

UNIVERSITATEA DIN
PETROȘANI



“PERITA MANUS MENS EXCULTA”

THE UNIVERSITY OF
PETROȘANI

ACADEMIC SENIOR MANAGEMENT



Prof. Ph.D.. Habil. eng. Roland MORARU
Research and International Affairs Vice Rector



Assoc. Prof. Ph.D. ec. Codruța DURA
Education and Quality Assurance Vice Rector



Prof. Ph.D.. Habil. eng. Eduard EDELHAUSER
*University Management, Institutional Development
and Students Affairs Vice Rector*



The Senate of the University of Petroșani represents the academic community and guarantees academic freedom and autonomy, being the highest executive body of the University. The Senate mandate is of four years, and the representatives of the teaching and research staff can be elected for a maximum of three consecutive mandates.

The Senate of the University of Petroșani consists of 41 members, of whom: 30 representatives of the teaching and research staff, according to the number of mandates assigned to each faculty, and 11 representatives of the students.

The Senate holds ordinary trimestral meetings, as well as extraordinary meetings.

The organizational levels of the senate are: the Senate President; the Senate Board; the Senate Secretariat; the Senate Commissions.

The Senate President is elected by the secret vote of the members, chairs the meetings and represents the Senate in relation with the Rector.

During its current mandate, the Senate has carried out a fruitful activity, in democratic, constructive and responsible debates, adopting approximately 150 decisions regarding the development strategy of the University, ranging from education and research activities to academic, economic and administrative management issues and student affairs.



Assoc. Prof. Ph.D. eng.
Nicolae PĂTRĂȘCOIU
Senate President

The Senate Board is composed of:

Assoc. Prof. Ph.D. eng. Nicolae PĂTRĂȘCOIU - Senate President

Lecturer Ph.D. Marius HELJIU - Senate Secretary

Assoc. Prof. Ph.D. eng. Marius MARCU – Head of Education Management, Financing and Quality Assurance Commission

Prof. Ph.D. eng. Ilie ONICA – Head of Research, Development and Research Assessment Commission

*Lecturer Ph.D. eng. Virginia BĂLEANU – Head of Management, Strategic Development and Economic – financial
Assessment Commission*

Lecturer Ph.D. Felicia ANDRIONI.– Head of Student Affairs Commission

Assoc. Prof. Ph.D. eng. Sorin VĂTAVU – Head of Academic Ethics Commission

Alexandru-Robert CIOCLU – Student



The beginnings of the University of Petroșani date back to the Decree of king Alexandru Ioan Cuza on October 1, 1864 regarding the foundation, in Bucharest, of the School of Bridges and Highways, Mines and Architecture, and, later on, the decree of king Carol I on October 30, 1867 for the setting up, in Bucharest, of the School of Bridges, Highways and Mines.

Initially set up in Bucharest and, after World War II within the two Polytechnic Schools in Bucharest and Timișoara, mining higher education has dramatically expanded during the past 65 years, in accordance with the challenges of modern society.

In this context, the foundation in 1948 of the Coal Institute in Petroșani, which was to become the Mining Institute of Petroșani in 1952, has turned the important Jiu Valley mining region into a major landmark of the Romanian higher education.

The passing of time brings about inevitable changes, whether slow or sudden, radical or subtle. Thus, the mining school in Petroșani has benefited from the technical and scientific support of the industrial complex of the Jiu Valley and its staff, as well as of the valuable contribution of the academic staff of the former Bucharest Mining Institute who came to teach at the school on “Institute Hill”, being able to adapt continuously to the challenging of changing times and to become a perennial symbol of the Jiu Valley.

After 1990, the Mining Institute in Petroșani, our present University, has diversified its educational offer beyond the limits of technical training.

Taking into account the exigencies of market economy, the University of Petroșani currently provides academic education in three Faculties: the Faculty of Mining Engineering, the Faculty of Mechanical and Electrical Engineering, and the Faculty of Sciences, whose national and international acknowledgment is grounded in the joint effort of team work, past traditions and future challenges.

As normally, the University, whose activity is traditionally dedicated to the preservation, consolidation, and dissemination of knowledge, is today summoned to provide flexible solutions to the social and economic issues by direct involvement in the development process, so that our graduates should become active participants on the labor market.

The mission of the University of Petroșani as an international university is substantiated by more than 5,000 graduates working on five continents, by participation in European and international programs, and, implicitly, by the growing number of foreign students who attend its Romanian or English-teaching specializations.

This booklet describes the studies programs provided by our faculties, our campus, whose natural setting is unique in Europe, and points out the determining elements that make our University a major educational and research center on a regional, national and international level.

Prof. Ph.D. eng. Sorin Mihai RADU
Rector

HISTORY AND TRADITION



The University of Petroșani is a higher education institution that started its activity as “The Coal Institute - Faculty of Coal Deposits Mining and Processing”, on December 7, 1948, on grounds of Decree no. 175/1948 for educational reform, and the October 1948 Decision of the Public Education Minister regarding the organization of higher education.

As a result of the closing in 1952 of the Mining institutes in Timișoara and Brad, and the ceasing of activity at the Bucharest Mining Institute in 1957, the Mining Institute Petroșani was to be, until the beginning of the '90s of the XXth century, the only higher mining education institution in Romania, especially for the training of engineers.

The setting up of the Coal Institute at Petroșani in 1948 represents a turning point in the social, economic and cultural evolution of the Jiu Valley. From a historical perspective, this institution has proved beneficial for the overall development of the region, as well as for the evolution of the Romanian economy at large, and of the mining industry in particular.

The higher education establishment at Petroșani has not appeared on arid ground.

There was already a tradition of higher mining education in Romania, beginning with the decree of king Alexandru Ioan Cuza in October 1, 1864 regarding the foundation, in Bucharest, of the School of Bridges and Highways, Mines and Architecture, and, later on, the decree of king Carol I in October 30, 1867 for the setting up, in Bucharest, of the School of Bridges, Highways and Mines, with a duration of academic studies of five years and two departments: the Department of Bridges and Highways; the Department of Mines.

Mining higher education enters a new stage in the interwar period, when the new Polytechnic Schools of Bucharest and Timișoara, set up by a Decree – Law signed king Ferdinand on June 10, 1920, will include in their structure the department of Mining and Metallurgy, which was to become a faculty in 1938. Mining higher education will function with this structure until 1948.

On the other hand, the Jiu Valley was one of the few industrial, highly urban areas in Romania, thus displaying the conditions for hosting such an institution. It was also a strong industrial center with top specialists, which provided a suitable framework for applied education.

The Coal Institute in Petroșani opened up on la December 7, 1948 with 135 students in the first year of study (by admission exam), as well as the second and the third (transferred from the Faculties of Mines of the Polytechnic Schools in Timișoara and Bucharest). The Institute had one department: “The Mining and Processing of Coal Deposits”, assisted by an academic staff of 28 members, of whom only 8 held tenure in the Institute. In academic year 1949-1950 a new department is set up: “Mining Electromechanics”, and in academic year 1951-1952 the department of “Mining Survey”. In academic year 1949-1950 the Coal Institute yields its first class of graduates, consisting of 35 de mining engineers.

