

Situation in the Faculty of Electrical and Computer Engineering (FIEK)



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Glossary

AKA	Kosovo Accreditation Agency
BA	Bachelor
EU	European Union
PhD	Philosophy Doctorate
FIEK	Faculty of Electrical and Computer Engineering
FIM	Faculty of Mechanical Engineering
FIMK	Faculty of Mechanical and Computer Engineering
FNA	Faculty of Civil Engineering and Architecture
HEI	Institutions of Higher Education
OI	Ombudsperson Institution
KEDS	Kosovo Electricity Distribution and Supply
KEK	Kosovo Energy Corporation
KFOS	Kosovo Foundation for Open Society
KITU	University Integrity and Transparency Coalition
KOSTT	System, Transmission and Market Operator
MA	Master
MEST	Ministry of Education, Science and Technology
MoF	Ministry of Finance
ORCA	Organization for Quality Enhancement in Education
SEMS	Electronic Student Management System
USA	United States of America
UMIB	University of Mitrovica «Isa Boletini»
UP	University of Prishtina
USAID	US Agency for International Development
ERO	Energy Regulatory Office

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At the beginning of this project we suspected that the same issues could be addressed at the Faculty of Mechanical Engineering (FIM) and at the Faculty of Civil Engineering and Architecture (FNA) too, but after research and interviews with directors and professors in these two faculties, we realized that this suspicion was unfounded.

Either way, we thank the Dean of the FNA - Prof. Dr. Abdullah Zejnullahu for his willingness to assist us. We also thank the FIM staff for their generous help: The Dean Mr. Ahmet Shala, Vice Dean Ilir Doçi, Vice Dean Shpetim Lajçi and Secretary Fatmire Kuçi, as well as the professors: Arbnor Pajaziti, Xhevat Berisha, Beqir Hamidi, Azem Kÿçyku and Hysni Osmani for their willingness to answer our questions.

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Introduction

Professors of the Faculty of Electrical and Computer Engineering (FIEK) of the University of Pristina (UP) have publicly alarmed about the risk of closing the electro-energy study program at this faculty¹. Bearing in mind that this is a profile study not offered by any other higher education institution in Kosovo, what would be the consequences of the closure of this study program for the country's economy and industry in the medium to long term? This publication focuses on the danger of the closure of the program of electro-energetics in FIEK, as well as the consequences of its closure. Student enrollment numbers at all levels of relevant FIEK courses in recent years are also examined to find out how tempting they are to study. The report aims to encourage public debate on this important issue, in order to increase pressure on decision-making bodies to avoid closing of this program.

At the beginning of this project we suspected that the same problem could be faced by study programs at the Faculty

of Mechanical Engineering (FIM) and at the Faculty of Civil Engineering and Architecture (FNA). However, after research and interviews with faculty and professors at these two faculties, we found that this suspicion was unfounded.

To find out if there is a risk of any of the FIEK study programs to be shut down, we searched the following data across departments since 2012, when they were digitized with the Electronic Student Management System (SEMS), up until 2019:

- CVs of current regular academic staff and external associates;
- lists of full-time academic staff and lists of external associates engaged in lectures and tutorials;
- the list of retired professors in the last ten years;
- vacancies for full-time teaching positions;
- statements of the number of students enrolled throughout the academic years;

- results of UP scholarship competitions;

In addition, to investigate the consequences of the closure of certain FIEK programs that some of the largest energy/ industrial enterprises in the country (KEK, KOSTT, KEDS, TREPÇA and INFRAKOS) may face, and in order to understand the current state of these enterprises as regards their staff, we also explored:

- the main challenges these enterprises face in terms of new professional staff;
- professional profiles most sought after by these companies;
- study programs at FIEK which require graduates for employment in these enterprises;
- the number of engineers employed in these enterprises and their average age;
- the number of engineers retired in the last 10 years;
- the number of engineers who will retire in the next 10 years;
- the number of FIEK graduates employed by these enterprises in the last 10 years;
- the number of FIEK students who have completed internships in these enterprises in the last 10 years;
- the number of FIEK students that received scholarships from these enterprises;

In addition, for this report, we also conducted interviews with the Dean of FIEK, executives and former heads of departments at FIEK, professors and former professors of FIEK, as well as with engineers/ experts of electro-technical directions from the industry itself.

Background

The Technical High School was established in 1961, and in 1965 was transformed into the Technical Faculty within the University of Belgrade. At that time, this institution had only the construction section, and then started the machinery and electrical sections. When the University of Pristina (UP) was founded in 1970, the Technical Faculty became part of the UP. In 1988 the Technical Faculty was divided into the Faculty of Machinery, that of Electrics and Technology and the Faculty of Civil Engineering and Architecture. FIEK's history can be divided into three periods:

The first period are the first two decades of operation of the Technical Faculty (1971-1991) - part of which was FIEK - characterized by increasing numbers of students and academic staff, construction of new facilities and laboratories, research and scientific activities, publications and magazines, establishment of international collaborations, and so on.

The second period spans the years 1991-1999 that were the most dramatic, as the Serbian regime headed by Slobodan Milošević initially expelled all the Albanian students and academic and administrative staff from the UP, including FIEK staff, forcing them to continue working in extremely difficult conditions in private homes. This period is characterized by a

decline in the quality of studies, due to the lack of laboratory exercises during studies, the departure of a part of the qualified staff from the country, interruption of scientific and publishing activity, as well as interruption of almost all communication and cooperation with universities outside Kosovo.

The third period is the post-war period of 1998-1999, which created the conditions for returning to the UP faculty facilities and resuming work, as well as the efforts to improve the quality of this faculty, starting with its reform based on the Bologna Process. Other achievements that characterize the postwar period are the refurbishment of administrative and teaching spaces, the provision of modern laboratories, the reform of study departments and the recruitment of new academic staff. In this period FIEK developed numerous projects to increase human resources and joint programs of lectures and laboratory exercises with several universities in the EU and the US. To increase cooperation with the country's industry, during this period FIEK established the Industrial Advisory Board, which was composed of representatives of the Kosovo industry.

Accreditations

The process of accreditation of higher education curricula in Kosovo started in 2009. One of the basic criteria for accreditation of Higher Education Institutions (IAL) for each study program is to have regular staff members in regular employment, to have members of the academic staff with a PhD degree: three at BA level², two at MA level and three at PhD level . Below we present the latest accreditations at BA, MA and PhD levels:

- **At BA level**, the Kosovo Accreditation Agency (AKA) in 2014 accredited five study programs - computerized automatics and robotics , electro-energy, electronics, computer engineering and telecommunications - for the five-year period (2014-2019). In 2018 the AKA extended the accreditation by one year for the period 2019-2020 for all of these study programs, due to malfunctioning of the AKA Board³.
- **At the MA level**, also in 2014, the AKA accredited five courses - computer automatics and robotics, electrical engineering, electronics, computer engineering and telecommunications - for the five-year period (2014-2019) . However, three years later, in 2017, the AKA suspended for one year (2017-2018) three-level accreditations at MA level - computerized robotics, power electronics and electronics - on the grounds that they did not have at least two members of academic staff with a PhD degree in full time employment⁴. In 2018, the AKA extended the accreditation for the following study programs for the period 2019-2020: electronics, computer engineering and telecommunications, but not the automatic computerized robotics, or power electronics programs, because they did not employ a single lecturer with a PhD degree⁵.

- **At the PhD level**, in 2013 the AKA decided to accredit four programs for the period 2013-2016: automatics, energy systems and energy electronics, computer science and telecommunications⁶. In the machinery program and the program of energy and power electronics no students were enrolled. The automatics program did not enroll any students since the accreditation was a conditioned one. These programs should hire new professors each, but there were no potential doctoral candidates in these fields at the time. Five students were enrolled to computer science, but so far only one has a doctorate; two were removed from the list of admissions from the beginning due to change in criteria, but returned last year by a court decision; two others are still studying. In the telecommunications field, three doctoral students were accepted and all three completed their studies⁷. Currently, FIEK has decided to

reapply for the academic year 2020-2021 with only one doctoral program - electrical and computer engineering - where 10 candidates will be accepted to meet the current market demands of Kosovo for studies at this level. The necessary staff and infrastructure are already in place for this program⁸.

