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Petroleum – Gas University of Ploiești

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Romanian Agency for Quality
Assurance in Higher Education

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INTERNAL ASSESSMENT REPORT

IN VIEW OF PERIODIC ASSESSMENT OF THE DOCTORAL
DOMAIN MECHANICAL ENGINEERING from
IOSUD PETROLEUM-GAS UNIVERSITY OF PLOIESTI

Relevant Domain
ENGINEERING SCIENCES
PhD Domain:
MECHANICAL ENGINEERING

The data contained in this Report are complete, correct, and compliant with the principles of academic ethics.

CSUD of IOSUD PGU Ploiesti Executive Manager, RECTOR,
Prof.Univ.Habil.Dr.Eng.Răzvan George Rîpeanu Assoc.Prof.Univ.Dr.Eng. Alin DINIȚĂ

PLOIESTI,
March, 2026

Petroleum – Gas University of Ploiesti

Internal assessment report in view of accreditation of the academic doctoral studies in MECHANICAL ENGINEERING domain.

Approved within the meeting of the Senate of the Petroleum–Gas University of Ploiești, dated 26.03.2026.

EDITORIAL STAFF:

Prof.Univ.Habil.Dr.Eng.Răzvan George RÎPEANU- CSUD of IOSUD Executive Manager and coordinator of Mechanical Engineering domain doctoral studies

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***The structure of the internal assessment report in view of accreditation of the academic Doctoral
MECHANICAL ENGINEERING domain***

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LEGAL FRAMEWORK

The legal framework that substantiates this internal evaluation report in order to periodic accredit the *MECHANICAL ENGINEERING DOCTORAL DOMAIN* within IOSUD PGU Ploiești is based on the following documents:

1. [Legea Învățământului Superior nr. 199/2023](#)
2. [Ordin 3998/2024 Metodologie abilitare](#)
3. [Ordin 5229/2020 aprobare metodologie acordare atestat abilitare și titlu științific doctor](#)
4. [Ordin 4020/2020 derogare de la prev. legale învățământ superior pe durata stării de urgență în România](#)
5. [Ordin 6129/2016 standarde minimale](#)
6. [Anexă ordin 6129/2016 standarde minimale](#)
7. [OUG 96/2016 modificare acte normative educatie-cercetare-sanatate-formare profesionala](#)
8. [Ordin 3121/2015 proces abilitare](#)
9. [Ordin 3693/2024 aprobare Metodologie-cadru organizare admitere învățământ superior cicluri studii universitare scurtă durată](#)
10. [Ordin 3692/2024 lista programe recunoscute național stabilire grad similitudine lucrări finalizare studii](#)
11. [Ordin 3020/2024 aprobare Regulament-cadru studii universitare doctorat](#)
12. [Ordin 5732/2022 aprobare Metodologie organizare + funcționare învățământ dual](#)
13. [Ordin 3102/2022 aprobare Metodologie-cadru admitere licență, master & doctorat](#)
14. [Ordin 5255/2021 privind verificare etică și deontologie universitară elaborare teze de doctorat](#)
15. [Ordin 3651/2021 Metodologie evaluare studii universitare doctorat](#)
16. [Ordin 5229/2020 aprobare metodologie acordare atestat abilitare și titlu științific doctor](#)
17. [Ordin 5110/2018 standarde minimale naționale pentru titlul doctor](#)
18. [Ordin 3131/2018 includere cursuri etica si integritate academica](#)
19. [Ordin 5376/2017 aprobare domenii & specializări/programe studii universitare corelate cu sectoarele economice potențial creștere](#)
20. [HG 681/ 2011 \(reactualizată 2016\) Codul studiilor universitare de doctorat](#)

I. General informations

I.1. General description of the higher education institution and the institution organising doctoral studies (IOSUD)

The Petroleum-Gas University of Ploiesti organizes academic doctoral studies at the Institution Organizing the Academic Doctoral Studies (IOSUD-PGU Ploiești). The Petroleum-Gas University of Ploiesti, higher education institution of tradition, was established by Decree no.175, published in the [Monitorul Oficial al R.P.R. nr. 177 din 3 august 1948](#) under the name of Petroleum-Gas Institute Bucuresti. In 1973, as per the [Decretului nr. 702 din 28 decembrie 1973 \(Legea nr. 25/1974\)](#), published in the Official Journal of R.S.R. from December 30th, 1973, the Institute of Oil, Gas and Geology in Bucharest merges with the Petroleum Institute in Ploiesti, under the name of Petroleum-Gas Institute, headquartered in Ploiesti Municipality. Currently, the higher education institution operates under the name Petroleum-Gas University of Ploiesti, as per [Hotărârii Guvernului României nr. 23 din 4 ianuarie 2001](#), published in the Official Gazette of Romania no. 18 from January 11th, 2001.

By the educational services provided and the research activity performed, the Petroleum-Gas University of Ploiesti received the official recognition at the level of quality they provide for by obtaining the rating HIGH CONFIDENCE DEGREE awarded by the Romanian Agency for Quality Assurance in Higher Education following the institutional assessment (2019), [UPG Comunicare-calificativ.pdf](#), and also in (08.05.2025) [EI2736 UPG Raport-Consiliu_08.05.2025.pdf, doc00945920260119163322.pdf](#) and the Certificate of performance of the Quality Management System with [SR EN ISO 9001:2015](#) and [EN ISO 9001:2015](#), awarded by AEROQ (valid till **07.07.2028**) <https://www.upg-ploiesti.ro/wp-content/uploads/2025/09/Certificat-ISO-9001-2015.pdf>.

Petroleum-Gas University of Ploiesti undertakes the mission to generate and transfer knowledge to the society by initial and ongoing training at university and postuniversity level, in view of personal development, of personal insertion of the individual and the satisfaction of the need for competence in the economic-social environment by scientific research, development, innovation and technological transfer, by collective and individual creation of engineering sciences domain economic sciences, arts, social-human sciences, medical sciences, legal sciences, by ensuring the physical and athletic performance and development, as well as the capitalization and dissemination of the results thereof.

The strategic plan of the management teams sets out the strategic objectives of the university during the period 2020-2024, [Plan-Strategic-2024-2029.pdf](#), in full compliance with the university's assumed mission.

1.2. General description of the organisational component organising the doctoral study domain

Ever since the establishment (1948), the University had the right to perform academic doctoral studies ([Anexa DOCUMENTE INFIINTARE UNIVERSITATE SI DREPT ORGANIZARE STUDII DOCTORAT.pdf](#)).

In IOSUD – Petroleum-Gas University of Ploiesti (PGU) is running a multidisciplinary doctoral school with **4 accredited doctoral domains**. Due to ARACIS external assessment, made in **20-24 september 2021**, and the decision of ARACIS council no.97/25.11.2021 [Hotararea-Consiliului-ARACIS-nr.-97-din-25.11.2021.pdf](#), IOSUD PGU, and the **doctoral domain MECHANICAL ENGINEERING**, obtained **Maintaining accreditation**. IOSUD PGU from Ploiești obtain **Maintaining accreditation** following institutional external assesment made in period **05.03.2025-07.03.2025** [EI2736_UPG_Raport-Consiliu_08.05.2025.pdf](#). Suplimentary quality management regarding doctoral studies are certificated by Certificate of performance of the Quality Management System by [SR EN ISO 9001](#): 2015 și EN ISO 9001:2015, awarded by AEROQ (valid till **07.07.2028** <https://www.upg-ploiesti.ro/wp-content/uploads/2025/09/Certificat-ISO-9001-2015.pdf>).

Pursuant to the provisions of the Law no.288/2004 and OM 3020/2024 regarding Academic Doctoral Studies Code Regulation, provisions included in the **Regulation for organization and performance of the academic doctoral studies in UPG Ploiesti**, https://www.upg-ploiesti.ro/wp-content/uploads/2024/09/R-07_05-Regulament-privind-organizarea-si-desfasurarea-stud-univ-drd-la-UPG-Ploiesti.pdf, the doctor's degree is of two types: scientific and professional. As per the specific of its fundamental training domains and the approvals held from the Ministry of National Education, the Petroleum-Gas University of Ploiesti is an Institution Organizing Academic Doctoral Studies – IOSUD exclusively for the scientific doctor's degree type. In IOSUD-PGU Ploiești the academic doctoral studies are being organized as full-time and low-frequency education.

In IOSUD – The Petroleum-Gas University of Ploiesti is running a multidisciplinary doctoral school with **27 PhD supervisors** in the already accredited/authorized domains, ([Acasă - Școala doctorală - UPG Ploiești](#)).

Currently, (the university year 2025-2026) in IOSUD PGU Ploiesti are accredited in **4 doctoral domains**:

- **Mining, Oil and Gas PhD domain** to which there are **9 PhD supervisors** and **56 doctoral students**;
- **Mechanical Engineering PhD domain** to which there are **8 PhD supervisors** and **28 doctoral students**;
- **Chemical Engineering PhD domain** to which there are **4 PhD supervisors** and **19 doctoral students**;
- **Systems Engineering PhD domain** to which there are **6 PhD supervisors** and **21 doctoral students**;

The information is available on the IOSUD webpage: [Acasă - Școala doctorală - UPG Ploiești](#). Old web site of IOSUD was maintained, and is at [Școala Doctorală – Arhivă – Universitatea Petrol-Gaze Ploiești](#). The Petroleum-Gas University of Ploiesti organizes doctoral studies in the following domains:

Crt.No	PhD Domain	Masters Programs of Domain
1	Mining, Oil and Gas	<ol style="list-style-type: none"> Petroleum Geology Management in the Petroleum Industry Transport Technology, Storage and Hydrocarbons Distribution Deposit Engineering Oil Extraction Wells drilling
2	Mechanical Engineering	<ol style="list-style-type: none"> The hydrocarbon transport and storage systems engineering Risk management and oil and petrochemical oilfield equipment reliability (Ro) Engineering of optimal exploitation of oilfield equipment Engineering and management of the oilfield and petrochemical equipment production Risk management and oil and petrochemical oilfield equipment reliability (En)
3	Systems Engineering	<ol style="list-style-type: none"> Advanced automations
4	Inginerie chimică	<ol style="list-style-type: none"> Majoring in Advanced Technologies in Oil Processing Majoring in Computer Assisted Chemical Engineering for Refineries and Petrochemistry

Along the 78 years while the university doctoral studies have been carried on, there have been awarded 892 PhD scientific titles, the distribution thereof on faculties (in the existing structure of the year 2026) being presented as follows:

- Oil and Gas Engineering - 382;
- Mechanical and Electrical Engineering -285;
- Oil Technology and Petrochemistry 225.

The hierarchy within IOSUD, as well as the subordination and collaboration relations are found in the **Organizational Structure of PGU Ploiesti** ([Organigrama – Universitatea Petrol-Gaze Ploiesti](#)).

According to Law 199/2023 and Academic Doctoral Studies Code Regulation from 08.01.2024 part of OM 3020/2024 and the internal Regulation, Doctoral University Studies Council (CSUD-PGU Ploiesti) assure operational leadership of IOSUD. CSUD compentence of IOSUD-PGU contain 1 manager and 8 members. CSUD compentence is visible at <https://doctorat.upg-ploiesti.ro/iosud/csud>

Surname and name	Position
Prof.Univ.Habil. Dr. ing. Răzvan George RIPEANU	Manager – CSUD, coordonator Mechanical Engineering Domain
Prof.Univ.Habil. Dr. Timur-Vasile CHIȘ	Member –coordonator Mine, Oil and Gas domain– Manager Doctoral School
Prof. Univ.Dr. Ing.Nicolae PARASCHIV	Member- Coordonator Systems Engineering Domain
Prof. Univ.Habil. Dr. Ing. Dragoș CIUPARU	Member-Chemical Engineering Domain
Prof. Univ.Habil.Dr. ing. Marius Gabriel PETRESCU	Member-Mechanical Engineering Domain
Drd. ing. Andrei Cosmin SÎRBU	Member-PhD student
Drd. ing. Andreea Cristina ALEXANDRESCU	Member-PhD student
Dr.Ing. Cristian CĂLIN	Member-economic medium
Ing. Robert Stelian CHIRCĂ	Member-economic medium

Operational leadership of Doctoral School is assured by Doctoral School Council (CSD) and the manager of it. CSD compentence is visible at web adress <https://doctorat.upg-ploiesti.ro/iosud/csd>

Surname and name	Position
Prof.Univ.Habil. Dr. Ing. Timur Vasile CHIȘ	Manager- Doctoral School – coordonator Mine, Oil and Gas Domain
Prof.Univ.Habil. Dr. Ing.Marius Gabriel PETRESCU	Member –Mechanical Engineering Domain,
Prof.Univ.Habil.Dr.Ing. Radulescu Gabriel	Member- Systems Engineering Domain
Prof. Univ.Habil. Dr. Ing. Diana CURSARU	Member-Coordonator Chemical Engineering Domain
Drd. Ing.Bajan Marian	Member-PhD student

Drd. Ing.Vacarescu Sondra- Preascilla-Ioana	Member-PhD student
Drd. Ing.Iacob Dragos Valentin	Member-PhD student
Drd. Ing.Bejan Diana-Rita	Member-PhD student
Ing. Carstea Vasile	Member-economic medium
Dr. Ing. Enache Florin	Member-economic medium
Ec. Paltineanu Ciprian Emanuel	Member-economic medium

1.3. General description of the doctoral study domain

MECHANICAL ENGINEERING doctoral domain after external ARACIS assesement from period **20-24 september 2021** and ARACIS council decision **no.97/25.11.2021** [Hotararea-Consiliului-ARACIS-nr.-97-din-25.11.2021.pdf](#), ([Anexa Raport coordonator si expert international, raport IM, raport progress IM](#)) obtained a **Maintaining acreditation**. IOSUD PGU from Ploiești obtained **Maintaining acreditation** folowing institutional external assesement of PGU Ploiesti from the period **05.03.2025-07.03.2025** [EI2736_UPG_Raport-Consiliu_08.05.2025.pdf](#). After sending the internal progress report in october 2024, intermediary assestement report of the doctoral domain **Mechanical Engineering** ([Anexa Raport coordonator si expert international, raport IM, raport progress IM](#)) was made in **23 July 2025**, and was validated by the ARACIS council decision **no. 193/H/7.08.2025**.

In **MECHANICAL ENGINEERING** doctoral domain, in universitary year 2025-2026 are **8** supervisors (5 tenured 62.5%) and **28** PhD students, regarding **7** supervisors (4 tenured -57%) and **21** PhD students existing in universitary year 2020-2021. The number of PhD thesis debated in the 5 years period (2016-2019) before external evaluation was **7**, and in the period of the last 5 university (2020-2026) years was **15** thesis ([Anexa Teze sustinute cu comisii](#)).

II. Drawing up of the Internal Evaluation Report

Internal assesement report was made by Mechanical Engineering doctoral domain coordonator, Prof.Univ.Habil.Dr.Ing. Răzvan George Rîpeanu, rrapeanu@upg-ploiesti.ro phone 0721212250, with the support of domain doctoral supervisors, an doctoral graduated, and of 2 doctoral students:

Doctoral supervisors:

1. Prof.Univ.Habil.Dr.Ing. Răzvan George Rîpeanu, rrapeanu@upg-ploiesti.ro
2. Prof.univ.habil.dr.ing. Marius Gabriel Petrescu pmarius@upg-ploiesti.ro
3. Prof.univ.habil.dr.ing. Dorin George Bădoiu badoiu@upg-ploiesti.ro
4. Prof.univ.habil.dr.ing. Dragoș Gabriel Zisopol zisopol@zisopol.ro
5. Prof.univ.habil.dr.ing. Ion Nae inae@upg-ploiesti.ro
6. Prof. univ.habil. dr. ing. Mihail Mineescu mminescu@upg-ploiesti.ro
7. Prof. univ.habil. dr. ing. Liviu Sevastian Bocîi bociis@yahoo.com
8. Conf. univ.habil. dr. ing. Maria Tănase maria.tanase@upg-ploiesti.ro

Graduated doctoral studies as team member:

-Lecturer dr. ing. Iulian Pătîrnac, iulian.patirnac@upg-ploiesti.ro

Doctoral students participants:

- PhD. St. Ștefan Gavrilă stefan.gavrila@upg-ploiesti.ro ;
- PhD. St. Daniela Barbu daniela.barbu@upg-ploiesti.ro.

III. Information needed to enable judgement on the extent to which the standards and performance indicators are met

Domain A. Institutional capacity

Criterion A.1. Managerial and administrative structures and processes involving students and other stakeholders

S.A.1.1. Organisational components and institutional processes

I.P.A.1.1.1 For delivering the study programme/domain, the HEI has adequate organisational components and an adequate management system, which operate based on methodologies, regulations and procedures that are periodically reviewed as required by law

The hierarchy within IOSUD, as well as the subordination and collaboration relations are found in the **Organizational Structure of PGU Ploiesti** (<https://www.upg-ploiesti.ro/wp-content/uploads/2025/03/R-01-02-REGULAMENT-DE-ORGANIZARE-SI-FUNCTIONARE-A-UNIVERSITATII-PETROL-GAZE-DIN-PLOIESTI-02.12.2024-1.pdf>).

(a) The Internal Regulations of the Administrative Structures (the institutional rule of organization and performance of the doctoral university studies, the doctoral school rules).

At IOSUD Petroleum and Gas University of Ploiești level, regulations specific to the doctoral studies exist and are applied https://doctorat.upg-ploiesti.ro/images/Metodologii/2026/R-07_05-Regulament-privind-organizarea-si-desfasurarea-stud-univ-drd-la-UPG-Ploiesti.pdf.