With the reorganization of higher mining education in 1952, the Coal Institute changes into the Mining Institute Petroșani, its activity developing in two departments:

- Mining Operations, with specializations:
 - a. Mining Operations;
 - b. Mining Survey;
 - c. Processing of useful minerals;
- Mining Electromechanics.

Beginning with academic year 1957-1958, higher mining education concentrates in Petroșani, and the two departments functioning here become faculties:

- The Faculty of Mining Engineering;
- The Faculty of Mining Electromechanics the present Faculty of Mechanical and Electrical Engineering.

The Mining Institute has had the mission to train graduate specialists for all the fields of activity specific for the mining industry, as well as for activities with mining character in other industrial branches, or in other

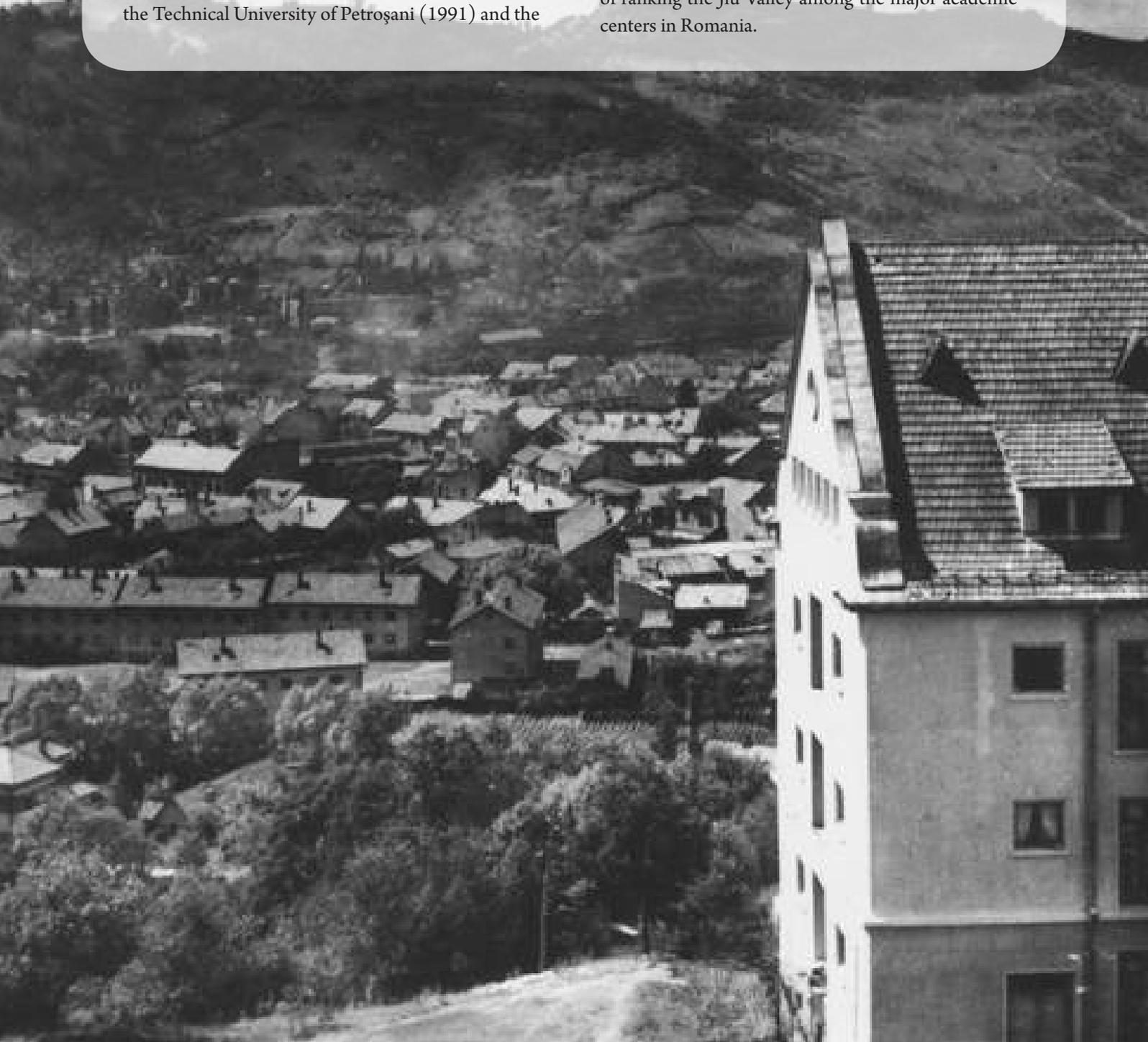
branches such as: mining machines and installations, technological equipment, energetics and process automation. Besides the training of the staff necessary especially for the Romanian mining, the higher education institution in Petroșani specialized staff for the above mentioned fields for about 20 countries in Asia, Africa, South America, North America and Europe. Thus, in over 40 years of activity, the Mining Institute has trained more than 14,000 engineers and assistant engineers.

The diversification of fields and specializations after 1990 brought about major changes within the higher school in Petroșani and, consequently, technical education continues alongside with the emergence specializations in the field of economy, mathematics, social sciences and humanities, computer processing, and public administration. This will call for a successive change of names into the Technical University of Petroșani (1991) and the

University of Petroșani (1995), which reflects both a management, and a content change.

At the same time, the internal organizational structure of the institution, established in 1957, will be altered beginning with academic year 1990-1991, when the Academic College, with technical, economic, and humanities departments, is added to the two technical faculties. The dissolution of the College by Law no. 288/2004 was followed in academic year 1993-1994 by the foundation of the Faculty of Sciences, within which undergraduate studies were developed in the field of economic, administrative, exact and social sciences.

All these changes have turned Alma Mater Petrosenensis into a comprehensive university, with a determining educational and scientific role in the region, as well as an intellectual pole capable of ranking the Jiu Valley among the major academic centers in Romania.



PETROȘANI, TOWN AND UNIVERSITY

The Municipality of Petroșani, with a population of 42,187 inhabitants on July 1, 2011, is situated in central Romania in the southern part of Hunedoara County, at the confluence of the Eastern and Western Jiu; its administrative territory covers a surface of 19,556 ha, comprising the following villages: Slătinoara, Peștera Bolii, Dâlja Mare and Dâlja Mică.

The municipality lies along two important national roads: DN 66, Târgu Jiu – Simeria, at the intersection with DN 66A Petroșani – Uricani – Câmpu lui Neag, which further extends to Herculan, and DN 7A, which connects it with the Olt Valley (Petroșani – Voineasa – Brezoi). It is also situated on the Simeria-Târgu Jiu-Filiași railway, being a connection point between Transylvania and Oltenia and the starting point of the railway to the municipality of Lupeni.

