7	0	82
UBL	School year 2016/2017	Self-financing	total enrolled	0	0	0	0	0
UBL	School year 2016/2017	Self-financing	again enrolled	0	0	0	0	0
UBL	School year 2017/2018	Budget financing	total enrolled	109	33	3	1	146
UBL	School year 2017/2018	Budget financing	again enrolled	56	23	2	0	81
UBL	School year 2017/2018	Self-financing	total enrolled	0	0	0	0	0
UBL	School year 2017/2018	Self-financing	again enrolled	0	0	0	0	0
UBL	School year 2018/2019	Budget financing	total enrolled	82	29	8	1	120

University	Academic year	Financing	Number of students	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	Total BSc students
UBL	School year 2018/2019	Budget financing	again enrolled	40	21	2	0	63
UBL	School year 2018/2019	Self-financing	total enrolled	0	0	0	0	0
UBL	School year 2018/2019	Self-financing	again enrolled	0	0	0	0	0
UBL	School year 2019/2020	Budget financing	total enrolled	58	28	7	6	99
UBL	School year 2019/2020	Budget financing	again enrolled	23	13	2	0	38
UBL	School year 2019/2020	Self-financing	total enrolled	0	0	0	0	0
UBL	School year 2019/2020	Self-financing	again enrolled	0	0	0	0	0
UBL	School year 2020/2021	Budget financing	total enrolled	81	20	6	5	112
UBL	School year 2020/2021	Budget financing	again enrolled	31	13	2	0	46
UBL	School year 2020/2021	Self-financing	total enrolled	0	0	0	0	0
UBL	School year 2020/2021	Self-financing	again enrolled	0	0	0	0	0
UNSA	School year 2016/2017	Budget financing	total enrolled	48	9	19	0	76
UNSA	School year 2016/2017	Budget financing	again enrolled	23	2	3	0	28
UNSA	School year 2016/2017	Self-financing	total enrolled	75	11	12	0	98
UNSA	School year 2016/2017	Self-financing	again enrolled	42	3	5	0	50
UNSA	School year 2017/2018	Budget financing	total enrolled	37	17	11		65
UNSA	School year 2017/2018	Budget financing	again enrolled	12	1	2	0	15
UNSA	School year 2017/2018	Self-financing	total enrolled	70	15	12	0	97
UNSA	School year 2017/2018	Self-financing	again enrolled	46	2	6	0	54
UNSA	School year 2018/2019	Budget financing	total enrolled	40	9	19	0	68
UNSA	School year 2018/2019	Budget financing	again enrolled	15	1	3	0	19
UNSA	School year 2018/2019	Self-financing	total enrolled	64	14	12	0	90
UNSA	School year 2018/2019	Self-financing	again enrolled	32	8	5	0	45

University	Academic year	Financing	Number of students	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	Total BSc students
UNSA	School year 2019/2020	Budget financing	total enrolled	41	4	9	0	54
UNSA	School year 2019/2020	Budget financing	again enrolled	16	1	3	0	20
UNSA	School year 2019/2020	Self-financing	total enrolled	46	20	6	0	72
UNSA	School year 2019/2020	Self-financing	again enrolled	43	13	4	0	60
UNSA	School year 2020/2021	Budget financing	total enrolled	27	30	20	0	77
UNSA	School year 2020/2021	Budget financing	again enrolled	23	1	5	0	29
UNSA	School year 2020/2021	Self-financing	total enrolled	0	0	0	0	0
UNSA	School year 2020/2021	Self-financing	again enrolled	0	0	0	0	0
UNTZ	School year 2016/2017	Budget financing	total enrolled		30	33	18	81
UNTZ	School year 2016/2017	Budget financing	again enrolled		7	10	0	17
UNTZ	School year 2016/2017	Self-financing	total enrolled		4	0	0	4
UNTZ	School year 2016/2017	Self-financing	again enrolled		4	0	0	4
UNTZ	School year 2017/2018	Budget financing	total enrolled		45	27	19	91
UNTZ	School year 2017/2018	Budget financing	again enrolled		18	13	0	31
UNTZ	School year 2017/2018	Self-financing	total enrolled		0	1	0	1
UNTZ	School year 2017/2018	Self-financing	again enrolled		0	1		1
UNTZ	School year 2018/2019	Budget financing	total enrolled		39	16	30	85
UNTZ	School year 2018/2019	Budget financing	again enrolled		27	0	0	27
UNTZ	School year 2018/2019	Self-financing	total enrolled		0	0	0	0
UNTZ	School year 2018/2019	Self-financing	again enrolled		0	0	0	0
UNTZ	School year 2019/2020	Budget financing	total enrolled		36	24	11	71
UNTZ	School year 2019/2020	Budget financing	again enrolled		18	5	0	23
UNTZ	School year 2019/2020	Self-financing	total enrolled		1	0	0	1

University	Academic year	Financing	Number of students	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	Total BSc students
UNTZ	School year 2019/2020	Self-financing	again enrolled		1	0	0	1
UNTZ	School year 2020/2021	Budget financing	total enrolled		51	35	24	110
UNTZ	School year 2020/2021	Budget financing	again enrolled		1	0	0	1
UNTZ	School year 2020/2021	Self-financing	total enrolled		1	0	0	1
UNTZ	School year 2020/2021	Self-financing	again enrolled		1	0	0	1

University	Academic year	Financing	Number of students	1 <sup>st</sup> year	2 <sup>nd</sup> year	Total MSc students
UB	2016/2017	Budget financing	total enrolled	41		41
UB	2016/2017	Budget financing	again enrolled	1		1
UB	2016/2017	Self-financing	total enrolled	120		120
UB	2016/2017	Self-financing	again enrolled	92		92
UB	2017/2018	Budget financing	total enrolled	42		42
UB	2017/2018	Budget financing	again enrolled	0		0
UB	2017/2018	Self-financing	total enrolled	84		84
UB	2017/2018	Self-financing	again enrolled	62		62
UB	2018/2019	Budget financing	total enrolled	42		42
UB	2018/2019	Budget financing	again enrolled	0		0
UB	2018/2019	Self-financing	total enrolled	72		72
UB	2018/2019	Self-financing	again enrolled	48		48
UB	2019/2020	Budget financing	total enrolled	86		86
UB	2019/2020	Budget financing	again enrolled	34		34
UB	2019/2020	Self-financing	total enrolled	55		55
UB	2019/2020	Self-financing	again enrolled	32		32
UB	2020/2021	Budget financing	total enrolled	38		38
UB	2020/2021	Budget financing	again enrolled	38		38
UB	2020/2021	Self-financing	total enrolled	36		36
UB	2020/2021	Self-financing	again enrolled	36		36

