

# 1/2017

Magazine for graduates of všb-tuo

### A UNIVERSITY CAPTIVATED BY FEMININITY

VŠB-TUO female graduates shake the world

Marta Nováková Sometimes men find me dumb

**Check Chicks Bloggers** It's important to find what makes you different

> Female graduates in numbers What statistics have revealed



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#### MAKE THE MOST OF YOUR MEMBERSHIP

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### alumn

<u>Alumni 1/2017</u> Magazine for graduates VŠB-TU Ostrava

<u>Published by:</u> VSB - Technical University of Ostrava Department of Vice-Rector for International Relations and Social Affairs

ALUMNI – care of graduates 17 November 15/2172 708 33 Ostrava-Poruba

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<u>Printing</u> Knowlimits s.r.o.

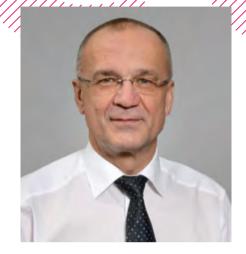
Published in June 2017, 5000 copies printed issued 2x a year not for sale

<u>Homepage</u> Photo: Denisa Vlková





# Vice-Rector's editorial



Dear alumni, dear readers,

The motto of this issue was prosaically deemed "Women of VŠB-Technical University of Ostrava shake the world." If the 20<sup>th</sup> century was the century of women's emancipation, the 21st century is clearly the century of women!

With each subsequent year of my life, I'm becoming increasingly aware that women are the stronger, smarter, harder working, and more beautiful half of our humanity. Actually, more than half.

Women have successfully delved into all the formerly mysterious activities, including those that until recently were dominated by men, and did so with drive and enthusiasm. This also applies to education. Currently, there are more women than men enrolled in higher education studies; on average women are more educated than men and are very significantly represented in the total number of graduates at our technical university. They are also gaining ground both in the university and the faculty management. For the second time in the history of the university, a woman, who is also our graduate, has been appointed to the

position of the vice-rector for the fourth consecutive year and three other women have held the position of a faculty dean in the past or current election periods. That is why it is absolutely necessary to grant them space for presentation in the once totally male world.

We have many great female graduates across all faculties and years. It is engaging to read all the stories of successful women, our graduates and, in some cases, still students. I believe that life is going to scribe even more of such stories, and these women will not only shake the world but change it for the better!

I wish you a beautiful summer with a lot of sunshine and at the same time I hope that many successful women and, of course, men too will join our alumni network after this year's state examinations.

nucue/ (

prof. Ing. Jaromír Gottvald, CSc.<sup>92</sup> Vice-Rector for International Relations and Social Affairs

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Thousands of Venuses from *FMME* for Ostrava

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# A University Captivated by Femininity

Well, if you say VŠB-TUO – do you more readily imagine male or female students? The fact is that there are more female engineers at VŠB-TUO than you think.

It may come as a surprise to you, and you will surely not be alone in assuming this, but last year more than fifteen hundred female graduates successfully completed their studies - that is 42% of the total number of Bachelor and/or Engineer graduates. And just like many very successful graduates before them, they also have the potential to move the world and be behind great projects.

Our female graduates live on all continents and find very good jobs. In the alumni network, we associate women working in top company managements in senior management positions – the women who, through their decisionmaking, influence global markets or participate in shaping the legislative

organization of states. They include sought-after experts and specialists in their fields and are not afraid of any hard manual labour. They work as recognized scientists with international reach, amongst others, developers, designers, ecologists, auditors, design engineers, accountants, geologists, personnel officers, programmers, technicians, metallographers, and this is just a random list of different professions our graduates are working in with grace. And yet they are all great moms, wives and friends. In short, we would like to dedicate the issue of this magazine to all these amazing women.

TEXT: Lucie Rýcová '09

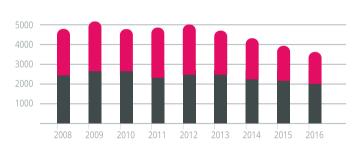


# Female graduates in numbers

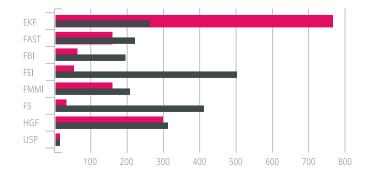
# The proportion of women in the total number of graduates

In 2016, women accounted for 42% of the total number of VŠB-TUO graduates.

women 🗾 men



# Female graduates at individual faculties

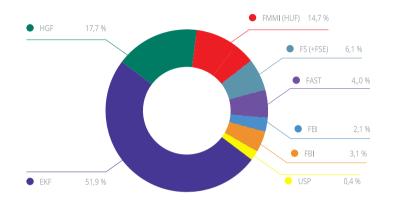


The Faculty of Mining and Geology showed almost a balanced ratio of male and female graduates in 2016.

Exactly the same number of men and women graduated from the university degree programmes (Nanotechnology and Mechatronics).

women 📰 men

# Female graduates by the faculty in the VŠB-TUO Alumni Network



There are almost 6.5 thousand of you in the Alumni Network. The percentage of women in the Alumni Network is 36% and the most experienced female alumni is 86 years old.

EKF – Faculty of Economics / FAST – Faculty of Civil Engineering / FBI – Faculty of Safety Engineering / FEI – Faculty of Electrical Engineering and Computer Science / FMMI – Faculty of Metallurgy and Materials Engineering / HUF – Faculty of Metallurgy / FS – Faculty of Mechanical Engineering / HGF – Faculty of Metallurgy / HGF – Faculty of Metallurgy / Safety Engineering / FSE – Faculty of Mechanical and Electrical Engineering / HGF – Faculty of Mining and Geology/ USP - University Study Programmes



○ Emeritus professors

○ Financial managers

○ Personnel specialists

• Project managers

O Design engineers

O Deans

O Vice-Rectors

# Female graduates around the world

# Types of professions in which our female graduates find employment

- Managers
- Directors
- O Auditors
- Members
- of Supervisor Boards • Chairwomen
  - of the Board of Directors

- Metallographers
  - Construction supervisors
  - O Programmers
  - Website designers
  - O GIS specialists
  - Press agents
    - Accounting technologists
- O Accountants
- O Geologists
- Ecologists
- O Process Engineers

••



## IT Guys Purposely Create a Bubble of Exceptionality

### We do not highly often encounter women in the IT business, but there are exceptions that confirm the rule. Marta Nováková is one of them.

Marta graduated in System Engineering at the Faculty of Economics, VŠB-TUO and after the 1989 Revolution started, with her husband, her own business in an IT field. Despite the harsh times at the beginning and occasional foul ups, the U&Sluno is now a leading provider of information systems around the world. How is an IT firm built when you do not have your own computer and how does a woman feel in an environment mostly dominated by men? You will find out all of this in the following interview.

You are a graduate of the System Engineering study programme at VŠB-TUO. How do you recall your years in school?

It was the most beautiful period in my life. I had an incredible amount of free time and, in fact, a lot of money, since I was granted a merit and social assistance scholarship and earned some money during my part-time jobs. The first two years of my study were quite difficult, because I previously had studied at a secondary school of economics where we did not have much mathematics. When I was accepted to a university and had algebra and system analysis as part of my curriculum, it was overwhelming for me. The worst was probably the course of descriptive mathematics, since I am missing spatial vision, so it was hard to understand the different types of projection. My girlfriend and I used textbooks from a grammar school to study from. Otherwise, the time in school was amazing. I even met my future husband there; he was my schoolfellow. I also learned how to ski at Báňská (VŠB-TUO), since from my freshman year I attended winter sports training courses. My strategy was to always pass my exams in the pre-terms so as to be able to spend summer and winter with VŠB in the mountains.

I cannot imagine today's IT teaching without computers...how did the lectures take place back then? NThere was a Tesla 200 computer available at VŠB. Every time we wanted

> "Technology provides the tools with which to do things better."



to work with it, we had to apply for computer time. The programs were filled into squared rasters, which then went into the punch hole station, where they perforated it with the rasters. If there was any semantic or syntactic error in the program, the program did not pass, the computer time was wasted and we had to ask for a new one. In short, one had to be really careful. To try out advanced technology we had a chance to either take an internship at Nová Huť (where I was) or at Vítkovice enterprises.

Women are not very common in the IT business...why did you choose this field?

It was not IT but rather advanced management based on management systems. As I say, IT is just support; it can never become a goal in and of itself. Technology provides the tools with which to do things better.

Have you ever been confronted with the fact that men would not take you seriously enough in this industry because of your gender?