The Municipality of Petroșani is situated 350 km far Bucharest, the capital of the country, and 93 km far from Deva, the capital of Hunedoara County. Other important neighboring cities are: Târgu Jiu (55 km), Craiova (150 km), Timișoara (250 km), Alba Iulia (200 km), and Sibiu (220 km).

The relief of the area is typical for a depression, surrounded by mountains: the Parâng Mountains to the east, the Godeanu Mountains to the west, the Retezat Mountains to the north and the Vâlcan Mountains to the south. The town is situated at an altitude of 615–620 m, the highest altitude in the area being that of Parângu Mare summit, i.e. 2,519 m.

The climatic conditions of the area are influenced by its geographic position displaying average temperatures, with blizzard free winters, pleasant springs, cool summers and late autumns. Precipitations are rich, ranging from 62 to 68 mm/month.

There is a variety of opinions regarding the beginnings of the settlement. According to one opinion, Petroșani settlement appeared at the beginning of the XVIIth century, a donation paper 1640 showing that, on the territory of present Petroșani town, there lived the family of a yeoman named Bolia, and the land was owned by two families from Țara Hațegului, separated by the streams of Maleia and Dâlja. The Greek-Catholic vicar of Hațeg, Iacob Radu, maintained at the beginning of the XXth century that a village was initially formed in the latter half of the XVIIIth century, by the settlement of the people from Petros (Baru commune, on the border between Țara Hațegului and the Jiu Valley). This settlement is to be found, under the name Pietrosénÿ, on a 1769-1773 map drawn up during Franz Joseph's rule. Anyway, the 1818 census refers to Petroșani as having 223 inhabitants, and in 1854, Petroșani (Petrozsény, Petroșeni) was among the 11 settlements recorded in the Jiu Valley, totalizing 518 inhabitants together with the villages of Dâlja and Maleia.

It is known that, as early as 1861, every commune in the Jiu Valley had individual administration led by a mayor. Petroșani was decreed urban commune in 1898, and on January 4, 1924, its status of council led town is renewed by governmental decision.

Being a district center since the '70s of the XIXth century, Petroșani preserves its status of regional town after the administrative reorganization in 1950, and becomes a municipality in February 1968.

Petroșani, as we know it today, gradually turned from a momârlani (local farmers) settlement into an urban area, with highly developed industry. Beginning with the '70s-'80s of the XIXth century, owing to industrial coal mining and the construction of the Simeria-Petroșani railway between 1868-1870, it becomes the most important settlement in the area and the administrative center of the Jiu Valley region.

Coal becomes the center of industrial revolution, bringing about such changes as: the development of an industrial complex, mainly consisting of mining units; the development of an urban area; rapid population growth in the area, mostly as a result of a migration phenomenon characteristic of the Jiu Valley in the '90s of the XXth century.

The development of the settlement is accelerated by the opening of the first mines, either with support from the State, or with private capital: Petroșani East (1867-1868); Petroșani West (1869); Dâlja (1890), the building of the power plant in 1894, necessary both for industrial purposes and for street and home lighting, and the opening of Petroșani Central Workshops in 1909.

Industrial development was accompanied by the building of industrial, public and domestic facilities, which gradually



add urban touches to the settlement. Alongside with the emergence of “colony” houses, built by the State and the Mining companies and of the private buildings, a process of systematization of the main street begins around 1869. It is now that the most important shops, restaurants and hotels of the town are built along the main street, whose layout will be preserved until the '80s of the XXth century. By the turn of the XXth century, a series of economic, administrative and cultural buildings appear, some of which still exist: the former Boys' High school (1904; nowadays the Sports School); the former Franciscan nuns convent (1893-1894; nowadays former Primary and Secondary School no. 4); the Courthouse building (1910); the former Casino of the senior officers of “Salgótarján” Company (1905; today the “Ion D. Sîrbu” Dramatic Theater).

Due to the constructive effort that lasted until the end of the '80s of the XXth century, the number of buildings grew from 405 houses with 483 apartments in 1857, to 2,308 buildings in 1941, representing 23.22% of the total number of buildings in the Jiu Valley, and to 18,157 dwellings in 2010.

This development was dramatically influenced by the growth of industrial activity, especially of coal mining, under the management of “Salgótarján” Company (1895-1921), “Petroșani” Company (1921-1948), Sovromcârbune (1949-1954), the Jiu Valley Mining Corporation, today the Mining Division within the Hunedoara Energy Complex. The following mines operated in Petroșani: Petroșani West, closed down in 1928, Dâlja, closed down in 1931 and reopened between 1960 and 2003, Petroșani East, which became a sector of Petrița Mine in 1939, and Livezeni, opened in 1967. Livezeni Coal Processing Plant operated between 1987 and 1997, and the activity of the former Petroșani Central Workshops developed considerably. After

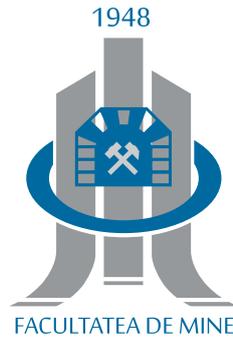
World War II, the latter became the Mining Equipment Plant, which, unfortunately, is no longer in operation today.

In this context, the Research Center for Mining Safety (1949; today INSEMEX) and the Petroșani Mining Research and Design Center (1955) were created to meet the research and design requirements mainly for the mining industry, but also for other economy branches.

Cultural institutions were also set up in time, the most representative of which being the present “Ion D. Sîrbu” Dramatic Theater (1948), and the Mining Museum inaugurated on August 4, 1967. There was also an educational network consisting of kindergartens, secondary schools and high schools.

At the same time, Petroșani displays a demographic growth from 1,728 inhabitants in 1870, to 15,405 inhabitants in 1930, 40,684 inhabitants in 1977, 52,390 inhabitants in 1992. The region becomes a melting pot for people of different nationalities and religious beliefs, which generates a multiethnic and multicultural environment. Thus, in 1930, at least 16 languages were spoken in Petroșani and about 12 confessions were to be found here, this characteristic being still valid to a certain extent.

Our town is today a prestigious academic center that has trained, during 65 years of higher education, 30,000 highly qualified specialists mainly for the mining industry, and, especially after 1990, for other fields of production, research, education and public administration as well. At the same time, the University of Petroșani is integrated into the international academic community sharing the European moral, educational, scientific and cultural values and collaborating with Universities in Europe, America, Asia and Africa.



THE FACULTY OF MINING ENGINEERING

Dean:

Prof. Ph.D. habil eng. Andreea Cristina IONICĂ

Vice-deans:

- Asoc. Prof. Ph.D. eng. Mihaela TODERAȘ

- Prof. Ph.D. eng. Grigore BUIA

Departments:

- Mining Engineering, Mining Survey and Constructions

- Management and Industrial Engineering

- Environmental Engineering and Geology

The history of the Faculty of Mining Engineering incorporates itself into the history of the University of Petroșani. In 1948, when it was set up, the Coal Institute in Petroșani consisted of one faculty, namely the Mining and Processing of Coal Deposits. The 1957-1958 academic year marks the change of this faculty into the Faculty of Mining Engineering.