University	Academic year	Financing	Number of students	1 <sup>st</sup> year	2 <sup>nd</sup> year	Total MSc students
UB	2020/2021*	Budget financing	total enrolled	40		40
UB	2020/2021*	Budget financing	again enrolled	0		0
UB	2020/2021*	Self-financing	total enrolled	1		1
UB	2020/2021*	Self-financing	again enrolled	0		0
UNI	2016/2017	Budget financing	total enrolled	33		33
UNI	2016/2017	Budget financing	again enrolled	0		0
UNI	2016/2017	Self-financing	total enrolled	14		14
UNI	2016/2017	Self-financing	again enrolled	14		14
UNI	2017/2018	Budget financing	total enrolled	8		8
UNI	2017/2018	Budget financing	again enrolled	0		0
UNI	2017/2018	Self-financing	total enrolled	18		18
UNI	2017/2018	Self-financing	again enrolled	18		18
UNI	2018/2019	Budget financing	total enrolled	7		7
UNI	2018/2019	Budget financing	again enrolled	0		0
UNI	2018/2019	Self-financing	total enrolled	7		7
UNI	2018/2019	Self-financing	again enrolled	6		6
UNI	2019/2020	Budget financing	total enrolled	0		0
UNI	2019/2020	Budget financing	again enrolled	0		0
UNI	2019/2020	Self-financing	total enrolled	4		4
UNI	2019/2020	Self-financing	again enrolled	4		4
UNI	2019/2020*	Budget financing	total enrolled	6		6
UNI	2019/2020*	Budget financing	again enrolled	0		0
UNI	2019/2020*	Self-financing	total enrolled	0		0
UNI	2019/2020*	Self-financing	again enrolled	0		0
UNI	2020/2021	Budget financing	total enrolled	0		0
UNI	2020/2021	Budget financing	again enrolled	0		0
UNI	2020/2021	Self-financing	total enrolled	3		3
UNI	2020/2021	Self-financing	again enrolled	3		3
UNI	2020/2021*	Budget financing	total enrolled	11		11
UNI	2020/2021*	Budget financing	again enrolled	0		0

University	Academic year	Financing	Number of students	1 <sup>st</sup> year	2 <sup>nd</sup> year	Total MSc students
UNI	2020/2021*	Self-financing	total enrolled	5		5
UNI	2020/2021*	Self-financing	again enrolled	4		4
UNS	2016/2017	Budget financing	total enrolled	14		14
UNS	2016/2017	Budget financing	again enrolled	0		0
UNS	2016/2017	Self-financing	total enrolled	14		14
UNS	2016/2017	Self-financing	again enrolled	0		0
UNS	2017/2018	Budget financing	total enrolled	7		7
UNS	2017/2018	Budget financing	again enrolled	0		0
UNS	2017/2018	Self-financing	total enrolled	7		7
UNS	2017/2018	Self-financing	again enrolled	0		0
UNS	2018/2019	Budget financing	total enrolled	15		15
UNS	2018/2019	Budget financing	again enrolled	0		0
UNS	2018/2019	Self-financing	total enrolled	6		6
UNS	2018/2019	Self-financing	again enrolled	0		0
UNS	2019/2020	Budget financing	total enrolled	17		17
UNS	2019/2020	Budget financing	again enrolled	0		0
UNS	2019/2020	Self-financing	total enrolled	8		8
UNS	2019/2020	Self-financing	again enrolled	0		0
UNS	2020/2021*	Budget financing	total enrolled	30		30
UNS	2020/2021*	Budget financing	again enrolled	9		9
UNS	2020/2021*	Self-financing	total enrolled	0		0
UNS	2020/2021*	Self-financing	again enrolled	0		0
UBL	2016/2017	Budget financing	total enrolled	0		0
UBL	2016/2017	Budget financing	again enrolled	0		0
UBL	2016/2017	Self-financing	total enrolled	0		0
UBL	2016/2017	Self-financing	again enrolled	0		0
UBL	2017/2018	Budget financing	total enrolled	4		4
UBL	2017/2018	Budget financing	again enrolled	0		0
UBL	2017/2018	Self-financing	total enrolled	1		1
UBL	2017/2018	Self-financing	again enrolled	0		0
UBL	2018/2019	Budget financing	total enrolled	0		0

University	Academic year	Financing	Number of students	1 <sup>st</sup> year	2 <sup>nd</sup> year	Total MSc students
UBL	2018/2019	Budget financing	again enrolled	0		0
UBL	2018/2019	Self-financing	total enrolled	0		0
UBL	2018/2019	Self-financing	again enrolled	0		0
UBL	2019/2020	Budget financing	total enrolled	5		5
UBL	2019/2020	Budget financing	again enrolled	0		0
UBL	2019/2020	Self-financing	total enrolled	1		1
UBL	2019/2020	Self-financing	again enrolled	0		0
UBL	2020/2021	Budget financing	total enrolled	5		5
UBL	2020/2021	Budget financing	again enrolled	0		0
UBL	2020/2021	Self-financing	total enrolled	0		0
UBL	2020/2021	Self-financing	again enrolled	0		0
UNSA	2016/2017	Budget financing	total enrolled	18	27	45
UNSA	2016/2017	Budget financing	again enrolled	1	7	8
UNSA	2016/2017	Self-financing	total enrolled	3	9	12
UNSA	2016/2017	Self-financing	again enrolled	3	8	11
UNSA	2017/2018	Budget financing	total enrolled	21	16	37
UNSA	2017/2018	Budget financing	again enrolled	3	4	7
UNSA	2017/2018	Self-financing	total enrolled	1	5	6
UNSA	2017/2018	Self-financing	again enrolled	1	3	4
UNSA	2018/2019	Budget financing	total enrolled	14	27	41
UNSA	2018/2019	Budget financing	again enrolled	2	12	14
UNSA	2018/2019	Self-financing	total enrolled	1	2	3
UNSA	2018/2019	Self-financing	again enrolled	1	2	3
UNSA	2019/2020	Budget financing	total enrolled	19	22	41
UNSA	2019/2020	Budget financing	again enrolled	0	9	9
UNSA	2019/2020	Self-financing	total enrolled	0	1	1
UNSA	2019/2020	Self-financing	again enrolled	0	1	1
UNSA	2020/2021	Budget financing	total enrolled	11	27	38
UNSA	2020/2021	Budget financing	again enrolled	1	9	10
UNSA	2020/2021	Self-financing	total enrolled	0	0	0
UNSA	2020/2021	Self-financing	again enrolled	0	0	0