Of course, they have. But this is not just the case in IT. Sometimes men see me as dumb; it's quite common that they assume that women do not understand IT. When people underestimate me, I always try to use it to my own benefit. From the very beginning, my tactics are that before I go to the meeting, I try to find out a lot of information about the people I have the meeting with and I either bring some expert with me or I have someone else who may get along better in terms of 'chemistry' with a specific person, to attend the meeting. The sales methods are quite complicated, but it's always about one man selling something to another man.

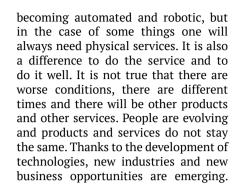
Actually, since I'm in sales, I don't get to meet many "IT guys." If someone is looking for a solution to their problem, it's necessary to identify it in their business, while the technology only provides them with effective support. I think the IT guys who think in zeros and ones, have encoded in their DNA that they must create a bubble of excellence and indispensability around themselves, and keep everything in a perspective that no one else beside them understands. But that's not true, one simply must not worry about asking questions.

<u>I often hear from other people that after</u> the Velvet Revolution it was very easy to start a business. What do you think?

I don't agree with that. Of course, there were no private enterprises in the former Czechoslovakia, and there was this 'Klondike' here (Editorial note: a chance to quickly become rich) when we (Czechs) were privatized, but we surely did not belong amongst those people. Doing business was difficult for us because we had no access to money. We lived on basic salaries, and after the Revolution, we had nothing. At that time, the computer was 280 thous. Czech crowns and the favourite make of car 70 thous. crowns. Just to be able to download the Oracle's program, we had to borrow money. But no bank was able to lend us so much money without a guarantee, which we did not have. Indeed, we had a huge lack of funds to be able to start a business. The tax was 51% back then, and every two or three years the conditions changed. In 1993, VAT arrived and any businessman had to learn how to navigate in this unstable environment. Another complication was very poor payment morale. On our part, it was great luck that we traded with foreign companies that were paying us. Doing business was very risky at that time.

Nowadays, it's often argued that the difficult beginnings of starting a new business exist because there's simply nothing left to invent. What do you think?

That's not true either, I believe. It is necessary to think differently about business, because these are different times. My grandmother used a washboard to do laundry, but that does not mean that the laundry would not get washed. First of all, it is necessary to look at the physical products that a person needs and will need in the future, because many things are



But back to your company. When you started your business with your husband, you did not even have your own computer. How did you obtain an Oracle software license when you had no device with which to download it? Yeah, that was pretty good (laughs). They told us to send the PC computer unit number, for which we did not have the money then, to be able to send us the program. My former husband received a loan of approximately one hundred thousand crowns and drove to Vienna where he bought a laptop on the black market and downloaded our first Oracle. But that was by no means the only obstacle; we then had to find our customers.

It was the seeking of contracts that was your job...How did you handle this role? The advantage was that there really was nothing here. I went to see my boss in Prior and told him he could have the barcode on the merchandise and the cash registers that would scan them. He was excited about it. So we started to address this issue with the help of foreign companies that supplied equipment and we programmed the software for them. ICL was the only company that got back to us, so we did not even have a selection procedure and directly signed the agreement. The managing director of Prior had taken a loan of approximately twelve million and we could start putting a new practice into place. The ICL people came to see us then. On the way to the office that we rented shortly prior to their arrival, so we would not bring them home, where we worked until then, we were asked if we owned the entire cultural house where our office was located (laughs). Well, and after Prior, Kmart came (Editorial note: today's Tesco), and it slowly started happening.



It was difficult, mainly because of the language barrier, but also the barrier in expertise. They used different terms for things, so we deemed it necessary to create a common terminology! The good luck was that our first business was with ICL, which was very happy to have us as their customers and we were good at learning from them. Of course, some cultural differences sprang up, which complicated our dealings a bit. Once we had a presentation on Friday, and the conservative English arrived in suits (we of course did too), but Kmart had a "casual Friday" and everyone was wearing jeans (laughs). It was a school of life. On the other hand, we had met, for example, people like Bill Clinton or the British Queen.

Most executives completely succumb to their work and cannot give it up, but you are the exact opposite, and in U&Sluno you are not acting as a manager. Was it a difficult departure for you?

I did not know much about managing anyway. The first year the new managing director did not like that I was getting involved all the time. Since I've been elected to the Union of Trade and Tourism of the Czech Republic, I simply do not have enough time for the company anymore. I've established the rules, and what we do is monitoring over the course of the year if we're still on the right track.

<u>Currently, you are the President of the</u> <u>Union of Trade and Tourism of the Czech</u>

<u>Republic. What is your job description</u> in this position?

It is a socio-political function that sometimes keeps me occupied up to ten hours a day. We negotiate conditions, and collective agreements with trade unions. We are a member of the tripartite, negotiate legislation, business conditions, etc. Half of my time I spend with deputies and senators, the other half at ministries and in committees. It's just something totally different. At the same time, I am a member of the Board of Directors at the Chamber of Commerce and also at the Eurocommerce Board, which is basically a European trade union, and thanks to it I fly once a month to Brussels. This is also a completely different environment from our little 'playground' in the Czech Republic. We do not have Europeanism in us yet. I used to be a Eurosceptic, but now when we are already part of the EU, we should be more pro-active and able to speak for ourselves...we now come across as grumblers, which is not a good label for us.

Do you have any time to rest with all that workload? What do you prefer doing in your free time?

Now, I thought I'd keep Fridays free, but I'm not very successful in it so far. I do a lot of sports, go to see the opera with my friends, go free-riding on skis, and I even participated with my in-line skates in a 24-hour Le Mans contest. One has to switch off his/her batteries sometimes, otherwise one would go crazy.

**Marta Nováková**<sup>78</sup> is a graduate of the System Engineering Programme, VŠB-Technical University of Ostrava. After completing her studies, she started working in the former state-owned department store Prior, where she later started her first major business. Together with her husband she founded the company Sluno (an acronym for the Sluka and Novák founders), which specialized in software development. When they acquired their first US Oracle license, they did not even have their own computer. But the business launched, and Kmart and other major companies followed (Prior). Today, U&Sluno is the leader in providing information technology in the Czech Republic, but also in markets abroad. Nowadays, Marta Nováková is only involved in strategic management of the company and in her remaining time acts as the President of the Union of Trade and Tourism of the Czech Republic, which she performs on a voluntary basis without any entitlement to salary. Author's window: Marta Nováková is a very nice and inspiring woman. The interview with her was a great challenge, because she had accomplished a lot in her life, and since the beginning of our meeting it was obvious to me that I could keep my expectations very high. During the interview we often digressed onto different topics, and I felt like I could talk to Marta for hours.

TEXT: Karolína Ondrušková<sup>'17</sup> PHOTO: Lucie Nohlová<sup>'17</sup> a Marta Nováková's Archive<sup>'78</sup>





### PROFESSOR SNÁŠEL HAS WON THE RECTOR ELECTIONS

The new Rector of the VŠB-Technical University in Ostrava was elected Prof. RNDr. Václav Snášel, CSc., who was voted in by the Academic Senate of VŠB-TUO.

Currently, he is Dean of the Faculty of Electrical Engineering and Informatics. He became a newly elected rector after Prof. Vondrák<sup>'83</sup>, who at the end of last year assumed the position of the Governor of the Moravian-Silesian Region.

Of the six candidates, two of them advanced to the second round, Prof. Václav Snášel and Prof. Petr Noskievič <sup>'82</sup>, Vice-Rector for Studies, currently temporarily acting as the Rector. In the second round, the vote ended with 25 votes to 12 in favour of Prof. Snášel. The new Rector will assume his office on September 1, 2017 and serve for the next 4 years.

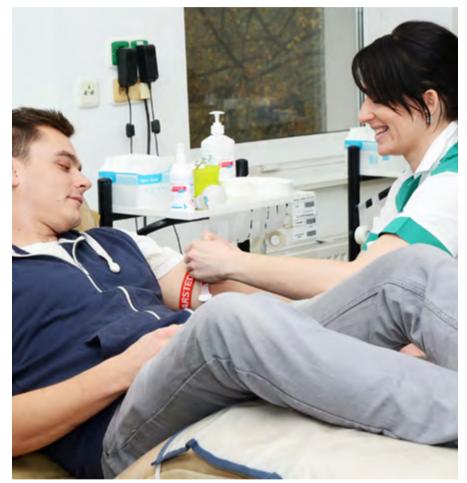


#### THE BLOOD RELAY RACE CONTINUES

The blood call relay race taken over by the Faculty of Mechanical Engineering in October 2016 from the Faculty of Mining and Geology took place on Tuesday February 28, 2017.