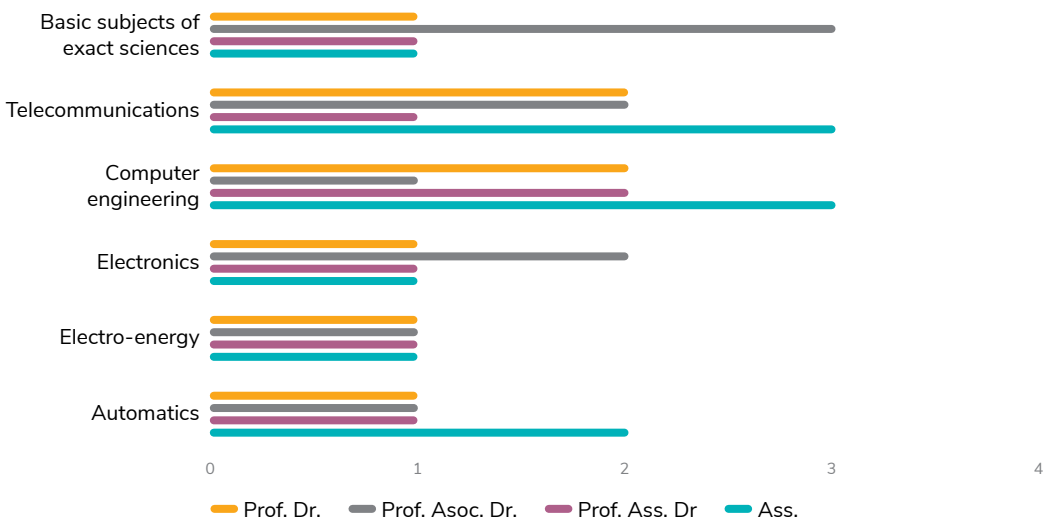
In 2017, the AKA suspended for one year (2017-2018) three-level accreditations at MA level - computerized robotics, power electronics and electronics - on the grounds that they did not have at least two members of academic staff with a PhD degree in full time employment.

Current situation of academic staff

FIEK currently has a total of 24 professors employed (15 men and 9 women), of whom seven full professors, 10 associate professors and 7 assistant professors. The average age of full-time professors is 58 years, of associate professors 51, of assistant professors 50. The average age of all professors with full FIEK engagement is 53 years⁹. FIEK has a total of 1049 full-time BA and MA students, which means that the professor to student ratio during the lecture process is 1:43, and if we add repeating students who only take exams (782 students), then the professor-student ratio rises to 1:76¹⁰.

9 members of the academic staff of this faculty are also engaged in other public or private higher education institutions¹¹. Half of FIEK’s academic staff completed at least one level of their studies abroad in a foreign language, while the other half are of a purely domestic academic background. No staff member has completed all levels of study abroad and in a foreign language. Only 5 members of the academic staff have completed PhD studies abroad and in a foreign language¹².

Current situation of academic staff





Commitments, pensions and competitions for the academic staff

To reflect the academic staff engagements at FIEK in the period 2012-2019, we have reviewed the lists of regular and external academic staff commitments, retirements, and vacancies for full-time teaching positions (new professors, resumes and promotion positions). It should be clarified that we have not considered the positions announced for the basic subjects in the exact sciences (mathematics and physics) as these do not affect program accreditation and that in 2014 and 2017 there were no vacancy announcements. From the above data we present the recruitments, retirements and announcements of vacancies for

FIEK academic staff in the following departments:

At least two full-time professors have been consistently engaged in **automatics** for each academic year. Two full time professors retired in recent years. In this period, vacancies for three full-time teaching positions were announced, but no candidate for the position of 'Full Professor in Automatics' was announced in the 2013 competition. Therefore, due to the lack of full-time professors, the department has responded by hiring outside professors, the number of which declined in recent years, and the phenomenon of hiring a

retired professor has emerged in the last three years.

Also, at least two full-time assistants were consistently engaged in this department for the 2012-2019 academic year. A total of five full-time assistants were required for this period (two in 2013, one in 2015, one in 2016 and one in 2018), but no candidates were announced for the two vacancies in 2013. Furthermore, only one external assistant was employed in this department at all times.

In **Power Energetics**, in the 2012-2019 period, there was a constant decrease in the number of professors because eight professors were retired, but competitions are announced for only six regular teaching positions (two in 2012, two in 2016 and two in 2018). Furthermore, in 2018, one of these regular teaching positions was not filled because only one candidate was introduced who did not meet the statutory requirements for selection. All of this was managed by hiring outside professors (whose numbers are steadily falling over the years) and three retired professors each year.

Also, in the period from 2012 to 2019, this department never had assistants with regular engagement. A total of five full-time assistants (one in 2013, two in 2016, and two in 2018) were required for this period. In the 2013 competition no candidate for full-time assistant met the requirements to be selected, while in the 2018 competition two full-time assistants were hired, one of whom later terminated the contract due

to her PhD studies abroad. Considering that doctoral studies last for 3-5 years, the announcement of vacancies was not in line with the trend of professors' retirements. Assistant positions were consistently filled with outside assistants, but their numbers have steadily declined over the years.

At least two full-time professors were continuously engaged in **electronics** in the 2012-2019 academic year. Two professors retired in recent years. A total of four full-time professors were required during this period of competition and, on average, one external professor was hired. In this department there is no phenomenon of engagement of retired professors.

Also, at least three full-time assistants were consistently hired in this department for the 2012-2019 academic year. A total of three full-time assistants were required for this period. The number of external assistants in this department has not changed significantly and has been minimal.

In **computer engineering**, in the period from 2012 to 2019, for each academic year there were on average four professors engaged each year. Only one professor retired in recent years. A total of 14 full-time professors were required in this period. It is noted that the number of external professors was four on average and that a retired professor was engaged in the last three years.

In the last seven academic years (2012-2019) the number of full-time assistants per year averaged to four. A total of 10 full-

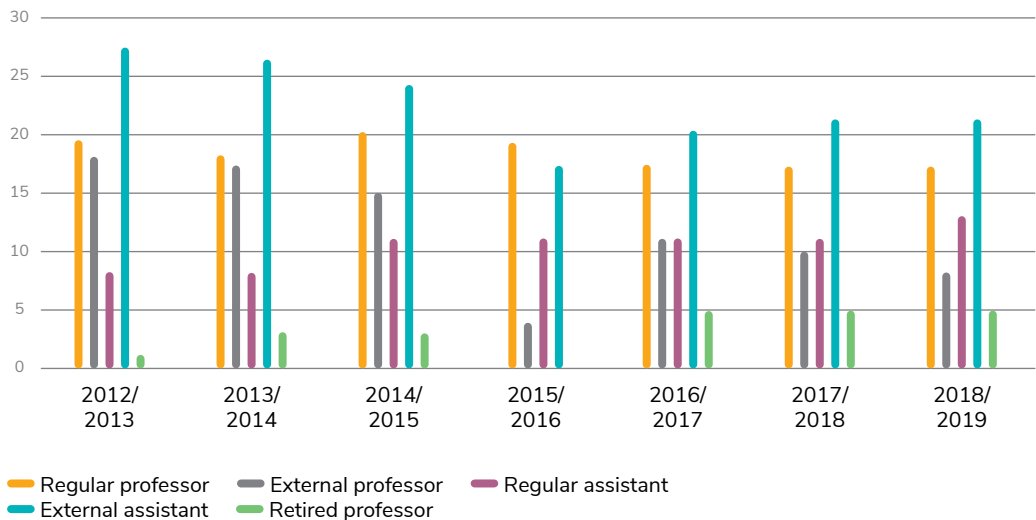
time assistants were requested during this period. This department is distinguished by others, not only with the largest number of students but also with the largest number of external assistants.

