

PETROLEUM ENGINEERING

at the University of Zagreb, Faculty of Mining, Geology and Petroleum Engineering

Presentation of new Master study programme in PETROLEUM AND GEOENERGY ENGINEERING AND MANAGEMENT









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Project coordinator:

University of Zagreb, Faculty of Mining, Geology and Petroleum Engineering, Pierottijeva 6, Zagreb

Project partner:

Institute for the Development of Education (IRO), Trg Nikole Zrinskog 9, Zagreb

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Introduction



Prof. Kristijan Posavec, PhD Dean of the Faculty of Mining, Geology and Petroleum Engineering

Dear students,

It's an honour and privilege for me to address to you and welcome you on behalf of the Faculty of Mining, Geology and Petroleum Engineering, the constituent of the University of Zagreb, whose mission is, among other, to emphasize the importance of learning and to offer options for creating new competencies.

"Knowledge is power", you have certainly heard it many times, but it should be emphasized that knowledge is the most important capital of the present. And learning is a key factor in progress, both personal and economic development and building of a knowledge-based society.

Life today and that of just 20 years ago, for example, are very different. Labour markets today require new occupations, constantly changing profiles of skills, qualifications, and experience. The speed at which technology evolves and processes change, almost no longer allows us to put a stop to our own education. Information is constantly being created, technological progress is often beyond our progress, so professional development has become a necessary lifelong activity to improve existing and acquire new knowledge and skills. They are necessary for us to successfully profile ourselves in our area and beyond, to be more competitive as individuals and organizations. Investing in knowledge results in the creation of innovative products and processes that make it profitable in the long run.

What else does learning bring and why is it, I would say, vital? No less important reason is – personal satisfaction. Personal development, harnessing potential, successful mastering of new knowledge and skills all contribute to personal satisfaction. The level of our knowledge and ability greatly affects our se-If-confidence, which will make our role in society more active. Functioning in, but also beyond a business perspective, must satisfy us in order to complete the story of our own success.

Dear students, here you will have the opportunity to discuss with one of the best experts in the field. You will have the opportunity to ask them anything you do not understand, everything for which you have not found the right tools, principles, or procedures on your own.

Therefore, I have a message for you. Do not hesitate to ask and fully exploit the experts that are available for you here at our Faculty. They will all be more than helpful in resolving all your unknowns. I hope that at the end of your study you will be able to look back and be proud of things you have learned and tasks you have accomplished. Thank you for choosing our Faculty as the place to take one of the first steps in your career.

Good luck to all of you! Show your best!



Ass. Prof. Vladislav Brkić, PhD Head of the Department of Petroleum and Gas Engineering and Energy

Dear students,

On behalf of the Department of Petroleum and Gas Engineering and Energy, I would like to welcome you to our new graduate (master) study programme.

The changes expected by the oil and gas sector in the 21st century have been underlined due to energy decarbonisation. There are intense discussions about the oil and gas future because of climate change and the announcement that hydrocarbons are in the final phase of exploitation due to the high depletion of fields around the world. In the 21st century, it is necessary to take into account all types of energy with the growth of renewable sources. Geothermal energy, carbon capture storage and utilization, well simulation by using the newest software, digital world, gas market, biofuels are just part of our new study programme. The challenge of the industry and the academy will be to develop professionals aware of the need to exploit energy sources in a more efficient and clean way. New technologies such as artificial intelligence, machine learning, expert systems can be combined with new teaching techniques such as computer-based training, virtual and increased reality, simulation and situational analysis, to allow shaping graduate profiles which would be a better match for the demands of the job market. The petroleum education has been modified very little in the past 20 years and needs to change in the post-Google era to cater to the tech-savvy minds of the modern student.

Welcome aboard to our new 4 E graduate study programme: Earth-Energy-Engineering-Environment!



Faculty of Mining, Geology and Petroleum Engineering (RGNf)

Faculty of Mining, Geology and Petroleum Engineering (acronym: RGNf), constituent part of the University of Zagreb, is a higher education institution which organizes and conducts academic studies while engaging in the scientific work in the domain of engineering sciences, including the scientific fields of mining, petroleum and geological engineering. It is **the only faculty in the Republic of Croatia** that operates in the field of mining engineering, petroleum engineering and geological engineering petroleum engineering and geological engineering to **technical sciences** and one of two faculties operating in the field of geology pertaining to **natural sciences**.