Some students and teachers have already been donors for some time, and the faculty's management treasured a belief that many others would join in. This wish has come true. A total of 110 courageous people arrived in the University Hospital, of which 55 were first-time donors. The Formula Student Team of VŠB-TU Ostrava, the Czech Republic also decided to join the blood donation - they decided to not only build the third prototype of their racing car, but also to collectively donate blood, thus motivating their fellow students to take the same action with the motto "Accept the blood call

# behind the gates of our university



and give blood." Pavel Dresler, a race car driver, who regularly donates blood, also encouraged his colleagues and students to join in the event: "I have a universal blood type so I can donate my blood to everyone. I see it as my civic duty."

The IFMSA CZ call was accepted by the VŠB-Technical University of Ostrava already in April 2016. The Faculty of Mechanical Engineering is the third faculty involved in the call aiming at expanding the number of regular donors. It approached its students, graduates

and teachers, inter alia by linking it with the recruitment campaign "The Last Mechanical Engineer." "I believe that our mechanical engineers will not be the last ones to donate blood and that the relay race will be superseded by the following Faculty of Safety Engineering. We all desire the common good," said dean of the faculty Ivo Hlavatý<sup>'87</sup>. In addition to the idea of regular donation, faculties also pass on the campaign know-how in terms of how to lure as many donors as possible.



THE FACULTY OF METALLURGY AND MATERIALS ENGINEERING (FMME) SHINESINTHEAREAOFTHERESEARCH OF BIOCOMPATIBLE MATERIALS

The scientific team consisting of Lenka Kunčická<sup>12</sup> a Radim Kocich<sup>03</sup> from the Faculty of Metallurgy and Materials optimized Engineering VŠB-TUO technological the manufacturing process of a very strong biocompatible titanium alloy. In the near future it could be used to make various medical components intended for implantation into the human body. Utilizing this process, it will be possible to produce an implant with a significantly smaller diameter while preserving or even improving the mechanical properties.

The excellent results of the research team on biocompatible materials have also attracted attention of the editorial team of the prestigious scientific journal Progress in Materials Science. The editorial team contacted the Ostrava and Colorado scientists to prepare a scientific paper on this topic. A 50-page text summarizing current research into biocompatible materials around the world, and also reporting on the results of research into the mechanical properties of these materials by applying moulding techniques, will be published in the July issue of this worldwide recognized periodical. "The journal has an impact factor of 31, with the most prestigious scientific titles in the world ranging from 30 to 40. It is therefore a great honour for the faculty. In the journal's more than a hundred years history this is only the sixth time that Czech scientists publish in it, and for the very first time it features academics from VŠB–Technical University of Ostrava," said the FMME Vice-Dean Adéla Macháčková<sup>'01</sup>.

### BAPTISM OF THE NEW FORMULA VECTOR 03 TOOK PLACE

Uncovering the student new formula Vector 03 took place on May 3 at the VŠB-TUO auditorium in Ostrava-Poruba. The work and enthusiasm of students and partners of the Formula Student VŠB-TU Ostrava, the Czech Republic, culminated in the uncovering of the ten-month prototype of Formula no. 3. The Vector 03 boasts several new features, such as a pneumatic gearshift system, plus a completely new suspension or telemetry.



Many more hand-produced composite parts, original parts manufactured using 5-axis cutting and 3D print technology were used to build the Vector 03 prototype. The team will participate in the Formula Student East races in Hungary in the 2017 season (Euroring, July 20-23) and Formula Student Czech Republic (Autodrom Most, August 2-5).



FEMALE STUDENTS OF THE FACULTY OF ECONOMICS (FE) SUCCESSFULLY COMPETED IN THE MANAGER OF THE YEAR 2016 CONTEST

Part of the prestigious MANAGER OF THE YEAR 2016 competition is also the traditional contest for the best student essay. The competition is designed for students of Czech universities, of which the three best are awarded. This year's theme was the DIGITAL SOCIETY.

Katarzyna Czerna, Kateřina Čeganová and Bára Žárová, students of the first year of the follow-up Master's degree programme in Business Economics, took the first three positions and the announcers of the competition - the Confederation of Industry and Transport of the Czech Republic, the Confederation of Employers and Entrepreneurial Associations of the Czech Republic and the Czech Managerial Association - welcomed the winners at the Gala Dinner in Prague's Žofín Palace on April 20, 2017, where, with the participation of top entrepreneurs, politicians, academics and the media, they were granted the awards as part of the awards ceremony to the most successful executives.



#### IN THE FINALS OF THE GREEN LIGHT ACCELERATOR, BOTH A CYCLING TENT AND A LIGHTING LIQUID HAVE SCORED POINTS

The finals of the Accelerator took place on February 23 at the premises of the new VŠB-TUO auditorium. For the first time in the history of this event, two projects shared the jury award and the award granted by the main partner - SDE Software Solutions. One of the winning projects was a cycling tent designed by Helena Záleská and Petra Krhutová, who are passionate cyclists. They love to take multipleday rides that involve camping, and so they have decided to create a tent optimized for them. "We thought to ourselves - why not use the wheels for actual construction - they are solid, and by including them we can protect them from rain and possible theft. We put our heads together to create our Tike," says Helena Záleská. Two adults can comfortably sleep in the tent, and there is even enough room for their bags.



Their idea also won the audience award.

The second project focused on the emergence of light, which is cost-saving and, thanks to its chemical properties, does not require a strong source for illumination. "It has come to us to bring some science into everyday life and to create a new, design type of lighting. By the careful mixing of chemicals to make them react with each other we have created a lighting liquid. With the simultaneous use of the light source, this liquid glows," remarked one of the authors of the ChemLight Project, Denis Havlena, a biophysics student at the University of Ostrava.

#### VŠB-TUO SEIZED OVERWHELMING CONTROL OVER THE FOURTH OSTRAVA HOCKEY DERBY!

The fourth year of the Ostrava Hockey Derby was again dominated by the ice hockey players from VŠB-TUO who crushed the University of Ostrava 7:2. The match was played on March 8th at the sold-out RT TORAX Arena in Ostrava-Poruba. The match was kicked off by the vice-rectors of both universities, and the atmosphere was absolutely breathtaking. Numerous other activities, such as a parade from the student dormitories to the arena and a sale of T-shirts, sweatshirts and caps of both universities associated with it...which then clearly demarcated the stadium into two sides of fans. A healthy rivalry between universities manifested in the roaring cheer of fan groups that shook the tribune. We thank our team for the victory and hope to extend our winning streak next year.

### THE ACADEMIC CHOIR COLLECTS AWARDS

The first place and the golden band in the category of chamber choirs, the prize for the best interpretation of the compulsory composition and the title of absolute winner – these are the awards that the VŠB-TUO Academic Choir brought from the Academic Banská Bystrica competition at the end of April.

In addition, the choir won 3<u>rd</u> place (in the category of chamber choirs with a compulsory composition) in the May Choir Competition of Prof. Georgi Dimitrov in Bulgaria. "It is a truly wonderful result to win such awards among all different nationalities and cultures," said Martina Vyležíková, the president of the association. Another success for the school was due to the conductor Adam Sedlický, who received a special award granted by the American jury member for the best young conductor performance.



TEXT: Petra Polesová<sup>'16</sup> PHOTO: VŠB-TUO Archive SOURCE: VŠB-TUO Press releases

# Factor ties

We celebrated the state exams of this year's Bachelor students and full degree Engineers in high style. Just what else was happening at the faculties?

### The University of the Third Age in Karolinka Has 18 Graduates This Year



Lifelong learning is a good investment. The local representatives of the town of Karolinka were also aware of this, and that is why at the beginning of 2011 proposed collaboration with the Faculty of Mining and Geology (hereinafter FMG) in the area of education for the senior population of their town.

FMG had more than twenty years of experience with this form of education and came to an agreement with town administration about this issue. The University of the Third Age (hereinafter U3A) launched the first run of its twoyear study programme in Karolinka in October 2011. In May 2013, the first 17 participants graduated from the programme.

Due to positive experience with the course of U3A and also on the basis of the generated additional interest of the Karolinka senior citizens, the town agreed, together with the FMG management, to continue U3A. In autumn 2013, the second run was opened, this time with 19 participants. They completed their two-year study programme in May 2015.

The third U3A run in Karolinka was opened as a traditional form of lifelong learning in September 2015. 18 participants enrolled. The lectures, which were taught by teachers from the FMG VŠB-TUO, took place once every two weeks in two two-hour teaching blocks. The lectures first took place at the premises of the Municipal Authority in Karolinka, and later were moved to the newly reconstructed Information Centre.