At least five full-time professors were continuously engaged in **telecommunications** for the academic year 2012-2019. Only one professor retired in recent years. In this period a total of seven full-time professors were required to compete. It is noted that the number of

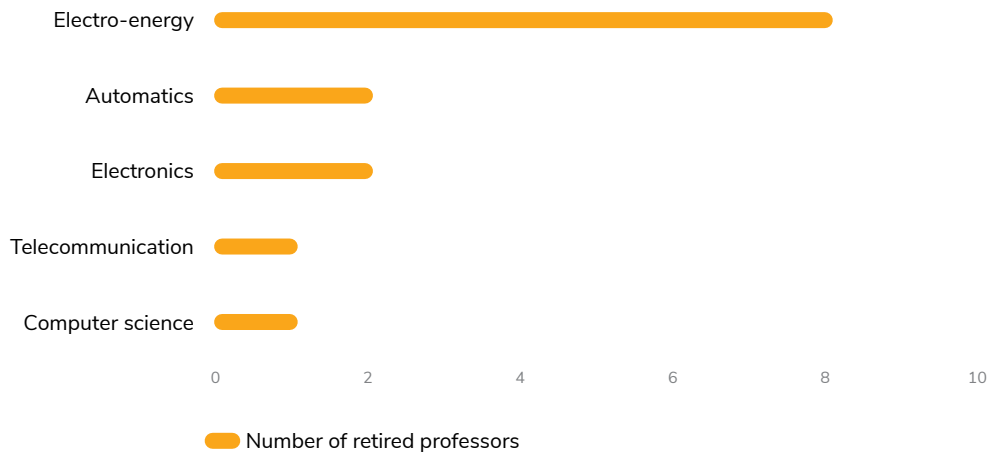
external professors has decreased and the phenomenon of hiring retired professors did not occur at all.

In the last seven academic years (2012-2019) the number of full-time assistants has steadily increased. A total of three full-time assistants were required for the 2012-2019 competition. The number of external assistants has not changed and has averaged three assistants.

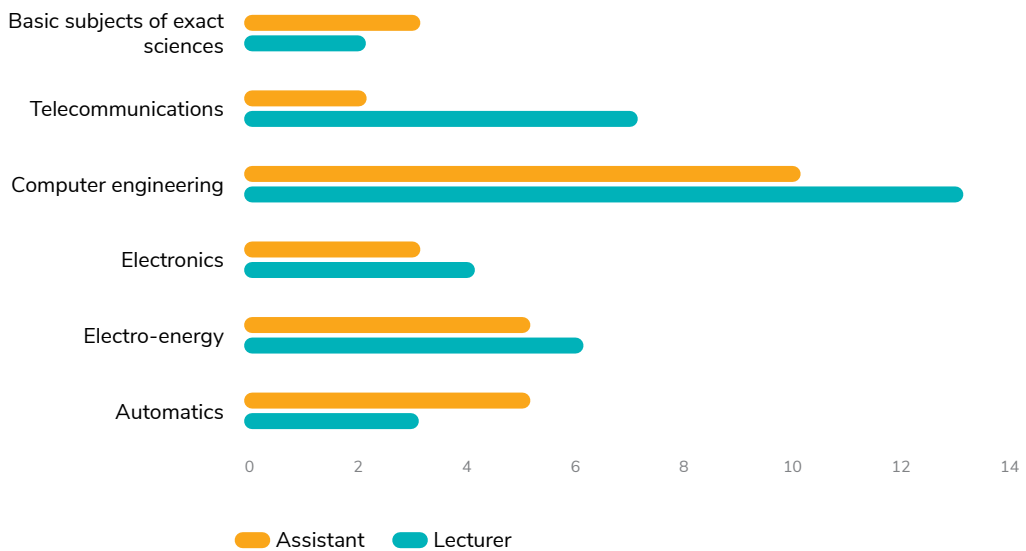
Regular and external engagements of the academic staff



Professor retirements in the last 10 years



Competitions for academic staff





In the last competition, announced on October 22, 2019, the UP requested from FIEK seven full-time lecturers and two full-time assistants¹³. In the telecommunications department it requested one lecturer, in computer engineering two lecturers and one assistant, in automatics one lecturer and one assistant, and in power energy three lecturers, which is the largest number of regular lecturers required for power energy since 2012.

Finally, from this review of regular and external engagement lists of academic staff, retirement of professors, and vacancies

for full-time teaching positions in FIEK for the period 2012-2019, it results that power and automatics have a discrepancy between the number of retired professors and the number of new professors and junior assistants required. However, the discrepancy is even greater when one considers that these competitions are not necessarily announced for new positions, but there have also been re-advertisements and advancements of existing teaching positions.

Interest, difficulties and successes in studies

We researched the numbers of students enrolled throughout academic years at BA and MA, including the gender ratio, and the results of UP scholarship competitions, to identify young people's interest in electrical engineering studies and computerization in FIEK during the period 2012-2019, but also their difficulties and success in studies.

Enrollment of new students

The computer engineering department leads with the largest and most stable

enrollment of new students in the period 2012-2019. The average number of students enrolled in this field has increased slightly over the years. Power engineering, originally comprised of power systems and industrial power systems, in 2012/13 to 2015/16 for the average number of new students enrolled was the same as computer engineering, but in the last three years it is almost halved. Automatics has also halved, while telecommunications and electronics have declined, albeit slightly.

Registration for the first time in the first year - FIEK BA

Departments	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Computer Engineering	138	327	133	146	172	162	169
Power	140	152	134	119	89	73	76
Automatics	72	66	69	52	49	27	38
Telecommunication	78	102	80	81	61	61	52
Electronics	77	81	71	62	47	36	48

Student Transition to BA and MA

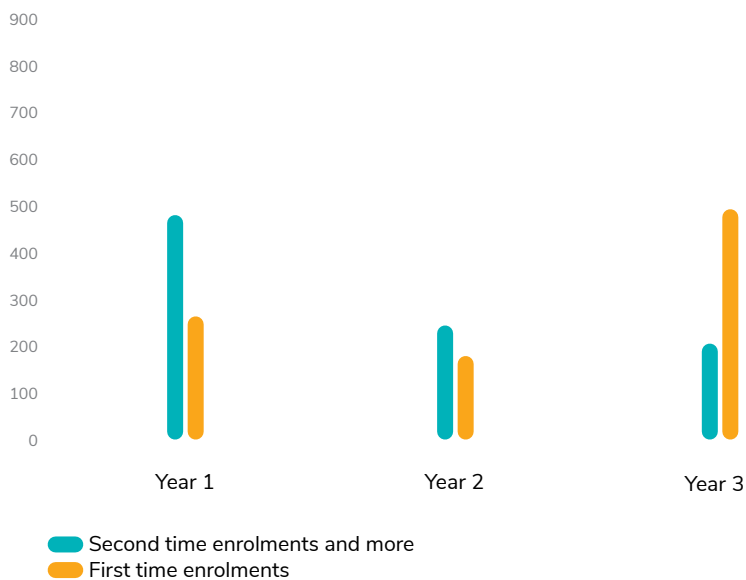
The number of students enrolled in the academic years shows that during the period from 2012 to 2019 in all FIEK courses in the first year there were an average of 477 first-year students enrolled for each year. In the second year, there is an average of 244 students enrolled each year, and in the third, 201 students per year.

The number of students enrolled in the academic years shows that during the period from 2012 to 2019 in all directions at FIEK in the first year, for the second time and more, on average 288 repetitive students are enrolled for each year. In the second year, an average of 189 students enrolled each year, and in the third, 485 repeat students.

The requirement to pass the following year of studies is to complete at least 7 of the 10 exams of the current year. From the above data it seems that students have difficulty moving from first to second year as well as from second to third one.

It is noted that in the second year of study the number of students enrolled for the first time has been halved, from 477 students to 244 students, while in the third year there is a slight decrease from 244 to 201 students. It is also noted that the number of second-year students is higher in the first year, especially in the third year. In fact, the number of first-time students enrolled in the first year (477) is almost the same as the number of repeat students enrolled in the third year (485).