The industrialization of economy and the focus on the exploitation of national mineral resources meant a continuous development for this faculty, both from a material point of view, and in terms of human resources and the ever growing number of graduates. If at that time the basic strategy of the faculty was “concentration and specialization”, after 1990, the changes in the Romanian society called for a strategy of “diversification”. Thus, preserving its competences and the quality of the educational process, in a world where the word “change” has become even more present, and without giving up its name, history and tradition, the faculty has developed its educational offer continuously. / Thus, the faculty has developed and adapted its educational offer constantly to match the requirements of today’s modern society where the word “change” is becoming more present, without losing its name, history and tradition.

At present, the Faculty of Mining Engineering is structured into three departments: the Department of Mining Engineering, Mining Survey and

Constructions, the Department of Management and Industrial Engineering and the Department of Environmental Engineering and Geology.

The teaching staff is composed of 11 professors, 15 associate professors, 22 assistant professors and 3 teacher’s assistants, who carry out didactic, research, design and expertizing activities in different fields. The auxiliary didactic staff consists of 13 persons.

In the academic year 2016/2017 the Faculty of Mining Engineering provides seven undergraduate studies programs, seven MSc studies programs, and four postgraduate studies programs.

At the same time, the faculty ensures doctoral studies in the fields of Mining, oil and gas, Industrial engineering, and Engineering and management.

At present, 647 students are enrolled in undergraduate studies and 261 students are enrolled in MSc studies.

In the context of internationalization of the Romanian Higher Education, the Faculty of Mining Engineering with its uniqueness and tradition, already offers an MSc program in English: Sustainable Exploitation of the Mineral Resources, and will also provide an English language undergraduate program of Mining Engineering, starting in 2018. These programs are dedicated to both foreign and Romanian students, with the purpose of strengthening the

Undergraduate studies programs

<i>Field</i>	<i>Specialization</i>	<i>Form of education</i>
Mining, oil, gases	Mining engineering	Full Time (FT)
	Mining survey	
Civil engineering	Mining constructions	FT
Environmental engineering	Environmental engineering and protection in industry	FT
Industrial engineering	Quality engineering and management	FT
	Industrial safety engineering	FT
Engineering and management	Industrial Engineering in Constructions	FT



MSc studies programs

Field	Specialization	Form of education
Mines, oil, gases	Sustainable Exploitation of the Mineral Resources (in English language)	FT
	Computer-aided mining survey and cadastre	FT
	Labor safety and health management	FT
Civil engineering and installations	Mining constructions design engineering	FT
Environmental engineering	Assessment of human impact on the environment and ecological rehabilitation	FT
	Environment quality control and monitoring	FT
Engineering and management	Projects engineering and management	FT

Postgraduate studies programs

Field	Specialization
Continuous training and professional development programs	Labor safety and health risk evaluator
	Product and services quality management
	Waste waters treatment
	Waste management

connections already established by our faculty's graduates working as mining engineers around the world (Europe, South America, Africa or Asia)

The practical applications of the subjects in the curricula for all the study programs are carried out in laboratories. The laboratories are adequately equipped, facilitating the access of students to the latest developments in science and technology, and providing the necessary material conditions for their training in accordance with the market requirements.



THE FACULTY OF MECHANICAL AND ELECTRICAL ENGINEERING



Dean:

Assoc. Prof. Ph.D. eng. Iosif DUMITRESCU

Vice-deans:

-Assoc. Prof. Ph.D. eng. Ilie UȚU

-Assoc. Prof. Ph.D. eng. Ion DOSA

Departments:

- Automation, Computers, Electrical Engineering and Energetics

- Mechanical, Industrial and Transports Engineering

When it was set up in 1948, the Mining Institute of Petroșani consisted of only one faculty that had a department of Mining electromechanics. In 1953, the first 17 engineers graduated from this specialization. As a result of the growing demand of specialists, the Faculty of Mining Electromechanics was set up in 1957. Throughout the years, according to the variation of the educational offer, the name of the faculty has changed as it follows: 1974 – Faculty of Technological Equipment; 1977 – Faculty of Mining Machines and Installations; 1990 – Faculty of Mining Electromechanical Machines and Installations; 1992 – Faculty of Electromechanical Machines and Installations; 2003 – Faculty of Mechanical and Electrical Engineering.

The faculty is structured into two departments: Automation, Computers, Electrical Engineering and Energetics, respectively Mechanical, Industrial and Transports Engineering.

The Department of Automation, Computers, Electrical Engineering and Energetics consists of 27 members with tenure, 7 associate members, 2 doctoral advisors, 5 research assistants and 4 members of the auxiliary staff, and provides 5 undergraduate studies programs and 4 MSc studies programs. The research activity of the department is oriented, according to the competences and expertise of its members, towards the following directions: hardware and software for process control and monitoring, intelligent control of industrial robots, machines, equipment and systems, upgrading of electrical drives and automatic installations, optimization of power consumption.

The Department of Mechanical, Industrial and Transports Engineering consists of 27 members of the teaching staff with tenure, 8 associate members, 8 doctoral advisors, 6 research assistants and 5 members of the auxiliary staff, and provides 4 undergraduate studies programs and 5 MSc studies programs. The teaching activity is combined with the research activity, developed in directions that coincide with the competences and expertise of the department members, as it follows: improvement of the structural and functional parameters of process equipment, kinematic and dynamic studies, technological design of equipment, installations and devices, diagnosing of mechanical and process equipment.

Within the faculty, there are 9 accredited 4-year undergraduate studies programs, and 9 MSc studies programs with duration of 2 years, covering different fields.

In academic year 2015 – 2016, there are 814 students enrolled in undergraduate studies and 180 students enrolled in MSc studies and 97 students enrolled in teaching staff professional conversion postgraduate programs.

In the context of a globalised Romanian Higher Education system, the Faculty of Mechanical and Electrical Engineering provides a MSc program in English: Process installations and equipment in mining, aimed at both foreign and Romanian students.

Undergraduate studies programs

<i>Field</i>	<i>Specialization</i>	<i>Form of education</i>
Computers and information technology	Computers	Full Time (FT)
Electrical engineering	Electromechanics	FT
	Data acquisition and instrumentation	FT
Electrical engineering	Industrial energetics	FT
Industrial engineering	Machine building technology	FT
Mechanical engineering	Mining machines and equipment	FT
	Industrial processes equipment	FT
Systems engineering	Automation and Applied Informatics	FT
Transports engineering	Transports and Traffic Engineering	FT



MSc studies programs

Field	Specialization	Form of education
Computers and information technology	Applied information techniques and technologies	FT
Electric engineering	Electromechanical systems	FT
	Operation of industrial electrical installations	FT
Industrial Engineering	Computer aided design and manufacturing	FT
Mechanical engineering	Process installations and equipment in mining (in English language)	FT
	Installations and equipment for mechanical processes	FT
	Process installations and equipment in mining	FT
Systems engineering	Information systems and technologies	FT
Transports engineering	Transportation Systems for Industry, Tourism and Services	FT

Postgraduate studies programs

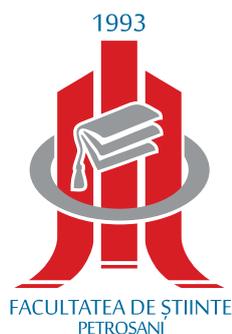
Field	Specialization
Continuous training and professional development postgraduate programs	<ul style="list-style-type: none"> • WEB design • Operation of the railway transport system • Applied informatics • Computer assisted technological engineering • Machines and installations for the mining industry
Teaching staff professional conversion postgraduate programs	<ul style="list-style-type: none"> • Electronics and automation • Electromechanics • Technological education • Informatics • Transportation

Doctoral studies are organized in the following fields: Electrical engineering, Systems engineering, Industrial engineering, and Mining, oil and gas.