The Faculty of Mining, Geology and Petroleum Engineering is the institution that can offer solutions to a whole range of problems and challenges, faced by modern society, such as the growing need for natural resources, finding solutions to the energy crisis, the utilization of alternative sources of energy, karst exploration, exploration of the effect of climate change and the possibilities of their mitigation, soil and drinking water protection as well as the protection of all other elements of the environment, predicting the risks from natural disasters and human activities and mitigation of their consequences.



RGNf consists of 7 departments and has 16 laboratories, including one field laboratory.

Faculty teachers participate in conducting several university studies: undergraduate university study programme of Engineering in English, undergraduate university military study programme of Military Engineering, university specialist study programmes of Crisis Management and Ecoengineering. They also coordinate and participate in numerous international projects (bilateral projects, H2020 projects, COST and EIT RawMaterials projects, lifelong learning projects etc.). The Faculty is actively involved in the work of several consortia (EIT RawMaterials, International Consortium on Landslides (ICL), CO2 GeoNet, ENeRG and ESEIA).

Department of Petroleum and Gas Engineering and Energy



Areas of interest of the employees of the Petroleum Engineering Department are design, production and well completion, oil and gas production, processing, storage and transportation, hydrocarbon and geothermal reservoir development, environmental protection in petroleum engineering and energetics. Members of the Department published results of their research in domestic and international scientific journals and presented them at numerous international conferences.

Teaching staff:

Professors: 12 Teaching assistants: 7 Research associates: 2



The academic activities of the department include two specialized research laboratories and a computer lab.

THE WELLBORE FLUIDS LABORATORY has an educational and scientific research purpose and is equipped with various equipment to demonstrate different properties of drilling fluids and cements used in drilling operations. The laboratory is equipped with instruments and devices that make possible: (1) drilling fluid preparation, drilling fluid additives testing and the determination of drilling fluid properties according to API Spec 13A and recommended practice for laboratory testing of drilling fluids RP 13B, and (2) cement slurry preparation and the determination of cement slurry properties, according to API Specification 10 A and API Recommendation 10 B.



LABORATORY FOR ROUTINE AND SPECIAL CORE-ANALYSIS

Students studying Reservoir Engineering will gain practical experience in the measurement of mass transport and heat transport properties.

Respective lab is equipped with helium porosimeter, several permeameters and different core holders and capillary measurement (MICP, porous plate) apparatus as well. Student projects will be encouraged, as until now Arduino technology and compatible sensors are used along with additive technologies (3D printing) to construct new parts and modify or invent new technical solutions for measurement and interpretation mass and heat transport properties.

BS, MS and PhD students are also encouraged for innovative and scientific work. One example is Digital Core Physics (DRP), where students successfully modeled porosity and capillary pressure based on CT-scans of small core samples.



The computer lab is equipped with number of software available for academic purpose and extensively used for modeling and simulation. The knowledge gained in the lab enables our students to provide quality service once employed in the industry.

Software list: Aspen HYSYS Eclipse Schlumberger Landmark (Halliburton) IPM suite - Integrated Production Modelling KAPPA-Workstation

Employees from the Department of Petroleum and Gas Engineering and Energy are also contributing to several research projects.

The most recent one is EU Horizon2020 project **HyStoRIES**, which has been built with an extensive support of several European companies active in the natural gas storage and/or transport. In addition to their advises and vision, several gas storage operators also plan to provide site data (such as brine composition, core sample and/or cuttings data) from their natural gas storage sites to feed the experimental investigation work. The project outcomes should bring substantial help to the selection of future porous media hydrogen storages in Europe.

STRATEGY CCUS (EU Horizon2020) project objective is to develop strategic plans for CCUS development in Southern and Eastern Europe in the short term (up to 3 years), medium term (3-10 years) and long term (more than 10 years). That includes development of local CCUS development plans, with local business models, within promising start-up regions; development of connection plans with transport corridors between local CCUS clusters, and with the infrastructure that can already be used or modified for CCUS, and generally improved performance and reduced costs of Europewide CCUS infrastructure.