The average number of student enrollment through BA study years

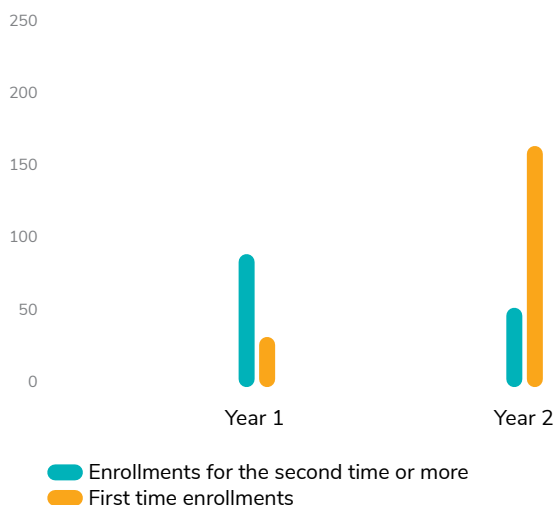


	Year 1	Year 2	Year 3
First time enrolments	477	244	201
Second time enrolments and more	288	189	485

From the MA study overviews, it appears that during the 2012-2019 period in all directions at FIEK in the first year of study on average 81 students per year enrolled for **the first time**, while in the second year 50 students. During this same period, in the first year of the MA studies an average of 24 students enrolled each year for **the second time and more**, while in the second year for the second time and more an average of 160 students are enrolled each year. The largest

number of repeat students in the MA is in the final year of study. While at BA level the number of students enrolled in the first year is almost the same as the number of students enrolled in the third year, at MA level the total number of students enrolled in the second year is twice as high as in the first year. This means that there are delays in the duration of studies at the MA level.

The average number of student enrollment through MA study years



	Year 1	Year 2
First time enrollments	81	50
Enrollments for the second time or more	24	160

At BA level the number of students enrolled in the first year is almost the same as the number of students enrolled in the third year.

At MA level the total number of students enrolled in the second year is twice as high as in the first year.

Scholarships

In the period 2012-2019, the number of FIEK students of all directions that received a scholarship from UP is 315.

Of these, 2/3 are students who received scholarships for the first year of study, while

only 1/3 managed to obtain scholarships for the second year. This indicates that the students have difficulty in completing all the second year exams with a grade average above 8, which is the condition for receiving a scholarship.

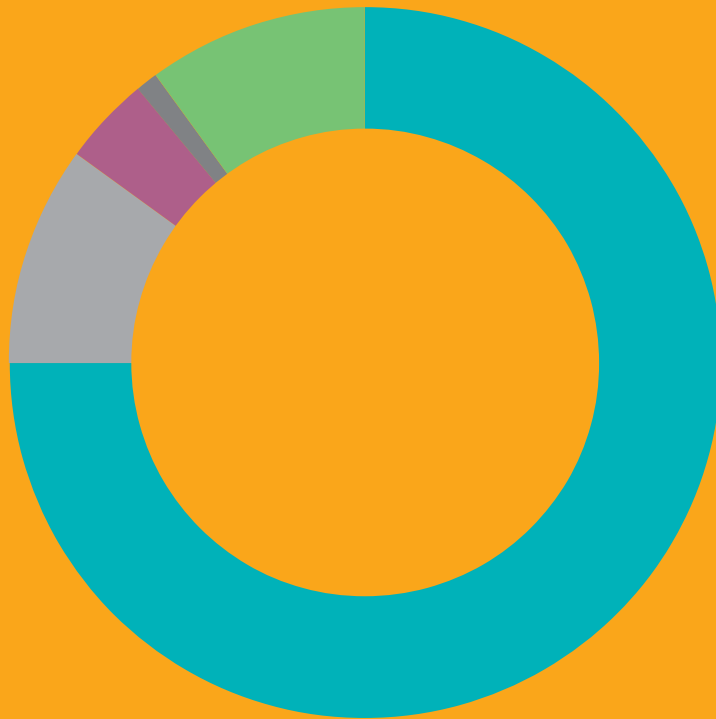
Number of scholarships gained



Regarding the allocation of scholarships according to the FIEK guidelines, it is observed that 3/4 of the scholarships were awarded to computer engineering,

electro-energy and telecommunication students receiving 10% of the scholarships, electronics (4%) and automatics (1%) had the smallest number of recipients.

Allocation of scholarships based on study programs



75% Computer engineering

10% Telecommunications

4% Electronics

1% Automatics

10% Electro-energy

The situation according to professionals and experts

Interviews conducted with members of the regular and engaged academic staff of FIEK, but also with those responsible and former heads of departments in FIEK, show that there is a risk of shutting down the direction of electro energy. Indeed, one of the professors interviewed says that it is likely that the direction of **automatics**, and later perhaps **telecommunications**, may also be shut down¹⁴. The danger for these two directions, including also the direction of **electronics**, is emphasized by other professors¹⁵. However, Professor Myzafere Limani says that this situation was overcome in the field of electronics and automatics, because vacancies were announced and full professors were hired, but this was not the case in telecommunications, though the staff are ready¹⁶. Whereas, according to Professor

Lavdim Kurtaj, the new accreditation imposes the merging of electronics and automatics into one single direction, due to the lack of regular academic staff.

On the other hand, Professor Mimoza Ibrani, Vice-Dean for Academic Affairs, says that there is no danger of closing any FIEK course except for electricity, and even this can be closed only if the competition announced on October 22, 2019 for full professors fails¹⁷.

All of those interviewed were of the opinion that the main reason that could lead to the closure of study programs in FIEK, and especially of electricity, is the retirement of regular academic staff. This situation was exacerbated especially in recent years, as the regular

academic staff of FIEK belonged to the same generation, which has led to several professors retiring within a year¹⁸. The middle generation, who would have to replace retired professors, had no interest in academia after the 1998-1999 war, as they found higher-income jobs¹⁹. Professor Gazmend Kabashi, employed at KOSTT, confirms that a large proportion of engineers, namely potential professors at FIEK, left academia after the war and engaged in industry due to higher salaries²⁰.

Apart from retirement, another reason is the lack of renewal of academic staff at FIEK. One of the reasons for this is that the PhD program has been missing in recent years²¹. Three years have been accredited for the program of doctoral studies in electro-energy, but no student was able to register as UP did not open a competition. According to Professor Vjollca Komoni, the competition could not be opened due to the lack of academic staff to guide the students²². However, FIEK's Dean, Enver Hamiti stated that the doctoral program for electricity has been accredited for the period from 2013 to 2016, but the UP has failed to announce a doctoral competition in the power program until at the end of 2016 due to problems with the change of rectors, and at the end of 2016 accreditation for this program has ended.