Applied activities are carried out in 26 laboratories that provide the advanced equipment and installations necessary for a practical training able to match the labor market exigencies. The advanced equipment of these

laboratories is used in research activities as well. The research activity of the faculty members has resulted in research grants and contracts, the elaboration of scientific papers presented at national and international conferences and their publication in proceedings or major international journals.





THE FACULTY OF SCIENCES

Dean:

Assoc. Prof. Ph.D. Imola DRIGĂ

Vice-deans:

- Assoc. Prof. Ph.D. Maria DOBRIȚOIU

- Assoc. Prof. Ph.D. Mirela MONEA

Departments:

- Department of Mathematics and Computer Science

- Department of Economics

- Department of Social and Human Sciences

In an area dominated by technical requirements, but at a time when economic and social realities, the labour market, the diversified orientation imposed by the needs of the Jiu Valley and of the surrounding areas, in the academic year 1990-1991 the "Industrial Management" undergraduate degree program was set up within the Mining Institute, getting a predominantly economic character afterwards, under the name of "Management". Later on, in the academic year 1992-1993, two other programs were established: "Psycho-sociology" (today "Sociology") and "Mathematical Engineering".

This core will determine the further establishment of a proper organizational framework within the Technical University of Petroșani, so that in the academic year 1992-1993 the Faculty of Sciences began to operate, by Order of the Minister of Education no. 4685 / 7 April 1993.

On this basis and with the support of all those who have contributed to maintain higher education in Petroșani, there

was a continuous extension of undergraduate degree programs. Thus, today, the Faculty of Sciences provides, in compliance with the system established by the Bologna Convention, high quality education through eight undergraduate full-time (FT) programs and three undergraduate distance learning (DL) programs.

There are also five master's degree programs that continue undergraduate degree programs empowered by ARACIS, as well as six postgraduate continuous training and professional development programs and two postgraduate conversion programs for teaching staff in secondary education.

More than one thousand students study in undergraduate and master's degree programs organized by the Faculty of Sciences, being prepared by competent teachers with knowledge and teaching skills. These programs are divided into:

Undergraduate degree programs

<i>Field</i>	<i>Program</i>	<i>Form of education</i>
Management	Management	FT/DL (Distance learning)
Finance	Finance and Banking	FT/DL
Accounting	Accounting and Information Management	FT/DL
Business Administration	Economy of Trade, Tourism and Services	FT
Administrative Sciences	Public Administration	FT
Sociology	Sociology	FT
Social Work	Social Work	FT
Mathematics	Mathematical Informatics	FT

Master's degree programs

<i>Field</i>	<i>Program</i>	<i>Form of education</i>
Finance	Financial and Banking Management	FT
Accounting	Accounting and Audit	FT
Management	Strategic Business Management	FT
	Human Resources Management	FT
Sociology	Social Policies and Social Protection	FT

Postgraduate programs

<i>Field</i>	<i>Program</i>
Continuous training and professional development programs	Computerized Accounting Management of Products and Services in Credit Institutions and in Non-Bank Financial Institutions Educational Management Management of Sport Activities Human Resources Management Services Management in Public Institutions
Conversion programs for teaching staff in secondary education	Economics and Entrepreneurship Trade, Tourism and Services



The Faculty of Sciences consists of three Departments:

- **The Department of Mathematics and Computer Science** is one of the oldest teaching divisions in the University created with the establishment of the Mining Institute in 1948. Today, it consists of teachers from lecturers to professors with proper training. Since 1990, the department has coordinated the following undergraduate degree programs: “Mathematical Engineering”, “Mathematics and Physics”, “Mathematics”, “Mathematical Informatics”, and one master’s degree program: “Didactic Mathematics”. The department also supports the academic programs within the Faculty of Sciences, the Faculty of Mining Engineering and the Faculty of Mechanical and Electrical Engineering.

The department coordinates the review of applied mathematics and mechanics entitled “Transylvanian Journal of Mathematics and Mechanics”, indexed in two prestigious international databases: Zentralblatt MATH and Mathematical Reviews. In addition to publishing books and academic courses and coordinating scientific activities of students, teachers are present with scientific papers at conferences and publish articles in national and international ISI or BDI indexed journals.

- **The Department of Economics**, founded in the academic year 1993-1994, consists of well trained teachers, from assistants to professors, and coordinates five undergraduate degree programs: “Finance and Banking”, “Accounting and Information Management”, “Management”, “Economy of Trade, Tourism and Services”, “Public Administration”, as well as four master’s degree programs: “Financial and Banking Management”, “Accounting and Audit”, “Strategic Business Management” and “Human Resources Management”.

Teachers are also involved in scientific research, within the “Centre of Economic and Social Research for Regional

Development”, participate to scientific events, publish books, academic courses and articles in specialty journals, including the “Annals of the University of Petroșani - Economics” indexed in major international databases, such as: EBSCO, RePEc, D.O.A.J., Cabell’s, Scipio SOCIONET. They also support students in their research by supervising the papers they present either at the National Student Symposium “Student, Science, Society”, organized by the Faculty of Sciences, or at other student scientific events, and coordinate the Student Scientific Workshop “Entrepreneurship and Tourism”.

- **The Department of Social and Human Sciences** dates back to the beginnings of the Mining Institute. Today it brings together teachers of various teaching degrees, belonging to three divisions: the Social Sciences division, the Languages division and the Physical Education division.

Through the Social Sciences division, the department coordinates two undergraduate degree programs: “Sociology” and “Social Work” and one master’s degree program: “Social Policies and Social Protection”. The teaching staff in this department supports the academic programs at the Faculty of Sciences and at the technical faculties.

The members of the department are involved in applied research, participate to national and international scientific events, and publish books, academic courses and papers in indexed journals. They also carry out practical activities in the field of social work and coordinate the students’ scientific and educational pursuits.

All this activity is guided by the thought that the academic spirit means knowledge and team work, whereas knowledge is a step towards the future. Consequently, in order to build its future, Romania needs knowledgeable and open-minded people.



THE DOCTORAL SCHOOL

Doctoral School - history, tradition, present and future perspectives

Currently, the third component of the academic activity is the doctoral studies, which is the upper cycle of academic studies whose aim is to develop knowledge through original research, carried out in a doctoral school. Doctoral work, by objective and purpose, shows the value of the academic staff and the integration of the University into the scientific knowledge world.