University	Academic year	Financing	Number of students	1 <sup>st</sup> year	2 <sup>nd</sup> year	Total MSc students
UNTZ	2016/2017	Budget financing	total enrolled	10	0	10
UNTZ	2016/2017	Budget financing	again enrolled	0		0
UNTZ	2016/2017	Self-financing	total enrolled	0		0
UNTZ	2016/2017	Self-financing	again enrolled	0		0
UNTZ	2017/2018	Budget financing	total enrolled	9		9
UNTZ	2017/2018	Budget financing	again enrolled	0		0
UNTZ	2017/2018	Self-financing	total enrolled	0		0
UNTZ	2017/2018	Self-financing	again enrolled	0		0
UNTZ	2018/2019	Budget financing	total enrolled	4		4
UNTZ	2018/2019	Budget financing	again enrolled	0		0
UNTZ	2018/2019	Self-financing	total enrolled	0		0
UNTZ	2018/2019	Self-financing	again enrolled	0		0
UNTZ	2019/2020	Budget financing	total enrolled	6		6
UNTZ	2019/2020	Budget financing	again enrolled	0		0
UNTZ	2019/2020	Self-financing	total enrolled	0		0
UNTZ	2019/2020	Self-financing	again enrolled	0		0
UNTZ	2020/2021	Budget financing	total enrolled	7		7
UNTZ	2020/2021	Budget financing	again enrolled	0		0
UNTZ	2020/2021	Self-financing	total enrolled	0		0
UNTZ	2020/2021	Self-financing	again enrolled	0		0

It should indicate that the first number in cells in all tables included below represents the first time enrolled students for Universities in BiH (UBL, UNSA, UNTZ), whereas for the statistics given for Universities in Serbia (UB, UNI, UNS) the first number in all cells represents total enrolled students.

**BiH – University of Tuzla**

**Undergraduate study-Study program: Electrical Engineering and Computer Science, Module: Telecommunications**

School year 2016/2017	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	23 (again enrolled - 7)	23 (again enrolled - 10)	18
Self-financing	0 (again enrolled – 4)	0	0

School year 2017/2018	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	27 (again enrolled-18)	14 (again enrolled - 13)	19
Self-financing	0	0 (again enrolled - 1)	

School year 2018/2019	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	12 (again enrolled - 27)	16	30
Self-financing	0	0	0

School year 2019/2020	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	18 (again enrolled - 18)	19 (again enrolled - 5)	11
Self-financing	0 (again enrolled - 1)	0	0

School year 2020/2021	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	51 (again enrolled - 1)	35 (again enrolled - 0)	24
Self-financing	1 (again enrolled - 1)	0	0

**Master Academic Study-Study program: Telecommunications**

School year 2016/2017	1 <sup>st</sup> year
Budget financing	10
Self-financing	

School year 2017/2018	1 <sup>st</sup> year
Budget financing	9
Self-financing	

School year 2018/2019	1 <sup>st</sup> year
Budget financing	4
Self-financing	

School year 2019/2020	1 <sup>st</sup> year
Budget financing	6
Self-financing	

School year 2020/2021	1 <sup>st</sup> year
Budget financing	7
Self-financing	0

**BiH – University of Sarajevo****Undergraduate study-Study program: Telecommunications**

School year 2016/2017	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year
Budget financing	25 (again enrolled - 23)	7 (again enrolled - 2)	16 (again enrolled - 3)
Self-financing	33 (again enrolled - 42)	8 (again enrolled - 3)	7 (again enrolled - 5)

School year 2017/2018	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year
Budget financing	25 (again enrolled - 12)	16 (again enrolled - 1)	9 (again enrolled - 2)
Self-financing	24 (again enrolled - 46)	13 (again enrolled - 2)	6 (again enrolled - 6)

School year 2018/2019	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year
Budget financing	25 (again enrolled - 15)	8 (again enrolled - 1)	16 (again enrolled - 3)
Self-financing	32 (again enrolled - 32)	6 (again enrolled - 8)	7 (again enrolled - 5)

School year 2019/2020	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year
Budget financing	25 (again enrolled - 16)	3 (again enrolled - 1)	6 (again enrolled - 3)
Self-financing	3 (again enrolled - 43)	7 (again enrolled - 13)	2 (again enrolled - 4)

School year 2020/2021	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year
Budget financing	27 (again enrolled - 23)	30 (again enrolled - 1)	20 (again enrolled - 5)
Self-financing	0		

**Master Academic Study-Study program: Telecommunications**

School year 2016/2017	1 <sup>st</sup> year	2 <sup>nd</sup> year
Budget financing	17 (again enrolled - 1)	20 (again enrolled - 7)
Self-financing	0 (again enrolled - 3)	1 (again enrolled - 8)

School year 2017/2018	1 <sup>st</sup> year	2 <sup>nd</sup> year
Budget financing	18 (again enrolled - 3)	12 (again enrolled - 4)
Self-financing	0 (again enrolled - 1)	2 (again enrolled - 3)

School year 2018/2019	1 <sup>st</sup> year	2 <sup>nd</sup> year
Budget financing	12 (again enrolled - 2)	15 (again enrolled - 12)
Self-financing	0 (again enrolled - 1)	0 (again enrolled - 2)

School year 2019/2020	1 <sup>st</sup> year	2 <sup>nd</sup> year
Budget financing	19 (again enrolled - 0)	13 (again enrolled - 9)
Self-financing	0 (again enrolled - 0)	0 (again enrolled - 1)

School year 2020/2021	1 <sup>st</sup> year	2 <sup>nd</sup> year
Budget financing	10 (again enrolled - 1)	18 (again enrolled - 9)
Self-financing	0 (again enrolled - 0)	0 (again enrolled - 1)

**BiH – University of Banja Luka****Undergraduate study – Study program: Electronics and Telecommunications, Module: Telecommunications**

School year 2016/2017	1 <sup>st</sup> year (study program)	2 <sup>nd</sup> year (study program)	3 <sup>rd</sup> year (study program)	4 <sup>th</sup> year (study program)
Budget financing	53 (64 re-enrolled)	21 (11 re-enrolled)	11 (7 re-enrolled)	7
Self-financing	0	0	0	0