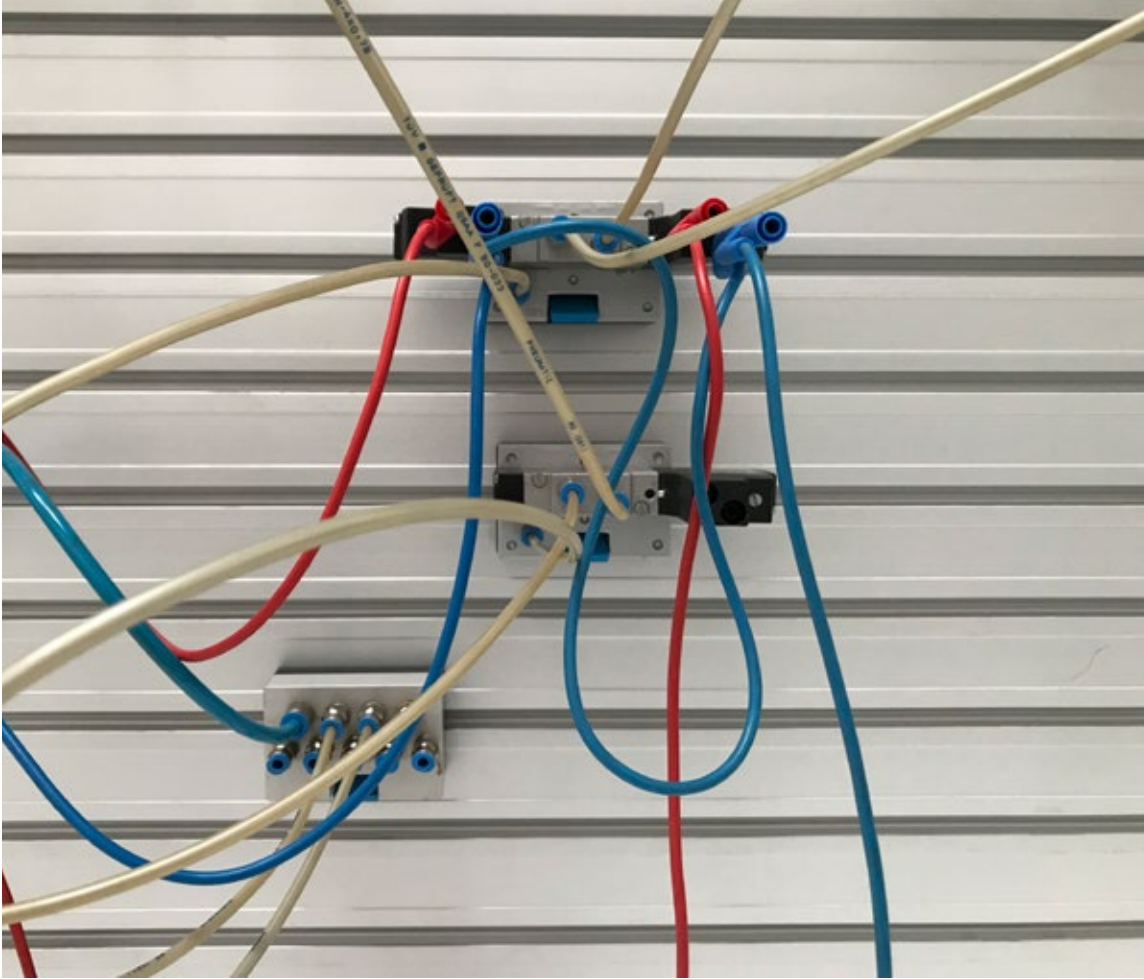
Professor Vjollca Komoni says they failed to create the new generation for two reasons: the good students were hired by the job market for much higher salaries than the university could offer,

and because they got poorly performing students who could not be prepared for university teaching²³. According to her, competitions have failed several times due to lack of interest from candidates²⁴. According to Professor Ruzhdi Sefa, there were also cases when competitions failed due to weak candidates²⁵.

Professor Komoni says that this situation has been managed by hiring external staff, which she says is a mistake because one cannot run a faculty with external staff²⁶. Professor Kabashi confirms that most of the post-war FIEK assistants were outsourced rather than regular, as this was less costly for UP, although competitions for regular assistants were occasionally opened, albeit not as was sufficient²⁷.

FIEK professors say that there are candidates in various companies, such as KEK, KEDS, etc., who have doctorates from renowned European universities, but who were not hired as regular lecturers, but only as externally engaged²⁸. However, many of these candidates were not interested in academic careers, not only because of the difference in income²⁹, but also because of the excessive bureaucratic procedures for recruiting new staff³⁰. However, there are some PhD candidates in certain fields who do not meet the criteria required by the relevant statute and regulation, such as the number of publications in credible journals³¹.

On the other hand, Professor Luan Ahma says that in order to enroll new



staff, UP must first get permission from the Ministry of Finance for staff increase³². The same is stated by Professor Ruzhdi Sefa: «In the field of power engineering there has always been a request to open competitions for regular new assistants, but these requests have always been rejected with unjustified justifications such as: no serious candidates, no funds, the Rectorate/Ministry of Finance will not allow it»³³.

Another obstacle that some interviewees highlight is the age criterion - 30 years for assistants and 50 years for professors - which they consider discriminatory. The UP statutory criteria for hiring university assistants exacerbate

the situation of lack of academic staff. Article 178 of the Statute stipulates that candidates must be no more than 30 years old when first appointed, and not more than 40 years old if they hold a doctorate³⁴. Similarly, Article 177 imposes an age restriction on the employment of professors (full-time, associate and assistant) who are not permitted over the age of 50 if elected for the first time. The interviewees even mention the lawsuit that the Ombudsperson Institution (OI) has filed with the court, which has ruled in favor of the OI³⁵. The OIK has recommended to the Assembly of Kosovo and the Rectorate of UP to reconsider the decision of the UP Senate which limits the age to be elected as a lecturer and the

Assembly to require from all institutions to prohibit the practice of age discrimination in employment³⁶.

On 9 December 2013, the Basic Court in Pristina issued a judgment annulling the decision of the UP Senate dated 25 May 2010, No. 1/499³⁷ and approved the OIK recommendation as grounded. According to the plaintiff, the decision of the UP Senate violates the Constitution of the Republic of Kosovo, the Anti-Discrimination Law, the Labor Law and the Law on Civil Service, limiting the age for teaching to 50 years of age. The court held that the UP Senate did not provide any justification on what legal basis to limit the age. According to the Court, this decision of the Senate is in violation of the Law on Administrative Procedure and is issued in violation of the UP Statute, the Constitution of Kosovo and other bylaws³⁸. The newest complaint against age discrimination in applying for academic staff is dated 29 October 2018. This is still pending before the Court of Appeals, while the OIK legal opinion was sent on 2 August 2019³⁹. The UP Senate did not vote on any other statute. The continuation of the implementation of these age criteria from UP was also confirmed by two ADMOVERE interviews.^{40 41}

Closure of certain directions within FIEK, especially electricity, will have unpredictable long-term consequences, while in the medium term there it will bring about a lack of engineering staff for existing energy companies (KEK, KOSTT, KEDS, etc.), but also for the entire economy

of Kosovo, since Kosovo's electricity system will not be able to function. This is all because FIEK is the only faculty that offers accredited study programs that produces staff for the power system throughout Kosovo.

In view of the above, the Minister of Economic Development, Vadrin Lluka, and the Rector of the University of Prishtina, Marjan Dema, on 1 March 2019 signed an agreement according to which the Ministry of Economic Development, in cooperation with key stakeholders of the energy sector - ERO, KEK, KOSTT and KEDS - will regularly receive electricity students for paid internships. This will help students gain experience according to market needs, which will also help them find employment. On the day the agreement was signed between Minister Luke and Rector Demas, the Ministry of Economic Development had announced that it would soon provide a scholarship fund for students of electricity, in order to give an additional impetus to young people pursuing this perspective in the future.

The scholarship initiative was also provided by the United States Agency for International Development (USAID) through a five-year project "Repower Kosovo", (October 2014-October 2019), which has held four rounds of internships (ERO, KEK and KOSTT) which included 63 students (34 female students and 29 male students), from RIT Kosovo and UP⁴². Another project was Women in Energy, launched on February 20, 2019, by the Millennium Foundation Kosovo.

According to the project's communiqué, 200 girls and women will benefit from paid internships, and a number of grants will be given to women in entrepreneurship. This project has awarded 25 scholarships to Kosovar women and girls for studies in the fields related to energy, for the period 2019-2021, worth about \$1 million. The first batch of scholarships, according to FMC, will be attended by "Des Moines Area Community College" in Iowa, USA⁴³.

Furthermore, in view of the alarm given in the public on the risk of closure of certain directions in FIEK, on April 18, 2019, on the proposal of the Minister of Economic Development, Vadrin Lluka, the Government of Kosovo approved the establishment of the Working Group to address the lack of staff and the future of power management in UP. The Working Group - consisting of Ministry of Economic Development, Ministry of Education, Science and Technology, UP Rectorate, FIEK, Chairman of CSC Board, KOSTT, KEK, ERO , as well as the civil society - should propose to the Government of the Republic of Kosovo a solution for the future of electricity management in UP⁴⁴.

Although there were meetings from different institutions on this issue, so far there is nothing concrete on resolving it, except for the announcement of the competition for regular academic staff on October 22, 2019, which is the competition with the largest number of regular lecturers for electricity since 2012.