Source: https://www.strategyccus.eu/about-project/regions

Funded by Croatian Science Foundation, ESCOM project resulted with online Evaluation System for CO2 Mitigation (http://escom.rgn.hr/) which connects green technologies with reservoir engineering knowledge and practices.

Erasmus+ project **Geothermal Energy Capacity Building in Egypt/GEB** aims to develop a higher educational engineering diploma of geothermal energy, which would supply the local market with its demand of qualified engineers/graduates in the field of geothermal energy investigation, geothermal project management etc. Geothermal resources utilize the heat from the Earth's crust without releasing environmentally harmful emissions and is constantly available, therefore the project would also raise the level of awareness in the community and decision-making circles to the geothermal resources/energy benefits. RGNf contributes to the project by providing intensive short courses and laboratory sessions in geology to the staff of Egyptian higher education institution.



New Master Study Programme

1. STRUCTURE

FIRST YEAR (60 ECTS CREDITS): COMMON TO ALL



SELECTION OF ONE MODULE

Drilling and production engineering

Reservoir engineering

Geoenergy engineering and management

- Mandatory courses
- Elective courses
- Master thesis (12 ECTS credits)
- Professional practice (4 ECTS credits)

Expected start of the programme: Academic year 2022/2023

2. AIMS AND LEARNING OUTCOMES

The aim of this study programme is to prepare the students for contemporary challenges in the energy industry, with a special focus on oil and gas exploitation and geoengineering.

STUDY PROGRAMME LEARNING OUTCOMES:

- Independently solve complex engineering problems in petroleum engineering and geoenergy engineering
- ✓ Design wellbores for hydrocarbon and geothermal water exploitation
- ✓ Analyse reservoir rock and reservoir fluids properties
- ✓ Plan hydrocarbon and geothermal reservoir management
- Predict reservoir behaviour and the behaviour of hydrocarbon and geothermal water production system
- ✓ Design system for oil and gas processing, storage and transportation
- ✓ Optimize hydrocarbon and geothermal water production
- Compare specific procedures and processes in petroleum engineering and geoenergy engineering
- ✓ Appraise the process and a facility's efficiency in petroleum engineering and geoenergy engineering
- Assess the risk of accidental situations during various operations in petroleum engineering and geoenergy engineering
- ✓ Assess the environmental impact of petroleum engineering and geoenergy engineering
- Plan the methods and procedures for avoiding or minimizing environmental impact of petroleum engineering and geoenergy engineering activities
- Supervise projects in petroleum engineering and geoenergy engineering
- ✓ Appraise projects in petroleum engineering and geoenergy engineering
- ✓ Appraise energy company's business
- ✓ Analyse energy markets



3. MODULES

3.1. DRILLING AND PRODUCTION ENGINEERING



The great complexity of the well drilling process, its high costs, the need to ensure the full efficiency of the rig and the respecting of safety and of the environment call for planning and modeling in developing phase of the well drilling project and continuous optimizing of operations, through the monitoring and processing of all available data, during the project. Production engineering is part of petroleum engineering that attempts to maximize production (or injection) in a cost-effective manner. Petroleum production involves two distinct but connected systems: the reservoir, which is a porous medium with unique storage and flow characteristics; and the artificial structures, which include the well, bottomhole, and wellhead assemblies.

In the Drilling and Production Engineering Module the focus is on borehole drilling/production planning and design, dynamics of drilling process and maintance of production systems as well as produced fluid processing, transportation and storage.

3.2. RESERVOIR ENGINEERING



Reservoir engineering study (module) is focused on the characterization of underground structures in order to evaluate the flow of fluid through this porous medium for the purposes of oil, gas, geothermal energy production, but also for gas, CO_2 , hydrogen heat or compressed air (or other gas) energy storage.

Interdisciplinary work, analytical and presentation skills are encouraged in this study. Relevant skills will be developed in the Petroleum Engineering Center for Digitization and Big Data Analysis (at the Faculty), in the sense that it will approach the possibilities of automating the reservoir development process.

The required knowledge is acquired through reservoir (numerical) simulation courses, enhanced recovery examples and practical measurements and computational interpretation of core-sample data. During exercises on realistic cases, students use industry-standard simulation and interpretation software to integrate the whole process of research, production data management, history matching and estimates of future reservoir performance both physically and economically.