In IOSUD – Petroleum and Gas University of Ploiești there is a multidisciplinary doctoral school. The information is available also on the webpage of IOSUD: [Acasă - Școala doctorală - UPG Ploiești \(Școala Doctorală – Arhivă – Universitatea Petrol-Gaze Ploiești\)](#)

The hierarchy within IOSUD, as well as the subordination and collaboration relations are found in the **Organizational Structure of PGU Ploiesti** ([Organigrama – Universitatea Petrol-Gaze Ploiești](#)).

Therefore, the organization and operation of the doctoral university studies carried out of Petroleum-Gas University of Ploiesti, in the last 5 years, has deployed according to the **Regulation for the organization and deployment of the doctoral university studies of Petroleum-Gas University of Ploiesti** (valid for the PhD candidates registered before the university year 2019-2020) that can be accessed at the address (https://doctorat.upg-ploiesti.ro/images/Metodologii/Regulament_privind_organizarea_studiilor_universitare_de_doctorat_valabil_ptr_doctor_anzi_inmatriculati_inainte_de_2019-2020.pdf), **Regulation on the organization and deployment of the doctoral university studies at the Petroleum-Gas University of Ploiesti** (valid for the PhD candidates registered starting the university year 2019-2020) that can be accessed at the address

(https://doctorat.upg-ploiesti.ro/images/Metodologii/Regulament_privind_organizarea_studiilor_universitare_de_doctorat_valabil_ptr_doctor_anzi_inmatriculati_incepand_cu_2019-2020.pdf). **The Regulation on the organization and deployment of the doctoral university studies at the Petroleum-Gas University of Ploiesti** was actualized in order to implement specifications of education Law **199/2023** and OM No. **3020/2024** and approved in University Senate meeting dated 14.03.2024 and could be accessed at website (https://doctorat.upg-ploiesti.ro/images/Metodologii/2026/R-07_05-Regulament-privind-organizarea-si-desfasurarea-stud-univ-drd-la-UPG-Ploiesti.pdf). Also, the multidisciplinary doctoral school within IOSUD-PGU Ploiesti carries out its activity according to the **Regulation of the doctoral school of the Petroleum-Gas University of Ploiești**, adopted within the University Senate meeting dated 17.04.2025 and is available at the address: (https://doctorat.upg-ploiesti.ro/images/Metodologii/2026/01-R-07.08_3.0-Regulemnt_de_organizare_si_functionare_a_Scolii_doctorale.pdf).

(b) **The methodology of conducting elections at CSUD level, doctoral schools and evidence of the deployment thereof**

At the address ([CSUD - Școala doctorală - UPG Ploiești \(upg-ploiesti.ro\)](https://www.upg-ploiesti.ro)) can be consulted the documents related to the election of the members of CSUD UPG-Ploiesti:

[COMPONENȚA BIROULUI ELECTORAL](#)
[CALENDARUL ALEGERILOR MEMBRILOR CONSILIULUI STUDIILOR UNIVERSITARE DE DOCTORAT](#)

[Metodologia de organizare a alegerilor și de numire a membrilor Consiliului](#)

[DOSAR CANDIDATURĂ MEMBRU CONSILIUL STUDIILOR UNIVERSITARE DE DOCTORAT](#)

[Lista candidați conducători de doctorat](#)

[Lista candidați studenți doctoranzi](#)

[Lista electori studenți doctoranzi](#)

[Lista electori conducători de doctorat](#)

[Decizie numire membri CSUD](#)

The management structures of the Doctoral School from IOSUD – UPG Ploiesti have been established based on the **Methodology of organization and deployment of the settlement and election process of the management structures and positions at the level of Petroleum-Gas University of Ploiești**, which is available at the address (https://www.upg-ploiesti.ro/sites/default/files/prezentare/regulamente/2020/R%2001.10_5.2.pdf).

(c) The methodology of deployment of the last competition for the position of CSUD director and documents of the deployment thereof

The competition for the position of Council Director for the doctoral university studies (CSUD) of IOSUD – PGU Ploiesti was organized and carried according to the **Methodology of organization and deployment of competition for the position of Director of the Doctoral University Studies within IOSUD – Petroleum and Gas University of Ploiești**, ([REGULAMENT \(upg-ploiesti.ro\)](https://www.upg-ploiesti.ro)). The competition comision was:

1. Prof.univ.dr.chim. Horia Iovu- CSUD Manager at Politehnica București;
2. Prof.univ.dr.ing. Mihai Sorin Radu- Rector at University of Petroșani;
3. Prof.univ.habil.dr.ing. Ioan Calin Roșca- Dean at Faculty of Mechanical Engineerind, Univ. Transilvania Brașov;
4. Prof.univ.dr.ing. Mihai Arghir- Deptmt manager at Génie Mécanique et Systèmes Complexes, Université de Poitiers, Franța;
5. Prof.univ.dr.ing. Nicolae Paraschiv, Petroleum-Gas University of Ploiești.

Following the winning of the manager competition CSUD-UPG Ploiesti, Mr. Prof.univ.habil.dr.ing. Răzvan George Rîpeanu was validated by the University Senate meeting dated 9.03.2023 and was entitled as manager of CSUD by the decision issued by PGU Rector starting 10.03.2024, for an 4 years mandate till the date 09.03.2027.

According to the Law 199/2003 prescriptions, Doctoral University Studies Regulations-Frame, dated 08.01.2024, part of OM 3020/2024, and PGU Regulation, University Studies Council (CSUD-UPG Ploiesti) provides for the operational management of the institution organizing doctoral university studies. The composition CSUD of IOSUD-UPG is made up of 1 director and 8 members. The composition CSUD is visible at <https://doctorat.upg-ploiesti.ro/iosud/csud> .

The Doctoral School operative management is ensured by the Council of the Doctoral School and the Director thereof. The composition of CSD is available at the address <https://doctorat.upg-ploiesti.ro/iosud/csd> .

It could be observed that in the structure of CSUD PhD students have 2 representative members, and in the structure of CSD 2 representative members.

(d) The methodologies of organization and deployment of doctoral studies (of admission of PhD students, completion of doctoral studies);

Admission to PhD studies

The admission of PhD studies is performed according to the **Methodology of organization and performance acceptance contest to doctoral studies 2025**, which is available at [Metodologia de organizare si desfasurare a concursului de admitere la doctorat 2025](#), methodology that is being annually updated.

All information on the permission to PhD are also posted on PGU and the Doctoral School's site ([Admitere - Școala doctorală - UPG Ploiești](#)):

- [Metodologia de admitere](#)
- [Calendarul admiterii](#)
- [Structura anului academic](#)
- [Lista conducătorilor de doctorat - Locuri admitere](#)
- [Acte necesare](#)
- [Tematică admitere](#)
- [Rezultate admitere](#)
- [Taxe anuale](#)

Functional management structure [(IOSUD / CSUD / The council of the Doctoral School regularity of meetings summoning)]

The CSD and CSUD members of IOSUD-UPG convene within meetings (inclusively online along with the state of emergency) whenever needed.

The curriculum, rules, the public commissions of thesis presentations, the affiliation requests to IOSUD-PGU, the applications for the extension of the PhD probationary, the elections for the vacant positions or temporarily vacant etc. are debated and approved in the CSD and CSUD meetings. In [Anexa Sedinte CSD CSUD](#) are the dates of CSD and CSUD meetings: At the adress [Metodologii, regulamente și legislație – Universitatea Petrol-Gaze Ploiești](#) could be found CSUD decisions. Doctoral domains have an domain coordinator. The responsibilities of the domain coordinator are stipulated at art.14 from [01-R-07.08 3.0- ROF-SD-martie-2025-MODIFICATA-JURIST.pdf](#). The main domain coordinator responsibilities are: a) ensuring the interface between the doctoral field and CSD; b) the proposal for affiliation with the Doctoral School or the proposal for revocation of the status of doctoral supervisor in the respective field; c) the proposal to reassign the supervision of an ongoing doctoral program to another doctoral supervisor, under the conditions provided by law; d) medierea eventualelor conflicte dintre studenții doctoranzi și conducătorii de doctorat care desfășoară activitate în cadrul domeniului respectiv; e) mediation of any potential conflicts between doctoral students and their PhD supervisors who carry out activities in the respective field; f) the proposal of minimal scientific performance standards for the affiliation of doctoral supervisors to the Doctoral School, for the respective field, in compliance with the applicable legislation.

CSD and CSUD of the Petroleum-Gas University of Ploiești propose criteria, procedures, and standards concerning the obligations regarding the attendance and activities of doctoral students. The mode of conducting doctoral university studies in the field of **MECHANICAL ENGINEERING** is either full-time or reduced time.

The actual presence required of the doctoral student is determined by the doctoral advisor, depending on the specifics of the doctoral program and in accordance with the provisions of the **Regulations regarding the organization and conduct of doctoral studies at the Petroleum – Gas University of Ploiești**.

Doctoral Academic Studies Contract

After admission, for each PhD candidate will be completed the **Contract for doctoral academic studies** that is pre-printed SMQ no. F 299.13/Ed.8 revised 2025. ([Anexa Contract de studii universitare de doctorat buget si cu taxa](#)). PhD students enrolled in the first year have the obligation to fulfill the individual plan of the advanced academic training and documentation. This program is based on an individual education plan specific for each doctoral field, advised in the common CSD and CSUD meeting dated 12.06.2025 and approved in university Senate dated [SENATUL UNIVERSITĂȚII PETROL – GAZE DIN PLOIEȘTI](#), visible on IOSUD web page (<https://doctorat.upg-ploiesti.ro/doctorat/domeniul-inginerie-mecanica>). Enrolled PhD students could perform also didactic activities. In the university year 2025-2026, 2 of the PhD students from doctoral field **MECHANICAL ENGINEERING** also hold positions as temporary assistants within the *Mechanical Engineering* department at PGU of Ploiești. According art. 12,27,28,29,31,32 and 33 from **Regulations regarding the organization and conduct of doctoral studies at the Petroleum – Gas University of Ploiești**, doctoral School of UPG offer for PhD students advanced academic training program (PPA), their curricula files being approved by the CSD and CSUD, and the scientific research individual program (PCS). The doctoral school is required to ensure free and unrestricted access to the advanced training program for all PhD students within the doctoral school or from other

doctoral schools. ([REGULAMENT](#)). PPA and PCS are established as annexes to the doctoral university studies contract ([Anexa PPA și PCS](#), presents an example of these plans from the field of Mechanical Engineering PhD).

Specifications regarding doctoral university studies

In **Regulations regarding the organization and conduct of doctoral studies at the Petroleum – Gas University of Ploiești** (https://www.upg-ploiesti.ro/sites/default/files/prezentare/regulamente/2024/R%2007_05%20Regulament%20privind%20organizarea%20si%20desfasurarea%20stud%20univ%20drd%20la%20UPG%20Ploiesti.pdf) the obligations of the Doctoral School IOSUD, the supervisor, and the doctoral student are specified. In exceptional situations such as the Covid-19 pandemic, the defense of exams, research reports, thesis pre-defense, and the public defense of the doctoral thesis can also take place online. **The procedure for predefending and defending doctoral theses during the state of emergency** can be found on the PGU website and the Doctoral School's website at https://doctorat.upg-ploiesti.ro/images/Metodologii/Procedura_de_presustinere_a_tezelor_de_doctorat_pe_durata_starilor_de_urgenta.pdf).

CSD and CSUD propose mandatory criteria, procedures, and standards concerning the change of a doctoral supervisor for a particular PhD student and the procedures for conflict mediation (art. 21 alin 1, 2 and 3). At the justified request of the doctoral student, the CSD may approve the change of the doctoral supervisor if it is found that the legal or contractual obligations assumed by the supervisor have not been fulfilled, or for other reasons concerning the supervisory relationship between the doctoral supervisor and the doctoral student. The doctoral school council appoints another doctoral supervisor, and in appointing this person, the CSD will give priority to the completion by the doctoral student of the doctoral thesis and the study program.

CSD and CSUD propose mandatory criteria, procedures, and standards regarding the conditions under which the doctoral program may be interrupted (art. 3.18). The doctoral program can be interrupted for medical reasons, for taking maternity and postpartum leave, or for parental leave, as well as for other justified reasons, under the conditions established by the regulations of the doctoral school. Interruptions, whose total duration does not exceed 4 academic semesters, are approved by the university senate at the request of the doctoral student, with the opinion of the doctoral supervisor and the director of the doctoral school (art. 5). According to art. 24 (1), the duration of the doctoral program established by law may be extended by 1-2 years, with the approval of the CSUD-UPG and the University Senate, at the proposal of the doctoral supervisor. University doctoral studies can be interrupted at the request of the doctoral student for valid reasons, under the conditions established by the doctoral school's regulations. The duration of doctoral university studies is extended by the cumulative periods of approved interruptions. Interruptions are approved by the CSUD, with the recommendation of the doctoral supervisor and the CSD. The extension or interruption of doctoral studies is subject to an addendum to the doctoral study contract. Art. 25 specifies that if the doctoral student fails to complete the thesis within the term established according to the doctoral studies contract (4 years) and any additional acts thereto, they are automatically expelled. During the 1–2-year extension period, the doctoral student cannot receive a doctoral scholarship or any other financial support provided from doctoral grants. (https://www.upg-ploiesti.ro/sites/default/files/prezentare/regulamente/2024/R%2007_05%20Regulament%20privind%20organizarea%20si%20desfasurarea%20stud%20univ%20drd%20la%20UPG%20Ploiesti.pdf). According to Art. 11 and 14 of the **Regulation on the organization and conduct of doctoral university studies at the Petroleum-Gas University of Ploiești**, doctoral students have unrestricted access to all infrastructure available at the university, regardless of its administrator. By the CA decision no. 4392 of 23.11.2015 presented in [Anexa Hotărâre CA privind accesul studentilor doctoranzi](#) it regulates the access of doctoral students, their supervision, and the way in which occupational health and safety rules are observed.

Doctoral supervisors must take all necessary steps to ensure that the authors of doctoral theses comply with quality and professional ethics standards, including ensuring the originality of the content. The anti-plagiarism procedure of the Petroleum-Gas University of Ploiești regarding the originality of doctoral theses content is being followed, according to UPG's **Code of Ethics and Professional Deontology**, Cod R01-01 (https://www.upg-ploiesti.ro/wp-content/uploads/2024/11/01.01_Cod_Etica.pdf) and articles 36 and 37, which provide for verification using

the Similarity Checking System. At the Petroleum-Gas University of Ploiești, there is a software system for plagiarism detection, which is an online tool dedicated to checking all documents against sources in the University's own database (archived documents), databases of other universities (based on the mutual database exchange agreement), and online resources. The anti-plagiarism report contains information related to: the title of the work; the author/authors; the type of document (book, guide, doctoral thesis, article, etc.), as well as the values of similarity coefficients 1 and 2. Similarity coefficient 1 – expresses as a percentage the level of borrowings found in certain sources containing at least 5 words. Similarity coefficient 2 – expresses as a percentage the level of borrowings containing at least 25 words. The accepted limit at our institution is a maximum of 5%. (SISTEMANTIPLAGIAT.RO). The organization and conduct of the public meeting for the defense of the doctoral thesis provides, within the preliminary operations for submitting the thesis to the doctoral office, that the doctoral student submits the doctoral thesis in digital format along with the request regarding the initiation of the procedures for analyzing similarities and evaluating the thesis by the supervisory committee. The similarity report is sent to the doctoral supervisor within a maximum of 30 days, and the supervisor prepares the resolution regarding the similarity report. In [Anexa Rapoarte de similitudini](#) the similarity reports from 2020-2024 can be found. The similarity reports from 2025 and 2026, at least 2, are uploaded on the REI platform.

Each doctoral student benefits from a supervisory and academic integrity committee composed of 4 members – the supervisor and 3 other faculty members appointed annually by the decision of the UPG rector. In order to comply with OM 3020/2024, which specifies that at least one member of the supervisory and academic integrity committee must be from outside IOSUD, all committees were updated in 2024 in accordance with the mentioned order. ([Anexa Decizii comisii IIA 2020-2025](#)). Members of the guidance and academic integrity committee are also members of the committees for defending *Research Reports* and the PhD thesis and thus can monitor the progress of the doctoral student. Exams in the *Advanced University Training Program* are proposed by the doctoral supervisor and approved by the Director of the Doctoral School. Each exam or report is taken after the candidate submits a request. ([Anexa Cerere sustinere examen si raport cercetare cu procese verbale](#)). The examination support committee is composed of the doctoral supervisor and 2 members (at least one being the holder of the examination subject), a request that must be approved by the director of the Doctoral School. The individual plan of the scientific research program is approved by the director of the Doctoral School. Committees for defending scientific research reports are approved by the director of the Doctoral School. Scientific research reports, before the defense, are subject to a similarity check by the Doctoral School's office (the reduced report is archived in the doctoral student's file), and the verification result is communicated to the advisory and academic integrity committee, as well as to the audience at the public defense session. The committee includes the doctoral supervisor and the members of the advisory and academic integrity committee. The defense of research reports takes place in public sessions, the sessions being announced at least 48 hours before the defense on the notice board of the Doctoral School. The minutes of the research report defenses record all the observations of the members present at the meeting. Proposals for doctoral topics are formulated by the doctoral supervisors after discussions with representatives from the industrial sector.