History and tradition

The history of higher education institutions in Romania starts October 26th 1860 by the establishment of the University of Iasi. Then, in 1864, are founded the University of Bucharest and the School of Bridges and Roads, Mines and Architecture in Bucharest.

In December 1948 the Coal Institute began its activity in Petroșani, having first the Faculty of Mining and Processing of coal deposits and then, from 1949, the Faculty of Mining Electromechanics.

Professor Vasile Poboran wrote the first part of the University of Petroșani's doctoral studies history as the first doctoral supervisor and also as the first Dean of the Mining Institute of Petroșani in the period 1948-1954. History continued with Professor Aron Popa who has defended his doctoral thesis in 1968, as doctoral student of professor Poboran. Professor Aron Popa led the Mining Institute of Petroșani for 13 years between 1963 and 1976 as Rector. In turn became doctoral supervisor. These are just some landmarks that define the tradition of the Doctoral School at the University of Petroșani.

Present and Future Perspectives

Doctoral research means both to solve current problems but, above all, it means to bring innovation that provides the technological leap needed for further development of science. Thus, tradition blends with the new areas of doctoral studies in the Doctoral School from the University of Petroșani.



Prof. Habil. Monica LEBA Ph.D.
Head of Doctoral School

University of Petroșani organizes doctoral studies in Engineering Sciences, in the following fields: Systems Engineering; Industrial Engineering; Electrical Engineering; Engineering and Management, and Mining, Oil and Gas.

The admission to doctoral studies can be attended by pre-Bologna university graduates with bachelor degree or Bologna graduates with both bachelor and master degree.

The Library

The Library was founded in 1948, concurrently with the setting up of the Coal Institute at Petroșani. The Central Library of the University of Petroșani provides a number of 200 seats in 3 reading rooms. The students can also access the available book fund of department libraries, either in a classic or in electronic format.

As a result of a constant effort to enrich its book fund, the Central Library of the University of Petroșani offers today over 304,000 volumes, corresponding to 90,970 titles. Of the total of volumes, 225,805 are books, 19,435 periodicals, 56,803 state standards, 1443 doctoral theses and 603 non - publications.

The fund of Romanian and foreign reference books ensures a number of copies sufficient to fully cover the disciplines in the curricula of undergraduate and graduate academic programs. Thus, there are 182,326 volumes of applied sciences; 63,437 volumes of exact sciences; 20,666 volumes of social sciences and humanities; 22,254 volumes of language and literature and 15,406 volumes in other fields (culture, religion, art, sports, geography, etc.).

The Central Library of the University of Petroșani also provides its users with a wide range of special collections. In order to stay in touch with the latest trends, the library holds subscriptions to foreign journals and ensures access to prominent international data bases. At the same time, it supports an intense publication exchange with numerous higher education and research institutions in the country and from abroad. The sources of the library can also be accessed on-line, from the university site. The on-line platform of the library is supported by 35 computers connected to the Internet.



EDUCATION

Since its beginnings, the University of Petroșani has had the mission to train specialists for the mining industry, as well as for other industrial branches and fields, such as: mining machines and installations, technological equipment, energetic, process automation, a.o.

The expansion tendency in the academic fields and curricula, more and more obvious on a national level after 1990, generated the reconfiguration of the education offer of the University, so that the development of the traditional technical education was accompanied by the setting up of academic programs in other fields for which there was an increasing demand on the labor market, such as: economic, social sciences and humanities, public administration, informatics and mathematics.

At present, the University of Petroșani has fully implemented the Bologna type European education for two forms of instruction – day courses and distance learning – and for three study cycles. There are 24 undergraduate studies programs, accredited or temporarily authorized; 21 accredited master studies programs and 5 doctoral programs.

These programs are organized developed within the following academic structures: the Faculty of Mining Engineering, the faculty of Mechanical and Electrical Engineering, the Faculty of Sciences, the Department for Teaching Staff Training and Continuous Learning, and the Doctoral School. The strategy of the development of academic programs stems from the necessity to establish links between the three pillars of the Bologna education system: Undergraduate studies – Master studies – Doctoral studies. The programs are meant to create compatibilities between these three components, and the competences ensured on each segment are rooted in the local labor market requirements and in the graduates' capacity to reorient and adapt to the profound restructuring of the Romanian society in general and of the Jiu Valley in particular.

The campus that covers about 10 ha accommodates today over 3,300 students, supervised by 145 faculty members with a high competence level in their specific teaching and research fields.



TAXES FOR FOREIGN STUDENTS

Undergraduate and Masters programs:	
- 270 €/month (Engineering)	
- 220 €/month (Sciences and Economics)	
Doctoral studies:	- 290 €/month
Preparatory year for learning of Romanian language:	
- 2000 lei / year (approx 450 €)	

THE CENTER FOR ACADEMIC MARKETING AND ADMITTANCE

has as a purpose the internationalization of Petrosani education through a global, country, and county promotion and through maintaining a close connection between the University of Petrosani and the Jiu Valley's conurbation.

THE CENTER FOR RELATIONSHIPS WITH THE SOCIAL AND ECONOMIC MILIEU

coordinates the relations with the business environment, identifying opportunities for practical training, internships and scholarships given by employers. It elaborates, in partnership with the local and county administrations and the business environment, a series of proposals for projects that might be financed by structural or governmental funds.

THE DEPARTMENT FOR TEACHING STAFF TRAINING AND CONTINUOUS LEARNING

This Department ensures the management of didactic activities for the 15 post – graduate training and continuous professional development courses and for the 7 professional conversion courses provided by each Faculty.

The Department carries out didactic activities for the psychopedagogy training program attended by the students who intend to take up a pre – academic or academic teaching career. It also supports the training of pre – academic teaching staff for the obtaining of specific teaching degrees (I and II).

THE DEPARTMENT OF QUALITY ASSURANCE

The University of Petroșani was granted in 2015 the certificate of high degree of confidence, as a result of the institutional evaluation carried out by the Romanian Agency of Quality Assurance in Higher Education (ARACIS). Such performance allows our institution to hold one of the leading positions in the elite of Romanian higher education, in terms of the quality of didactic and research activities.

Quality assurance inherently represents a constant concern for the management of the University of Petroșani; hence, within our higher education institution, the structures and mechanisms required in order to ensure the monitoring and the improvement of quality at every activity level, were designed. Quality Assurance Department is the executive and consultative structure of the University of Petroșani, which supports the activities performed by the Quality Assessment Commission in order to design and implement the quality management system through the following actions: quality auditing planning;

drawing-up self evaluation reports and other documents related to the quality assurance issue; involving students and other direct and indirect beneficiaries in the internal quality assessment; training personnel on quality assurance; assessing periodically the stage of implementation for the quality management system in the university and identifying corrective or improvement solutions where necessary; managing quality information etc.