FIEK and industrial and energy enterprises

In order to examine the consequences that the largest energy and industrial enterprises in the country (KEK, KOSTT, KEDS, TREPÇA and INFRAKOS) may face from the closure of certain directions in FIEK, as well as to learn about the situation of these companies regarding staff, we ensured data on:

- the main challenges these enterprises face in terms of new professional staff;
- professional profiles most sought after by these companies;
- study programs at FIEK which require graduates for employment in these enterprises;
- the number of engineers employed in these enterprises and their average age;
- the number of engineers who retired in the past 10 years;
- the number of engineers who will retire in the next 10 years;
- the number of FIEK graduates employed in these enterprises over the past 10 years;
- the number of FIEK students who completed professional practice

in these enterprises in the last 10 years;

- the number of FIEK students who received scholarships from these enterprises;

KEK

KEK has over 4,000 workers, whose average age is about 56 years. KEK currently employs 365 engineers, but we were not provided with data on their average age. In the period 2010-2019 KEK has retired 144 engineers, while in the period 2019-2028, 205 engineers are expected to retire. So in the short term KEK faces retirement of engineers and according to KEK executives, the challenge remains their old age, which will be surpassed by FIEK inflows.

The number of graduates employed by FIEK at KEK in the last ten years is 112. The overwhelming majority of engineers employed are from FIEK in the fields of power engineering and computer engineering.

During the period 2010-2019, KEK has interned 310 students from UP, while during this period KEK did not allocate scholarships for FIEK students.

KOSTT

KOSTT currently employs 103 engineers, whose average age is 45 years. 10 engineers were retired in the period 2010-2018 at KOSTT, while 25 engineers are expected to retire for the period 2019-2028. So in the short term, KOSTT does not face any retirement of engineers, but according to KOSTT executives, in the medium term it may face a lack of staff.

The overwhelming majority of engineers at KOSTT are graduates from FIEK, mainly in power engineering, power systems, and industrial power engineering. In the last 10 years, 42 engineers graduated from FIEK were employed at KOSTT (19 with work experience and 23 others who have completed one year internship and were then employed). This company employs 5 computer engineering engineers graduated from private colleges.

In the period 2010-2019, KOSTT interned 157 students from FIEK, while during the period 2010-2014 KOSTT allocated 48 scholarships for FIEK students, amounting to 1,200 Euro per year, which totals 57.600 Euro. Of these scholarships, 28 have been for undergraduate students majoring in power systems. The criteria for the scholarship award were: number of student admission points (more than 70 points), average grade over 8, non-repetition of study years; of the applicants with equal points, those with more severe economic conditions were selected. Since 2015, KOSTT has not awarded scholarships to FIEK students. KOSTT executives say

they are planning to start scholarships again next year.

KEDS

KEDS currently employs 161 engineers, whose average age is 42 years. From 2013, when KEDS was established, until 2018, 6 engineers retired from this enterprise, while 32 engineers are expected to retire for the period 2019-2028. KEDS does not face engineer retirement, but according to its executives, the main challenge they face in recruiting new staff is the lack of professional skills in relation to the job and occupational requirements, since in most cases knowledge and the skills acquired at university do not match the real world of work. According to them, another challenge is the inability to find the right staff in certain regions of Kosovo. Priority of employment at KEDS is given to students from the field of electricity at FIEK.

The vast majority of engineers employed at KEDS in the last ten years are graduates from FIEK: one is from the telecommunications and 63 are from the electricity department.

In the period 2013-2019, within the framework of the program “KEDS Academy”, there were 101 FIEK students doing professional internships, all of them from the field of electricity 58 of these, after completing the internship, entered into regular employment contracts with KEDS. KEDS has never awarded scholarships to FIEK students, but according to KEDS executives, their investment through the

KEDS Academy program is equivalent to investing in student scholarships, even more so since this program has a very high cost.

TREPÇA

Trepça currently employs 30 engineers, 12 of whom are electrical and 18 mechanics engineers, whose average age is about 50 years. During the last 10 years, 23 engineers were retired in Trepça, while 21 engineers are expected to retire in the next 10 years. As we speak, this company is facing a shortage of engineers from the following FIEK fields: power, electronics and computer engineering.

In the past 10 years, no FIEK graduate was employed in this enterprise. Employees of the “Trepça” company are graduates of the Faculty of Mechanical and Computer Engineering (FIMK) of the University of Mitrovica “Isa Boletini” (UMIB), established by the Assembly of Kosovo in 2013.

In the past ten years, no FIEK student has completed a professional internship at the Trepça enterprise, while UMIB FIMK has provided approximately 40 students with a professional internship at the enterprise. As for the scholarships, Trepça executives say they have never awarded scholarships to students because of a lack of funds.

INFRAKOS

INFRAKOS has 38 engineers of various profiles with an average age of 43 years. Seven engineers retired in the last 10 years, while eight engineers are expected to retire in the next 10 years. INFRAKOS is not faced with a lack of engineers, but with a lack of graduate experience, as “the theory that students learn in faculties is inconsistent with practices in public and private enterprises”.

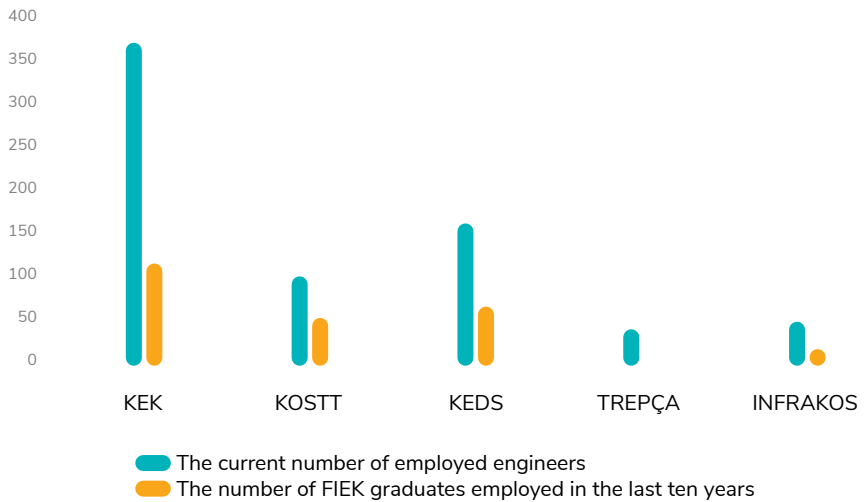
The profiles that this company requires from FIEK are electronics, computer engineering, electro-energy and telecommunications. In the last ten years, INFRAKOS has employed 11 engineers graduated from FIEK.

Six students from FIEK completed professional internships in the last ten years at INFRAKOS. However, this company has never awarded scholarships to students due to its poor financial situation.

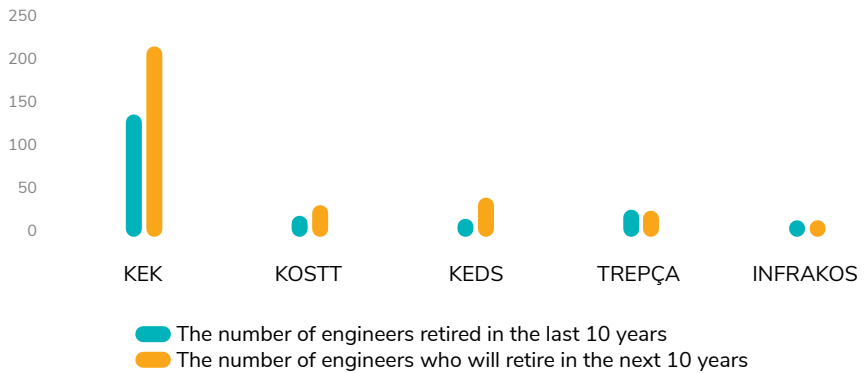
CONTOUR GLOBAL

At this stage of the project, Contour Global did not provide data on the number of graduates from FIEK study programs that could be employed at this power plant. On the other hand, the Minister of Economic Development, Valdrin Lluka, stated that the construction of the power plant „Kosova e Re „ will create 10 thousand jobs, and 500 jobs will be created for its operation. The management of „Contour Global“ did not provide data on plans to organize programs of scholarship and professional practice for FIEK students. However, Minister Lluka and management of the „ Contour Global“ confirmed that the Community Development Fund will be created around the site where the plant will be built. One of the goals of this fund will be to develop youth skills in the field of energy⁴⁵.