Completion of doctoral university studies

The procedure regarding the organization and conduct of the public session for defending the doctoral thesis provides, within the preliminary operations before submitting the thesis to the doctoral office, that the PhD student must submit the doctoral thesis in digital format along with the request regarding the initiation of the procedures for analyzing similarities and evaluating the thesis by the supervisory and academic integrity committee. The doctoral office forwards the doctoral thesis in its final electronic form for the similarity analysis using the sistemantiplagiat.ro software application. The similarity report is sent to the PhD supervisor within a maximum of 30 days, and the supervisor prepares a resolution regarding the similarity report. PhD students can request this check for free twice during their doctoral studies and for a small fee of 25 lei each time they want. All doctoral theses from April 2016 onwards are subject to plagiarism checks. These reports for all defended doctoral theses are uploaded on the Ministry of Education and Research's REI platform. In Art. 36 of

https://www.upg-ploiesti.ro/wp-content/uploads/2024/09/R-07_05-Regulament-privind-organizarea-si-desfasurarea-stud-univ-drd-la-UPG-Ploiesti.pdf

it is specified that the doctoral thesis can be defended if: a) the doctoral student has accumulated 150 transferable credits during the doctoral studies and meets the minimum standards set by CNATDCU for their field of study; b) the doctoral student submits the thesis to the office for doctoral university studies; c) the Doctoral School conducts a similarity analysis using a program recognized by CNATDCU. The doctoral school may additionally request the use of a nationally developed program for similarity detection. The analysis and interpretation of the similarity report results are carried out both by the supervisory and academic integrity committee, and by the person(s) designated by the doctoral school, usually the doctoral advisor, before the preliminary defense of the doctoral thesis. Similarity reports are included in the "doctoral file." The verification period cannot exceed 10 days from the date of submission of the doctoral thesis to the IOSUD; d) In the event that the similarity report indicates the need to make modifications to the doctoral thesis, the doctoral student and the doctoral supervisor are officially notified by the Doctoral School. After addressing the identified issues, the steps from letters b) and c) are resumed; e) the identification of violations of good research and development conduct, including plagiarism of other authors' results or publications, fabrication of results, or replacing results with fictitious data at the time of thesis evaluation by the doctoral supervisor or by the guidance and academic integrity committee, must be reported to the University Ethics Committee for review. If the University's Ethics Committee establishes plagiarism, the doctoral student is expelled. f) The doctoral thesis is presented to the guidance and academic integrity committee. The scheduling of the thesis presentation cannot exceed 30 days from the date the committee receives the similarity report; g) after this presentation, which is public, the doctoral advisor, according to the committee's recommendation and the results of the similarity report analysis, decides on the official submission of the thesis and the organization of the public defense; h) the acceptance report of the doctoral advisor and the agreement of the committee members are included in the "doctoral file"; the doctoral thesis is officially submitted to the Doctoral School's office, in printed and electronic format, accompanied by the results of the similarity report analysis carried out by the designated person(s), along with the summary of the doctoral thesis, the doctoral student's CV, and the list of publications the doctoral student, the doctoral student's published works, and the estimated date for the public defense; the Secretariat of the Doctoral School certifies that the doctoral student has fulfilled all obligations within the doctoral studies program; i) the doctoral thesis and its annexes will be available for public consultation for 90 calendar days before the public defense on the national platform managed by the Executive Unit for Financing Higher Education, Research, Development and Innovation (UEFISCDI), in accordance with the legal provisions in force regarding copyright; j) during the period when the thesis is public on the national platform, any natural or legal person may submit observations regarding the existence of deviations from ethical and professional standards, including in terms of the presence of plagiarism. Comments can be submitted online, to an email address provided by the Doctoral School, or at the IOSUD UPG registry office. The comments are recorded in a report prepared by the Doctoral School, which will be sent to the CSUD for analysis and decision regarding the validation of initiating the procedure for the public defense of the doctoral thesis and will become part of the doctoral file; k) if the CSUD decision is validation, the procedure for the public defense of the doctoral thesis is initiated by establishing the doctoral committee; l) in the case that the CSUD invalidates the initiation of the procedure for the public defense of the doctoral thesis, the Doctoral School receives recommendations regarding the revision of the doctoral thesis and the elimination of situations that do not comply with ethics and deontology standards, and the doctoral student is obliged to revise the content of the thesis within 3 months from the communication of the invalidation decision, with the resumption of the transparency procedure of the work. After the consultation period on the REI platform, the thesis is rechecked for similarities, and if minor corrections are made, a third similarity check is also carried out. (3) The composition of the doctoral committee is proposed by the doctoral supervisor, endorsed by the Doctoral School, and approved by the CSUD. The doctoral committee consists of a minimum of 5 members: the president, as a representative of IOSUD-UPG, the doctoral supervisor, and at least 3 reviewers from the country or abroad, specialists in the field in which the doctoral thesis was developed, at least 2 of whom carry

out their activity outside IOSUD-UPG. The members of the doctoral committee hold a doctoral degree and have at least the academic position of university lecturer or scientific researcher, second grade, or have the status of doctoral advisor, either in the country or abroad; (4) The request to set the date for the public defense of the doctoral thesis is submitted by the doctoral student, approved by the doctoral advisor and the chair of the defense committee. The request is registered at the Secretariat of the Doctoral School at least 25 calendar days before the proposed defense date. The proposed defense date cannot be earlier than the previously estimated date for the public defense. (5) The doctoral school prepares and posts the announcement for the public defense at least 20 calendar days before the proposed date of the defense ([Cana Petrica - Școala doctorală - UPG Ploiești](#)). This will obligatorily include the location, date, and time of the defense, the supervisor(s) of the doctoral thesis, as well as the place where the full text of the thesis can be consulted in printed format. The announcement of the public defense, the electronic format of the thesis summary, the scientific memo, the PhD student's CV, the CVs of the members of the public defense committee, or links to these are posted on the IOSUD-UPG website. (6) The doctoral thesis is defended in a public session before the doctoral committee, following the evaluation by all reviewers and the submission of their reports at least 15 days before the thesis defense. The doctoral thesis defense can take place in the presence of at least 4 members of the doctoral committee, with the mandatory physical presence of the committee chair and the doctoral supervisor, while the other committee members may participate via online videoconference. The public defense must include a question-and-answer session with the members of the doctoral committee and the public. (7) Based on the public defense of the doctoral thesis, the reviewers' reports, the statement regarding the originality of the work, and the analysis of the degree of similarity, the doctoral committee evaluates and deliberates on the awarding of the doctoral diploma, in compliance with the minimum standards developed by CNATDCU for granting the doctoral diploma. At the address https://doctorat.upg-ploiesti.ro/images/Metodologii/R_07_42_aprobat_Senat_2024.pdf **The Operational Procedure CODE: R 07.42 Defense of the Doctoral Thesis** is available, a procedure that was approved by the Monitoring Committee on 12.12.2024 and ratified in the meeting of the Senate of the Petroleum-Gas University of Ploiești on 12.12.2024.

(e) The existence of mechanisms for recognizing the status of doctoral supervisor and for the equivalence of a doctorate obtained in other countries

At IOSUD UPG Ploiești, there is a procedure **Regulation regarding the automatic recognition by the Petroleum-Gas University of Ploiești of the status of doctoral supervisor obtained at accredited higher education institutions abroad**. It can be found at the address <https://doctorat.upg-ploiesti.ro/images/Metodologii/2026/R-07-01-RECUNOASTEREA-AUTOMATA-A-CALITATII-DE-CONDUCTOR-DE-DOCTORAT-OBTINUTE-IN-INSTIUTII-DE-INVATAMANT-SUPERIOR-SAU-DE-CERCETARE-DEZVOLTARE-DIN-STRAINATATE.pdf>. Membership in IOSUD-UPG is done in accordance with the **Regulation on the public defense of habilitation theses and the co-optation of doctoral supervisors at the Petroleum-Gas University of Ploiești** (https://www.upg-ploiesti.ro/sites/default/files/prezentare/regulamente/2024/R07.06_4.0_REGULAMENTUL%20PRIVIND%20SUS%5%A2INEREA%20PUBLIC%C4%82%20A%20TEZELOR%20DE%20ABILITARE.pdf). Articles 3 (a) and (b), 7(1), 14 (a), (b), (c), (d), 15, and 16 specify the conditions regarding the organization and conduct of the affiliation process and the granting of membership in the Doctoral School within IOSUD-UPG. After obtaining the habilitation certificate, the Doctoral School Council appoints a committee that reviews the application of the candidate seeking affiliation, and if a favorable opinion is given, the affiliation is proposed at the DSC meeting, validated by the DSUC, and approved by the University Senate of UPG Ploiesti. Doctoral supervisors are subjected to internal and external evaluation at intervals not exceeding 5 years. In the **Regulation on the organization and conduct of doctoral university studies at the Petroleum-Gas University of Ploiești**, in art. 50 (1), (2), (3) and (4) (https://www.upg-ploiesti.ro/sites/default/files/prezentare/regulamente/2024/R%2007_05%20Regulament%20privind%20organizarea%20si%20desfasurarea%20stud%20univ%20drd%20la%20UPG%20Ploiesti.pdf) these requirements regarding the evaluation of doctoral supervisors are provided, and the disaffiliation is proposed by the Doctoral Studies Council according to the **Regulations of the Doctoral School of the Petroleum-Gas**

University of Ploiești [01-R-07.08 3.0- ROF-SD-martie-2025.pdf](#) According to art. 14(b) and art. 21((1) and (2)), disaffiliation from the Doctoral School within IOSUD-UPG can be carried out as follows: (1) At the request of the doctoral advisor. (2) Following a notification received from the UPG-Ploiești Ethics Committee regarding breaches of ethical norms by an affiliated doctoral advisor. (3) Upon finding that the minimum standards established by CNADTCU have not been met at the time of submitting a new self-evaluation report, but not more than 5 years. (4) Following final decisions by CNADTCU to withdraw the doctoral title as a result of plagiarism complaints for two or more coordinated doctoral theses.

Standard S.A.1.2. Stakeholder engagement The HEI proves that it engages the relevant stakeholders in developing methodologies and regulations, as well as implementation procedures

Indicator I.P.A.1.2.1 *The opinions of the faculty and department members, of the subsidiary or extension³ and of other stakeholders are considered in the process of adopting and revising methodologies, regulations and implementation procedures.*

All regulations, methodologies, and procedures related to the doctoral school, after being drafted, are discussed and endorsed in the CSD, CSUD, verified by the quality management committee, submitted for discussion to the academic community by posting them on the PGU Intranet, then endorsed by the board of administration and approved by the University Senate. At all stages, all proposals from doctoral supervisors and doctoral students are collected and put to a vote at the appropriate endorsement/approval stages. Both doctoral supervisors and doctoral students are represented in the CSD, CSUD, and the board of administration. In addition to posting the approved final versions on the PGU website, they are also sent via email to all doctoral supervisors and doctoral students.

PGU has in effect the **Operational Procedure regarding the evaluation of student satisfaction and other stakeholders**, endorsed by the Monitoring Committee on 20.11.2024 and approved at the meeting of the Senate of the Petroleum-Gas University of Ploiești on 28.11.2024 ([Anexa Evaluarea satisfacției studenților si a altor parti interesate](#)). The procedure is applied at the Petroleum-Gas University of Ploiești to evaluate the satisfaction of students and other stakeholders with the services provided by this institution regarding the equipment and use of the library, social services (dormitory, cafeteria), counseling services, administrative services, and educational services (teaching process, specialized consultancy). An important component of the internal evaluation is the assessment of doctoral supervisors by doctoral students, which aims to measure the level of satisfaction of doctoral students within IOSUD-UPG regarding the support and mentoring activities provided to students by their supervisors. Following the implementation of this evaluation, doctoral students are given an anonymous questionnaire ([Anexa Chestionare de evaluare cu raspunsuri, studenti, cadre didactice, parteneri economici](#)) through which they can make recommendations for improving the quality of academic and administrative services provided.

The Doctoral School and, implicitly, the PhD field of **MECHANICAL ENGINEERING** also monitor the scientific and professional activity of PhD students through their preparation of Individual Activity Reports. ([Anexa Raport de activitate 2024-2025](#)).

Criterion A.2. Material resources and optimisation of the use of the material resources

Standard S.A.2.1. Material resources The HEI owns adequate movable and immovable assets to enable it to carry out the study programme/domain

Indicator I.P.A.2.1.1 *The HEI legally owns venues for the related education, research and administrative processes, as well as for services for students, doctoral students and trainees, thus providing an enabling environment for living and studying, including for disabled persons. Optimal venues are also provided for activities of the staff. Such venues are adequately equipped.*

The doctoral field of **Mechanical Engineering** has adequate material resources for conducting doctoral studies, with installations and special equipment, in line with its mission and stated objectives. PhD students in the field of Mechanical Engineering can benefit from the university's entire research infrastructure, following a schedule that does not interfere with other activities in the laboratories where they wish to carry out studies and research. IOSUD UPG in Ploiești has agreements in place for collaboration in conducting studies and research activities with IOSUD Aurel Vlaicu University in Arad, IOSUD Valahia University in Târgoviște, IOSUD Bucharest University of Science and Technology - Politehnica, IOSUD University of Petroșani, Timken Romania S.A. Ploiești, etc. Within the Department of Mechanical Engineering at UPG in Ploiești, from which 7 of the 8 doctoral supervisors in the field come, doctoral students have access to **31 laboratories** where they can conduct research activities. In ([Anexa Dotari laboratoare IM cu innoire IM 2020-2026](#)) The equipment from the 31 laboratories can be found, as well as the area of the rooms in which they are located. The equipment, simulators, and specific apparatus for determinations in the field of Mechanical Engineering doctoral studies come from well-known global suppliers. There are also stands and devices created by the doctoral supervisors and doctoral students, all covering a wide range of experimental determinations that can be carried out. All these laboratories are located at 39 București Boulevard, at the university's headquarters. Access to the laboratories is facilitated by elevators for the laboratories located on upper floors, by automated systems for lifting wheelchairs upstairs, or by access ramps. The laboratories and their equipment are the property of the Petroleum-Gas University of Ploiești. Additionally, some of the technical equipment is also found at the addresses:

1. https://ime.upg-ploiesti.ro/images/Administrativ/RESEARCH-FACILITIES_LABORATOARE-DE-CERCETARE.pdf,

2. https://ime.upg-ploiesti.ro/images/Administrativ/OCTG_Regional_Centre_ROMANIA.pdf,

3. [LED.pdf](#)

The doctoral students have rooms as offices Ep9, Ep4, Ed3, E303.

The list of equipment from the years 2020-2025 in the field of **MECHANICAL ENGINEERING** is presented in [Anexa Dotari laboratoare IM cu innoire IM 2020-2026](#) (additional inventory value of 4,791,734.2 lei).

Standard S.A.2.2. Management of material resources The HEI owns adequate movable and immovable assets to enable it to carry out the study programme/domain.

Indicator I.P.A.2.2.1 The movable and immovable assets are properly maintained to ensure optimal conditions for studying, living and research, as well as for work.

The basic research infrastructure in the field of Mechanical Engineering doctoral studies is presented on the doctoral school's website at the address: https://doctorat.upg-ploiesti.ro/images/Programa_Analitica_Inginerie_Mecanica/UPG_Ingineria_Mecanica_-_dotari.pdf dar și pe platforma <https://eertis.eu/> : <https://eertis.eu/erio-2300-000e-4477>, <https://eertis.eu/ersv-2600-004z-5464>, <https://eertis.eu/errf-2600-000t-4813>, <https://eertis.eu/erlb-2631-323w-76860>, <https://eertis.eu/ereq-2600-014v-3234>, <https://eertis.eu/ersv-2600-004n-5472>.

The research infrastructure is managed by technicians who also handle the maintenance of the equipment. Some of the equipment is operated by engineers or university faculty members. Doctoral students, when performing or assisting with experimental determinations, are instructed by the laboratory manager regarding safety regulations and workplace security. Doctoral students enrolled through a doctoral grant have the opportunity to annually purchase materials or equipment worth 7,000 lei during their years of study, while those enrolled in paid programs can purchase materials or equipment worth 2,500 lei, according to the annual decision of the CSUD.