School year 2017/2018	1 <sup>st</sup> year (study program)	2 <sup>nd</sup> year (study program)	3 <sup>rd</sup> year (module)	4 <sup>th</sup> year (module)
Budget financing	43 (56 re-enrolled)	10 (23 re-enrolled)	1 (2 re-enrolled)	1
Self-financing	0	0	0	0

School year 2018/2019	1 <sup>st</sup> year (study program)	2 <sup>nd</sup> year (study program)	3 <sup>rd</sup> year (module)	4 <sup>th</sup> year (module)
Budget financing	42 (40 re-enrolled)	8 (21 re-enrolled)	6 (2 re-enrolled)	1
Self-financing	0	0	0	0

School year 2019/2020	1 <sup>st</sup> year (study program)	2 <sup>nd</sup> year (study program)	3 <sup>rd</sup> year (module)	4 <sup>th</sup> year (module)
Budget financing	35 (23 re-enrolled)	15 (13 re-enrolled)	5 (2 re-enrolled)	6
Self-financing	0	0	0	0

School year 2020/2021	1 <sup>st</sup> year (study program)	2 <sup>nd</sup> year (study program)	3 <sup>rd</sup> year (module)	4 <sup>th</sup> year (module)
Budget financing	50 (31 re-enrolled)	7 (13 re-enrolled)	4 (2 re-enrolled)	5
Self-financing	0	0	0	0

**Master Academic Study – Study program: Electronics and Telecommunications**

School year 2016/2017	1 <sup>st</sup> year
Budget financing	0
Self-financing	0

School year 2017/2018	1 <sup>st</sup> year
Budget financing	4
Self-financing	1

School year 2018/2019	1 <sup>st</sup> year
Budget financing	0
Self-financing	0

School year 2019/2020	1 <sup>st</sup> year
Budget financing	5
Self-financing	1

School year 2020/2021	1 <sup>st</sup> year
Budget financing	5
Self-financing	0

**Serbia - University of Novi Sad****Undergraduate study-Study programme: Power, Electronic and Telecommunication Engineering /  
Module (from 2. year): Communications Technologies and Signal Processing**

School year 2016/2017	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	9	10	9
Self-financing	13	13	27

School year 2017/2018	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	21	13	10
Self-financing	8	7	18

School year 2018/2019	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	11	24	15
Self-financing	13	6	25

School year 2019/2020	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	15	15	23
Self-financing	8	10	27

School year 2020/2021	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	15 (again enrolled 1)	22 (again enrolled 4)	57 (again enrolled 35)
Self-financing	0	0	0

**Master Academic Study-Study programme: Power, Electronic and Telecommunication Engineering /  
Module: Telecommunication Systems**

School year 2016/2017	1 <sup>st</sup> year
Budget financing	14
Self-financing	14

School year 2017/2018	1 <sup>st</sup> year
Budget financing	7
Self-financing	7

School year 2018/2019	1 <sup>st</sup> year
Budget financing	15
Self-financing	6

School year 2019/2020	1 <sup>st</sup> year
Budget financing	17
Self-financing	8

School year 2020/2021*	1 <sup>st</sup> year
Budget financing	27 (again enrolled 9)
Self-financing	0

**Serbia - University of Niš****Undergraduate study-Study program: Electrical Engineering and Computer Science, Module: Telecommunications**

School year 2016/2017	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	6	7	9 (again enrolled – 5)
Self-financing	4 (again enrolled – 2)	/	4 (again enrolled – 4)

School year 2017/2018	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	3	6	9 (again enrolled – 1)
Self-financing	2	2	9 (again enrolled – 5)

School year 2018/2019	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	1	3	11 (again enrolled – 3)
Self-financing	1	1	8 (again enrolled – 7)

School year 2019/2020	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	1	2	5 (again enrolled – 2)
Self-financing	1	1	11 (again enrolled – 10)

School year 2020/2021	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	4	2	3
Self-financing	1	1	3 (again enrolled – 3)

**Master Academic Study-Study program: Telecommunications**

School year 2016/2017	1 <sup>st</sup> year
Budget financing	33
Self-financing	14 (again enrolled – 14)

School year 2017/2018	1 <sup>st</sup> year
Budget financing	8
Self-financing	18 (again enrolled – 18)

School year 2018/2019	1 <sup>st</sup> year
Budget financing	7
Self-financing	7 (again enrolled – 6)

School year 2019/2020	1 <sup>st</sup> year
Budget financing	0
Self-financing	4 (again enrolled – 4)

**Master Academic Study-Study program:-Telecommunications**

School year 2020/2021	1 <sup>st</sup> year
Budget financing	0
Self-financing	4 (again enrolled – 4)

**Master Academic Study-Study program: Communications and Information Technologies (new accredited studies at UNI)**

School year 2019/2020*	1 <sup>st</sup> year
Budget financing	6
Self-financing	0

**Master Academic Study-Study program:-Telecommunications**

School year 2020/2021	1 <sup>st</sup> year
Budget financing	0
Self-financing	3 (again enrolled – 3)

**Master Academic Study-Study program: Communications and Information Technologies (new accredited studies at UNI)**

School year 2020/2021*	1 <sup>st</sup> year
Budget financing	11
Self-financing	5 (again enrolled – 4)



**Serbia - University of Belgrade****Undergraduate study-Study program: Electrical and Computer Engineering,  
Module: Telecommunications and Information Technology**

School year 2016/2017	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	59 (again enrolled – 5)	47 (again enrolled – 4)	26 (again enrolled – 1)
Self-financing	112 (again enrolled – 61)	60 (again enrolled – 23)	35 (again enrolled – 12)
Sub-module: System Engineering	Budget financing	30 (again enrolled – 2)	22 (again enrolled – 1)
	Self-financing	39 (again enrolled – 15)	18 (again enrolled – 6)
Sub-module: Radio Communications	Budget financing	1	2
	Self-financing	11 (again enrolled – 5)	10 (again enrolled – 5)
Sub-module: Audio and Visual Technologies	Budget financing	11 (again enrolled – 1)	2
	Self-financing	7 (again enrolled – 3)	3 (again enrolled – 1)
Sub-module: Microwave Engineering	Budget financing	5 (again enrolled – 1)	/
	Self-financing	3	4

**\*At the end of the second year students of Telecommunications and Information Technology opt for one of four sub-modules.**