ČFour semesters were supplemented by two excursions. In the second semester, students visited the Mining Museum at Landek and the Science and Technology Center in Ostrava Dolní Vítkovice. In the last semester the participants went to the Moravian Karst. Under the leadership of the scientist Monika Ličbinská, who prepared the programme "Iron Path" for them, they saw the expositions of the House of Nature in the Moravian Karst and participated in a lecture on the formation of iron ores and their mining in the Moravian Karst. They also ventured out to the terrain. They visited the Catherine Cave and the Blansko Region Museum with its cast iron exposition.

A total of 20 two-hour lectures were organized by FMG within the two-year study programme, with 20 teachers involved and two excursions. All 18 trainees completed this run and received the certificate of attendance on May 16, 2017.

TEXT: Ing. Martina Polášková <sup>'92</sup> PHOTO: Mgr. Kristina Neničková

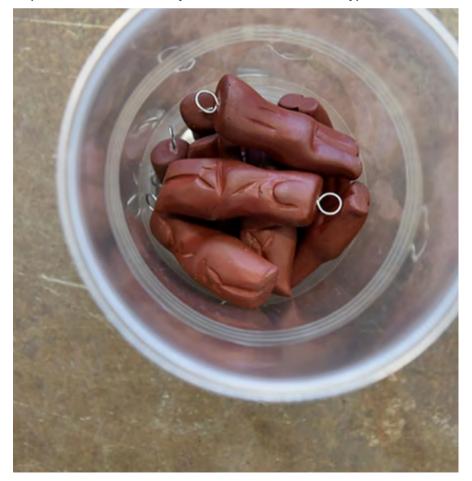
# Thousands of Venuses from **FMME** for Ostrava

Three students of the Faculty of Metallurgy and Materials Engineering (hereinafter FMME) created one thousand copies of the Petřkovice Venus in the form of a keychain for the city of Ostrava. The city is going to use them as a promotional item on the occasion of the 750<sup>th</sup> anniversary of the first written mention of it. The whole process and production were invented by the students themselves.

Petřkovice Venus, sometimes called Landek Venus, comes from the period of mammoth hunters that is approx. 25,000 years ago. Similar to the betterknown Věstonice Venus, this small, only 4.6-cm-tall statuette provides evidence of the skills of the prehistoric population.

"The city of Ostrava contacted our faculty last autumn to see whether we could produce affordable copies of the Petřkovice Venus. It was not possible for the staff of the faculty to deal with it, since they were busy with other assignments. That's why I turned to our students," said Petr Lichý<sup>01</sup>, the Head of the Laboratory of Metallurgy and Foundry Department.

The technology of production was designed by a student of the Master's study programme, Václav Merta, who was helped by two fellow students. The team received a copy of the Petřkovice



Venus worth several thousand crowns to be able to further work on the project. They originally considered making castings of metal.

"But we could hardly get the requisite colour shades, and the resulting product would also seem different from that of the hematite (also red iron ore) when touched," Merta explained. Eventually, students decided to make castings from resin because they would most likely allow them to achieve the required parameters, particularly the colours. "Resin has the advantage of being able to be deeply stained by the addition of liquid or powdery pigments, and so it is coloured throughout its entire volume." Merta added. Students then tested the dye several times before finding the right shade resembling as much as possible the original.

"We understood the fact that the hematite is an iron ore, so we wanted some continuity of a dye with the original. In order to get the proper shade we had to add some carbonaceous additives, namely graphite," remarked the student.

"For students, such an opportunity is highly valuable. They can use the theoretical knowledge gained for something tangible, and useful. I think it's motivating for further studies. In addition, they learned a lot of things during their assignment, such as how to work within a team. They have learned that in the application sphere it is necessary to respond flexibly to the needs of the customer and that it pays to be creative," said Lichý.

The production of these thousands of Venus pieces was the largest contract the faculty ever completed.

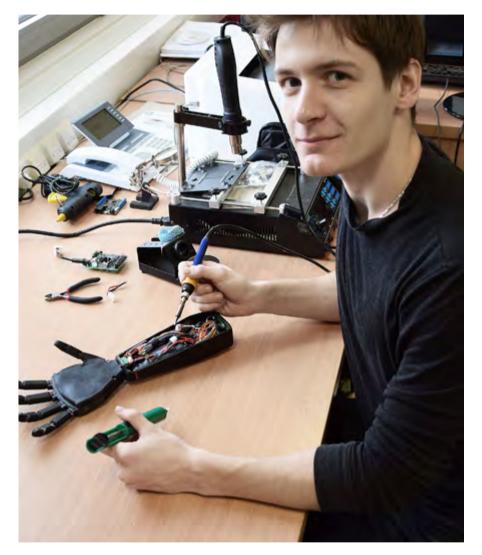
SOURCE: www.novinky.cz PHOTO: FMME Archive

## A FME Student Assembled a Bionic Hand

He has been interested in robotics since he was a child. "At the age of five I saw the Terminator, and shortly after that decided to study robotics," explains Stefan Grushko with a grin. He moved to the Czech Republic from Ukraine to pursue his education at the Faculty of Mechanical Engineering (FME), where he currently studies in his fifth year at the Department of Robotics.

During his studies, Stefan has focused on developing a bionic hand. "I worked nights when I did not feel like sleeping," he explains. Stefan decided to put his hobby, bio-robotics, to practice and has tried to figure something out."This is the prototype, the initial design. There is still a lot to do that can and needs to be done," he describes the robotic hand. "The hand has three motors that control the fingers. There is also one EMG sensor that examines the tension generated by the human muscle during contraction - the more you tense the muscle, the more the sensor voltage increases and the above-mentioned motors are controlled. With only one sensor built into the hand, all fingers move at once," Stefan explains. The actual prostheses that are used in medicine function on the same principle. "But there are ten experienced designer engineers working on them, not just one student," adds Stefan.

And how does such a bionic hand work? It's equipped with electrodes that are attached to your own hand. "I have to set the sensitivity too," says Stefan, and tenses his muscles. As your muscles tense, your hand will start to work – for example your fist clenches. So far he spent the most time, while working on this robotic hand, completing the 3D print. He is currently completing his diploma thesis on humanoid robots – working on a 40-cm model that repeats human movements. Mechanical engineering, in his opinion, will help



with automation – it can, to a certain extent, replace the human work, and simplify it.

Students at VŠB-TUO, according to him, obtain knowledge that is applicable in practice. Stefan is currently deciding what to do next – whether to continue with PhD studies or to stay in the private sector since he works as an industrial robot programmer. "I have met enthusiastic students here during those 4.5 years, who also opt not to

sleep and work on their projects at night instead. And they do so, not primarily to get money from the university or to find a well-paid job, but because it's simply fun. I think, thanks to these students, that VŠB-TUO can compete with other universities in the Czech Republic," concludes Stefan.

TEXT: Petra Halíková<sup>'04</sup> PHOTO: FME Archive

### Novelties Offered by the Faculty of Economics

In the past, the Faculty of Economics (hereinafter FE) has been awarded prestigious recognition by the CFA Institute International Association. The CFA programme is considered of the most demanding one qualifications in finance, and its graduates have a considerable advantage in finding a job in the best companies in the Czech Republic and abroad. In many countries, it is also recognized in place of brokerage or other professional examinations, and its advantage is that CFA exams are globally unified all over the world.

Another success is the acquisition of ACCA Professional Qualification, which is an accounting qualification, of which the syllabus was recognized by the United Nations as the basis for the global qualifications of accountants. As part of the study branch policy, ACCA examinations (5 in total) are acknowledged for the students in the field of Accounting and Taxation. including the provision of significant financial benefits when receiving this qualification during their studies. This professional qualification shall provide graduates with a clear advantage in the labour market.

Since April of this year, FE has begun to offer comprehensive courses designed for both the professional public and students. The themes include a broad portfolio of all ten economic disciplines, such as Business Economics, Marketing and Business, Finance, Regional Development, Economics Informatics, etc. Currently, ten courses are on offer, but soon more courses shall be added. Lecturers are faculty teachers with many years of experience in teaching and training for employees of different enterprises and institutions.

Another novelty are so-called "tailormade" courses, which are created to meet the specific demands of business representatives. The opportunity to define their own course has already been used by four companies, by some of them repeatedly.

Among others, Martina Scholasterová, HR Manager of BORCAD cz s.r.o. praised FE courses: "I would like to thank the Faculty of Economics for the two-day course of Economics for Non-Economists, which has been tailor-made for our company. I must emphasize the precise readiness of the lecturers. All the practical examples had been demonstrated on concrete figures and financial indicators of our company, and managed to present a relatively "non-appealing" curriculum in a very human and comprehensible way. Thanks to this training, we also understood what important decisions may have to do with financial reports, not just the owner's decisions. I can highly recommend this training."