Criterion A.3. Adequate human resources and transparent staff recruiting procedures developed according to the law

Standard S.A.3.1. Human resources The HEI has the required human resources to organise and deliver the evaluated study programme/domain

Indicator I.P.A.3.1.1 The human resources of the organisational component are suitable to perform the activities pertaining to the evaluated study programme/domain. The teaching staff has the required qualifications and professional competences to teach the subject matters assigned to them in the job list

Within the field of **Mechanical Engineering** PhD, there are **8 PhD supervisors** who have obtained the certification of accreditation according to the law [mai 2025 TABEL ABILITATI IOSUD UPG PLOIESTI.pdf](#):

1. Prof.Univ.Habil.Dr.Ing. Răzvan George Rîpeanu, OMEC no. 4867/11.08.2016
2. Prof.univ.habil.dr.ing. Marius Gabriel Petrescu, OMEC no. 6330 / 22.12.2020
3. Prof.univ.habil.dr.ing. Dorin George Bădoiu, OMEC no. 5305 / 28.06.2024
4. Prof.univ.habil.dr.ing. Dragoş Gabriel Zisopol OMEC no. 3900/23.04.2025
5. Prof.univ.habil.dr.ing. Ion Nae OMEC no. 5802/27.12.2017
6. Prof. univ.habil dr. ing. Mihail Minescu, OMEC no. 6329 / 22.12.2020
7. Prof. univ. dr. ing. Liviu Sevastian Bocîi, OMEC no. 6400 / 27.09.2023
8. Conf. univ. dr. ing. Maria Tănase, OMEC no. 6108 / 29.08.2025

On the doctoral school's website [Domeniul - Inginerie mecanică - Școala doctorală - UPG Ploiești](#) the CVs and lists of publications of the PhD supervisors in the field of **MECHANICAL ENGINEERING** can be found, and at the address [Lista doctoranzi Inginerie Mecanica.pdf](#), The doctoral students, their year of enrollment, and their supervisors are presented. In the field of **MECHANICAL ENGINEERING**, the doctoral supervisors have the following number of students under their guidance:

Table 1. Number of students under supervision

PhD supervisors	PhD students	Observations
Prof.Univ.Habil.Dr.Ing. Răzvan George Rîpeanu	9	PETRICĂ G. CANĂ had the public defense of thesis on 27.02.2026
Prof.univ.habil.dr.ing. Marius Gabriel Petrescu	9	NIȚĂ N. ADRIAN had the public defense on 21.11.2025 and following the validation of the file by which CNATDCU issued, in February 2026, the doctoral diploma through UPG. DUMITRU TEODOR had the public defense on 21.11.2025 and following the validation of the file by which CNATDCU issued, in February 2026, the doctoral diploma through UPG. BURLACU I ANDREI ION has completed the thesis consultation period (February 2026) and will proceed with the public defense.
Prof.univ.habil.dr.ing. Dorin George Bădoiu	2	
Prof.univ.habil.dr.ing. Ion Nae	2	ROMANEȚ I. MIRELA had the public defense on 16.01.2026
Prof.univ.habil.dr.ing. Dragoş Gabriel Zisopol	1	
Prof. univ.habil dr. ing. Mihail Minescu	1	
Prof. univ. dr. ing. Liviu Sevastian Bocîi	4	
Conf. univ. dr. ing. Maria Tănase	0	She was afiliated in September 2025

By the decision of the University Senate, the maximum number of doctoral students supervised by a doctoral advisor in the 2025-2026 academic year is **12** doctoral students.

(https://www.upg-ploiesti.ro/wp-content/uploads/2025/10/S39_H15-Hotarare-Senat-30-octombrie-2025.pdf). It is observed that no doctoral supervisor in the field of **MECHANICAL ENGINEERING** exceeds **12** students. Considering that 1 PhD student supervised by Prof. Rîpeanu and 3 PhD students supervised by Prof. Petrescu were already in the public consultation procedure of their thesis as early as September 2025, no doctoral supervisor has more than **8** students under their guidance. Each PhD student benefits from a supervisory and academic integrity committee composed of the doctoral supervisor and 3 members, who are faculty or researchers, with 1 member being from outside UPG Ploiești. În [Anexa Decizii comisii IIA 2020-2025](#) These committees are presented between the years 2020-2025. It is observed that **over 20** other teaching staff or researchers have been or are part of the advisory and academic integrity committees, besides the doctoral supervisors in the field of **MECHANICAL ENGINEERING**. From the Courses curricula ([Domeniul - Inginerie mecanică - Școala doctorală - UPG Ploiești](#)) It can be observed that all the subjects within the training program based on advanced university studies related to the field of the PhD in **MECHANICAL ENGINEERING** are taught by faculty members with the title of professor who are qualified as PhD supervisors, or by professors and associate professors with extensive experience in the field of the subjects taught.

Since all doctoral supervisors in the Mechanical Engineering doctoral field hold the habilitation certificate in the domain, it is evident that they meet the legal conditions to supervise doctoral studies. We mention that at the date of drafting this report, Associate Professor Dr. Eng. Adrian Neacșa, a faculty member of the Department of Mechanical Engineering, has submitted his habilitation file and is in the stage of defending his habilitation thesis. ([Teză de abilitare NEACSA ADRIAN - Școala doctorală - UPG Ploiești](#)).

In the last five university years, apart from those mentioned above, the following doctoral supervisors have also been active within IOSUD-UPG Ploiești in the field of **MECHANICAL ENGINEERING**: Prof. univ. dr. ing. Nicolae Napoleon Antonescu (deceased in 2025), Prof. univ. dr. ing. Alexandru Pupăzescu (retired in 2021), Prof. univ. habil. dr. ing. Cătălin Teodoriu (disaffiliated in 2021 due to the Covid pandemic situation, as he could no longer travel). Among the doctoral supervisors, 5 are full members, and 3 are affiliated (Prof. Ion Nae from UPG Pl., Prof. Mihail Minescu from UPG Pl., and Prof. Bocîi Sevastian Liviu, who is vice-rector and professor at Aurel Vlaicu University in Arad, but is affiliated with IOSUD UPG Pl.). Since Law 199/2023 and OM 3200 do not refer to full or affiliated doctoral supervisors, but only use the term doctoral supervisors, this criterion exceeds the requirements stipulated by the current laws. Therefore, **62.5% of the doctoral supervisors in the field of MECHANICAL ENGINEERING are full members.**

It can be observed from the date of obtaining the habilitation certificate that 4 of the 8 doctoral supervisors obtained the habilitation certificate in the last 5 years, so it is evident that they are scientifically active. In the lists of publications ([Domeniul - Inginerie mecanică - Școala doctorală - UPG Ploiești](#)) și ([Anexa Lista lucrări relevante 2020-2025](#)) It is observed that all PhD supervisors have **more than 5 WOS-indexed papers in the last 5 years.**

In addition to published articles/books, notable achievements in the field of **MECHANICAL ENGINEERING** include patents obtained and standards developed for companies such as PETROM/OMV, TRANSGAZ (<https://www.transgaz.ro/ro/clienti/sistemul-de-transport/norme-tehnice-de-mentenanta>), E.ON. **Table 2** presents the number of citations and Hirsch indices for doctoral supervisors in the field of **MECHANICAL ENGINEERING**.

Tabelul 2. The number of citations in databases of doctoral supervisors in the field of Mechanical Engineering

<i>PhD Supervisor Mechanical Engineering</i>	<i>Numărul de citări în:</i>		
	<i>Web of Science Link Number Indices Hirsch</i>	<i>Scopus Link Number Indices Hirsch</i>	<i>Google Scholar Link Number Indices Hirsch</i>
<i>Profesor dr.ing.habil Răzvan George Rîpeanu</i>	https://publons.com/researcher/2825454/razvan-george-d-ripeanu/ 455 9	https://www.scopus.com/authid/detail.uri?authorId=24067665900 570 11	https://scholar.google.com/citations?user=0H8_dLQAAAAJ&hl=ro 902 14

Profesor dr.ing.habil. Ion Nae	Ion Nae - Web of Science Researcher Profile 93 5	https://www.scopus.com/authid/detail.uri?authorId=15923770700 185 6	https://scholar.google.com/citations?user=wloKIS4AAAAJ&hl=ro 307 8
Profesor dr.ing.habil. George Dorin Bădoiu	Badoiu, Dorin - Web of Science Researcher Profile 46 5	Bădoiu, Dorin George - Author details - Scopus Preview 49 5	badoiu dorin - Google Scholar 56 5
Profesor dr.ing.habil. Liviu Sevastian Bocîi	https://www.webofscience.com/wos/author/record/C-8796-2011 30 4	Bocîi, Liviu Sevastian - Author details - Scopus Preview 33 3	https://scholar.google.com/citations?user=M9BwMF4AAAAJ&hl=en 93 5
Profesor dr.ing.habil Mihail Minescu	https://publons.com/researcher/2508516/mihail-n-minescu/ 140 7	https://www.scopus.com/authid/detail.uri?authorId=6505884076 198 8	https://scholar.google.com/citations?user=FFOn5AIAAAAAJ&hl=en 315 11
Profesor dr.ing.habil Marius Gabriel Petrescu	marius gabriel petrescu - Web of Science Researcher Profile 73 5	https://www.scopus.com/authid/detail.uri?authorId=159236010 00 126 6	https://scholar.google.ro/citations?user=PksPxHMAAAAAJ&hl=en en 268 8
Profesor dr.ing.habil. Dragoş Gabriel Zisopol	Dragos Gabriel ZISOPOL - Web of Science Researcher Profile 291 11	Zisopol, Dragos Gabriel - Author details - Scopus Preview 399 12	Zisopol Dragos Gabriel - Google Scholar 732 16
Conferenţiar dr.ing.habil. Maria Tănase	Maria Tănase - Web of Science Researcher Profile 464 9	Tănase, Maria - Author details - Scopus Preview 551 10	Maria Tanase - Google Scholar 769 13

Membership in professional associations and their boards:

1. Profesor dr.ing.habil. Răzvan George Rîpeanu

President of the Tribology Association of Romania, ART (2014-2018); **Vice-President** of the Tribology Association of Romania, ART 2018-present; **Vice-President** of the Balkan Tribology Association 2017-2021; Corresponding Member of the Romanian Academy of Technical Sciences (ASTR), Petroleum, Mining, and Geonomy Engineering section; Member of the Mechanical Engineering, Mechatronics, and Robotics committee of **CNATDCU** (2017-2020); **CNATDCU Expert** 2024-2028, according to OM 7235 of 2024; Member of the Society of Petroleum Engineers (SPE); Member of the Romanian Engineers Association, Prahova branch secretary, AGIR; UPG representative for the international program **CEEPUS** CIII-BG-0703-06-1718 – “Modern Trends in Education and Research on Mechanical Systems – Bridging Reliability, Quality and Tribology”; **Director of CSUD** at IOSUD UPG Ploieşti 2023-present; Interim Director of CSUD at IOSUD UPG Ploieşti and Vice-Rector for Quality Management 2020-2022; Medal from the Romanian National Committee – World Energy Council in 2024; Member COST Action 23155 A pan-European network of Ocean Tribology, 2024-present.

2. Profesor dr.ing.habil. Ion Nae

Member of the Society of Petroleum Engineers (SPE); Member of the Association of Engineers of Romania (AGIR); Member of the Romanian Tribology Association (ART); Member of the Romanian Association of Fracture Mechanics (ARMR).

3. Profesor dr.ing. habil. Dorin George Bădoiu

President of the Evaluation and Quality Assurance Commission (CEACF) within the Faculty of Mechanical and Electrical Engineering; Member of the Faculty Council of the Faculty of Mechanical and Electrical Engineering.

4. Profesor dr.ing.habil. Liviu Sevastian Bocîi

DECIS Short-Term Expert (ETS); Methodological expert IMI PQ Net Romania, TRANSPORT field (4 guides developed for regulated professions and 2 comparative studies Spain and Portugal); DOCIS Short-Term Expert (ETS); Expert evaluator ARACIS (Romanian Agency for Quality Assurance in

Higher Education) since 2007 (6 study programs evaluated); Expert evaluator of CNCS (National Council for Scientific Research) since 2001 and CEEEX since 2005. Expert evaluator of CNMP (National Center for Program Management) since 2007; Member of AGIR (General Association of Romanian Engineers) since 2007; Member of the Association for Multidisciplinary Research in Western Romania; Member of EAIR (The European Higher Education Society) since 2001; Member of SIAR (Society of Automotive Engineers in Romania) since 2008. The Great Union of December 1, 1918, as a sign of appreciation for the activity carried out and the support of the granted to the Prefecture of Arad County, for the benefit of the Arad community, 2003. Second Prize (ANCS) for the Project with utilization by economic agents: Trolleybus for urban passenger transport “solo with chopper” with energy recovery during braking and ensuring transport conditions for persons with severe disabilities in accordance with EC Directive 85/2001, Bucharest, November 19, 2006; Jubilee Medal: 50 years since the founding of the Faculty of Mechanical and Electrical Engineering for Collaboration with the Faculty of Mechanical and Electrical Engineering in training specialists, Petroșani, May 25, 2007; Honorary Diploma from the Polytechnic University of Timișoara, for outstanding scientific contributions to the organization of the Transport and Logistics Symposium – Post-Accession Development, November 2–3, 2007; Diploma of Excellence from “Aurel Vlaicu” University of Arad, in recognition of outstanding contributions to enhancing the prestige of “Aurel Vlaicu” University of Arad, 2016; Honorary Diploma from “Aurel Vlaicu” University of Arad, *in recognition of outstanding merits in writing a chapter of UAV history*, 2016; *Excellence Award from AGIR Arad, as a token of distinguished appreciation for the exceptional achievements in scientific research activity*, 2018.

5. Profesor dr.ing.habil. Dragoș Gabriel Zisopol

2020 to present - President of the Parliamentary Committee for Science and Technology in the Chamber of Deputies; 2024 to present: Vice-President of the Romania-Cyprus Parliamentary Friendship Group; 2020 - 2024: President of the Romania-Cyprus Parliamentary Friendship Group; 2020 - 2024: Vice-President of the Romania-Greece Parliamentary Friendship Group; 2020 - 2022: Member of the Board of the World Union of Hellenic Parliamentarians; 2019 - 2020: Secretary in the Standing Bureau of the Chamber of Deputies; 2017 - 2019: Quaestor in the Standing Bureau of the Chamber of Deputies; 2016 - 2024: Member of the Romania-Japan Parliamentary Friendship Group; 2016 - 2020: Member of the Romania-Portugal Parliamentary Friendship Group; 2016: Secretary in the Standing Bureau of the Chamber of Deputies; 2014 - 2019: Deputy Leader of the Parliamentary Group of National Minorities in the Romanian Parliament; 2012 to present: Member of the parliamentary friendship group with the Hellenic Republic; 2010 to present: President of the Hellenic Union of Romania; 2009 - 2012: Vice President of the Romania - Hellenic Republic parliamentary friendship group and member of the Romania - Republic of Ireland parliamentary friendship group; 2009 to present: member of the Romania - Republic of Cyprus parliamentary friendship group; 2009 - 2012: Secretary of the National Minorities parliamentary group in the Parliament of Romania; 2008 - 2009: member of the Executive Council of the World Union of Hellenic Parliamentarians; 2008 to present: Member of the ROMANIAN PARLIAMENT, representing the Greek Union; 2008 - 2010: Interim President of the Greek Union of Romania; 2004 - 2008: Secretary General of the Greek Union of Romania; 2000 - 2008: Vice President of the Greek Union of Romania; 1999 to present: organizer or co-organizer of scientific events with national or international participation (Switzerland, France, Greece, Italy, the Netherlands, United Kingdom, Moldova, Algeria, Canada, Romania, etc.); 1996 to present: President of the Hellenic Community of Prahova.

6. Profesor dr.ing.habil. Mihail Minescu

1995 to present: member of the Romanian Association of Fracture Mechanics (ARMR). President of the Romanian Association of Fracture Mechanics (ARMR) since June 2016; 2009 to present: member of the European Structural Integrity Society (ESIS); 2005 to present: member of the General Association of Engineers in Romania (AGIR); 1997 to present: member of the Welding Association of Romania (ASR) - President of the Ploiești Branch of ASR since 2005; 2004 to present: member of the Society of Petroleum Engineers (SPE); 2003-2012: member of the Regional Consortium of the South Muntenia Development Region; 2009 to present: member of the Association of Managers and Economic Engineers of Romania (AMIER); 2011 to present: first vice president of the Prahova

Branch of the General Union of Industrialists of Romania; 2016 to present: member of the Romanian National Committee of the World Energy Council – member of the Steering Committee of the RNC – WEC; 2018 to present: corresponding member of the Academy of Technical Sciences of Romania, and Vice President of Section X – Petroleum, Mining, and Geonomy Engineering of ASTR, since July 2020; ISCIR Authorization for Destructive Testing (RTED) since 2016; management of PHARE, RELANSIN, POSDRU type projects (as project director); 2012-present, Activities carried out as a member of the National Technical Standardization Committee - for field 169 - Materials, equipment, and marine structures for the oil and gas industries (ASRO/CT 169). 2020 - 2021: President of the University Senate, UPG; 2016 – 2020: Vice-Rector, UPG Ploiești; 2008 - 2021: member of the UPG University Senate; 2000 - 2021: member of the Faculty of Mechanical and Electrical Engineering Council; 2008 - 2016: dean of the IME faculty; 2000 - 2003: Director of the South Region contact point (Prahova, Dâmbovița, Ilfov, Călărași, Giurgiu counties) within the CORINT SUPPORT Project - a program to promote scientific research projects funded by FRAMEWORK PROGRAMME 5 (EU); 1999 - 2002: member of the project monitoring team within the Relansin program (AMCSIT Bucharest); 1992 - 1994: was a member of the Board of Directors at the Spare Parts and Repairs Factory – Brazi Petrochemical Plant; 1994 to present: member of the board of directors at the commercial company Politeh SA Ploiești; 2012-2020: member of the board of directors at the Petroleum-Gas University of Ploiești.

7. Profesor dr.ing.habil. Marius Gabriel Petrescu

Secretary General of the ARACIS Council 2024 – present; Member of the National Council for Ethics in University Management 2026 – present; Member of the ARACIS Council 2022 – 2024; Vice President of AGIR – Prahova branch 2024 – present; Member of professional associations (Romanian Tribology Association, Romanian Society for Fracture Mechanics, General Association of Engineers in Romania, Romanian Welding Association); ALUMNI UPG Member; 2011 – present Member of the management team of the Regional Center for Diagnosis and Testing of Tubular Materials for the Oil Industry; 2007 – present ARACIS Expert Evaluator (Engineering Sciences Committee, Institutional Committee); Was a full member of CRESC South Muntenia, an alternate member of the Monitoring Committee of the 2007-2013 Regional Operational Program; 2012 – 2020 - member of the Romanian Association of Administrative General Directors in Higher Education; Logistics Director of CEMATEP Prahova Training/Consulting Center; Quality Management Systems Auditor.