3.3. GEOENERGY ENGINEERING AND MANAGEMENT

The graduate study of geoenergy engineering and management provides students with the opportunity to acquire the extensive knowledge and necessary skills for professional development in today's energy sector. Students will acquire the necessary knowledge and skills for planning, developing, and organizing several different energy systems. These energy systems include underground energy and gas storages, energy transformations and exploitation of both shallow and deep geothermal potential. Also, students will acquire knowledge about the organization and functioning of the energy and natural gas markets, business management and economic assessment of an energy project. For additional specialization in a particular field, this study also offers a wide range of elective courses along with professional practice in the energy sector.







4. COURSES

FIRST YEAR - COMMON TO ALL

I (Winter) Semester							
Name of the course	lectures	exercises	seminar	field work	ECTS credits		
Drilling engineering	2	2		YES	6,5		
Oil and gas production engineering	2	2		YES	6,5		
Multiphase flow in porous rock	3		1	YES	6,5		
Secondary methods in reservoir engineering	2	1	1		6,5		
Environmental protection in petroleum engineering	3		1	YES	4		
			Total EC1	30			

II (Summer) Semester							
Name of the course	lectures	exercises	seminar	field work	ECTS credits		
Offshore activities	3		1	YES	6		
Accidental risk assessment	3		1		6		
Oil and gas transportation and storage	2	1	1	YES	6		
Exploration and exploitation of geothermal reservoirs	3		1		6		
Well test analysis	2	2			6		
			Total ECT	30			

FIRST MODULE - DRILLING AND PRODUCTION ENGINEERING

III (Winter) Semester						
Name of the course	lectures	exercises	seminar	field work	ECTS credits	
Well completion and workover design	2	1	1	YES	5	
Wellbore fluids	2	2		YES	5	
Waste management in petroleum engineering	3		1	YES	5	
Project economic evaluation	2		2		5	
elective course					4	
Professional practice					4	
			Total ECT	S credits	28	

IV (Summer) Semester						
Name of the course	lectures	exercises	seminar	field work	ECTS credits	
Design and drilling of directional wells	2	1	1		4	
Reservoir stimulation	2		2	YES	4	
Business management	2	1	1		4	
Well Production System Modelling	2	2			4	
elective course					4	
Master thesis					12	
			Total ECT	S credits	32	

SECOND MODULE - RESERVOIR ENGINEERING

III (Winter) Semester						
Name of the course	lectures	exercises	seminar	field work	ECTS credits	
Reservoir simulation	2	1	1	YES	5	
Reservoir management and production data logging	2	1	1		5	
PVT Characterization of reservoir fluids	2		2	YES	4	
Project economic evaluation	2		2		4	
elective course					8	
Professional practice					4	
			Total ECT	S credits	30	

IV (Summer) Semester						
Name of the course	lectures	exercises	seminar	field work	ECTS credits	
Enhanced recovery methods	2		2	YES	5	
Underground storage of gas and energy	2	1	1		5	
Business management	2	1	1		4	
elective course					4	
Master thesis					12	
			Total ECT	30		

THIRD MODULE - GEOENERGY ENGINEERING AND MANAGEMENT

III (Winter) Semester						
Name of the course	lectures	exercises	seminar	field work	ECTS credits	
Energy conversion	2	2			4	
Natural gas market	2		2	YES	4	
Applied thermogeology and shallow geothermal potential	3		1		4	
Project economic evaluation	2		2		5	
elective course					6	
Professional practice					4	
			Total ECT	'S credits	27	

IV (Summer) Semester						
Name of the course	lectures	exercises	seminar	field work	ECTS credits	
Energy planning	2	2			4	
Business management	2	1	1		4	
Underground storage of gas and energy	2	1	1		5	
Enhanced geothermal systems and revitalization of deep wells as energy resources	2	1	1		4	
elective course					4	
Master thesis					12	
			Total EC1	S credits	33	

Total ECTS credits



Among elective courses, students will be able to choose from courses such as:

- Process dynamics and regulation
- Exploitation of the unconventional oil and gas reservoirs
- Well control
- Deep well injection of petroleum engineering waste
- Advanced drilling technologies
- Energy transition
- Decommissioning of oil and gas facilities
- Intelligent well completion and exploitation field digitalisation
- Corrosion and corrosion protection in petroleum engineering etc.