School year 2017/2018	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	47 (again enrolled – 11)	63 (again enrolled – 4)	37 (again enrolled – 1)
Self-financing	109 (again enrolled – 51)	55 (again enrolled – 29)	31 (again enrolled – 6)
Sub-module: System Engineering	Budget financing	51 (again enrolled – 3)	23 (again enrolled – 1)
	Self-financing	38 (again enrolled – 21)	18 (again enrolled – 1)
Sub-module: Radio Communications	Budget financing	/	1
	Self-financing	7 (again enrolled – 3)	8 (again enrolled – 3)
Sub-module: Audio and Visual Technologies	Budget financing	7 (again enrolled – 1)	9
	Self-financing	7 (again enrolled – 4)	4 (again enrolled – 2)
Sub-module: Microwave Engineering	Budget financing	5	4
	Self-financing	3 (again enrolled – 1)	1

**\*At the end of the second year students of Telecommunications and Information Technology opt for one of four sub-modules.**

School year 2018/2019	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	68 (again enrolled – 13)	60 (again enrolled – 8)	52 (again enrolled – 2)
Self-financing	86 (again enrolled – 40)	67 (again enrolled – 35)	25 (again enrolled – 13)
Sub-module: System Engineering	Budget financing	49 (again enrolled – 7)	41 (again enrolled – 1)
	Self-financing	48 (again enrolled – 22)	16 (again enrolled – 5)
Sub-module: Radio Communications	Budget financing	/	/
	Self-financing	7 (again enrolled – 5)	4 (again enrolled – 4)
Sub-module: Audio and Visual Technologies	Budget financing	4 (again enrolled – 1)	7 (again enrolled – 1)
	Self-financing	7 (again enrolled – 6)	5 (again enrolled – 4)
Sub-module: Microwave Engineering	Budget financing	7	4
	Self-financing	5 (again enrolled – 2)	/

**\*At the end of the second year students of Telecommunications and Information Technology opt for one of four sub-modules.**

School year 2019/2020	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	84 (again enrolled – 9)	81 (again enrolled – 17)	40 (again enrolled – 3)
Self-financing	68 (again enrolled – 42)	58 (again enrolled – 39)	29 (again enrolled – 10)
Sub-module: System Engineering	Budget financing	68 (again enrolled – 13)	33 (again enrolled – 2)
	Self-financing	43 (again enrolled – 25)	18 (again enrolled – 4)
Sub-module: Radio Communications	Budget financing	1	/
	Self-financing	6 (again enrolled – 5)	4 (again enrolled – 3)
Sub-module: Audio and Visual Technologies	Budget financing	3	3
	Self-financing	6 (again enrolled – 6)	5 (again enrolled – 3)
Sub-module: Microwave Engineering	Budget financing	9 (again enrolled – 4)	4 (again enrolled – 1)
	Self-financing	3 (again enrolled – 3)	2

**\*At the end of the second year students of Telecommunications and Information Technology opt for one of four sub-modules.**

**Undergraduate study-Study program: Electrical and Computer Engineering, Module: Telecommunications and Information Technology**

School year 2020/2021	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Budget financing	71 (again enrolled – 14)	91 (again enrolled – 15)	52 (again enrolled – 4)
Self-financing	82 (again enrolled – 29)	59 (again enrolled – 33)	38 (again enrolled – 19)
Sub-module: System Engineering	Budget financing	85 (again enrolled – 13)	43 (again enrolled – 4)
	Self-financing	43 (again enrolled – 24)	22 (again enrolled – 9)
Sub-module: Radio Communications	Budget financing	2 (again enrolled – 1)	1
	Self-financing	2	5 (again enrolled – 4)
Sub-module: Audio and Video Communications	Budget financing	4 (again enrolled – 1)	2
	Self-financing	9 (again enrolled – 5)	4 (again enrolled – 3)
Sub-module: Microwave Engineering	Budget financing	/	6
	Self-financing	5 (again enrolled – 4)	7 (again enrolled – 3)

**\*At the end of the second year students of Telecommunications and Information Technology opt for one of four sub-modules.**

**Master Academic Study-Study program: Electrical and Computer Engineering, Module: System Engineering and Radio Communications**

School year 2016/2017	1 <sup>st</sup> year
Budget financing	41 (again enrolled – 1)
Self-financing	120 (again enrolled – 92)

School year 2017/2018	1 <sup>st</sup> year
Budget financing	42
Self-financing	84 (again enrolled – 62)

School year 2018/2019	1 <sup>st</sup> year
Budget financing	42

Self-financing	72 (again enrolled – 48)
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School year 2019/2020	1 <sup>st</sup> year
Budget financing	86 (again enrolled – 34)
Self-financing	55 (again enrolled – 32)

**Master Academic Study-Study program: Electrical and Computer Engineering,  
Module: System Engineering and Radio Communications (Accreditation 2013)**

School year 2020/2021	1 <sup>st</sup> year
Budget financing	38 (again enrolled – 38)
Self-financing	36 (again enrolled – 36)

**Master Academic Study-Study program: Electrical and Computer Engineering,  
Module: Information Communication Technologies (Accreditation 2019 – started in 2020)**

School year 2020/2021	1 <sup>st</sup> year
Budget financing	40
Self-financing	19

**Master Academic Study-Total ICT Study program: Electrical and Computer Engineering,  
Module: Information Communication Technologies (Accreditation 2013) + Module: Information  
Communication Technologies (Accreditation 2019 – started in 2020)**

School year 2020/2021	1 <sup>st</sup> year
Budget financing	78 (again enrolled – 38)
Self-financing	55 (again enrolled – 36)

## **Annex II. Graduates employability and employment statistics**

## BiH – Kanton Tuzla: Unemployment Statistics (data in Bosnian)

Zanimanje	Broj nezaposlenih na dan 31.12.2018.	Broj brisanih sa evidencije zbog zaposlenja u 2018.	Broj nezaposlenih na dan 31.12.2019.	Broj brisanih sa evidencije zbog zaposlenja u 2019.	Broj nezaposlenih na dan 31.08.2020.	Broj brisanih sa evidencije zbog zaposlenja u 2020.
Elektroinženjer za automatizaciju u elektroenergetici	4		3	1	3	1
Inženjer elektroenergetike	1	1	4	2	6	4
Inženjer elektromašinskog održavanja	0		2		3	1
Inženjer elektromašinstva	1		1		2	3
Inženjer elektronike	1	2	2	2	6	3
Inženjer elektrotehnike	106	105	82	113	129	103
Inženjer računarske elektronike	10	2	1			
Inženjer telekomunikacija	11	4	4	3		
Inženjer za elektroenergetska postrojenja			1	2	3	1
Inženjer za telekomunikacijske uređaje i mreže	2	4	1	1		
Informacijski stručnjak	5	1	7	4	3	2