Teachers of the faculty who lecture the courses can be satisfied with the following testimonial from a representative of one of the companies which used the offer: "A tailor-made course for non-economists, for our selected employees, has broadened the awareness of mutual connections between corporate finance and financial reporting," says HR Director Kateřina Chambers from eD' system Czech, a.s., adding: "The cooperation with the faculty in the design of this course was great; the participants of the course evaluated its content as very beneficial. They have gained a comprehensive view of corporate financial management and corporate economics with regard to specific practical examples from our practice."

Due to the long-term positive feedback from graduates of the English MBA programme and the increasing demand for Czech-language programmes of the same high quality, the new management study programme is going to open in September 2017. You can enrol by June 20, 2017 on the Faculty of Economics website.

This year the faculty also celebrates the 40<sup>th</sup> anniversary of its foundation. Celebrations will include several events - conferences, seminars, and workshops. The highlight will be the Alumni Reunion, which is going to be held on October 7<sup>th</sup> as well as the Scientific Council on October 26<sup>th</sup>. For more information see www.srazekf40.com.

TEXT: Eva Králíková, Tereza Kulihová<sup>'00</sup> PHOTO: FE Archive



### Robotics Mission of the Faculty of Electrical Engineering and Computer Science to Japan

Representatives of Czech companies and institutions, including the Faculty of Electrical Engineering and Computer Science (hereinafter FEECS), represented by the Dean Prof. RNDr. Václav Snášel, CSc., departed on April 1st for a technological mission to Japan. Within a few weeks, they visited science and technology institutions in Tokyo as well as in Cukuba, Osaka and Nagoya. They focused on the topic of robotics.

The Technology Mission presents the Czech progress in Industry 4.0 solutions to Japanese institutions, for example, computer vision and image recognition, artificial intelligence, autonomous mobility, collaborative robots, and multiagent systems. Mission participants offered collaboration to both major Japanese research institutions and industrial giants such as Mitsubishi and Toyota. Their journey included visiting the universities in Tsukuba and Nagoya, the Robot Revolution Initiative, the National Institute of Informatics and the Japanese counterpart of the Czech Republic's Ministry of Industry and Trade.

A group of representatives of VOP CZ, CertiCon, FCC Industrial Systems and AutoCont CZ was led by Professor Vladimír Mařík, Director of the Czech Institute of Computer Science, Robotics and Cybernetics at the Czech Technical University (CTU). The delegation also consisted of Karel Žebrakovský, the former Czech Ambassador in Tokyo, now head of the Department of Scientific and Research Activities at CTU, professors Pavel Václavek and Luděk Žalud of the Central European Institute of Technology (CEITEC), and the newly elected rector of the VŠB– Technical University of Ostrava, Václav Snášel.

The Technology Mission, organized by CzechInvest in cooperation with the Embassy of the Czech Republic in Tokyo and JETRO Praha, was finished on Friday, April 7, with a professional seminar and reception at the Embassy of the Czech Republic in Tokyo.

TEXT: VŠB-TUO press release FOTO: FEECS Archive



## 20-year Anniversary Celebrations of the Foundation of the Faculty of Civil Engineering

This year, the Faculty of Civil Engineering (FCE) celebrates the 20<sup>th</sup> anniversary of its founding. During its existence, it has become a progressive university workplace providing high quality education in all areas of civil engineering, including architecture.

Celebrations of the 20th anniversary of the founding of the faculty were officially commenced on January 18, when the ceremonial Scientific Council of the faculty took place in the VŠB-TUO auditorium. In the afternoon, an exhibition entitled "20 years of the Faculty of Civil Engineering," which documents the period from its foundation to the present times, was ceremonially opened in the Science and Technology Centre. Visitors to the exhibition can learn interesting information not only about the functioning of the faculty and its achievements in the field of science and research, but also about the important figures who lectured or still actively lecture at the faculty. There are also interactive models from the Buildings of the Future competition, models used in teaching in the architecture atelier, or unconventional examples of materials used in the civil engineering industry available to be viewed by visitors. The exhibition in the Science and Technology Centre is open to the public until July 10, so do not hesitate to pay a visit.

FCE also gave itself an anniversary gift – new instrumentation for the Experimental Building Centre hall. It is a device that allows the investigation of the behaviour of large building components and parts of building structures with different static and dynamic loads of up to 2000 kN.

Another event that was organized on the occasion of the 20<sup>th</sup> anniversary of the founding of the faculty was the socalled "Day with the Faculty of Civil Engineering," held on March 22 in the Science and Technology Centre. It was an interactive presentation of the faculty introducing all nine departments. Visitors were also able to try out some of the devices, aids, and models that are used in seminars. They were given a chance to measure the strength of their voice, create an earthquake, display themselves using a thermal camera, test the functioning of a strain gauge, look at the pattern of the cutterhead, etc.

The Day with the Faculty of Civil Engineering was followed by a competition afternoon of individual study branches called Míchačka, which took place this year in the Lower Vítkovice area and was attended by secondary school students.

TEXT: Radka Hédlová<sup>'07</sup> PHOTO: FCE Archive





# Life in the Faculty of Safety Engineering

In the spring semester, many interesting events took place at the Faculty of Safety Engineering (FSE). For example, the faculty took over the Blood Call relay race, again participated in the popular Fire Sports event, and some representatives of the faculty attended an international conference.

In February, the Dean of the Faculty of Safety Engineering, Prof. Ing. Pavel Poledňák, Ph.D., took over the imaginary baton of the "Blood Call" from Assoc. Prof. Ivo Hlavatý'87, Dean of the Faculty of Mechanical Engineering. FSE has become the fourth faculty to accept the call. The FSE's task in the upcoming October term will be to motivate as many students, employees and graduates as possible to donate blood or blood plasma, and even you can participate.

On April 19 and 20, the faculty organized the 17th International Conference "Occupational Safety and Health." The conference took place in the mountain hotel Sepetná in Ostravice. The main topics of the conference included Regulatory and Audit Activities in the Area of Occupational Safety and Processes, Occupational Injury Rate and Occupational Diseases, Effective Corporate Security Management and New and Growing Risks. The final rounds of the Safety Culture Award were also part of the conference. competition focused on a This comprehensive assessment of the safety culture in the companies that entered the competition. All participants of the conference were actively involved in the finals of the competition, and they were the ones who also decided on the final rankings. They evaluated categories such as the extent to which safety is part of the everyday life of the company, to what extent the management and staff are involved in this area, and what is the added value of the implemented tools to ensure corporate safety.

#### And finally "Fire Sports"

On April 26-27 there took place the Academic Championship of the Czech Republic in Fire Sports. This year's competition was attended by 225 competitors, who couldn't even be discouraged by the bad weather.

The popular race was organized by the

Student Fire Sports Club in cooperation with VŠB-TU Ostrava and its Faculty of Safety Engineering, the Fire Brigade of Bohemia, Moravia and Silesia, the Fire Rescue Team of the Moravian-Silesian Region, the Czech Association of Academic Technical Sports and the City of Ostrava. The championship was approached as open - meaning that besides participants from Czech universities, there were also the best secondary school students (qualifying from the championship of secondary schools in the Czech Republic), plus foreign representatives from Bulgaria and Belarus were included among the participating universities.

The best Czech competitors won the title "Academic Champion of the Czech Republic." There was a friendly atmosphere and healthy competition among the participants, and there was even some spare time for fun and the tightening of relationships between the academics of the fire sport.

TEXT: Zuzana Mihulová<sup>'05</sup>, Petra Polesová<sup>'16</sup> PHOTO: FSE Archive



### **Czech Chicks Bloggers**

# The idea of our own blog originated during one of our classes while studying at the university.



They are two, they are beautiful, and in the world of fashion feel right at home. We're talking about a couple of ladies, Hana Drozdová<sup>12</sup> and Veronika Franková<sup>12</sup>, who together make up a blogger duo called Czech Chicks. They both studied at VSB-Technical University of Ostrava and it was during that study when they started a blogging career. Today it is one of the top Czech fashion blogs with their own showroom in Prague and the bechick.com e-shop. How is such success forged within a very competitive blogging environment and what is the biggest fashion faux pas of Czechs? Discover all this in the following interview.

You are both graduates of the Faculty of Economics at VŠB-TUO – how do you recall your study years? We love recalling our student years. We

were both part of the same study group in the Economics and Law in Journalism "Two girls in love with their purses met each other."



study programme and we enjoyed both the whole study and the individual lectures. Compared to today, we also had plenty of free time in between classes, so we could start blogging.

### How do two students of economics get to blogging about fashion?

Two girls in love with their purses and shoes ran into each other, and it resulted in an idea to present their passion online. We met and got to know each other at the university and in one of our most boring classes we came up with an idea to set up our own blog. We both had always enjoyed fashion and wanted to create a fashion blog primarily as our own space for self-expression, not only of our photographs but also of our everyday problems, and not just those from school.