5. ADMISSION REQUIREMENTS

- Bachelor certificate in the field of engineering
- Advanced English proficiency level:

IELTS Academic (minimum score 6.5 in all segments) or TOEFL ibt (minimum score 80) or TOEFL pbt (minimum score 550) or B2 (advanced) level on the CEFR scale.

Tests must have been taken within the past two years and must not have expired during the application process.

• Admission interview.



Why study at RGNF?

✓ TAKING CARE OF OUR STUDENTS' FUTURE

In 2020, Office for Counseling, Student Support and Organization of Professional Practice was established to provide support to students through various forms of activities, challenges and development of skills in their academic life.



Ured za SAVJETOVANJE, PODRŠKU studentima i organizaciju STRUČNE PRAKSE

Support in Professional and Personal development

On the path of development, some challenges can result in various difficulties, such as difficulties in adapting to a new environment and academic obligations, personal problems, and the development of symptoms of psychological difficulties. To make it easier to overcome difficulties, the Office's services provide various support activities: **Career counseling**, **Psychological counseling**, **Educational workshops and lectures**.

The link between students and employers

Graduation is followed by new challenges related to the labor market. In order to have the best possible opportunity to gain experience and develop competencies and upon graduation, to compete in the labor market, the Office offers students **the organization of Professional practice**.

For more info about Office and its services, visit our website. Contact info: vanja.tocakovic@rgn.unizg.hr.

ENSURING PRACTICAL FIELD WORK FOR STUDENTS

"Availability of apprenticeships is of great importance in this day of age when information is easily and currently reachable. Not only does it provide students with the right skills and knowledge needed for their chosen career, but also boosts their chances of getting jobs. It is theoretically priceless to experience, actually see and feel what they are being tought at the university. Modern study programs are increasingly seeking to offer the practical knowledge, thus incomparably amplifying the comparative advantage of apprentices in the labor market, in comparison to those being deprived of this privilege. Oil&Gas engineering as a multidisciplinary energy branch must include field classes as much as possible to facilitate the correct profiling of future experts in this segment."

Laslo Farkaš Višontai, Director of Adriatic Production, INA - Industrija nafte (Oil Industry) d.d., Former RGNf student and Internship partner for RGNf students





CONNECTING STUDENTS TO INTERNATIONAL PETROLEUM ENGINEERING NETWORK

PETROLEUM ENGINEERING SUMMER SCHOOL - PESS

The Petroleum Engineering Summer School (PESS) workshops, which are held in June every year, are organized by the Department of Petroleum and Gas Engineering and Energy of the Faculty of Mining, Geology & Petroleum Engineering, University of Zagreb. During the last thirty years, there have been 48 workshops within PESS due to which PESS has been recognized within the professional and scientific community as one of the most respectable lifelong study programs but also as one of the most long-standing programs of the Inter University Center - IUC.



The mission of the Petroleum Engineering Summer School is the exchange of knowledge at an advanced academic and expert level, offering the extensive possibilities for the international collaboration of the professionals in the oil & gas industry.



By 2019, more than 1100 participants have finished the PESS workshops, organized as lectures and/or case study analysis followed by professional discussions. Outstanding professors and experts from Croatia, Europe, USA and other regions participate as guest speakers or lecturers. Long-term collaboration in organizing the Petroleum Engineering Summer School has been established with university professors from the USA (Louisiana State University, University of Louisiana at Lafayette, the Colorado School of Mines, Massachusetts Institute of Technology (MIT), the University of Oklahoma, the University of Tulsa, Texas A&M University), Austria (Innsbruck University, Montan University of Leoben), Hungary (Miskolc University, University of Szeged), Russia (Gubkin State University, Moscow, St Petersburg State University, St. Petersburg State University of Economics and Finance), Romania (Petroleum and Gas University-Ploesti), the Netherlands (TU Delft), Venezuela, Iraq (University of Sulaimani) and Malaysia (University of Technology Petronas). Furthermore, a number of experts from leading industrial corporations were included in performance of the programs like ConocoPhillips, Statoil, Schlumberger, Total, E-On, ENI, OMV, MOL, Lukoil, INA Plc. and other.