# Nacionalna služba za zapošljavanje, Republika Srbija

## NEZAPOSLENA LICA PO ZANIMANJU I POLU

U MESECU DECEMBRU 2020. GODINE (stanje na dan 31.12.2020. godine)

				Nezaposlena lica		Bili u radnom odnosu / radno angažovani	
				Ukupno	Žene	Ukupno	Žene
	712700	Diplomirani inženjer elektrotehnike za telekomunikacije ( VII - 1SSS )		18	6	13	4
	712800	Diplomirani inženjer elektrotehnike za računarsku tehniku ( VII - 1SSS ) / master inženjer elektrotehnike		15	5	12	4
	712815	Master inženjer elektrotehnike i računarstva		13	3	3	1
	712820	Diplomirani inženjer elektrotehnike i računarstva		42	19	8	3
	712839	Diplomirani inženjer informacionih tehnologija		5	2	0	0
	712840	Master inženjer informacionih tehnologija		1	1	0	0
	712845	Diplomirani inženjer informacionih tehnologija i sistema		1	1	1	1
	720120	Specijalista inženjer poljo privrede		1	0	0	0

### **Annex III. Course Quality Student Evaluation Survey**

### Course quality evaluation (EN)

In the following, you can rate your level of accordance on statements regarding the quality of the course, how it was implemented, the materials used and the learning methodologies exploited in its duration.

Teaching methods (lectures, exercises, practice, seminars, projects...) correspond to the content of the course

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Vote	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Class was interactive and included timely case studies

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Vote	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The content of the course provides the expected knowledge and practical skills

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Vote	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The material of the course is clear, complete and technically sound

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Vote	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The teaching staff applied the literature provided in the course specification

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Vote	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



The teaching staff taught efficiently and professionally

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Vote	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The student workload is in accordance with the proposed amount of ECTS

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Vote	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Student evaluation (during course and exam) is done professionally and in accordance with defined criteria

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Vote	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Laboratory equipment and e-tools used in the teaching process adequately support the content of the course

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	N/A
Vote	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Vrednovanje kvalitete predmeta (HR)

U nastavku možete ocijeniti razinu usklađenosti s izjavama u vezi s kvalitetom tečaja, načinom na koji je on proveden, korištenim materijalima i korištenim metodologijama učenja tijekom njegovog trajanja.

Načini izvođenja nastave (predavanja, vježbe, vježbe, seminari, projekti ...) odgovaraju sadržaju predmeta

	U potpunosti se slažem	Slažem se	Niti se slažem niti se ne slažem	Ne slažem se	Uopće se ne slažem
Odaberite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Časovi su interaktivni i uključuju primjere iz prakse

	U potpunosti se slažem	Slažem se	Niti se slažem niti se ne slažem	Ne slažem se	Uopće se ne slažem
Odaberite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Sadržaj predmeta omogućava stjecanje odgovarajuće razine znanja

	U potpunosti se slažem	Slažem se	Niti se slažem niti se ne slažem	Ne slažem se	Uopće se ne slažem
Odaberite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Nastavni materijal je jasan, razumljiv i tehnički dobro izveden

	U potpunosti se slažem	Slažem se	Niti se slažem niti se ne slažem	Ne slažem se	Uopće se ne slažem
Odaberite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Nastavnik i stručni suradnik primjenjuju literaturu navedenu u specifikaciji predmeta

	U potpunosti se slažem	Slažem se	Niti se slažem niti se ne slažem	Ne slažem se	Uopće se ne slažem
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Odaberite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Nastavnik gradivo prezentira jasno i razumljivo					
	U		Niti se		
	potpunosti		slažem niti		
	se slažem	Slažem se	se ne	Ne slažem	Uopće se
			slažem	se	ne slažem
Odaberite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Opterećenje studenata na predmetu u skladu je s dodijeljenim ECTS bodovima					
	U		Niti se		
	potpunosti		slažem niti		
	se slažem	Slažem se	se ne	Ne slažem	Uopće se
			slažem	se	ne slažem
Odaberite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ocjenjivanje nastavnika tijekom nastave i na završnom ispitu stručno je i u skladu s definiranim kriterijima					
	U		Niti se		
	potpunosti		slažem niti		
	se slažem	Slažem se	se ne	Ne slažem	Uopće se
			slažem	se	ne slažem
Odaberite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Laboratorijska oprema i e-alati koji se koriste u nastavnom procesu na odgovarajući način podržavaju sadržaj predmeta						
	U		Niti se			
	potpunosti		slažem niti			
	se slažem	Slažem se	se ne	Ne slažem	Uopće se	
			slažem	se	ne slažem	N/A
Odaberite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Procjena kvaliteta predmeta (B)**

U nastavku možete ocijeniti nivo usaglašenosti sa izjavama u vezi s kvalitetom kursa, načinom na koji je on implementiran, korištenim materijalima i korištenim metodologijama učenja tokom njegovog trajanja.

Način izvođenja nastave (predavanja, vježbe, praksa, seminari, projekti...) odgovaraju sadržaju predmeta					
	Potpuno se slažem	Slažem se	Niti se slažem niti se ne slažem	Ne slažem se	U potpunosti se ne slažem
Odaberite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Nastava je bila interaktivnog tipa i pratila je odgovarajući raspored					
	Potpuno se slažem	Slažem se	Niti se slažem niti se ne slažem	Ne slažem se	U potpunosti se ne slažem
Odaberite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Sadržaj predmeta pruža očekivano znanje i praktične vještine					
	Potpuno se slažem	Slažem se	Niti se slažem niti se ne slažem	Ne slažem se	U potpunosti se ne slažem
Odaberite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Materijal predmeta je jasan, potpun i tehnički ispravan					
	Potpuno se slažem	Slažem se	Niti se slažem niti se ne slažem	Ne slažem se	U potpunosti se ne slažem
Odaberite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Nastavno osoblje je primjenjivalo literaturu navedenu u specifikacijama predmeta					
	Potpuno se slažem	Slažem se	Niti se slažem niti se ne slažem	Ne slažem se	U potpunosti se ne slažem
Odaberite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Nastavno osoblje je podučavalo efikasno i profesionalno					
---------------------------------------------------------	--	--	--	--	--

Please select one answer

	Potpuno se slažem	Slažem se	Niti se slažem niti se ne slažem	Ne slažem se	U potpunosti se ne slažem
Odaberite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The student workload is in accordance with the proposed amount of ECTS

	Potpuno se slažem	Slažem se	Niti se slažem niti se ne slažem	Ne slažem se	U potpunosti se ne slažem
Odaberite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ocjenjivanje studenata (tokom predmeta i ispita) obavlja se profesionalno i u skladu sa definisanim kriterijima

	Potpuno se slažem	Slažem se	Niti se slažem niti se ne slažem	Ne slažem se	U potpunosti se ne slažem
Odaberite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Laboratorijska oprema i e-alati korišteni u nastavnom procesu adekvatno podržavaju sadržaj predmeta

	Potpuno se slažem	Slažem se	Niti se slažem niti se ne slažem	Ne slažem se	U potpunosti se ne slažem	N/A
Odaberite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Оцењивање квалитета предмета

У наставку текста можете означити своје слагање са изјавама о квалитету предмета, начину његовог спровођења, те коришћеним материјалима и методама учења током његовог трајања.