### "90% of our collection is our own."

The road to success is, in most cases, rather long, but you managed to become one of the best Czech fashion bloggers. What is your own recipe for success? We did not seek any audience; we wrote our blog with joy and desire, and our fans gradually found their way to us. We didn't set up a blog in order to get the largest number of readers as fast as possible. Of course, we were pleased when our readers gradually independently found our blog and have watched us throughout our entire blogging. They can see how our style is changing and evolving.

#### There's a lot of fashion bloggers today in the Czech environment – how can vou manage to stay competitive?

It's important to be different. We are different from the beginning of our blogging by the fact that there are two of us, each having a slightly different style and insight into fashion, and we are both a little 'older,' which also makes us different from today's very young fashion bloggers.

I suppose that not only blogging about fashion earns you your living...What then is your job description and where can people see your work?



#### that the idea of setting up our own Internet boutique came into being hand in hand with the blog. At present, our e-shop takes up about 80% of our time. Until recently, all orders and communication with our customers have been dealt with solely by ourselves, but now we have enlisted another employee to help. In the remaining time, we focus on the blog and social media that have grown steadily over the past two years, and Instagram is now one of the most important communication channels for our blog.

When we were launching the blog,

we knew from the beginning that we wanted to create something else, so

### What does an ordinary day of a fashion blogger look like?

It's similar to all other people, with one exception – part of our working day includes having to take pictures of ourselves, prepare articles for the blog and social media networks,

### "It's important to find what makes you different."



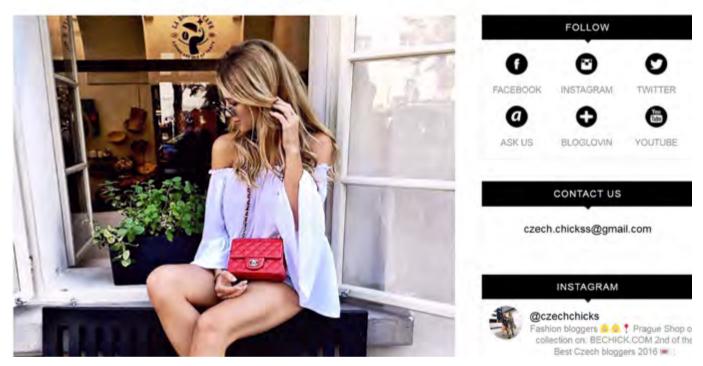
communicate with readers, and deal with emails with various offers and collaborations. But most of the day we spend in our showroom, where we handle orders. We also have various meetings there and our customers can come to see us.

What are your future plans with the blog? We plan to blog as much as we do now. We would also like to place more focus on social media networks because we see a shift away from written texts to photos. People no longer want to read so much but rather get inspired and find everything as fast as possible, so that Instagram is the ideal place for it.

# THECZECHCHICKS.COM

ABOUT US FASHION TIPS LOOKS LIFESTYLE VIDEO PRESS PARTNERS SHOP ONLINE

Off Shoulder top 22.5.2017 by: Hanka Category: Looks



You import clothing for your bechick. com e-shop largely from the U.S. and Sweden. Do you plan, for example, on launching your own collection? At the moment, 90% of our collections are our own. We also design the Bechick lingerie and basic tops.

You are very good friends. Most entrepreneurs today say that one should not do business with their relatives and friends that he/she does not want to lose. What's it like with you ladies? From the very beginning of our blogging and business we 'got along' well together. We certainly share similar opinions and views, otherwise we would have finished with the blog and the e-shop a long time ago. We are in perfect agreement on how to manage both the blog and the e-shop. We have a similar view of life, a similar nature, and probably get along with each other because we both come from Northern Moravia. You both travel a lot. What is the most exotic place that you visited?

Together, we regularly travel to Los Angeles, where we have our boutique suppliers. We visited, for example, Seychelles together, which was probably also the most exotic destination for us.

### And finally...what do you think is the biggest fashion faux-pas of Czechs?

Hiking boots, backpacks, and/or any sportswear in general worn around the city. In the centre of Prague (especially in winter) it quite often looks as if the Czechs wanted to set out to hike the Sněžka Mountain from Wenceslas Square! So, functional sports clothing and boots, yes, but only to be used in the mountains - not in the city.

#### The blogger duo called Czech Chicks consists of Ing. Hana Drozdová<sup>12</sup> a Ing. Veronika Franková<sup>12</sup>. The graduates of the Faculty of Economics at VŠB-TUO already launched their fashion blog czechchicks.com during their studies and have begun to make their way in a very competitive blogging industry. Today, they belong to the most successful Czech female bloggers and, besides the blog, they run an e-shop, bechick.com, where they primarily sell samples of their own fashion work. In 2016, they ranked second in the Blogger of the Year competition in the Fashion category and became faces for the Spring/Summer collection of the Bata shoe brand.

TEXT: Karolína Ondrušková<sup>'16</sup> PHOTO: Czech Chicks Archive

# Some New Activities You Can Do with Your Alumni Card

It's been a year since the Alumni Card was introduced and you've been able to enjoy hundreds of benefits ever since.



With the Alumni card you identify yourself with your alma mater. Plus, you can take advantage of the benefits offered to you by the university and its partners. Over seven hundred benefits, that's already quite a list!

Summer is coming. Enjoy travelling, water activities, festivals, cultural and sporting experiences or shopping with alumni discounts.

What's new?

#### WELLNESS RELAXATION IN VITALITY HOTEL /\*\*\*\*

Enjoy accommodation and relaxation in a unique design concept spiced up by a remarkable blend of luxury, elegance and fun on both the roof and underwater. With the Alumni Card you receive a 15% discount on accommodation & buy 1 + get 1 free admission to the Wellness & Spa Centre or a 30% discount for admission to SPA and overnight Wellness for unaccommodated guests. The Vitality Hotel is located in the town of Vendryne in the foothills of the Moravian-Silesian Beskid Mountains near Těšín and also offers a wide range of sports facilities.





#### WATER PARK IN SÓUTH MÓRAVIA

Do you enjoy water and adrenaline? A new benefit for holders of the Alumni Card is admission to the largest water park in the Czech Republic (and for a second person) completely free of charge. 20 indoor and outdoor slides and chutes, 12 pools with an area bigger than 3 km<sup>2</sup>, some with the use of local thermal water, an extensive Forum Romanum wellness area, plus Sun and Roman baths. Aqualand Moravia can be found in the tourist area of South Moravia with spectacular views of the Pálava protected landscape area.

### GET MONEY BACK FOR YOUR PURCHASES AND A BONUS

Are you one of the veteran online shoppers? Do you handle groceries, clothes, perfumes, flat accessories, flight tickets and/or packaged tours from the comfort of your home? Enjoy shopping with more than five hundred e-shops and money back. And not just money but also VIP points that you can exchange for money. Shop with Získejte.cz. As an Alumni Card holder, you're also entitled to 150 CZK and 1 000 VIP points upon registration.





#### THE THRILLING ARÉNA THEATRE STAGE

Do you feel like accessing an unusual cultural experience? Visit a thrilling theatre, which is famous for its distinctiveness. It focuses primarily on author's works, book adaptations, and cross genres. It has become a platform giving space to students of the Acting Conservatory, and where actors from different Ostrava theatres meet on one stage. Don't miss the unmistakable theatre production of the famous Stará Arena Theatre in the city centre of Ostrava with your Alumni Card at a discounted student rate.

Are you proud of being VŠB-TUO graduates? Do you want to let the world know what your alma mater is? Show your pride and tune into the alumni style.

In summer, wear a stylish T-shirt, in autumn, a stylish sweatshirt. You'll get a 15% discount with the Alumni Card

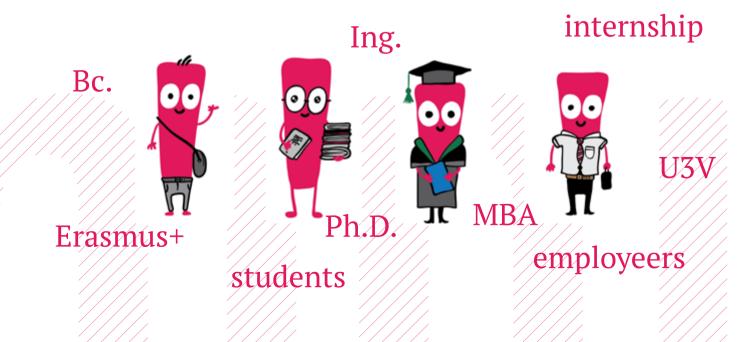
All the great benefits along with everything else can be found at alumni.vsb.cz. Do you already have your Card? Join others and enjoy being a VŠB-TUO alumni.