"PESS offers wide variety of lectures for petrotechnical experts. Lecturers having decades of work experience can greatly affect one's perception on the industry and draw their attention to new, pioneer ideas. Beside the technical content of the workshop other benefit is networking. You can meet colleagues from around the world, make new friends or business acquaintances and enjoy your time at a lovely venue!"

Zoltán Székely, Reservoir engineer, MOL Plc, Hungary

THE SOCIETY OF PETROLEUM ENGINEERS - SPE CROATIAN SECTION

The Society of Petroleum Engineers is the largest Oil & Gas related society in the world, with over 160 000 members in 143 countries participating in 203 sections and 411 student chapters. We are extremely proud of the fact that the Faculty of Mining, Geology and Petroleum Engineering is home both to the SPE Croatian Section as well as the University of Zagreb SPE Student Chapter. SPE Croatian Section was founded in 1995. Throughout the year SPE Croatian Section was recognized as one of the most dedicated and awarded sections within the SPE family, with four President's Awards for Section Excellence and two Section Excellence Awards. The success of the SPE Croatian Section was only the reflection of the huge individual success of its members, who were awarded in all the branches of our industry.







ASEC – ANNUAL STUDENT ENERGY CONGRESS

Throughout last seven years, the Annual Student Energy Congress became one of the biggest student energy congresses in Europe. Every year, the congress hosts more than 200 participants from Croatia and all over the world. The main idea of the congress is to gather students, young professionals, and industry professionals all in one place. This gives them all opportunity to meet and share their vast knowledge. During the ASEC 2020 we had the opportunity to host the 2020 SPE Petrobowl European Regional Qualifiers as well as the 2020 SPE Student Paper Contest. Petrobowl – Oil & Gas industry-related knowledge guiz was of great success and attracted more than 250 participants for the ASEC 2020. We think that this is a great invitation for you to join our Faculty and experience everything that academic life in Zagreb can provide.

UNIVERSITY OF ZAGREB SPE STUDENT CHAPTER

University of Zagreb SPE Student Chapter was founded in 1990 and today has over 120 active student members. In the past 30 years, the main objective of the SC was to establish strong bond between students and industry professionals. As a student member, you will get the opportunity to meet your fellow students and Faculty professors as well as participate in workshops, lectures, and field trips. Since 2014, the main event of every academic vear is organizing Annual Student Energy Congress, where you have the opportunity to meet people from all around the world and share your passions and knowledge with them. Student Chapter was awarded Gold Standard Chapter Award in 2017 and 2019 Student Chapter Excellence Award. Besides the Congress at our Faculty, you will have the opportunity to participate in Oil & Gas Congresses all around the world (USA, Canada, Russia, Romania, Hungary, France). We are looking forward to seeing you in our Student Chapter!





Vikas Kooneti

University of Portsmouth Student Chapter, President 2018-2020

"My Experience at the ASEC Croatia was one of the best experiences of my life and was a great learning opportunity where I could build a great network and meet the most influenced and top leaders of the Energy Industry. The SPE Europe Paper contest and the Petrobowl were really interesting. Many universities showed their excellent skills in presenting and participating in the competitions. SPE events and programs are the best learning opportunities for students in the energy industry and the events like ASEC in Croatia are a milestone. The competitions, networking events, field trip were an amazing experience. SPE Zagreb University Student chapter really made their best efforts in organizing the ASEC 2020 in Croatia. "

ERASMUS+ PROGRAMME

The RGN Faculty has been participating in Erasmus/Erasmus+ exchange programs since the academic year 2009/10, through incoming and outgoing student, academic and non-academic staff mobilities and student traineeships. For the period 2014-2020 we have had 29 inter-institutional agreements in subjects of mining and extraction and earth sciences with higher education institutions from all around Europe, many of which are being extended. During that time, 56 foreign incoming students and 64 outgoing students have participated for a semester or two, with an increased interest in both incoming and outgoing mobilities over the last few years. We have been regularly receiving positive feedbacks from the host institutions as well as the students, pointing out the benefits of their increased motivation for future training and education, improved self-empowerment, cultural awareness and foreign language competences as well as enhanced employability and career prospects. Our Faculty has been regularly hosting excellent incoming students who in return emphasize the hospitality and professionality of the professors and the pleasure of living in Zagreb. This makes Faculty's participation in Erasmus programs highly important for the students and the Faculty, as well as for the University of Zagreb in whole.