Молимо изаберите један одговор

Примењене методологије у настави (лекције, Примери, практични рад, семинарски радови, пројектни задаци...) одговарају садржају предмета.

	У		Нити се слажем, нити се	Не	Уопште
	потпуности	Слажем	не	слажем	се не
	се слажем	се	слажем	се	слажем
Означите	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Настава је била интерактивна и укључивала је практичне примере.

	У		Нити се слажем, нити се	Не	Уопште
	потпуности	Слажем	не	слажем	се не
	се слажем	се	слажем	се	слажем
Означите	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Садржај предмета омогућава стицање очекиваног знања и практичних вештина.

	У		Нити се слажем, нити се	Не	Уопште
	потпуности	Слажем	не	слажем	се не
	се слажем	се	слажем	се	слажем
Означите	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Наставни материјали су јасни, комплетни и технички коректни.

	У		Нити се слажем, нити се	Не	Уопште
	потпуности	Слажем	не	слажем	се не
	се слажем	се	слажем	се	слажем
Означите	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Наставно особље је примењивало литературу која је наведена у опису предмета.

			Нити се слажем, нити се не слажем	Не слажем се	Уопште се не слажем
	У потпуности се слажем	Слажем се			
Означите					

Наставно особље предавало је ефикасно и професионално.

			Нити се слажем, нити се не слажем	Не слажем се	Уопште се не слажем
	У потпуности се слажем	Слажем се			
Означите	○	○	○	○	○

Оптерећење студената на предмету је у складу са додељеним ECTS бодовима.

			Нити се слажем, нити се не слажем	Не слажем се	Уопште се не слажем
	У потпуности се слажем	Слажем се			
Означите	○	○	○	○	○

Оцењивање студената (током континуалног праћења и на испиту) врши се професионално и у складу са дефинисаним критеријумима.

			Нити се слажем, нити се не слажем	Не слажем се	Уопште се не слажем
	У потпуности се слажем	Слажем се			
Означите	○	○	○	○	○

Лабораторијска опрема и е-алати који се користе у наставном процесу на адекватан начин подржавају садржај предмета.

			Нити се слажем, нити се не слажем	Не слажем се	Уопште се не слажем	N/A
	У потпуности се слажем	Слажем се				
Означите	○	○	○	○	○	○

**Annex IV. The Questionnaire form: "Do you have the qualities of a successful entrepreneur?"**



## INSTRUCTIONS

- Do you have an entrepreneurial idea?
- Want to turn it into an entrepreneurial opportunity?
- Do you plan to start your own business?
- Do you think you are ready for your first solo venture?
- You may have already started, but would you like to be even more successful?
- Have you considered the qualities of a successful entrepreneur?
- What are your characteristics in this regard?

This questionnaire has been prepared for the final year students of the Electrical Engineering to help them answer the question: Do they possess the qualities of a successful entrepreneur?

The questionnaire consists of 28 questions. The questions are selected to check the traits most commonly encountered by successful entrepreneurs. The more you own them, the better your chances of success are.

With each question, alternative answers were offered. Only one answer should be selected. It should, in the judgment of the person who fills in, be closest to the truth.

Questions are scored. The result obtained depends on the interpretation of entrepreneurial traits. The interpretations are given at the end of the questionnaire.

### REMARK!

1. There is no uniquely defined set of traits that one would need to possess in order to survive and grow in business.
2. Therefore, score your score "good" or "bad" with the appropriate reserve.
  - This is only an indicator to you: Accept it as the first and ancillary self-test of your entrepreneurial traits.
  - Do not take it as a fully objective judgment. But don't underestimate the result. Think about it.
3. The decision is in your hands anyway?

### 1. What do you think about hard work?

- a. I can't work long/overtime.
- b. I do what the job requires.
- c. I have a proven track record of a diligent, dedicated worker.
- d. I can work hard if I need to, but I'd rather not.

### 2. How would you describe your energy capacity?

- a. I am influenced by the moon.
- b. I have inexhaustible energy.
- c. I have the strength when I need it.
- d. I need time to rest.

### 3. How would you describe your approach to new work assignments?

- a. Want to know the scope of the job.
- b. I hate somebody peeking over my shoulder.
- c. I prefer clear directions.
- d. I like to start on my own.

**4. When I think carefully about what I'm getting into, I conclude:**

- a. The most important goal is to set reasonable goals.
- a. I don't know what "success" is.
- b. I want to make enough money to retire peacefully.
- c. I get bored when things are going smoothly.

**5. When it comes to risk, then:**

- a. I like big risks.
- b. I love the challenge anyway.
- c. I bet on my own knowledge, not on luck.
- d. I think work is a gamble, so whatever I draw?

**6. What do you rely on in your judgments?**

- a. Your own wit.
- b. I am following a personal feeling.
- c. My own determination.
- d. I use "street smart".

**7. What is your attitude to the venture?**

- a. I must supervise the project until completion of the project.
- b. Sometimes I quit.
- c. I am persistent, a real bulldog.
- d. It's easy with me.

**8. What do you think about setting goals and getting answers to them?**

- a. I set goals that I can measure progress.
- b. I love quick results.
- c. Constructive criticism is welcome.
- d. I give particular importance to feedback.

**9. How do you describe your communication skills?**

- a. I always communicate clearly.
- b. Sometimes I have difficulty conveying the thought I want.
- c. I set goals, staff need to achieve them.
- d. I am a man of action, not a "communicator".

**10. How do you feel about the future?**

- a. I carefully plan future steps.
- b. I don't have a crystal ball, why waste time on planning.
- c. I am trying to look ahead.
- d. How it goes, so it goes.