ALUMNI

The Alumni Association was created in order to establish and promote collaboration relations between the University and its graduates who activate worldwide, in various fields. The Association is involved in the organization of scientific, cultural, sports, humanitarian and social events, contributing to the development of teaching and research facilities, as well as to the promotion of the University's image within its environment. It also supports the graduates in organizing festive meetings at certain time frame since graduation, by helping them to contact their former professors and colleagues.



THE COUNSELLING AND CAREER CENTRE



The mission of the Centre lies in providing new employment opportunities for young people attending our University, through the following specific orientated counselling and guidance activities: psychological assessment for professional orientation (career personality and aptitude tests); counselling and orientation of students in order to manage their own career; drawing strategies in order to decrease dropout rates; bringing into effect the inter-relationship between undergraduates and the labour market through organizing training sessions for preparing the employment portfolio (CV, cover letter, job interview) an/or arranging of employment encounters; developing specific tools for optimum monitoring of graduates' insertion on the labour market etc.

INTERNATIONAL RELATIONS

Over the past 40 years, the University of Petroșani has had representatives in the International board of the World Mining Congress (WMC-IOC). The University of Petroșani is also represented in the International Society of Mining Professors, a professional association which brings together world academic personalities in the field of mineral resources mining and exploitation. In 2002, our University held the headship of the board and organized at Petroșani the thirteenth Annual Conference of SOMP.

In 2000, the University of Petroșani hosted, as co – organizer, the Third National Conference of Underground Structures, under the patronage of the International Tunnels Association. The University of Petroșani is co – organizer of the International Conference Dunăre-Criș-Mureș-Tisa Euroregion, which took place at Petroșani in 2001. In 2008, the University of Petroșani organized at Petroșani the 9th edition of the International Continuous Surface Mining Symposium. In

2009 and 2015, the University co – organized the Balkan Mineral Processing Congress 2009, in Bucharest respectively in Petroșani. During the past years, the University has also become scientific co-sponsor of a number of WSEAS conferences.

All this stands proof not only of the capacity of our institution to organize international scientific events, but also its international perspective and prestige as a center of academic and scientific excellence.

In this context, numerous collaboration agreements and teaching exchanges have been developed with renowned universities in Europa, Africa, Asia and America: RWTH Aachen University (Germany), TU Bergakademie Freiberg (Germany), University of Technology Clausthal (Germany), Politecnico di Torino (Italy), Ecole Nationale Supérieure des Techniques et des Mines d'Als and Ecole Nationale Supérieure des Mines de Nancy (France), Technical University of Ostrava (Czech Republic), University of Mining and Geology “St. Ivan Rilski”

Sofia (Bulgaria), Silesian University of Technology Gliwice (Poland), Wrocław University of Technology (Poland), AGH University of Science and Technology Krakow (Poland), Technical Faculty in Bor, University of Technology Beograd (Serbia), University of Miskolc (Hungary), University of Pecs (Hungary), University of Castilla - La Mancha, University of Valencia (Spain), Moldova's Technical University in Chișinău, Eindhoven University of Technology University of Eindhoven (Holland), Moscow State Mining University (Russia), Kharkov State Polytechnic University (Ukraine), University of Zagreb (Croatia), Assiut University și University of Cairo (Egypt), Technical University of Krivoi Rog (Ukraine), Technical University of Kosice (Slovakia), University of Ljubljana (Slovenia), IIT Kharagpur (India), McGill University (Canada), Università degli Studi di Varese, Università di Trento, Czestochowa University of Technology and many other academic and research collaborations.

“EUROLANGUAGE” LINGUISTIC CENTER

It was set up by Decision no. 12/29.09.2009 of the Senate of the University of Petroșani. Its management regulation, structure and operation follow the model of the Lingua Center of FSEGA in Cluj - Napoca.

This center functions in compliance with the linguistic standards of the European Union and the linguistic policy of the University of Petroșani.

The teaching staff and the modern multimedia laboratory equipment ensure the adequate language learning and testing conditions necessary for social and professional integration in a plurilingual and multicultural European context.

ELG Linguistic Center provides the following services for beneficiaries within or outside the university (individuals or companies): modern languages courses (English, French, Spanish), general language or ESP

(business communication, computers, engineering), in compliance with the levels established by the European Framework for Languages; Romanian courses for foreign students; language testing and issuing of language competence certificates in general/ specialized language; general/specialized translation and interpretation from/ into English, French, and Spanish.

ELG also organizes, on request, intensive courses in English, French and Spanish or the ERASMUS outgoing recipients, and intensive courses in Romanian for incoming Erasmus recipients. During the Erasmus mobility program, incoming beneficiaries are assisted by the staff of the Center whenever it is necessary.

At the same time, ELG carries out language tests (English, French, Spanish) and issues language certificates for the outgoing Erasmus recipients

Erasmus + Office within our University manages the Erasmus Program - EuROpean Community ActionS for the Mobility of University Students - the most important platform for mobility and cooperation in European higher education institutions. The program addresses both to students who want to study and/or to do practical training in Europe and to the academic staff who intend to teach or attend training sessions within universities and other partner institutions form all over Europe.

Under this European program, which aims to create and strengthen a dynamic European life-long-learning space, students and academic staff from the University of Petroșani take part, every academic year, to study or practical training, respectively to teaching or training mobilities in the European Union, contributing both to the internationalization of higher education at the societal level and to personal professional development, at the individual level, by acquiring new competences, skills and attitudes in their specific filed of interest.

All the information, either local or national, necessary for a potential Erasmus beneficiary are to be found at the following addresses:

<http://www.upet.ro/centdep/erasmus+/>

<http://www.erasmusplus.ro/>

<https://www.facebook.com/ErasmusPlusRO/>



RESEARCH

Scientific research represents the main knowledge and innovation source, and the University of Petroșani has a real research potential.

The strategic objectives were defined by taking into account the ranking of our university according to OMECTS 4072/2011 and the objectives of scientific research at a national and international level, regarding tendencies, requirements, opportunities and exigencies. Special attention is paid to excellence, interdisciplinarity and international visibility.

Research activities at the University of Petroșani is mainly carried out by research teams consisting of faculty members, researchers, Ph.D. candidates, students and external collaborators, in research centers and specific laboratories.

Research management is carried out by:

The Scientific Research Board, coordinated by the Scientific Research and International Affairs Vice - Rector; the Department of Scientific Research Activities Management (DAACS); Center of Counseling in Project Management, Innovation and Knowledge Transfer (CCMPITT); the Department of Research, Project Management, Innovation and Knowledge Transfer DCMPIIT; the Regulation regarding the organization and development of scientific research and knowledge transfer activities; the Operational plan for the implementation of the research strategy at the University of Petroșani.

The mission of scientific research and the strategic objectives are established in the Research Strategy. The mission of scientific research in the university is to generate knowledge and to convey, disseminate and use the acquired knowledge through scientific research.

The Department of Scientific Research Activities Management (DAACS) represents the communication interface between the research – development activity and the social – economic environment, contributing to the valorization of the university research results, to general economic development and to obtain financial resources for the University.