Božana Barušić

Erasmus+ student in 2020, Graduate student at the University of Tuzla - Faculty of Mining, Geology and Civil Engineering, Bosnia and Herzegovina

"As a graduate student, I was given the opportunity to spend one semester at RGNf, University of Zagreb, Department for Petroleum Engineering. It is an experience by which I will remember the year 2020 and my graduate studies. In those few months, I realized how important a systematic approach and attitude towards our profession, work and science is. The professors were more than correct, approachable and considerate towards me and helped me to master the material that was new to me. So, I really never felt like a stranger at that Faculty, but like a guest. I would warmly recommend everyone to study at RGN Faculty, they will be delighted with the knowledge they will gain, but also with the beautiful Zagreb they will fall in love with."



Testimonials



Samir Golub

currently works as a Lead Reservoir Engineer, HKN Energy ltd.

"Being part of the most exciting profession in the world, a profession which will take you to different workplaces such as drilling rigs in the Sahara Desert or drillships offshore Africa... was my dream.

The Petroleum Engineering program challenged me every day during my studies. It was combining mechanical and energy engineering with geoscience disciplines. The program prepared me for exciting opportunities that were ahead of me."



Josipa Hranić, mag.ing.petrol.

currently works as a research associate at the MEET 2020, Faculty of Electrical Engineering and Computing, University of Zagreb.

"By enrolling at the Faculty of Mining, Geology, and Petroleum Engineering, I started to acquire knowledge in various fields of natural sciences and engineering. Such a diverse background has enabled me to be competent in various branches of the petroleum industry, from drilling techniques, hydrocarbon reservoir development and well completion to the exploitation of geothermal reservoirs, environmental protection, and the economics of petroleum engineering. What I consider one of the greatest advantages of the Faculty is working in small groups, which facilitates and improves interaction with professors and knowledge transfer. Internship and fieldwork also contributed to the overall positive studying experience, as I could work on some real problems in practice. One amazing feature of this profession is that traveling is always included, whether it is on the field, science conference, student exchange, training school, or on a business trip which also provides a wonderful experience of meeting new people and places, learning and growing. Studying at the Faculty of Mining, Geology and Petroleum Engineering provided me with quality knowledge, broadened my horizons both professionally and privately, and introduced me to new perspectives on the dynamic world of the energy industry."



Monika Miličević, mag.ing.petrol.

currently works as a Production Engineer at Wintershall Dea GmbH

"Studying at RGNF was a great experience. Some of the advantages were definitely a lot of field visits and onsite learning, friendly and open-minded professors and lecturers as well as good collaboration with other universities (CEEPUS program which gave me an opportunity to go to exchange semester to Austria). In addition, being a member of very active SPE Student Chapter Zagreb gave me the opportunity to meet and work with other colleagues from the oil industry. All of this helped me to gain knowledge and skills which brought me to the international company that has business units all over the world - Argentina, Abu Dhabi, Brazil, Germany, Mexico, Norway, Russia."



Dominik Kevo, mag.ing.petrol.

currently works as Gas & Power Commercial Specialist at INA - Industrija nafte, d.d.

'Looking back at my time at RGNF, I have to say it was a great experience and a right choice for my university education. I acquired a set of skills which helped me start my career in a big energy company. Also, I had a great time during my student exchange programme in Austria. If I could, I would do it all over again. That is the biggest thing from my point of view.''





CONTACT AND ADDITIONAL INFORMATION

University of Zagreb, Faculty of Mining, Geology and Petroleum

Pierottijeva 6, HR 10000 Zagreb, Croatia



For more information about the curriculum, courses, student life in Zagreb and anything else related to this study programme, please check out our website:

www.petroeng-master-rgn.eu

or contact the coordinator of the project Internationalization of the RGN Faculty, Assist. Prof. Borivoje Pašić borivoje.pasic@rgn.unizg.hr









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