**11. When I work, I tend to**

- a. I do the job properly, regardless of the time spent.
- b. I set deadlines, and I look to meet them.
- c. I work in a team where I try to make everything work properly.
- d. I demonstrate my talent and enthusiasm.

**12. What is your attitude towards group work?**

- a. I am a good worker.
- b. I am more of a coach than a team player.
- c. I accept responsibility with welcome.
- d. I am a team player.

**13. How do you act when things are chaotic, they seem unsolvable?**

- a. I have to solve the problem.
- b. I'm upset if I don't know the answer.
- c. I can live with incomplete information and uncertainty.
- d. I cannot always wait for full information to make a decision.

**14. How do you feel about your venture?**

- a. It challenges and encourages me.
- b. This is my ticket to become rich.
- c. The more I know about, the more I like it.
- d. There are exciting ventures, and the trick is to pick and focus on one.

**15. In business, I enjoy most in**

- a. Preparing the information necessary to do the business well.
- b. Seeing how that work contributes to future progress.
- c. Achieving results.
- d. I interact with the people I work with.

**16. What is your view on cooperation and reliance on others?**

- a. I am trustworthy and find others like that.
- b. I am careful and do not rely too much on others.
- c. This is fine, while they do the agreed upon job.
- d. Good "guys" finish last.

**17. How do you feel when the cash inflow dries up?**

- a. I do not ask for an apology.
- b. Unfair competition scares me.
- c. I am learning from my mistakes.
- d. I would rather be on the attack than a defensive player.

**18. How confident are you in your success?**

- a. I always have the access that I can "do it."
- b. I never lose, but maybe sometimes my time runs out.
- c. Sometimes I wonder about the correctness of my decisions.
- d. Sometimes you win and sometimes you lose.

**19. What do you think about creativity and change?**

- a. I like to follow the set forms.
- b. Innovation and creativity are job shortcomings.
- c. I like to find new solutions.
- d. I never deviate from one established plan.

**20. When there are more ways to do a job, I will**

- a. Consider the good and bad sides of all possible ways, and then choose the best one.
- b. Take a brief look at what it is about and then follow your unmistakable intuition.
- c. Discuss all options with others, and choose the most approved one.
- d. Choose the mode that allows the work to begin immediately.

**21. Can you do all the tasks yourself in starting a venture?**

- a. I have all the necessary business knowledge.
- b. I am just a human. What else is needed?
- c. I don't know everything, help me!
- d. I possess most of the necessary knowledge, for the rest I will find the right people.

**22. When working on a long-term job, the most important thing for me is**

- a. Well organized a team that will finish the job with minimum of problems.
- b. I find the fastest way to complete it.
- c. I organize my business so that it is both stimulating and exciting.
- d. I understand and complete each step before moving on to the next one.

**23. I'll take the risk if**

- a. It will not hurt the feelings of others.
- b. This contributes to the completion of the work.
- c. There are facts that confirm the justification of the action.
- d. That's fine in a given situation.

**24. By ideal working environment I consider**

- a. Separate offices for all employees.
- b. Separate Offices for Chiefs.
- c. Fully open space.
- d. Large offices with partitions.

**25. When a problem requires a solution, I prefer that**

- a. I work alone.
- b. I make a fixed work schedule.
- c. I discuss the situation with others.
- d. I will be open to new opportunities.

**26. As a leader ...**

- a. I encourage coming up with unexpected solutions.
- b. I run an open door policy.
- c. I appreciate the effort of others.
- d. I'm looking for the right answer.

**27. When managing, I try to**

- a. Provide authority.
- b. Establish clear procedures.
- c. Show flexibility.
- d. Build a consensus.

**28. When I talk to difficult people, I tend to**

- a. Listen and try to understand them.
- b. Respect their right to diversity.
- c. See it as a challenge to overcome.
- d. Disarm them by the facts.

**SCORING**

No	Question	Points			
		a	b	c	d
1	What do you think about hard work?	0	2	5	3
2	How would you describe your energy capacity?	1	5	3	2
3	How would you describe your approach to new work assignments?	0	3	2	5
4	When I think carefully about what I'm getting into, I conclude:	5	0	2	4
5	When it comes to risk, then:	1	2	5	0
6	What do you rely on in your judgments?	0	2	3	5
7	What is your attitude to the venture?	3	0	5	1
8	What do you think about setting goals and getting answers to them?	3	2	4	5
9	How do you describe your communication skill?	5	0	3	2
10	How do you feel about the future?	5	0	3	1
11	When I work, I tend to?	0	1	3	5
12	What is your attitude towards group work?	2	4	5	3
13	How do you act when things are chaotic, they seem unsolvable?	2	0	3	5
14	How do you feel about your venture?	5	0	4	2
15	In business, I enjoy most in?	0	5	3	2
16	What is your position on cooperation and reliance on others?	5	3	2	1
17	How do you feel when the cash inflow dries up?	2	0	3	5
18	How confident are you in your success?	5	4	0	2
19	What do you think about creativity and change?	1	0	5	3
20	When there are more ways to do a job, I will?	1	5	2	3
21	Can you do all the tasks yourself in starting a venture?	0	1	3	5
22	When working on a long-term job, the most important thing for me is?	3	2	5	0
23	I'll take the risk if?	0	2	4	5
24	I mean by working environment?	0	1	5	3

25	When a problem requires a solution, I prefer?	0	1	2	5
26	As a leader ...	5	2	3	1
27	When I manage, I try to?	1	2	5	4
28	When I talk to difficult people, I tend to?	2	5	1	3

### Up to 39 points

KEEP YOUR OWN BUSINESS. Put aside your entrepreneurial dream for a while. However, don't take it to heart. Points are not a measure of intelligence or your personal worth. This is also indicated by some of the extremely intelligent people of today. They are simply not "born" to run their own venture. Of course, there is always the possibility that this "question and score game" is partially misdirected.

### From 40 to 69 points

Think carefully about entering the entrepreneur circle personally. Although you have some of the traits that make a successful entrepreneur, carefully check all your answers once again. Then think about the changes you need and contact your consultant for further judgment.

### From 70 to 109 points

With some additional knowledge in the relevant fields, it is very likely that you will succeed as an entrepreneur. However, this does not mean that your score will open the door to a commercial bank, which will agree financing your venture without any further verification. If you check your answers, question by question, it will become clearer in which areas you will disagree with the banking view of you and your venture.

### 110 and more points

You may not gain the fame and money of a Bill Gates, Microsoft owner. It is very likely that you will do well with your own venture. Don't blame anyone if you fail. If you are soon among the 500 largest in the country, remember who first discovered you.