8. Conferențiar dr.ing.habil. Maria Tănase

Evaluator ARACIS.

Membership on the boards of national or international journals indexed in international databases and on scientific committees of international conferences, doctoral committees, visiting professor

1. Profesor dr.ing.habil Răzvan George Rîpeanu

- Member of the scientific committee and reviewer for the Journal WOS (SCOPUS) – [Journal of the Balkan Tribological Association](#), Ed.SciBulCom.Ltd. Sofia, Bulgaria, <http://scibulcom.net/jbtan.php>; Member of the scientific committee and reviewer for the Journal [Romanian Journal of Petroleum & Gas Technology](#), fost <http://www.bulletin.upg-ploiesti.ro/>; Member of the scientific committee and reviewer for the Journal PES (WOS), Serbia ([Proceedings on Engineering Sciences](#)); Member of the scientific committee and reviewer for the Journal Tribology and Materials (SCOPUS), Belgrade, Serbia, [Tribology and Materials \(tribomat.net\)](#);
- Reviewer at **14 journals** (8 WOS, 6 BDI) and at **20 conferences** (10 WOS și 10 BDI) (Reviewer at journal Tribology in Industry, Serbia (SCOPUS), Reviewer at journal Revista de Chimie (WOS); Reviewer at The Annals of University „Dunărea de Jos” of Galați, Fascicle VIII, Tribology; Reviewer at ASME conferences (OMAE-WOS), Reviewer at journals Wear, Lubrication etc.
- Member of over 40 competition committees for habilitation, university professor, doctorate (Bucharest Polytechnic, Dunărea de Jos University of Galați, Gheorghe Asachi Technical University of Iași, Valahia University of Târgoviște, etc.);

- Member of the scientific committee of the international conferences Bultrib'16, 15, 13, 12; Member of the scientific committee of the international conference Balkantrib'17, Kayseri, Turkey; Member of the scientific committee of the international conferences Serbiatrib'15, Rotrib'19, 24, Balkantrib'20, 24; Vice President of the international conference Rotrib'16; 21-25.11.2019, Invited professor at the University of West Athens, Syn+ergasia, Aspropyrgos, Greece;
- 2022-present - member of the scientific committee for awarding prizes for doctoral theses, "Gheorghe Vasilca" of INCAS "Elie Carafoli" Bucharest.

2. Profesor dr.ing.habil Ion Nae

- Member of the scientific committee and reviewer for the Bulletin of the Petroleum-Gas University of Ploiești, Technical Series.

3. Profesor dr.ing. habil. Dorin George Bădoiu

- Executive editor at the Romanian Journal of Petroleum & Gas Technology.

4. Profesor dr.ing.habil Liviu Sevastian Bocî

- General Chancellor of "Aurel Vlaicu" University of Arad, 2000 – 2004; Executive President of the "Aurel Vlaicu" University Sports Club Arad, 2002 – 2006; Coordinator of educational (ERASMUS) and scientific research projects (CEEX); Member of the committees for the public defense of doctoral theses (6 theses from the Polytechnic University of Timișoara and 1 thesis from the University of Petroșani); Reviewer for 9 Web of Science journals and 12 BDI journals; Guidance and supervision of diploma projects and students' dissertation works; Member of competition committees (promotion) for academic staff (University of Petroșani, Polytechnic University of Timișoara); Member: Board of Directors of SC CET SA Arad, 2004 – 2006; Member: General Meeting of Shareholders of SC CET-Hydrocarburi SA Arad, 2018 - 2020.
- Member: The Program Committee of the 1st International Conference on Sustainable Cities, Urban Sustainability and Transportation, University of Algarve, Faro, Portugal, May 2-4, 2012,

www.naum.org/conferences/2012/faro/scust.htm; Member: The Program Committee of the 1st International Conference on Materials, Energy, Planning, Transportation for Environmental Protection and Sustainable Economy, ISEP Porto, Portugal, July 1–3, 2012, www.naum.org/conferences/2012/porto/meptepse.htm; Member of Grupo IJENS-RPG [IJENS - International Journals of Engineering & Sciences Researchers Promotion Group] ID: IJENS-1046-Bocii, <http://www.ijens.org/>; Member of the Editorial Board of the journals: 7 (Journal of Mechanics & Industry Research; Journal of Electrical and Power Engineering; American Journal of Science and Technology; Engineering and Technology; American Journal of Traffic and Transportation Engineering; Journal of Mechanical Engineering; International Journal of Excellence, Innovation and Development).

5. Profesor dr.ing.habil. Dragoș Gabriel Zisopol

- 2024 to present: full member of the Romanian Academy of Technical Sciences (ASTR), Section X – Petroleum, Mining, and Geonomy Engineering; 2023 to present: vice president of the Romanian Society for Fracture Mechanics (ARMR); 2022 - 2024: corresponding member of the Romanian Academy of Technical Sciences (ASTR), Section X – Petroleum, Mining, and Geonomy Engineering; 2021 - 2022: associate member of the Romanian Academy of Technical Sciences (ASTR), Section X – Petroleum, Mining, and Geonomy Engineering; 2020 to present: member of the Romanian Society of Tribology; 2006 to present: member of the Society of Petroleum Engineers International (SPE INTERNATIONAL); 2006 to present: member of the Association of Managers and Economic Engineers of Romania (AMIER); 2006 to present: First Vice President of the Hellenic-Romanian Academic Association (AAER); 2005 to present: member of the European Structural Integrity Society (ESIS); 2001 to present: member of the Professional Association of Petroleum Engineers in Romania (SPE – ROM); 1997 to present: member of the Welding Association of Romania (ASR); 1994 to present: member of the General Association of Engineers in Romania (AGIR); 1994 – 2023: member of the Romanian Society for Fracture Mechanics (ARMR).

6. Profesor dr.ing.habil. Mihail Minescu

University of Catania (Italy – Sicily) – research, exchange of experience: 2 weeks/1996; England Polytechnic University Cambridge – exchange of experience - research/2000; National Conservatory

of Arts and Trades in Paris – CNAM (Paris – Nantes) – specialization in university management and distance learning: 2 weeks/2001; Université Paris XII, exchange of experience - research/2001; Nottingham - research, exchange of experience in vocational and technical education: one week/2004; University of Bolzano-Italy, exchange of experience, 2009; University of Leoben – Austria, exchange of experience, research, 2013; International University of Oil and Gas in Turkmenistan 2014; 2017; St. Petersburg Mining University, experience exchange, 2016; Notre Dame University in Beirut, experience exchange, 2016; Democritus University in Xanthi, Greece, 2017; Baku Higher Oil School - Azerbaijan, 2017; Northeast Petroleum University, China, 2017; China University of Petroleum, 2017; Petrovietnam University, experience exchange, 2018; Stavanger University, Norway, experience exchange and documentation, 2020; Section president at <https://event.asme.org/OMAE-2019/Program/#/OMAE2019/home/sessions>; President/member of scientific/organizational committees at numerous conferences; Member of competition/doctoral committees; Member of the scientific committee and reviewer at the Bulletin of the Petroleum-Gas University of Ploiești, Technical Series, <http://www.bulletin.upg-ploiesti.ro/>;

7. Profesor dr.ing.habil. Marius Gabriel Petrescu

- He has been part of the organizing/scientific committees of over 30 scientific events; - Member of the scientific committee and reviewer for the Bulletin of the Petroleum-Gas University of Ploiești, Technical Series, <http://www.bulletin.upg-ploiesti.ro/>;

-He participated in over 40 doctoral examination or thesis defense committees; - He was the chairman of the jury at the INVENT-INVEST 2019 Inventions and Ideas Fair, Ploiești; - He was a member of the jury at the INVENT-INVEST 2020 Inventions and Ideas Fair, Iași; - Member of the Scientific Evaluation Committee for the ASR-Welding 2020 Conference - Education, research, and innovation in the field of welding, hybrid, Ploiești, 20-22.10.2020; - As an ARACIS evaluator, he has participated, from 2007 to the present, in over 40 evaluation missions for study programs and over 35 institutional evaluation missions, as an institutional expert evaluator or evaluation team coordinator, at universities across the country.

8. Conferențiar dr.ing.habil. Maria Tănase

27 reviews for numerous journals WOS

Indicator I.P.A.3.1.2 The HEI ensures professional and personal development for its staff.

The Petroleum-Gas University of Ploiești, through IOSUD UPG and the doctoral field of Mechanical Engineering, encourages the publication of articles in WOS-indexed journals in Q1 and Q2, covering the payment of fees related to the articles for doctoral supervisors and doctoral students. From the lists of works of the doctoral supervisors ([Domeniul - Inginerie mecanică - Școala doctorală - UPG Ploiești](#)), din [Anexa Lista lucrărilor relevante 2020-2025](#) it can be seen that over the past 5 years, PhD students and doctoral supervisors in the field of Mechanical Engineering have published over 70 articles in WOS-indexed journals, of which more than 55 are in Q1 and Q2..

Here is the list of articles presented by doctoral students who have completed their thesis in the last 5 years at prestigious international events held in the country or abroad ([Anexa Articole prezentate la conferințe](#)). This statistic shows that the ratio between the number of presentations, including posters and exhibitions, made at prestigious international events (held domestically or abroad) and the number of doctoral students who completed their studies during the evaluated period is over 1. The participation fee, as well as travel and accommodation expenses for conferences, were covered by the University through the Doctoral School.

In the last 3 years, 2023, 2024, and 2025, the Petroleum-Gas University of Ploiești organized the Research Gala ([Anexa Gala cercetării](#)) where they were awarded, both the teaching staff with notable results and the most deserving PhD students in each accredited doctoral field. UPG from Ploiești according to https://doctorat.upg-ploiesti.ro/images/Metodologii/2026/R07.06_4.0_REGULAMENTUL-PRIVIND-SUSTINEREA-PUBLICA-A-TEZELOR-DE-ABILITARE.pdf, for university teaching staff, no fee is charged for the qualification.

PhD students enrolled on a doctoral grant have the opportunity to purchase materials or equipment worth 7,000 lei annually during their study years, while those enrolled in fee-paying places can purchase materials or equipment worth 2,500 lei, according to the annual decision of the CSUD.

Standard S.A.3.2. Recruitment procedures Teaching staff recruitment procedures compliant with the provisions of the law.

Indicator I.P.A.3.2.1 Recruitment procedures comply with the provisions of the law, and are established and carried out transparently.

At IOSUD PGU Ploiești, there is also applied the **Methodology for the automatic recognition of the status of doctoral supervisor obtained at higher education or research and development institutions abroad.** (<https://doctorat.upg-ploiesti.ro/images/Metodologii/2026/R-07-01-RECUNOASTEREA-AUTOMATA-A-CALITATII-DE-CONDUCTOR-DE-DOCTORAT-OBTINUTE-IN-INSTITUTII-DE-INVATAMANT-SUPERIOR-SAU-DE-CERCETARE-DEZVOLTARE-DIN-STRAINATATE.pdf>). The organization and conduct of the affiliation process and granting membership of the Doctoral School within IOSUD-PGU is carried out in accordance with the **Regulation on the public defense of habilitation theses and the co-optation of doctoral supervisors at the Petroleum-Gas University of Ploiesti.** (https://doctorat.upg-ploiesti.ro/images/Metodologii/2026/R07.06_4.0_REGULAMENTUL-PRIVIND-SUSTINEREA-PUBLICA-A-TEZELOR-DE-ABILITARE.pdf). On the doctoral school's website at the address [Anunțuri susțineri publice teze de abilitare - Școala doctorală - UPG Ploiești](#) the announcement of the habilitation thesis defense is posted at least 15 days before the defense, as well as [Curriculum vitae](#), [Fișă de verificare îndeplinire standarde minimale](#), [Lista de lucrari](#), [Propunere numire comisie evaluare și susținere teză abilitare](#), [Rezumatul tezei de abilitare](#), [Raportul comisiei de abilitare](#) (the latter after support).

After obtaining the authorization certificate for art.3 (a) and (b), art 7(1), art.14 (a),(b),(c),(d), art(15) and art(16) specify the conditions regarding the organization and conduct of the affiliation process and the granting of membership in the Doctoral School within IOSUD-PGU. The Doctoral School Council appoints a committee that reviews the file of the candidate wishing to affiliate, and in the case of a favorable opinion from this committee, affiliation is proposed at the DS meeting, then it is validated by the CSUD and approved by the University Senate of PGU Ploiesti.

Doctoral supervisors are subjected to internal and external evaluation at intervals of no more than 5 years. In the **Regulations regarding the organization and conduct of doctoral university studies at the Petroleum-Gas University of Ploiești**, in art. 50 (1), (2), (3), and (4) (https://www.upg-ploiesti.ro/sites/default/files/prezentare/regulamente/2024/R%2007_05%20Regulame https://doctorat.upg-ploiesti.ro/images/Metodologii/2026/R-07_05-Regulament-privind-organizarea-si-desfasurarea-stud-univ-drd-la-UPG-Ploiesti.pdf) These requirements regarding the evaluation of doctoral supervisors are provided for, and disaffiliation is proposed by the Doctoral School Council through the **Regulations of the Doctoral School of the Oil and Gas University of Ploiești** in art.14(3) and art.31((1), (2), and (3).

Withdrawal from the Doctoral School at IOSUD-PGU can be done as follows:

- (1) At the request of the doctoral supervisor.
- (2) Following a notification received from the Ethics Committee of PGU-Ploiești regarding a violation of ethical norms by an affiliated doctoral supervisor.
- (3) Upon finding the failure to meet the minimum standards established by CNADTCU at the time of submitting a new self-assessment report, but not more than 5 years later. (https://doctorat.upg-ploiesti.ro/images/Metodologii/2026/01-R-07.08_3.0-Regulemnt_de_organizare_si_functionare_a_Scolii_doctorale.pdf).

Criterion A.4. Digitalisation of institutional processes

Standard S.A.4.1. Digital transformation The digital transformation process in the organisational component seeks to achieve administrative simplification and improve the quality of the services provided to the members of its own community, as well as to third parties

Indicator I.P.A.4.1.1 The organisational component uses IT tools in its own procedures, to improve access and provide good quality services for the members of its own community and the indirect beneficiaries of education.

At the Petroleum-Gas University of Ploiești, the project **DIGITALIZATION OF STUDENT ACTIVITIES AT THE PETROLEUM-GAS UNIVERSITY OF PLOIEȘTI**, code 330917348, is in place and being implemented, within the NATIONAL RECOVERY AND RESILIENCE PLAN (PNRR), Component 15 - Education, Reform 5: Adoption of the legislative framework for the digitalization of education, Investment 16: Digitalization of universities and preparing them for the digital professions of the future.

At the Petroleum-Gas University of Ploiești, there is an information system for tracking doctoral students and their academic progress. The application aims to manage data related to the doctoral students and supervisors of the Doctoral School within IOSUD PGU Ploiești. It includes supervisors, their doctoral students, guidance committees, exams, reports, and their defense deadlines. Additionally, the Teaching Information System (SID) allows doctoral supervisors to enter the nominal acquisitions for each doctoral student by study year. The program interface is interactive and allows the entry of new data, modification of existing data, as well as the generation of main reports in RTF and Excel format.

The main forms of the database are:

The software application "ACADEMICS. Centralized Application for Educational Data Management, Integrated Management, and Scientific Research" is currently being implemented.

At the Petroleum-Gas University of Ploiești, there is a software system for detecting plagiarism – SISTEMANTIPLAGIAT.RO. The procedure regarding the organization and conduct of the public doctoral thesis defense stipulates, as part of the preliminary operations before submitting the thesis to the doctoral office, that the doctoral student must submit the thesis in digital format along with the request for initiating the procedures for similarity analysis and evaluation of the thesis by the supervisory committee. The doctoral office sends the thesis in its final electronic form for performing the similarity analysis using the SISTEMANTIPLAGIAT.RO software application. The similarity report is sent to the doctoral supervisor within a maximum of 30 days, and the supervisor prepares a resolution regarding the similarity report. PhD students can request this check twice during their doctoral program and for a small fee of 25 lei each time they wish. All doctoral theses starting from April 2016 are subject to plagiarism checks. On the REI platform of the Ministry of Education and Research, these reports are uploaded for all defended doctoral theses. Starting with the academic year 2022-2023, PhD research reports are also subject to similarity checks. At the Doctoral School's secretariat, in the students' files, as well as in electronic format, reduced and extended similarity reports can be found for all doctoral theses beginning in April 2016, and starting in 2022, reduced reports related to research reports are also available. ([Anexa_Rapoarte de similitudini](#)).

DOMAIN B. Educational efficacy

Criterion B.1. Content and relevance of study programmes

Standard S.B.1.1. Content of study programme/s The study programme is based on a curriculum designed so that students can acquire the expected learning outcomes

Indicator I.P.B.1.1.1 *The study programme is developed and structured according to the expected learning outcomes, and organised based on transferable study credits. It includes all learning, teaching, practical training, research and evaluation experiences, which, together, lead to a higher education qualification.*

The training program based on advanced university studies, carried out within the Doctoral School of IOSUD PGU, aims to enrich the theoretical and practical knowledge of the PhD student and is focused on ensuring the premises for the smooth conduct of the individual scientific research program and for acquiring advanced skills specific to the doctoral level of university studies. Within the training program based on advanced university studies (PPA), the PhD student must pass exams in 3 subjects, one from each category of the curriculum (mandatory subjects - Ethics and Academic Integrity, advanced knowledge subjects - specialized subjects in line with the PhD topic, and complementary subjects - related to research methodology or connected fields). Each course taken by the doctoral student is credited with a certain number of credits. The doctoral student must accumulate 30 credits from this activity. The curriculum for the doctoral field of **MECHANICAL ENGINEERING** can be found at <https://doctorat.upg-ploiesti.ro/doctorat/domeniul-inginerie-mecanica>, where the discipline sheets can also be found.

a) There is at least one course dedicated to ethics in scientific research and intellectual property, or well-defined topics on these subjects within a course taught in the doctoral program.