# We Are Expanding the VŠB-TUO Alumni Network

Our alumni family is growing wider by accepting other members. We were not complete because only graduates with Bachelor, Engineering or PhD degrees were able to register until now. However, the meaning of the word alumni is much broader in its essence. Moreover, all alumni have something in common. It is, above all, the relationship with the university, their interest in its activities, the need for cooperation and connection with others and the desire to be part of the community. We have opened up the membership to a wider circle of alumni candidates. Newly the University of Third Age and MBA graduates, academic staff, employees, current domestic students, as well as students from abroad, for example, Erasmus +, interns, can also join the network. This makes VŠB-TUO alumni a more comprehensive network uniting people related to the university. We hope that this will allow us to draw only the best from our interconnectivity.

TEXT: Lucie Rýcová<sup>69</sup>



## With the Career Centre You Can Change Your View of the Entire World

The end of the last school year very pleasantly culminated in a lecture by the well-known Czech publicist and author of "The End of Procrastination" bestseller, Petr Ludwig, who received a standing ovation from our students and graduates. We have all taken his instructions to heart, meaning that we ceased our pathological postponement of duties or else procrastinations forever and this year we have prepared many interesting and attractive themes.

Since the beginning of the year, under the auspices of the Career Centre, a series entitled the Speech Academy has been under way. The first year is now behind us, but fine lecturer and great speaker in one Pavel Vopalecký managed to earn such admiration from his audience that we cannot remain indifferent to the positive feedback and great interest of the students, and we are already thinking about the dates when we can organize this course again. For all the "new speakers," lets quote the graduate Milan: "For me, personally, each course had a deeper sense. This was especially thanks to the unanswered questions that the lecturer left us to ruminate over. Thanks to him I feel that not only my personal speech and expression has changed, but also my view of the world. For the better!"

#### WHAT WE'RE PREPARING

The Career Centre's biggest event in the winter (autumn) semester will be the Career Week, which combines the best of the Career Centre and the Career PLUS Fair. Similar to last year's event, this year will be based on interactivity and cooperation with Moravian-Silesian region companies. Students and graduates will be able to try job interviews, test their English skills, take part in an assessment centre or have their profile on Linkedin checked. The accompanying programme includes a lecture by the expert on management and financial management and the chairman of the Board of Trustees of the Start it up! endowment fund, Mr. Michael Brody.

For more information, not only about the programme, please visit the Career Centre website at www.vsb.cz/kariernicentrum.cz.

Book the dates on your calendar between 16 – 20 October 2017.

We look forward to seeing you!

TEXT: Karin Krumlová PHOTO: Career Centre Archive



### **Invitation to the 1967-2017 Golden Graduation Ceremony**

We cordially invite the 1967 graduates to the Golden Graduation Ceremony to be held on September 22, 2017 in the New Auditorium of the VŠB-Technical University of Ostrava in the neighbourhood of Poruba.

Recall your student years and come to see how the university has changed in 50 years. On this special occasion, meet with your former classmates and celebrate with us a beautiful golden anniversary.

The day before the graduation ceremony, on September 21, 2017, you will have an opportunity to take a campus tour and learn about many remarkable things. The schedule and other details will be specified soon.

We hope we'll meet with you in large numbers! Let us know if you are a graduate or have acquaintances, friends or family members who have completed their studies at the VŠB-Technical University of Ostrava in 1967. Please help us get the current contacts. Many of them are still missing.

Contact us at alumni@vsb.cz.

## Nanotechnology Provides Many Options

# I wanted to research, to discover–to venture into something that is still unexplored.

Nanotechnology. We all know this concept, but few can imagine any tangible product or service it provides for us. Last year, Šárka Kunčická graduated from this technical study branch under the University Study Programme (USP) and for her diploma thesis received the Werner von Siemens Prize this year. What should come to our mind when someone says ,nanotechnology' and what future is there for this industry according to her? She revealed all this to us in the interview below. It hasn't been long since you completed your study at VŠB-TUO. How do you recall that period of your life?

I enjoy recalling my student years. Our curriculum was very comprehensive; the courses were different across several fields. This has contributed to my understanding of how extensive nanotechnology is, offering myriad innovations in different industries. As for the teaching quality and professors, the way I see it now is, that the study plans are compiled quite well and today I am happy about the number and types of courses I have gone through. I'm positive that it will be good for me in the future. My positive experience was certainly bolstered by the fact that my professors generally had a very responsible approach to teaching. Many courses included practical seminars in laboratories, where we were given an opportunity to try out instruments and devices, which are usually difficult to gain access to.



The Experience from these hands-on seminars will certainly come in handy in my future practice. I am very glad to have the opportunity to try out both the study internship and the practical placement abroad, which, fortunately, our university and USP allowed for. There are not as many students as in other faculties in the year and, in general, at a nanotechnology field, so leaving for an internship is a bit easier if one is really serious and a foreign language is not a problem for them.

Your degree is in the aforementioned Nanotechnology Programme. Why did you choose to study this scientific discipline?

I attended a secondary school specialized in Mechanical Engineering and Computer Science, which I have good memories of, and which has provided me with a good base, however I did not feel like continuing in it. I wanted to explore, to discover, and to get into something that is still unexplored. I was considering studying languages, but I was fascinated by a poster on the VŠB-TUO open day with images of an electron microscope, listing the possibilities that can be changed by nanotechnology in the future as well as the prospects it has, which made me decide right away that this was what I wanted to dip my feet into. One of the reasons was that nanotechnology intervenes in many disciplines, and therefore I didn't have to decide until later on which way to go.

### "I think nanotechnology has a future."



What exactly should one imagine under the term ,nanotechnology'?

Nanotechnology is a multi-subject discipline that finds its use in many industries. The point is that materials have different properties in nanodimensions than materials of larger dimensions, and there are also more complex physical laws involved to understand the phenomena at this level. This means a wide range of applications, whether it relates to modification of current materials or development of new materials with unique properties. Nanotechnology simply constitutes a lot of possibilities.

During your studies you ventured out to a study exchange to Sweden. What was



the study of nanotechnology abroad like?

I spent half a year in Sweden, and essentially studied only selected subjects – some physics, arctic science, because I am fascinated by the northern and southern lights, and also languages (English and Swedish). Basically, I chose the subjects matching my interests, as I didn't count too much on the recognition of the subjects, and after returning, I took all the subjects for the last semester, except English, anyway. Studying in Sweden is a chapter of its own, their teaching methods are perfect. They make sure to keep up with the cutting edge of topics, and their treatment of students is superior. I enjoyed all the lessons very much, whether they were lectures, discussions, laboratory seminars, elaborations of protocols, or preparation of presentations. The language learning was fun and students were often actively involved, mostly in the form of discussions.

For your diploma thesis, which deals with the preparation and characterization of Y-doped BIG thin films, you won the Werner von Siemense Prize. Could you give us a better idea of this topic? The thesis deals with the preparation and characterization of thin layers of ferrous garnets substituted by Yttrium and Bismuth. They are magneto-optic crystalline materials that find their use in a unique area of non-reciprocal (Editor's note: not helping each other) components used in ultra-fast optical telecommunication systems. The topic of the diploma thesis is very up-to-date due to the need to develop advanced methods for the preparation of highquality thin films with a high magnetooptic effect and low absorption. I deposited crystalline layers of garnets with a pulsed laser deposition on the monocrystalline substrate of the Gallia and Gadolinia grenades. I subsequently characterized the samples of the films with a number of experimental techniques at the Université de Versailles-Saint-Quentin-en-Yvelines labs and then also at the VŠB-TUO labs. Experimental techniques I used included scanning electron microscopy and emission spectroscopy as well as composition of deposited elements, microscopy to investigate the target

of atomic forces, surface morphology, both the X-ray and the electron diffraction to investigate the surface of the layers, and optical and magnetooptical methods to investigate their properties. The diploma thesis is intended to contribute to a better understanding of the key parameters during deposition, which significantly improve the applicability of the studied films or layers.

### It looks like you were a great student – did you think about carrying on with doctoral studies?

Thank you for the compliment. Yes, I considered it. Unfortunately, the state currently doesn't create suitable conditions for students of doctoral programmes to devote one hundred percent of their time to their scientific work. Either they have to find extra income or scrape along. In addition, as a woman, I opted for a career outside the university to accomplish something before having a family.

### What are you currently doing? Do you work in the industry?

I am currently working as an engineer of plasma etching in chip production in Rožnov pod Radhoštěm in the company On Semiconductor Czech Republic. The company focuses on designing integrated circuits, producing silicon boards, and the manufacturing of semiconductor chips. My work is not directly related to nanotechnology, but I will definitely use the knowledge base from my studies, and experience from the internships. My specialization was physics when studying nanotechnology, which is a perfect fit for this position.