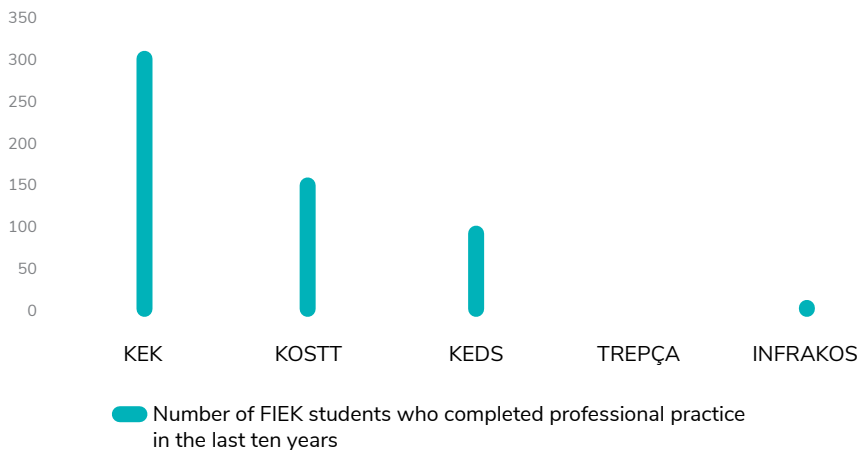
Current employment in industry



Retirement in industry



Professional practice in the industry





Conclusions

- FIEK has a total of 36 academic staff (15 men and 9 women). The average age of full-time professors is 58; of associate professors 51; of assistant professors 50; in total, the average age of full-time professors is 53 years. One in four academic staff is also engaged in another public or private higher education institution. The lecturer-student ratio during the lecture process is 1:43, and in exams, in addition to regular students, the repeating students increase the ratio to 1:76. Half of the academic staff is of a purely local academic background. No staff member has completed all levels of study abroad and in a foreign language. PhD studies abroad and in a foreign language were completed only by 5 members of the academic staff.
- Study programs in electro-energy and automatics have a discrepancy between the number of retired professors and the number of new professors and assistants required by the competition. This discrepancy is even greater when one considers that these competitions have not necessarily been for new teaching positions, but also for resubmissions and advancements of existing teaching positions.
- The non-renewal of academic staff, especially in the department of electricity, has been managed by the additional engagement of retired professors up to the age of 70, making this department the one with the largest number of retired professors additionally engaged.
- The electro-energy department has never had assistants with regular engagement, except in 2018, and the positions of the regular assistants are supplemented with external assistants.
- The computer engineering course has the largest and most stable enrollment of new students in the period 2012-2019, while the electrical engineering course, despite having had the same number of new registered students with the computer engineering course at the beginning of this period, in the last three years saw a halving of the number of new students enrolled. Such a decrease also happened in the direction of automatics, while telecommunications and electronics departments saw a slight decline.
- From the statistics of the number of students enrolled in the academic years of 2012-2019 in all directions of FIEK, it can be noticed that in the second year of studies the

average number of students enrolled for the first time is by half lower than in the first year. It is also noticed that the average number of students enrolled for the second time and more is higher in the third year, with the number of repeat students in the third year almost the same as the number of new students enrolled in the first year.

- Similar to the BA level, the largest number of repeat students in the MA level is in the final year of studies. While at BA level the total number of students enrolled in the first year is almost the same as the total number of students enrolled in the last year, at MA level the total number of students enrolled in the second year is twice higher than in the first year of studies. This indicates that there is a delay in the duration of MA level studies.
- The gender ratio at both BA and MA levels is 37% female students to 63% male students. This gender ratio is constant across all years and levels of study.
- In the period from 2012 to 2019, out of the total number of students from all FIEK courses who received scholarships from UP, $\frac{2}{3}$ are students who received scholarships for the first year of study and only $\frac{1}{3}$ managed to receive scholarships for the second year. This speaks of the difficulties students face in completing all the second year exams with a grade average above 8. Of the scholarships, 75% were received by computer engineering students, 10% by electrical and computer science and telecommunications students, while electronics (4%) and automatics (1%) had the smallest number of students receiving scholarships.
- From interviews conducted with regular and engaged FIEK academic staff, but also from those with those responsible and formerly responsible for study programs at FIEK, it results that:
 - There is a risk that the electrical engineering department will be shut down due to the retirement of regular academic staff. This situation has worsened especially in recent years, as regular academic staff belonged to the same generation, and this has led to retirement of several professors within one year;
 - Apart from retirement, another reason is the lack of renewal of academic staff. Middle-generation members who could replace retired professors after the 1998-1999 war had no interest in joining the academy because they found higher-income jobs. The same thing happened with the younger generation - the good students were taken by the job market with greater rewards than those by the university, but there was no inflow of quality students either. In addition, competitions failed several times due to lack of interest among the candidates, and there were occasions when competitions failed due to poor candidates;

- Another reason why the regular academic staff at FIEK was not renewed is the lack of a PhD program in recent years, although even when this program was accredited, no student managed to register, as the UP did not open a competition: due to lack of academic staff and/or due to changing rectors;
- There are candidates in various companies, such as KEK, KOSTT, KEDS and so on, who have doctorates from renowned universities, many of whom were not interested in academic careers due to lower incomes, and also because of the prolonged bureaucratic procedures for hiring of new staff, and failure to meet the criteria, such as the number of publications in credible journals;
- In order to hire new staff, the UP must first obtain staff growth permits from the Ministry of Finance, which it always refuses on the grounds that it does not have funds;
- Another obstacle is the age criterion - 30 years for teaching assistants and 50 years for professors - which, according to job applicants, is discriminatory and a criterion that no public university has. In addition, the OIK has recommended that the decision of the UP Senate restricting the age in order to be elected as a lecturer be reviewed, as well as to prohibit age discrimination in employment. The Basic Court in Pristina issued a judgment overturning the decision of the UP Senate on age criteria and approved the recommendation of the OIK as grounded;
- If the study program of electricity in FIEK closes, then the long-term consequences are unpredictable, but the medium-term consequence will be the lack of engineering staff for the existing energy enterprises (KEK, KOSTT, KEDS, etc.) and for the whole economy of Kosovo, because it will create a gap of passing knowledge and engineering experience from one generation to another. This discontinuity in production of new staff will have major consequences on the functioning and development of Kosovo's electricity system. This is all because FIEK is the only higher education institution that offers this accredited program of study that produces frameworks for the power system throughout Kosovo.
- Given the public concerns about the risk of closure of the FIEK power study program, the Government of Kosovo has approved the establishment of a Working Group to address the lack of staff and the future of electricity management in the UP. Although to this end there were meetings of various institutions, so far there is nothing concrete in order to solve this problem, in addition to the announcement of the regular academic staff on October 22 2019, which is the largest competition for the number of lecturers required for electricity since 2012.

- From the companies under consideration - KEK, KOSTT, KEDS, TREPÇA and INFRAKOS - it turns out that:
 - there are currently 697 engineers employed,
 - 235 of them were employed in the last ten years;
 - 190 engineers have retired in the last ten years;
 - 291 engineers are expected to retire in the next ten years;
 - 574 students have completed professional practice.
- Of these companies, KOSTT is the only one to have awarded scholarships for students. During the period from 2010 to 2014, KOSTT has awarded 48 scholarships to FIEK students, amounting to 1,200 Euro per year, totaling 57,600 Euro. Of these scholarships, 28 have been for undergraduate students majoring in power systems.
- At this stage of the project, Contour Global has not provided data on the number of graduates from FIEK study programs that could be employed at the power plant, nor data on whether they plan to organize scholarship and professional internship programs for FIEK students.