The main objectives of DAACS are:

- the orientation of research areas towards the regional, national and EU priorities in research and innovation starting from the real context of the human and material resources of the university;



- the participation to national and European competitions for research and innovation grants;
- the development of partnerships with the economic and social environment;
- the promotion of the image and competences of the university in specific fields of interest;
- the involvement of the young in research activities;
- scientific research covers the fields of undergraduate, master and doctoral studies programs.

Having in view the research priorities in the National Research, development and Innovation Plan III (PN CDI-III) respectively the Community Program Horizon 2020 of the European Union and taking into account the research fields in which the University of Petroșani has proved its competence and achieved performance, the following priority research fields are proposed for 2012 - 2016:

- Mining, Oil and Gas;
- Energy;
- Environment;
- Transportation;
- Fundamental sciences, economic and social sciences and humanities;
- Information technology and Communication.

Experience has been accumulated through projects, grants and sectorial projects that are sustained by the research potential that should not be wasted. The new strategy is meant to ensure the maintaining of the positions in certain research fields, to make efficient use of the equipment acquired during the past years and to identify new pillars of research and innovation at regional, national and international level.

In this context, the University of Petroșani organizes the International Multidisciplinary Symposium "Universitaria SIMPRO" and other specific events, also being co-organizer of national and international conferences.

The dissemination of the research results in technical and economic fields is supported by such periodicals as the Annals of the University of Petroșani (Mining Engineering, Mechanical Engineering, Economics and Electrical Engineering), acknowledged by CNCS and included in international data bases.

The University of Petroșani is the editor of the renowned international journals Revista Minelor/Mining Revue, included in international data bases and acknowledged by CNCS and the "TRANSYLVANIAN JOURNAL OF MATHEMATICS AND MECHANICS"



AMENAJAREA ÎN SCOP TURISTIC A SALINEI TURDA

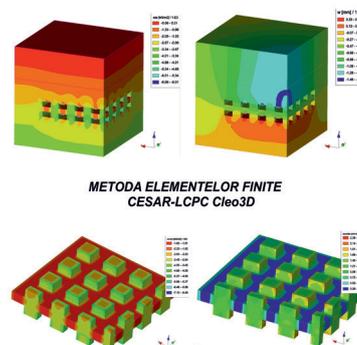
Analiza de stabilitate a excavațiilor miniere subterane



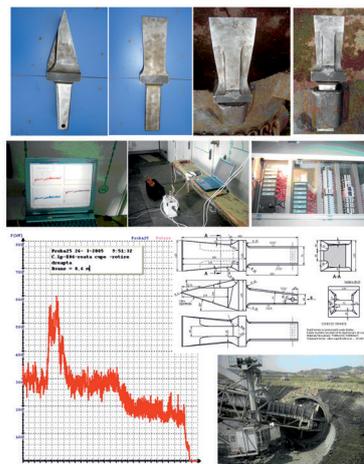
Salina Slănic-Prahova

-exploatarea cu camere și pilieri pătrați-

STABILITATEA ELEMENTELOR DE REZISTENȚĂ



CERCETĂRI ÎN DOMENIUL CRESTERII PERFORMANTELOR ÎN EXPLOATARE A COMPLEXELOR DE EXTRAGERE UTILIZATE ÎN CARIERELE DE CĂRBUNE



Today, the University of Petroșani, known under the acronym UPET, is a complex, medium – sized university, with a campus consisting of 22 buildings.

ACCOMMODATION

THE UNIVERSITY OF PETROȘANI has five dormitories:

- Dormitory No. 1 – double and triple rooms, accommodation capacity: 140 places;
- Dormitory No. 2 – double rooms, accommodation capacity: 160 places;
- Dormitory No. 3 – double rooms (two rooms per module), accommodation capacity: 150 places;
- Dormitory No. 4 – studios, accommodation capacity: 80 places;
- Dormitory No. 5 - studios, accommodation capacity: 80 places.

Accommodation costs for foreign students are affordable, between 150-200 €/room/month, depending on the type of room.



CAFETERIA

The cafeteria has a capacity of 200 places, in two eating spaces, being equipped with modern appliances. It provides a diversified menu for breakfast, lunch and dinner, at attractive prices. The building can also be booked for the organization of different events. There are also two fast-food points : “Student Café” situated in Building “A” and “D”. The dormitories also provide adequately equipped kitchens for preparing meals.



THE SPORTS COMPLEX

The Sports Complex of the University of Petroșani consists of :

- a turf field, equipped with running tracks, where the football and rugby teams of the university train for national competitions;
- a synthetic turf field for football and tennis-football;
- a bitumen field for football, tennis-football, basketball, handball;
- a cinder tennis court;
- a gym equipped with lockers, where tennis-football, basketball, handball, table tennis and aerobic can be practised.



THE STUDENTS CULTURAL HOUSE



The Students Cultural House organizes permanent activities (“Parângul” Folk Group, modern dance, rock bands, plastic and decorative arts, chess club, etc.) and temporary activities (art and photography exhibitions, book fairs, seminars/debates, etc.)

LEISURE ACTIVITIES

The students in Petrosani can spend their free time by hiking or traveling to the touristic areas near the campus:

- The Parâng Mountains - 10 Km
- The Corvini Castle - 80 Km
- “RETEZAT” National Park- 25 Km
- Deva Fortress - 95 Km
- “Jiu Gorge” National Park- 5 Km
- Valea de Pești - 35 Km
- Buții Pass - 45 Km
- Straja Resort - 20 Km
- Jieț Pass - 7 Km

These itineraries offer the possibility to visit historic monuments such as: Lainici Monastery, Prislop Convent, etc. Students can also spend their free time in clubs, discos or at lodges along the touristic itineraries. The campus itself provides unique conditions for outdoor activities, not to be found at any other university in the country.

Petroșani is located in one of the most spectacular natural landscapes of Romania. Therefore this city is surrounded by four natural protected areas:

- Retezat National Park;
- Jiu Valley National Park;
- Grăditea Muncelului - Cioclovina Natural Park;
- Hateg Country Dinosaurs Geopark.

Hateg dwarf dinosaurs

The Hateg Geopark territory covers an area of 103,400 ha. The remarkable geodiversity of the Hateg Natural Park is mainly linked with the Cretaceous “dwarf dinosaurs” and the other dinosaur remains supported the creation of the Hateg Country Dinosaurs Geopark in 2000, that was recognized by UNESCO in 2005.

University of Petrosani community was one of the most important promoter of “geopark idea”. Therefore here is exposed a dinosaur nest with excellent preserved eggs but also can find some of the most valuable and qualified informations and explanations about Hateg dwarf dinosaurs story and about whole natural and cultural heritage of Hateg County.



STUDENTS ORGANIZATIONS

There are three students organizations in our university:

- The University of Petroșani Students League
- The University of Petroșani Students Union
- The Association of Basarabian Students in Petroșani.

These organizations are represented at a national level and are meant to defend the rights of their members and to promote their professional, social, economic and cultural interests, to raise the standards of higher education, to ensure an active and constructive participation to faculty and university management.