The doctoral school and the doctoral supervisor are obliged to inform the doctoral student about scientific, professional, and academic ethics and to monitor and verify compliance with them, by adhering to ethical provisions throughout the conduct of doctoral research and observing ethical provisions in writing and completing the doctoral thesis. Each IOSUD and doctoral school in each doctoral field has mandatory inclusion of the obligatory Ethics and Academic Integrity exam in their curricula. The training offer for transversal competencies, including aspects related to research ethics, scientometrics, and academic writing, is aligned with strategies and procedures for quality assurance focused on preventing academic fraud and resolving situations of violations of academic ethics. We can mention two methodologies. <https://www.upg-ploiesti.ro/wp-content/uploads/2026/02/R-01-01-CODUL-DE-ETICA-SI-DEONTOLOGIE-UNIVERSITARA.pdf> and <https://www.upg-ploiesti.ro/wp-content/uploads/2024/11/STRATEGIA-DE-PREVENIRE-SI-COMBATERE-A-FENOMENULUI-DE-PLAGIAT-in-UPG-1.pdf>. Apart from the mandatory course *Ethics and Academic Integrity* (https://doctorat.upg-ploiesti.ro/images/Fise_de_disciplina_2025-2026/Inginerie_mecanica/1_Etic%C4%83_%C8%99i_integritate_academic%C4%83_IM_2025.pdf) Not only is the doctoral thesis subject to similarity checks (at least 2 checks on the REI platform), but research reports are also subject to these checks. Therefore, doctoral students must acquire the skills, abilities, responsibility, and autonomy gained through passing the course.

b) Mechanisms are created to ensure that the training program based on advanced university studies, related to the evaluated field, targets the 'learning outcomes,' specifying the competences, skills, responsibility, and autonomy that doctoral students should acquire after completing each course or through research activities.

At the level of the Petroleum-Gas University of Ploiești and IOSUD-UPG, there is an internal mechanism through which study programs, including doctoral programs, are initiated, approved, monitored, and evaluated. The **Quality Assurance Code of the Petroleum-Gas University of**

Ploiești (<https://www.upg-ploiesti.ro/wp-content/uploads/2024/12/06-R-01-04-CODUL-DE-ASIGURARE-A-CALITATII-AL-UPG.docx-1.pdf>). Also in the **Regulation on Organization and Functioning of the Petroleum-Gas University of Ploiești**, (<https://www.upg-ploiesti.ro/wp-content/uploads/2025/03/R-01-02-REGULAMENT-DE-ORGANIZARE-SI-FUNCTIONARE-A-UNIVERSITATII-PETROL-GAZE-DIN-PLOIESTI-02.12.2024-1.pdf>, In Article 20, paragraph (2), it is specified that the main responsibilities of the Doctoral School Council (CSUD) are as follows: a) establishes the strategy of IOSUD-UPG; b) develops the institutional regulations for the organization and implementation of doctoral university programs at the IOSUD-UPG level; c) develops other proposals for regulations or measures regarding doctoral university studies at UPG; d) approves decisions concerning the establishment and dissolution of doctoral schools within IOSUD-UPG, at the Rector's proposal and with the opinion of the UPG Senate; e) endorses the composition of a newly established doctoral school; f) approves the curriculum for the Advanced University Training Program (PPA) regarding subjects at the IOSUD-UPG level; g) approves the staffing tables at the IOSUD-UPG level; h) approves the committees for the public defense of doctoral theses; i) approves the regulations of the doctoral schools; j) mediates conflicts between the doctoral student and the doctoral school; k) other specific duties, established by the institutional regulation for the organization and conduct of doctoral university study programs, according to the law.

The Regulations regarding the organization and conduct of doctoral studies at the Petroleum-Gas University of Ploiești specify in Article 10 that: (1) Doctoral study programs are organized and conducted within IOSUD PGU only within doctoral schools (DS). (2) A doctoral school is organized and operates within IOSUD-UPG with at least three doctoral supervisors in the same doctoral field. (3) At most one third of the doctoral supervisors of a doctoral school may come from other universities or research institutions in the country or abroad. (4) The establishment of a doctoral school is proposed by the Rector of PGU, is endorsed by the PGU Senate, and is approved by the CSUD. Article 11 specifies the responsibilities of the doctoral school council: a) drafting the regulations of the doctoral school; b) making decisions regarding the granting or revocation of membership in the doctoral school for doctoral supervisors, as well as setting minimum standards of scientific performance for the objective application of these procedures; c) enrolling and deregistering doctoral students, upon the proposal of doctoral supervisors who are members of the doctoral school; d) approving the committees for the public defense of doctoral theses; e) approving curricula by fields of study; f) assisting external evaluators for accreditation/reaccreditation or provisional authorization of the doctoral school; g) other specific responsibilities., Article 12 (1) of the regulations of the doctoral school establishes how doctoral degree programs are organized and carried out within it. (2) The regulations of the doctoral school are drafted, amended, and updated by the CSD, in consultation with all doctoral supervisors who are members of the respective doctoral school. (3) The regulations of the doctoral school establish mandatory criteria, procedures, and standards concerning at least the following aspects: a) rules regarding the admission of new members who are doctoral supervisors, as well as rules regarding the manner in which a doctoral supervisor may have their membership in the doctoral school revoked; b) the structure and content of the training program based on advanced university studies (PPA); c) procedures for changing a doctoral supervisor for a particular doctoral student and procedures for mediating conflicts; d) conditions for expulsion; e) conditions under which the doctoral program can be interrupted; f) methods for preventing and sanctioning misconduct in scientific research, including plagiarism, in accordance with the provisions of the Code of Ethics and Academic Deontology; g) regulations regarding access to research resources; h) regulations regarding the attendance obligations of doctoral students; i) indicators for internal monitoring and evaluation of doctoral study programs; j) indicators for evaluating the activity and progress of doctoral students.

PPA and PCS (de ex. [Anexa_PPA și PCS](#)) They are annexes to the doctoral student's contract. Within the training program based on advanced university studies (PPA), the doctoral student must pass the exam for 3 subjects, one from each category of the curriculum. Each subject taken by the

doctoral student is credited with a number of credits. The doctoral student must accumulate 30 credits from this activity. The scientific research program includes 3 research reports, each of them being in accordance with the doctoral student's dissertation topic, these reports providing the student with the competencies required for completing the doctoral thesis. For each research report, 30 ECTS credits are awarded. Additionally, in the field of Mechanical Engineering PhD, doctoral students must also publish at least 3 research articles in the field of their thesis, 2 in WOS or Scopus indexed journals as the first author, with the supervisor as co-author. The supervision and academic integrity committee evaluates the progress of the doctoral student throughout their studies. Each doctoral student prepares an annual activity report ([Anexa Raport de activitate 2024-2025](#)), reports that also show the progress and results of learning.

The self-assessment reports of the Doctoral School from 2016, 2019, and 2021 are approved by the University Senate and available at: <https://www.upg-ploiesti.ro/ro/metodologii-regulamente-si-legislatie>, and the Annual Reports of the Doctoral School can be accessed at [Metodologii, regulamente și legislație – Universitatea Petrol-Gaze Ploiești](#) (annual reports 2019, 2020, 2021, 2022, 2023, 2024). The Quality Management Service (QMS) at UPG, through accredited auditors, annually audits the Doctoral School, and the annual reports can be found at the address <https://www.upg-ploiesti.ro/index.php/ro/raport-anual-de-activitate>. In the AEROQ 2020 and 2025 audits, IOSUD-PGU and the Doctoral School were also audited, as can be seen from [Anexa Audit AEROQ 2020 si 2025 si plan audit CSUD-SD 2026](#).

c) Throughout the entire duration of the doctoral training program, PhD students in the field benefit from the guidance of active supervisory committees, an aspect reflected through written guidance and feedback or regular meetings.

Guidance committees are organized according to the regulations in the Regulation on the organization and conduct of doctoral university studies at the Petroleum-Gas University of Ploiești, which complies with the provisions of OM 3020 of 2024: Art.29 (3) PCS is carried out based on an individual training plan developed by the doctoral advisor within 30 days of the doctoral student's enrollment. The scientific research activity of the doctoral student is conducted under the guidance of the doctoral advisor, supported by the guidance and academic integrity committee. This committee consists of 3 other members, who may be part of the doctoral advisor's research team, other individuals affiliated with the doctoral school, or faculty members, and at least one member is from outside IOSUD PGU. The composition of the guidance committee is determined by the doctoral advisor, following consultation with the doctoral student. The supervisory committee is established within 30 calendar days from the registration of the doctoral student. The supervisory and academic integrity committee consistently and continuously ensures, throughout the entire period of advanced university studies undertaken by each doctoral student, the guidance of doctoral students in preparing for the public defense of their doctoral dissertations. During the first academic year, the doctoral supervisor and the supervisory and academic integrity committee continuously provide each doctoral student with information and suggestions regarding scientific documentation and research methodologies appropriate for the preparation of their future doctoral thesis. In the second and third years, the scientific reports, as well as the pre-defense of the doctoral thesis, will be directly coordinated by the doctoral supervisor, supported by the supervisory and academic integrity committee. The active involvement of the members of the guidance and academic integrity committees in coordinating the activities of doctoral students is also demonstrated through publications and/or scientific communications shared by the doctoral student with at least one member of the guidance and academic integrity committee.

In the Mechanical Engineering doctoral field, the committees are appointed at the proposal of the doctoral supervisor with the endorsement of the CSD, by the Rector of the Petroleum-Gas University of Ploiești. ([Anexa Decizii comisii IIA 2020-2025](#)). The steering and academic integrity

committees are part of the committees that support Research Reports and thesis defense in the department ([Anexa_Cerere sustinere examen si raport cercetare cu procese verbale](#)).

Criterion B.2. Alignment of the curriculum with the qualification

Standard S.B.2.1. Alignment with the qualification level and the intended competences In the curriculum design and development process, the organisational component seeks to ensure the qualification level, as well as correlation with the envisaged occupations

Indicator I.P.B.2.1.2 The expected learning outcomes are correlated with the competences required by those occupations, according to the occupational standards and/or the European Skills, Competences and Occupations (ESCO).

Course syllabi in the PhD curriculum for the field of **Mechanical Engineering** (<https://doctorat.upg-ploiesti.ro/doctorat/domeniul-inginerie-mecanica>) they take into consideration the fulfillment of the conditions regarding the learning outcomes included in the ARACIS standards <https://www.aracis.ro/wp-content/uploads/2025/06/Standarde-specifice-studii-universitare-de-doctorat.pdf>. In the case of doctoral university study programs, the learning outcomes correspond to level 8 of the National Qualifications Framework (CNC), as follows: Knowledge at the most advanced level in a field of work or study and knowledge at the boundary between different fields; skills provide the most advanced and specialized abilities and techniques, including the ability to synthesize and evaluate, necessary for solving critical research and/or innovation problems and for expanding and redefining existing knowledge or professional practices; and for responsibility and autonomy, a high level of authority, innovation, autonomy, scientific and professional integrity, and a sustained commitment to the development of new ideas or processes at the forefront of a work or study situation, including research, is ensured. PPA is complemented by PCS, as well as by the articles produced and published by the doctoral student so that they can complete their doctoral thesis. Due to the specific nature and tradition of the Petroleum-Gas University of Ploiești, some courses in the category of advanced knowledge courses—specialized courses in accordance with the doctoral student's topic—focus on equipment and technologies related to mechanical engineering in the oil and gas energy industry.

Criterion B.3. Student-centred learning, teaching and evaluation

Standard S.B.3.1 Principles The organisational component implements the principles of student-centred learning.

Indicator I.P.B.3.1.1 The organisational component ensures implementation of the student-centred learning in the curriculum and through the teaching strategies used in the learning and teaching activities and experiences.

The course syllabi are visible on the doctoral school's website, being adapted in accordance with Bloom's taxonomy (doctoral students acquiring knowledge, gaining skills, and having responsibilities and autonomy). Through the **Regulation on the organization and conduct of doctoral university studies at the Petroleum-Gas University of Ploiești** (https://doctorat.upg-ploiesti.ro/images/Metodologii/2026/R-07_05-Regulament-privind-organizarea-si-desfasurarea-stud-univ-drd-la-UPG-Ploiesti.pdf) and the **Regulation on the organization and functioning of the doctoral school within IOSUD – Petroleum-Gas University of Ploiești** (https://doctorat.upg-ploiesti.ro/images/Metodologii/2026/01-R-07.08_3.0-Regulemnt_de_organizare_si_functionare_a_Scolii_doctorale.pdf) The doctorate is mainly focused on the doctoral student. Each doctoral student has a doctoral advisor, their own guidance and academic integrity committee, whose members are researchers with studies and research in the doctoral student's thesis field. Each doctoral student has their own study and research plan, established through the PPA and PCS, which are also annexes to the doctoral student's contract. The dates for the

exams and research report defenses are set by the doctoral student, with the agreement of the advisor and the examination or report defense committee, by the doctoral student filling out a request. ([Anexa Cerere sustinere examen si raport cercetare cu procese verbale](#)). Each doctoral student, during exams, research reports, annual activity reports, and thesis pre-defenses, receives personalized recommendations from the supervisory and academic integrity committee, as well as from other members of the mechanical engineering department present at the defenses ([Anexa Cerere sustinere examen si raport cercetare cu procese verbale](#)).

Indicator I.P.B.3.1.2 The organisational component ensures opportunities for students to participate in academic mobility programmes organised in person and/or virtually.

The Petroleum-Gas University of Ploiești has partnership agreements within the Erasmus+ Project. In the field of **Mechanical Engineering**, there is an agreement with Oklahoma University, USA. Also in the field of Mechanical Engineering, through the CEEPUS program, there are partnership agreements with the partners within the project **CIII-BG-0703-14-2526 Modern Trends in Education and Research on Mechanical Systems - Bridging Reliability, Quality and Tribology**. ([CEEPUS \(2026.3.4\)](#)).

Within the Norwegian grants, there are agreements with the University of Stavanger, Norway, Norce Institute, Norway, and Reykjavik University-Iceland.

The doctoral field **Mechanical Engineering** has participated in Erasmus+ exchanges and has (through the international character of doctoral students) a presence at international conferences and symposia. It can be observed that in the field of doctoral studies in **Mechanical Engineering**, doctoral students in the last 5 years have participated as authors or co-authors with articles at international conferences. From [Anexa Articole prezentate la conferinte](#), for the PhD field of **Mechanical Engineering**, there have been 48 participations in the last 5 years (the participations of PhD students on internships were not considered). Compared to the number of PhD students in the **MECHANICAL ENGINEERING** field in the last 5 years (for 2020-2026, 28 PhD students - 4 doctors + 15 doctors = 39), this results in a percentage of 123%.

The doctoral students within the field of doctoral university studies **MECHANICAL ENGINEERING** participated in lectures given by top-ranking experts. Only some of these are mentioned.

[TENARIS: Programe pentru studenti;Săptămâna Erasmus+ - Universitatea Yeditepe din Istanbul, Turcia;3D FUTURE IN YOUR HAND 2025;SAIPEM Romania - Oportunitate Internship 2025 18 August - 26 Septembrie;](#)<https://ls.upg-ploiesti.ro/anunturi/a-doua-zi-a-conferintei-epc-tks-2025;> <https://ls.upg-ploiesti.ro/anunturi/etica-cercetarii-intre-conformitate-si-constiinta-academica-prelegere-prof-univ-dr-alis-oancea;> <https://ls.upg-ploiesti.ro/anunturi/atelier-aplicat-dileme-etice-in-cercetare-prof-univ-dr-alis-oancea>
<https://www.upg-ploiesti.ro/ro/invitatie-si-program-erasmus-week>
<https://www.upg-ploiesti.ro/ro/de-ziua-educatiei-financiare-studentii-upg-ploiesti-sunt-invitati-sa-devina-investitori>
<https://www.upg-ploiesti.ro/ro/invitatie-joi-4-aprilie-ing-calin-cebotaru;> [broșura-Simpozion-ARMR-XXV-2023-1-1-37.pdf; Conferința Națională CHIMIE. MEDIU. ENERGIE – Ediția a V-a 10.11.2023 Ploiești - UPG Ploiești - Facultatea de Tehnologia Petrolului și Petrochimie \(upg-ploiesti.ro\);](#) <https://upg75.upg-ploiesti.ro/index.php/topics/cmeee/>
[InCites Benchmarking Analytics - Introducere.pdf;](#) <https://www.upg-ploiesti.ro/ro/seminar-de-sanatate-financiara;>
<https://www.upg-ploiesti.ro/ro/eummas-a2s-conference;> <https://www.upg-ploiesti.ro/ro/seminar-de-perfectionare-vocationala-smartfinisf;> <https://www.upg-ploiesti.ro/ro/promovare-eveniment-sri;> <https://www.upg-ploiesti.ro/ro/instruire-privind-publicarea-prin-anelis-plus;> <https://www.upg-ploiesti.ro/ro/seminar-de-perfectionare-vocationala-smartfin-la-universitatea-petrol-gaze-din-ploiesti-28;> <https://www.upg-ploiesti.ro/ro/green-hydrogen-workshop;><https://www.upg-ploiesti.ro/ro/dare-discover-schlumberger-scholarship;> <https://www.upg-ploiesti.ro/ro/14-th-international-workshop-differential-geometry-and-its-applications-petroleum-gas-university>

PhD students benefit from the possibility of carrying out research internships, access to the equipment infrastructure of partner companies, access to certain semi-finished products, tools etc. In [Anexa Acorduri ERASMUS+, parteneri stiintifici, economici](#) an example of a partnership contract is presented. In [Anexa Acorduri ERASMUS+, parteneri stiintifici, economici](#) the 67 universities in Romania or abroad with which the Faculty of Mechanical and Electrical Engineering, in the field of doctoral studies in **MECHANICAL ENGINEERING**, has partnership agreements for students are presented. In [Anexa Acorduri ERASMUS+, parteneri stiintifici, economici](#) the 62 commercial companies with which the Petroleum-Gas University of Ploiești, Faculty of Mechanical and Electrical

Engineering, in the field of doctoral studies **MECHANICAL ENGINEERING**, has partnership agreements for students are presented. Table 3 presents the doctoral students in the field of doctoral studies MECHANICAL ENGINEERING involved in partnership agreements.