Recommendations

The Dean Office of FIEK and the Rectorate of UP, with support from the Ministry of Education, Science and Technology (MEST) and the Ministry of Finance (MoF), as well as the Ministry of Industry, should provide scholarships to distinguished students, as well as scholarships for PhD studies at European universities for its teaching assistants, provided they return for regular academic engagement at FIEK upon completion of such studies. Also, the employment contracts of the staff admitted to FIEK and who are doing a doctorate abroad should not be terminated;

The Dean Office of the FIEK and the Rectorate of the UP, with support from the MEST and the MoF, should eliminate the budgetary constraints in recruiting new full-time academic staff at the FIEK for specific areas of national interest, such as electricity;

Establish a mechanism by the Dean's Office and the Rectorate to monitor the status of academic staff in the departments of FIEK so that vacancies for full-time

academic staff can be announced more often and in line with the needs, in difference to the current practice of advertising competitions almost every two years for all faculties at once. Also, the aforementioned mechanism should ensure that announcements for the competition or initiation of the procedures for advancement of their assistants at least six months before a full-time academic staff member retires;

Since creating proper staff takes time, the possibility that PhD graduates who meet the statutory conditions for regular engagement, and who are employed in the industry, are offered incentives to engage in academia should be considered;

To increase the budget for scientific research so as to enable FIEK to be an institution that generates income, by creating institutes for scientific research and expertise for enterprises and institutions of the country, in order to have a connection between the university and industry.

Fundnotat

1. "Electricity risks shutdown due to lack of professional staff", available at: <https://kallxo.com/gjate/analize/elektroenergjetika-rrezikon-mbylljen-per-shkak-temungeses-se-kuadrove-profesionale/>
2. The administrative guidance for accreditation can be found at this link: <https://gzk.rks-gov.net/ActDetail.aspx?ActID=17952>
3. The 2014 Accreditation Decision can be found at: http://www.akreditimi-ks.org/new/index.php/sq/latest-events/cat_view/3-evaluations/293-raportet-e-vleresimit/297-institucionet-publike/305-universiteti-i-prishtines-hasan-prishtina/488-fakulteti-i-inxhinierise-elektrike-dhe-kompjuterike/546-2014
4. Decision on Accreditation 2017/1, available at: http://www.akreditimi-ks.org/new/index.php/sq/latest-events/cat_view/3-evaluations/293-raportet-e-vleresimit/297-institucionet-publike/305-universiteti-i-prishtines-hasan-prishtina/488-fakulteti-i-inxhinierise-elektrike-dhe-kompjuterike/808-2017
5. Decision on Accreditation 2018/1, available at: http://www.akreditimi-ks.org/new/index.php/sq/latest-events/cat_view/3-evaluations/293-raportet-e-vleresimit/297-institucionet-publike/305-universiteti-i-prishtines-hasan-prishtina/488-fakulteti-i-inxhinierise-elektrike-dhe-kompjuterike/809-2018
6. Accreditation Decisions 2013, can be found at: http://www.akreditimi-ks.org/new/index.php/sq/latest-events/cat_view/3-evaluations/293-raportet-e-vleresimit/297-institucionet-publike/305-universiteti-i-prishtines-hasan-prishtina/488-fakulteti-i-inxhinierise-elektrike-dhe-kompjuterike/545-2013
7. Interview with Dean of FIEK, Enver Hamiti, July 26, 2019 and September 18, 2019. .
8. Interview with Dean of FIEK, Enver Hamiti, September 18, 2019.
9. CVs of FIEK academic staff members can be found at this link: <https://fiek.uni-pr.edu/Personeli/Personeli-Akademik.aspx>
10. Ibid., Page 27. Statements of the number of students enrolled in the 2018-2019 academic year were also used.
11. "UP Academic Staff", ADMOVERE, 2018, Prishtina, page 15.
12. Ibid.
13. The contest can be found at this link: <https://uni-pr.edu/desk/inc/media/D90D63E5-661E-44FC-AA51-B9831D5AAF94.pdf>
14. Interview with prof. asoc. dr. Avni Skeja, October 17, 2019, Pristina.
15. Interview with prof. dr. Myzefere Limani, October 11, 2019, Pristina.
16. Ibid.

17. Interview with prof. asoc. dr. Mimoza Ibrani, Vice Dean for Academic Affairs, October 15, 2019, Pristina.
18. Interview with prof. asoc. dr. Sabrije Osmani, 18 October 2019, Pristina.
19. Interview with prof. asoc. dr. Vjollca Komoni, October 11, 2019, Pristina.
20. Interview with prof. ass. dr. Gazmend Kabashi, August 29, 2019, Pristina.
21. Interview with prof. dr. Enver Hamiti, September 18, 2019, Pristina; with prof. dr. Mimoza Ibrani, October 15, 2019, Pristina; and with prof. asoc. dr. Avni Skeja, October 17, 2019, Pristina.
22. Interview with prof. asoc. dr. Vjollca Komoni, October 11, 2019, Pristina.
23. Ibid.
24. Ibid.
25. Interview with prof. dr. Ruzhdi Sefa, October 17, 2019, Pristina.
26. Interview with prof. asoc. dr. Vjollca Komoni, October 11, 2019, Pristina.
27. Interview with prof. ass. dr. Gazmend Kabashi, August 29, 2019, Pristina.
28. Interview with prof. dr. Myzefere Limani, October 11, 2019, Pristina; and with prof. dr. Flower Ahmed, October 11, 2019, Pristina.
29. Interview with prof. asoc. dr. Mimoza Ibrani, Vice Dean for Academic Affairs, October 15, 2019, Pristina; and with prof. asoc. dr. Sabrije Osmani, 18 October 2019, Pristina.
30. Interview with prof. asoc. dr. Sabrije Osmani, 18 October 2019, Pristina; and with the expert Mr. Sc. Avni Alidemaj, 21 October 2019, Pristina.
31. Interview with prof. dr. Luan Ahma, October 18, 2019, Pristina; and with prof. dr. Mimoza Ibrani, October 15, 2019, Pristina .
32. Interview with prof. dr. Luan Ahma, October 18, 2019, Pristina.
33. Interview with prof. dr. Ruzhdi Sefa, October 17, 2019, Pristina
34. The Statute of the University of Prishtina "Hasan Prishtina", ratified by the Assembly of Kosovo, can be downloaded from: www.uni-pr.edu under the category "more" under the word "STATUTI".
35. Interview with the expert Mr. Sc. Avni Alidemaj, 21 October 2019, Pristina; and with prof. asoc. dr. Lavdim Kurtaj, October 11, 2019, Pristina.
36. Ex officio no. 170/2010 on the Decision of the Senate of the University of Prishtina on Restricting Age in the Recruitment of Lecturers without Academic Experience, Ombudsperson Institution, 30 August 2010.
37. Decision Ref.nr 1/499, University of Pristina Senate, 25.05. 2010.
38. Judgment A.nr. 1242/2010, Basic Court Pristina, 09.12.2013.
39. Legal Opinion of the Ombudsperson of the Republic of Kosovo in the Quality of Friend of the Court (Amicus Curie) A.nr.547 / 2018, Ombudsperson Institution, 2 August 2019.
40. Interview with Mr. Sc Avni Alidemaj, Pristina, 21 October 2019.
41. Interview with Mr. Sc Lavdim Kurtaj, Pristina, October 11, 2019.

42. For this see: <https://www.usaid.gov/kosovo/infographics/usaid-repower>
43. For this see: <https://millenniumkosovo.org/we-women-in-energy-scholarship-program-launched-today-in-prishtina/> dhe <https://www.mcc.gov/blog/entry/blog-032619-womens-history-month-kosovo/>
44. Decision of the Government of the Republic of Kosovo, no. 12/98, April 18, 2019.
45. Interview with Larissa Testoni, September 30, 2019, Pristina. See also: <https://www.koha.net/arberi/66161/neser-publikohet-kontrata-per-kosoven-e-re>.

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