#### What opportunities exist for nanotechnology in the future?

I think that nanotechnology has a future. In my opinion, it'll be mainly about improving and simplifying many things and services. New materials can greatly help in medicine, industry, electronics and everyday life. Materials may be, for example, lighter, stronger, more durable, biodegradable (natural degradability), and electronics faster and smaller. On the other hand, it is an area in which we need to be cautious and approach this discipline and development of materials responsibly, conscientiously investigating all the risks.



What would you wish for the university in the future?

VŠB-TUO is headed in the right direction and is trying to make sure that the teaching of nanotechnology is of good quality. Nanotechnology goes hand in hand with research in science, a field in which VŠB-TUO is trying to stay competitive, which is great. I think it's been successful in it so far and I keep my fingers crossed. **Ing. Šárka Kunčická**<sup>'16</sup> is a graduate of the Nanotechnology and she is also winner of the Werner von Award Siemense for her diploma thesis on the Topic Preparation and characterization of Y doped BIG thin layers. She works for On Semiconductor Czech Republic in Rožnov pod Radhoštěm.

## A Quick Stroll through the World of the Internet

### What was written about our alumni this year?



#### KATEŘINA ARAJMU HAS BECOME THE DIRECTOR OF THE OFFICE FOR GOVERNMENT REPRESENTATION IN PROPERTY AFFAIRS

She is a graduate of the Faculty of Economics and is currently head of the Office for the Representation of the State in Property Matters. Currently, for example, she's considering a campus for 10,000 officials. "The state invests more than 3.3 billion Czech crowns a year on the operation and maintenance of office buildings, in which state officials work. The solution to reduce spending is to move officials to administrative campuses. One of such campuses could be built in Prague's Letňany quarter," she revealed in an interview for the Lidové noviny daily on 14 March 2017.

SOURCE: Lidové noviny



#### MARKÉTA KONVIČKOVÁ, THE FACE OF A TV SHOW

Many of you might have watched Markéta Konvičková<sup>'16</sup>, a graduate of the Marketing and Business Study Programme at the Faculty of Economics, on a TV show called "Your Face Has a Well-known Voice" in the past few weeks. The singer and Třinec native carried on with her success in the Superstar contest and a subsequent singing career.

SOURCE: www.blesk.cz



### KAROLINA RYCKOVÁ HAS BEEN APPOINTED A SPOKESWOMAN FOR DOPRAVNÍ PODNIK OSTRAVA

This February, our graduate Karolína Rycková<sup>'14</sup> was newly appointed the spokeswoman of the Dopravní podnik Ostrava. She graduated in Economics and Law in Journalism at the Faculty of Economics. She replaced the spokesman Miroslav Albrecht, who was one of the longest serving spokespersons at one company in the region – he already talked with journalists for the transport company in 2001.

SOURCE: www.patriotmagazin.cz

#### OUR GRADUATE DANIEL MIKLÓS HAS BECOME A NEW DEPUTY DIRECTOR FOR PREVENTION AND CIVIL EMERGENCY PREPAREDNESS

Col. Ing. Daniel Miklós, MPA, after completing his studies at the Faculty of Safety Engineering at VŠB-TUO, started his career at the Ministry of the Interior, the General Directorate of the Fire and Rescue Service of the Czech Republic in 2003 where he joined the section for prevention and civil emergency preparedness.

As Daniel was gaining more work experience he gradually held positions in the management of this section. Currently, he is a deputy director.

Source: www.parlamentnilisty.cz



### THE GRADUATE OF TWO VŠB-TUO FACULTIES HAS BECOME A NEW DIRECTOR OF THE HOSPITAL

Jiří Matěj, MBA is a graduate of two faculties of VŠB-TUO, the Faculty of Economics and the Faculty of Mechanical Engineering, as well as the Educational Institute for Health Care and Medicine in Brno. He worked in senior management positions at OKD, Technia, Tamda, Union Leasing, and Kofola. From 2011 to 2016 he worked as an economical and HR deputy director of the hospital with an outpatient clinic in Karviná-Ráj. From February 2017 Jiří Matěj has been put in charge of this hospital.

SOURCE: www.parlamentnilisty.cz





### MARTIN BEDNARZ HAS BEEN APPOINTED A NEW DIRECTOR OF VÍTKOVICE HEAVY MACHINERY (VHM)

Martin Bednarz<sup>'99</sup> is a graduate of the Faculty of Economics, VŠB-TUO. He has worked in management positions in a number of major engineering companies. For the past two years he has been in charge of Tatra, the Koprivnice based automotive maker. Bednarz had already worked for the company before it was privatized in 2001. He worked as a specialist in heavy engineering, which is now part of VHM.

SOURCE: http://byznys.ihned.cz



### THE GRADUATE MICHAL JURKA HAS BEEN APPOINTED TO THE MANAGEMENT OF CZECH SKANSKA

Michal Jurka<sup>02</sup> joined Skanska immediately after graduating from the Faculty of Economics, VŠB -Technical University of Ostrava and in September at the age of 38 has become the president of the Czech and Slovak subsidiary of this Swedish concern.

SOURCE: http://archiv.ihned.cz

## What are all the venues at which you can encounter VŠB-TUO this summer?

The spring months at the university's popularization department launched a busy season full of events for schools and the general public. Nearly every week, students from primary and secondary schools who are headed for excursions or motivational lectures at university departments, visit the university campus. The most frequently selected programmes traditionally include chemistry workshops, lectures on nanotechnologies, mathematics, biomedical engineering, robotics and electric cars. The schools also demonstrate a great interest in applied trainings in chemistry, telecommunications, and in the summer school of mathematics, architecture, and applied physics.

"The range of offered activities is more and more diverse from year to year," says Jiří Arleth<sup>'89</sup>, the leader of the popularization team. "Our goal is to offer schools and the public a programme that would introduce technical disciplines in a simple and straightforward manner and at the same time would maintain the high standard of the offered activities."

An integral part of the popularization activities are events for the general public. For the fourth time, the university, under the brand name "Improve Your Technology," will present itself in the Kopřivnice Days of Technology with technical 'toy' samples and inventions created at VŠB-TUO.

For the third time, the popularization science show with entertaining technical tasks will arrive at the WERK Arena in Třinec, where it will be part of the accompanying programme for MŮJ WERK – the Art, Literature and Knowledge Contest about Třinecké železárny for seven hundred seventh graders from Třinec region. A programme packed with outdoor events awaits our technical university at the end of June. The first event is going to be Chemistry at the Castle – it's all about traditional chess and natural science plays, in a thousand ways, that will take place on 27 June at the Silesian Ostrava Castle.

At the turn of June and July, the popularization department organizes leisure-time presentations of the university at the Ostrava in the Streets Festival, and in July is also not to be missed at the Colours of Ostrava Festival in Ostrava's rest area, this time with the theme of the 750th anniversary of the foundation of the city of Ostrava. Furthermore, our popularization team will present its work under the subject 'SMART Technologies' in a booth of the Moravian-Silesian Region Authority. And finally, our third appearance will be at the Colours of Ostrava where we're going to be part of the Meltingpot discussion forum. You will find us for the entire four days in the Kompresorovna, where together with the University of Ostrava we are going to put together the university stage programme. Every day there will be four common themes for both universities that we have compiled together.

Individual faculties and other centres and institutes are increasingly aware of the importance of being seen and introducing our researchers' work also through this playful form. The holiday months will not lack the traditional TechCamps for the children of university staff. As usual this year too, the interest of the employees greatly exceeded the capacities of the summer camp. "However, the number of camp sessions increased by one run, therefore we can satisfy more candidates this year," adds Ing. Monika Chmelařová<sup>'02</sup> from the popularization team.

TEXT: Jarmila Černá PHOTO: VŠB-TUO Archive





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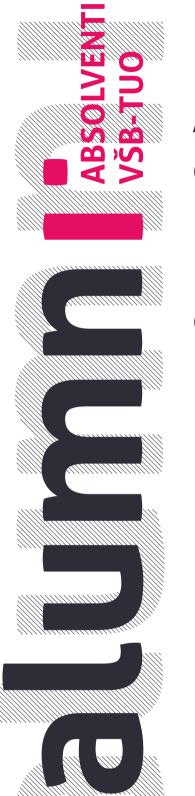
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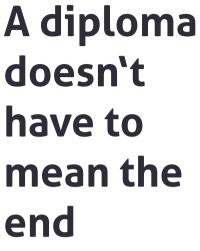
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