Table 3. The number of PhD students involved in partnership agreements over the last 5 years

PhD student/Supervisor	The year of thesis completion	The year of the internship	Internship location
Mihale Andreea Mioara/Petrescu Marius Gabriel	-	2026	S.C STRABENBAU Logistic Blejoi
Burlacu Andrei Ion/Petrescu Marius Gabriel	2026	2025	S.C STRABENBAU Logistic Blejoi
Cană Petrică/Rîpeanu Răzvan George	2026	2025	Termoklima Buzău
Romanet Mirela/Nae Ion	2026	2025	Universitatea Transilvania Braşov
Bogdan Roth Mihail/ Rîpeanu Răzvan George	2022	2021	Universitatea Națională de Știință și Tehnologie POLITEHNICA București-catedra de Organe de mașini și Tribologie
Romanet Mirela/Nae Ion	2026	2025	Universitatea Națională de Știință și Tehnologie POLITEHNICA București-catedra de Organe de mașini și Tribologie
Barbu Daniela/Rîpeanu Răzvan George	-	2025-2026	Timken S.A. România
Petrescu Marius Gabriel	-	2025	Universitatea Tehnică a Moldovei, Chișinău, Republica Moldova, Erasmus+, 17-21.02.2025
Petrescu Marius Gabriel		2025	International Staff Week at Ferrol Industrial Campus (Spain), 29 th September - 3 rd October 2025
Petrescu Marius Gabriel	-	2026	Niccolò Cusano University – Roma, Erasmus+ training program, 16/2/2026 – 20/2/2026
Petrescu Marius Gabriel	-	2023	Mai-Iunie 2023 – Universidade Da Coruna; Spania, Staff mobility
Tănase Maria	-	2023	Erasmus week 2023 Yarmouk University, Irbid, Iordania
Tănase Maria	-	2024	Erasmus week 2024 Yeditepe University, Istanbul, Turcia
Tănase Maria	-	2025	Erasmus week 2025 Yarmouk University, Irbid, Iordania
Petrescu Marius Gabriel	-	2024	Februarie 2024 - TURGUT OZAL EDUCATION SHA, Epoka University; Tirana/Albania; Teaching: 1. Hybrid system for energetic efficiency using geothermal energy, applied in Petroleum-Gas University of Ploiesti campus; 2. Optimization of the milling process of the asphalt layer by numerical evaluation of the effect of regime parameters on the performance of the milling equipment
Răzvan George Rîpeanu	-	2024	Septembrie 2024-CEEPUS mobility at University Chemical Tehnology and Metalurgy Sofia, Bulgaria
Alexandra Portoacă/ I. Nae	2023	Octombrie 2023	<i>Days of International Education</i> , Poland - International Recruitment Tour - Fall, Wroclav 09-11 Oct 2023
Alexandra Portoacă/ I. Nae	2023	Martie 2023	Yarmouk University 3 rd International Week, Irbid, Iordania , 20-22 March 2023

Of the 15 doctoral students who completed their theses in recent years (2020-2026), 5 doctoral students were involved in partnership agreements (30%).

Erasmus+ partnership agreements are presented in [Anexa Acorduri ERASMUS+, parteneri stiintifici, economici.](#)

Standard S.B.3.2. Fairness The organisational component provides fair opportunities for students.

Indicator I.P.B.3.2.1 The organisational component provides fair opportunities for students, in line with their potential and aspirations, taking into account the diversity of learning styles and abilities

The Petroleum-Gas University of Ploiești supports the principles of the Lima Declaration (1988) regarding Academic Freedom and the Autonomy of Higher Education Institutions according to which:

- a) Everyone has the right to education.
- b) Education must aim at the development of the human personality and dignity, support respect for human rights and fundamental freedoms, and contribute to the maintenance of peace.
- c) All states must guarantee the right to education without any discrimination based on race, color, sex, language, religion, social or national origin, economic status, or any other kind.

The Petroleum-Gas University of Ploiești adheres to the principles formulated in the Magna Charta Universitatum (Bologna 1988) <https://www.upg-ploiesti.ro/wp-content/uploads/2025/03/CARTA-UPG-Ploiesti-2025.pdf> according to which:

- a) The university is an autonomous institution that produces, evaluates, and transmits culture through research and education, which must be morally and intellectually independent of any political authority and economic power;
- b) To meet society's requirements and lead to scientific progress, education and research must be indissolubly linked;
- c) Freedom in research and education is the fundamental principle of academic life;
- d) As the custodian of European humanist tradition, the university is the space where cultural differences are valued and promoted and where intercultural dialogue is supported.

As can be seen from the offer of places for doctoral students put up for competition (https://doctorat.upg-ploiesti.ro/images/Admitere/2025/OFERTA_EDUCATIONALA_DOCTORAT_2025.pdf) Each academic year there have been separate places for Romanians from everywhere, as well as for Roma people. For foreign doctoral students, they have the possibility to study and defend their thesis in English. In the field of **Mechanical Engineering** PhD in the last 5 years there have been, or are: **Ri Jong Hyok (North Korea)** - completed the doctoral thesis in 2022, **Mulla Ammar (Syria/Romania)** - completed the doctoral thesis in 2023, 3 in English (CPV) **Khalifeh Shekoofeh (Iran)**, **Mhd Iyad Naboulsi (Syria)**, **Chabrel Ramy (Lebanon)**. It can be observed that out of the 28 doctoral students in the program, 6 are female. (https://doctorat.upg-ploiesti.ro/images/2026/Lista_doctoranzi_Inginerie_Mecanica.pdf).

Bogdan Roth Mihail enrolled in a paid doctoral program at the age of 67 and obtained the title of Doctor of Engineering in 2022 at the age of 72, as proof that the field of doctoral studies in **MECHANICAL ENGINEERING** does not discriminate based on age.

Through the **Regulation on the organization and conduct of doctoral university studies at the Petroleum – Gas University of Ploiești** https://doctorat.upg-ploiesti.ro/images/Metodologii/2026/R-07_05-Regulament-privind-organizarea-si-desfasurarea-stud-univ-drd-la-UPG-Ploiesti.pdf, The doctoral program takes place over a period of 4 years, with the possibility of extension by 1 or 2 years, and for justified reasons, doctoral studies can also be interrupted. Of the **28** doctoral students in the field of **Mechanical Engineering**, **one** is currently on a study break for medical reasons, and **7** are in periods of study extension without paying additional fees, having the approval of the CSD, CSUD, and the University Senate.

Criterion B.4. Accessibility and efficiency of the resources and support services, adequate for learning

Standard S.B.4.1. Access to resources and services The organisational component provides access to adequate resources and support services, according to the needs of the students.

Indicator I.P.B.4.1.1 *The organisational component provides students, including those with special educational needs/disabilities, with access to resources and services designed to support the learning process, adequate for the individual learning needs, the study domain, the study cycle, and the form of organisation of the study programme.*

The Petroleum-Gas University of Ploiești (PGU) offers a range of facilities and specific rights for students with disabilities or special needs, in accordance with current legislation, including special admission places and support measures (The **Code of Rights and Obligations of the Student at the Petroleum-Gas University of Ploiești**, <https://www.upg-ploiesti.ro/wp-content/uploads/2024/09/R01.21-CODUL-DREPTURILOR-SI-OBLIGATIILOR-STUDENTULUI-DIN-UNIVERSITATEA-PETROL-GAZE-DIN-PLOIESTI.pdf>).

Here are the main aspects regarding access for students with special needs at PGU:

- **Admission Places:** Graduates with disabilities benefit annually from 25 special places at the Petroleum-Gas University of Ploiești.
- **Infrastructure Access:** The university has taken measures to increase accessibility, with the campus equipped with modernized dormitories, and access to the main buildings adapted, such as ground floor areas for administrative services. (<https://www.upg-ploiesti.ro/index.php/camine-studentesti>).
- **Educational Support (ID/IFR):** Students can access online learning resources through the upg-elearning.ro platform, facilitating distance study for those who cannot travel regularly. Appropriate tutorial support is also provided.
- **General Rights:** According to the Code of Student Rights and Obligations at UPG, students have the right to an inclusive environment.

In the field of doctoral studies in **MECHANICAL ENGINEERING**, no students with disabilities applied for admission.

Criterion B.5. Learning outcomes

Standard S.B.5.1. Definition and evaluation Learning outcomes are adequately defined and evaluated.

Indicator I.P.B.5.1.1 *Learning outcomes are adequately described, and they support understanding of the students' and teachers' expectations regarding the content of the subject matters in the curriculum.*

Learning outcomes are described according to Bloom's Taxonomy and are found in the course syllabi ([Domeniul - Inginerie mecanică - Școala doctorală - UPG Ploiești](#)). The **Operational Procedure regarding the writing of learning outcomes** is fully complied with, (<https://www.upg-ploiesti.ro/wp-content/uploads/2025/09/PO-07.53-Scrierea-rezultatelor-invatariei.pdf>). In addition to the courses in the PPA, doctoral students must also go through PCS (preparing research reports in accordance with the thesis topic and publishing at least 3 articles to disseminate the results of the undertaken research).

Indicator I.P.B.5.1.2 *Achievement of the learning outcomes is checked in ongoing examinations and study completion exams.*

First-year doctoral students are required to complete the advanced university training program (PPA). Each exam within the PPA is conducted in front of a committee composed of the doctoral supervisor, the course instructor, and another faculty member from the field of the discipline. The

individual scientific research plan includes the presentation of 3 research reports, which are defended in front of the doctoral supervisor and the guidance and academic integrity committee. The defense is public, and the doctoral school informs the Department of Mechanical Engineering about the defense. Additionally, the committee for Research Report 1, which also includes the research plan with the Gantt chart of activities, also includes the Dean of the Faculty of Mechanical and Electrical Engineering, since the necessary equipment belongs to the university/faculty—the doctoral school does not have its own assets. The thesis defense is carried out through a public defense under the same conditions as the research reports, with the defense committee also verifying the existence of the doctoral student's article publications, without which the student cannot proceed to this stage. Annually, doctoral students also prepare activity reports which are approved by the doctoral supervisor and the guidance and academic integrity committee. The doctoral thesis is defended in front of a doctoral committee consisting of 5 members, of whom at least 2 are from outside the Petroleum-Gas University of Ploiești ([Anexa Teze susținute cu comisii](#)) and the **Operational Procedure for the Defense of Doctoral Theses** is respected (<https://www.old.upg-ploiesti.ro/sites/default/files/doctorat/R%2007%2042%20aprobat%20Senat%202024.pdf>). All these clarifications are stipulated in the **Regulation regarding the organization and conduct of doctoral university studies at the Petroleum-Gas University of Ploiești** (https://doctorat.upg-ploiesti.ro/images/Metodologii/2026/R-07_05-Regulament-privind-organizarea-si-desfasurarea-stud-univ-drd-la-UPG-Ploiesti.pdf) and the **Regulation on the organization and functioning of the doctoral school within IOSUD – Petroleum-Gas University of Ploiești** ([01-R-07.08_3.0-Regulemnt_de_organizare_si_functionare_a_Scolii_doctorale.pdf](#)).

Criterion B.7. Procedures and practices regarding the admission competition, the journey, recognition and equivalence of studies, and result certification

Standard S.B.7.1. Admission The admission procedures and principles ensure access to higher education.

Indicator I.P.B.7.1.1 *The organisational component applies the admission procedures.*

Admission to the doctorate is carried out in accordance with [Metodologia de organizare si desfasurare a concursului de admitere la doctorat 2025](#) that is available at (https://doctorat.upg-ploiesti.ro/images/Admitere/2025/R_04.08_METODOLOGIE_ADMITERE_DOCTORAT.pdf), methodology that is updated annually.

All information regarding admission to the PhD program is also posted on the PGU Ploiesti website and on the Doctoral School's website ([Admitere - Școala doctorală - UPG Ploiești](#)) namely:

- [Metodologia de admitere](#)
- [Calendarul admiterii](#)
- [Structura anului academic](#)
- [Lista conducătorilor de doctorat - Locuri admitere](#)
- [Acte necesare](#)
- [Tematică admitere](#)
- [Rezultate admitere](#)
- [Taxe anuale](#)

According to the Admission Methodology (updated annually), graduates of bachelor's or master's studies who have accumulated at least 300 ECTS through these programs can enroll in the admission competition. For each position available in the competition, there is an admission committee proposed by the field coordinator, endorsed in the CSD, approved in the CSUD, after which the rector issues the appointment decision. The admission competition consists of analyzing the candidate's file and the candidate presenting an essay based on the proposed topic, after which the committee asks questions, gives recommendations, and assigns grades to the candidate. All the mentioned documents, including admission catalogs, are archived at the doctoral school. After the exam, the admission results are communicated to the candidates and posted on the doctoral school's website.

Indicator I.P.B.7.1.2 Admission in higher education study programmes complies with the principles of fairness and equal opportunities, and with the establishing of support measures to ensure access of vulnerable groups at social and educational risk, including candidates with special educational needs and/or disabilities.

The IOSUD from Ploiești implements the principles of fairness and equal opportunities, integrating concrete support measures for the admission of candidates from vulnerable groups, including those with special educational needs (CES) and/or disabilities. As presented in indicators [I.P.B.3.2.1](#) and [I.P.B.4.1.1](#), special places are reserved in competitions for Roma candidates, and as illustrated with examples, in the field of doctoral studies in **MECHANICAL ENGINEERING** there is no discrimination, and facilities are provided to PhD students. PhD students are entitled to accommodation in the university dormitories. For example, PhD student Gavrilă Ștefan benefits from free accommodation, just as PhD student Ri Jong Hyok also benefited. After obtaining the title of Doctor of Engineering in 2022, Ri Jong Hyok also benefited from another year of free accommodation, as well as a food allowance because North Korea's borders were closed even to their citizens. In the field of **MECHANICAL ENGINEERING** PhD, we did not have any other accommodation requests, but other PhD students benefited from a 50% tuition fee discount as well: Bogdan Roth Mihail, in 2020 and 2021, Naboulsi Mhd Iyad in 2023, 2024, 2025, 2026, Moroșanu Marius in 2023, 2023, 2024 and 2025, and all doctoral students benefited from 7000 lei (budget) or 2500 lei (fee) for acquisitions, and the payment for travel to conferences and the publication of articles was also supported by the doctoral school.

According to institutional regulations, PhD students who have not yet publicly defended their doctoral thesis can benefit from forms of support such as interrupting their studies and being granted an extension period.

The interruption does not require the payment of any fees, but during this period, the doctoral scholarship is suspended, although it does not require the payment of tuition fees. The phrase "for valid reasons" means that approval is granted only on the basis of a motivated request, endorsed by the PhD supervisor and approved by the Doctoral School Council. Possible examples of "valid reasons" include maternity, parental leave, health problems, engagement in an activity outside the country or in another locality for more than one month, etc. The extension is granted for a maximum of 2 years (24 months), only to doctoral students who have completed the doctoral program but have not yet managed to complete and officially submit their doctoral thesis, and only after fulfilling the obligations in the individual plan (successful defense of all research reports and other activities provided in the individual plan approved by the Doctoral School Council) and does not involve paying the tuition fee. Usually, the interruption is requested and granted for a period of one year, while the extension is for a minimum of 6 months, (https://www.upg-ploiesti.ro/wp-content/uploads/2025/09/S38_H14-Hotarare-Senat-25-septembrie-2025-2.pdf, https://www.upg-ploiesti.ro/wp-content/uploads/2025/07/S35_H11-Hotarare-Senat-17-iulie-2025-fin-fin-fin.pdf). From [Anexa Incasari si cheltuieli doctoranzi 2024-2025](#), it is observed that for purchases, payment of items, and conference participation, 37.95% of the collected amounts were allocated (according to the progress report).

Table 4. Statistics on support for PhD students in the field of Mechanical Engineering 2026

IOSUD UPG Doctoral fields	Total PhD students	Total PhD students in the program (4 years)	Total PhD students in the extension period	Total PhD students on leave	Percent
Mechanical Engineering	28	20	7	1	25%

From **Table 4**, it can be observed that for the professional training expenses of doctoral students enrolled in the field of **MECHANICAL ENGINEERING**, a percentage greater than 10% of the total amounts received by the university is reimbursed.

Standard S.B.7.2. Academic journey of students The organisational component carries out actions supporting the students' academic journey.

Indicator I.P.B.7.2.1 The organisational component applies the regulations concerning the students' professional activity.

The training program based on advanced university studies, undertaken within the Doctoral School of IOSUD PGU, aims to enrich the theoretical and practical knowledge of the doctoral student and is focused on ensuring the conditions for the smooth conduct of the individual scientific research program and for acquiring advanced competencies specific to the doctoral cycle of university studies. Within the training program based on advanced university studies, the doctoral student must pass the exam in 3 subjects, one from each category of the curriculum (mandatory subjects - Ethics and Academic Integrity, advanced knowledge subjects - profile subjects in accordance with the doctoral student's topic, and complementary subjects - related to research methodology or related fields). Fiecare disciplină urmată de studentul-doctorand este creditată cu un număr de credite. Studentul doctorand trebuie să acumuleze 30 de credite din această activitate. The curriculum for the PhD field **MECHANICAL ENGINEERING** can be found at <https://doctorat.upg-ploiesti.ro/doctorat/domeniul-inginerie-mecanica>. After admission, for each doctoral student in the field of **MECHANICAL ENGINEERING**, the individual plan of the advanced university training program is completed by the doctoral supervisor. The individual plan of the advanced university training program (PPA) is approved by the Director of CSD and submitted to the SD secretariat, to the file of each doctoral student, it is signed by both the doctoral student, and a copy is also given to the doctoral student. An example of such a plan can be found in [Anexa PPA si PCS](#). Examinations are established by the doctoral supervisor in accordance with the doctoral thesis topic. The examination programs in the individual advanced training plan emphasize the specifics of each doctoral topic. The examination programs are submitted to the SD secretariat in the file of each doctoral student and are also communicated to the doctoral students. Examination committees consist of 3 members (the doctoral supervisor as the president and 2 faculty members specialized in the examination discipline). In [Anexa Cerere sustinere examen si raport cercetare cu procese verbale](#) an example of the document proving the completion of exams is presented. The doctoral student's file also contains the solutions to the exam questions. After passing the exams, the doctoral student presents research reports in front of a committee (the guidance and academic integrity committee) approved by the CSD director. After 2019, the first report also includes the research project through which the research reports are established, in a total of 3, their content, the publication plan, the experimental trials plan, the dates for presenting the reports, as well as the thesis within the department and the date for the public defense. The activity of each doctoral student is thus monitored through exams, research reports, and the doctoral student's annual activity report. An example of the defense of a research report is in [Anexa Cerere sustinere examen si raport cercetare cu procese verbale](#).

Criterion B.8. Internationalisation process

Standard S.B.8.1. Internationalisation Improving the quality of education and research through internationalisation actions.

Indicator I.P.B.8.1.1 The organisational component carries out international cooperation actions supporting mobility of the members of its own community and collaboration in academic and research activities.

The Petroleum-Gas University of Ploiești has established partnership agreements under the Erasmus+ Project. In the field of **Mechanical Engineering**, there is an agreement with the University

of Oklahoma, USA. Also, in the field of **Mechanical Engineering**, through the CEEPUS program, there are partnership agreements with the partners involved in the project **CIII-BG-0703-14-2526 Modern Trends in Education and Research on Mechanical Systems - Bridging Reliability, Quality and Tribology**. ([CEEPUS \(2026.3.4\)](#)).

Within the Norwegian grants, there are agreements with the University of Stavanger, Norway, Norce Institute, Norway, and Reykjavik University, Iceland. The PhD field **MECHANICAL ENGINEERING** has been present in Erasmus+ exchanges and has (through the international character of doctoral students) participation in international conferences and symposiums. It can be observed that in the PhD field **MECHANICAL ENGINEERING**, doctoral students in the last 5 years have participated as authors or co-authors with papers at international conferences. From [Anexa Articole prezentate la conferinte](#), for the PhD field in **MECHANICAL ENGINEERING**, there have been 48 participations in the last 5 years (participations of doctoral students on internship were not considered). Compared to the number of PhD students in the **MECHANICAL ENGINEERING** field over the last 5 years (for 2020-2026, 28 PhD students - 4 doctors + 15 doctors = 39), this results in a percentage of 123%. It can be observed from [Anexa Lista lucrări relevante 2020_2025](#) din ultimii 5 ani că un număr de 17 articole sunt realizate cu colaboratori din străinătate. As was also presented at [I.P.A.3.1.2](#) The Petroleum-Gas University of Ploiești, through IOSUD UPG and the Doctoral Field of Mechanical Engineering, encourages the publication of articles in WOS-indexed journals in Q1 and Q2, covering the payment of the fees related to the articles for doctoral supervisors and PhD students. From the lists of works of the doctoral supervisors ([Domeniul - Inginerie mecanică - Școala doctorală - UPG Ploiești](#)), from [Anexa Lista lucrărilor relevante 2020_2025](#) It can be observed that in the last 5 years, PhD students and PhD supervisors in the field of **MECHANICAL ENGINEERING** have published over 70 articles in WOS-indexed journals, of which 55 are found in Q1 and Q2. Furthermore, the presence of PhD supervisors in the field of Mechanical Engineering on the scientific committees of international conferences demonstrates collaboration in academic and research activities.

In the PhD field of **MECHANICAL ENGINEERING**, in the last 5 years there have been or are 5 foreign students: **Ri Jong Hyok (North Korea)** - completed the doctoral thesis in 2022, **Mulla Ammar (Syria/Romania)** - completed the doctoral thesis in 2023, 3 in English (CPV) **Khalifeh Shekoofeh (Iran)**, **Mhd Iyad Naboulsi (Syria)**, **Chabrel Ramy (Lebanon)**. Doctoral students benefit from the opportunity to carry out documentation internships, access to the equipment infrastructure of partner companies, access to some semi-finished products, tools etc. In [Anexa Acorduri ERASMUS+, parteneri stiintifici, economici](#) an example of a partnership contract is presented. In [Anexa Acorduri ERASMUS+, parteneri stiintifici, economici](#) the 67 universities in Romania or abroad with which the Faculty of Mechanical and Electrical Engineering, in the field of doctoral studies in **MECHANICAL ENGINEERING**, has partnership agreements for students are presented. In [Anexa Acorduri ERASMUS+, parteneri stiintifici, economici](#) The 62 commercial companies with which the Petroleum-Gas University of Ploiesti, Faculty of Mechanical and Electrical Engineering, in the field of doctoral studies in **MECHANICAL ENGINEERING** has partnership agreements for students are presented. Table 5 presents the doctoral supervisors and doctoral students in the field of **MECHANICAL ENGINEERING** involved in partnership agreements.

Table 5. PhD supervisors/PhD students in the field of Mechanical Engineering involved in Erasmus+/CEEPUS in the last 5 years

<i>PhD Student/Supervisor</i>	<i>Year of thesis completion</i>	<i>The year of the assignment</i>	<i>Place</i>
Petrescu Marius Gabriel	-	2025	Universitatea Tehnică a Moldovei, Chișinău, Republica Moldova, Erasmus+, 17-21.02.2025
Petrescu Marius Gabriel		2025	International Staff Week at Ferrol Industrial Campus (Spain), 29 th September - 3 rd October 2025
Petrescu Marius Gabriel	-	2026	Niccolò Cusano University – Roma, Erasmus+ training program, 16/2/2026 – 20/2/2026
Petrescu Marius Gabriel	-	2023	Mai-Iunie 2023 – Universidade Da Coruna; Spania, Staff mobility

Tănase Maria	-	2023	Erasmus week 2023 Yarmouk University, Irbid, Iordania
Tănase Maria	-	2024	Erasmus week 2024 Yeditepe University, Istanbul, Turcia
Tănase Maria	-	2025	Erasmus week 2025 Yarmouk University, Irbid, Iordania
Petrescu Marius Gabriel	-	2024	Februarie 2024 - TURGUT OZAL EDUCATION SHA, Epoka University; Tirana/Albania; Teaching: 1. Hybrid system for energetic efficiency using geothermal energy, applied in Petroleum-Gas University of Ploiesti campus; 2. Optimization of the milling process of the asphalt layer by numerical evaluation of the effect of regime parameters on the performance of the milling equipment
Răzvan George Rîpeanu	-	2024	Septembrie 2024-CEEPUS mobility at University Chemical Tehnology and Metalurgy Sofia, Bulgaria
Alexandra Portoacă/ I. Nae	2023	Octombrie 2023	<i>Days of International Education</i> , Poland - International Recruitment Tour - Fall, Wroclav 09-11 Oct 2023
Alexandra Portoacă/ I. Nae	2023	Martie 2023	Yarmouk University 3 rd International Week, Irbid, Iordania , 20-22 March 2023

Also, for each foreign citizen, graduate of higher education, who wishes to pursue doctoral studies in the field of Mechanical Engineering, we issue letters of recommendation, at their request and after reviewing their file, for submission to the Ministry of Education and Research. At the IOSUD level, every year, we request 2 places for doctoral studies for Romanians from all over the world.

The Petroleum-Gas University of Ploiești has partnership agreements within the Erasmus+ program presented at [Indicatorul I.P.B.3.1.2.](#)

Criterion B.9. Scientific research results

Standard S.B.9.1 Scientific research in the education process Scientific research activities support students in achieving the learning outcomes

Indicator I.P.B.9.1.1 Learning based on scientific investigation and research results support and are capitalised upon in achieving the learning outcomes envisaged through the study programme

In the field of PhD **MECHANICAL ENGINEERING**, both the individual PPA programs and PCS are focused on the completion of the doctoral thesis, through which its author demonstrates that they can conduct advanced research responsibly and autonomously, formulating conclusive proposals.

Standard S.B.9.2. Scientific research pertaining to the objectives of the study programme

The organisational component carries out scientific research activities aligned with the objectives of the evaluated study programme.

Indicator I.P.B.9.2.1 The results of scientific research are visible at national and international level in that scientific domain, and capitalised upon in an adequate manner.

Scientific research, development, and innovation activity has had a strong upward trend. This evolution has been mainly supported through the participation of the doctoral supervisors from the PGU Ploiesti Doctoral School in a significant number of institutional/national and international research/development/human resources grants.

This demonstrates the ability of doctoral supervisors to attract additional financial resources through grants, which leads to the increase of research and/or professional development activities of doctoral students.

In the field of **Mechanical Engineering** doctoral studies, research contracts/grants/training presented in **Table 6** have been carried out with the involvement of the doctoral supervisors:

Table 6. List of research contracts in the field of Mechanical Engineering from the last 5 years

PhD Supervisor/ Role/ Names of involved PhD students	Contract subject/Contract number	Beneficiary	Period
Brănoiu Gh./ Petrescu Marius Gabriel, Tănase Maria, Minescu Mihail, / Director/ Membru/ Portoacă Alexandra	Hybrid system for energetic efficiency using geothermal energy, applied in UPG campus in Ploiesti / Contract nr. 2019/107379, 1,594,670 EURO https://www.ceagrants.ro/files/upload-dir/481-tabel-energie.pdf	EEA and Norway Grants	2020 - 2024
Petrescu Marius Gabriel / Membru/	Proiectul ROSE (Romania Secondary Education Project), financed through Loan Agreement No. 8481-RO signed between the Government of Romania and the International Bank for Reconstruction and Development and ratified by Law No. 234/2015 (Official Gazette, Part I, No. 757/12.10.2015); PROFESSIONAL CONVERSION PROGRAMS, CONTRACT NO. 12/16.12.2022	ROSA	16.12.2022-20.07.2023
Minescu Mihail/director/Petrescu Marius Gabriel, Zisopol Dragoș / Membru	Pipe collapse tests execution / Contract no. 11840	ARCELOR MITTAL TUBULAR PRODUCTS ROMAN S.A.	2020-2023
R.G. Rîpeanu / Director/	<i>Numerical and experimental analyses regarding the increase of the durability of safety valves used in industry, Beneficiary, amount received without VAT 40000/ Contract 1165/10.02.2022</i>	Termoklima SRL Buzău	2022
R.G. Rîpeanu, M.G. Petrescu, M.Tănase / Membru/	<i>Corrosion engineering and pipeline corrosion protection, amount collected without VAT 48000/ Contract 51069/17.06.2024</i>	SNTGN Transgaz S.A. Medias	2024
R.G. Rîpeanu / Membru/	<i>Analysis of the SL04160-D-PP bearing failure from the cam roller of the HH 100-ton drilling rig, Beneficiary, amount collected without VAT 7380/ Contract 8795/09.05.2023</i>	S.C.FORAJ SONDE S.A Craiova	2023
R.G. Ripeanu Membru/ Alexandra Portoacă	<i>Increasing the durability of process pipelines through the use of reinforced epoxy resins (ERC), GO-GICS, value excluding VAT 40000/ no. 11029/08.06.2023</i>	UPG Ploiesti	2023-2024
Nae Ion / Membru// Alexandra-Ileana Portoacă	<i>“Constructive Design - Product Drawings” and “Development, Modification, Cancellation, and Development of TIMKEN Databases, value excluding VAT 168,606 /no. 301/2023</i>	TIMKEN ROMANIA SA	2023
Nae Ion / Membru// Alexandra-Ileana Portoacă	<i>Constructive Design - Product Drawings” and “Preparation, Modification, Cancellation and Development of TIMKEN Databases, value without VAT 145464/no. 14468/2022</i>	TIMKEN ROMANIA SA	2022
R.G. Rîpeanu / Membru/	<i>Technical expertise of tubular material presenting defects of the type lack of material with leakage producer, Contract 13288/04.06.2025, value without VAT 8000 lei;</i>	CONPET S.A.,	2025
R.G. Rîpeanu / Membru/	<i>Determination of the corrosion resistance of steels coated with reinforced epoxy resins, Contract 7325/27.03.2025 value excluding VAT 20,000 lei;</i>	Confind SRL Campina, 2025,	2025

The Doctoral Program in Mechanical Engineering has benefited over the last 5 academic years from equipment provided through institutional development grants as well:

1. CNFIS-FDI-2020-0016. "e-VALUARE" - modern evaluation and analysis solutions for improving the quality of university activities; value: 277,542 lei, 2020.
2. CNFIS-FDI-2020-0087. Integrated practice for correlating multidisciplinary activities applied in a production process; project director: value: 237,600 lei, 2020.

3. CNFIS-FDI-2020-0034. POLE4R&D - Support for excellence research in disciplines within the STEM area (Science, Technology, Engineering and Mathematics); value: 316,800 lei, 2020.

4. CNFIS-FDI-2023-F-0483. e-PRACTICĂ for mechanical engineering to enhance professional skills, budget 176,776 RON, 2023.

5. CNFIS-FDI-2024-F-0285 – Increasing young people's access to higher education in Prahova (Tineri UPG) - 360,000 RON, 2024.

The Petroleum-Gas University of Ploiești, through IOSUD PGU and the PhD field **MECHANICAL ENGINEERING**, encourages the publication of articles in WOS-indexed journals in Q1 and Q2, covering the payment of the fees related to the articles for the PhD supervisors and PhD students. From the lists of works of the PhD supervisors ([Domeniul - Inginerie mecanică - Școala doctorală - UPG Ploiești](#)), din [Anexa Lista lucrărilor relevante 2020 2025](#) It is observed that in the last 5 years, PhD students and PhD supervisors in the field of **MECHANICAL ENGINEERING** have published over 70 articles in WOS-indexed journals, of which 55 are found in Q1 and Q2, as well as 12 published patent applications.

The list of articles presented by PhD students who have completed their thesis in the last 5 years at prestigious international events held in the country or abroad is presented ([Anexa Articole prezentate la conferinte](#)).

DOMAIN C. Quality management

Criterion C.1. Quality assurance strategies and procedures, including in the field of academic ethics and conduct, which involve students, employers and other stakeholders and are applied in a consistent, transparent manner

Standard S.C.1.1. Application Adequately implemented strategic directions, actions, and procedures

Indicator I.P.C.1.1.1 The organisational component consistently carries out actions and applies procedures, proving their impact on improving the quality of education at the level of the study programme

At the level of the Petroleum-Gas University of Ploiești and IOSUD-UPG, there is an internal mechanism through which study programs, including doctoral programs, are initiated, approved, monitored, and evaluated, **The Quality Assurance Code of the Petroleum-Gas University of Ploiești** [06-R-01-04-CODUL-DE-ASIGURARE-A-CALITATII-AL-UPG.docx-1.pdf](#)), as well as the **Quality Manual** ([MANUALUL CALITATII – Universitatea Petrol-Gaze Ploiești](#)). Also in the **Regulation on the organization and functioning of the Petroleum-Gas University of Ploiești**, [R01-02 \(1\).pdf \(upg-ploiesti.ro\)](#), in art. 20, paragraph (2) the main duties of the CSUD are specified. In the **Regulation on the organization and conduct of doctoral university studies at the Petroleum – Gas University of Ploiești** (https://www.upg-ploiesti.ro/wp-content/uploads/2024/09/R-07_05-Regulament-privind-organizarea-si-desfasurarea-stud-univ-drd-la-UPG-Ploiesti.pdf) article 10 specifies the responsibilities. The annual reports of CEACU can be found at the address [COMISIA PENTRU EVALUAREA SI ASIGURAREA CALITATII IN UPG DIN PLOIESTI \(CEACU\) – Universitatea Petrol-Gaze Ploiești](#).

The doctoral school is audited annually, the audit plans can be found at the address [DEPARTAMENTUL DE MANAGEMENT AL CALITATII \(DMCU\) – Universitatea Petrol-Gaze Ploiești](#). From <https://www.upg-ploiesti.ro/wp-content/uploads/2026/02/PROGRAM-AUDITURI-INTERNE-2026.pdf> it is observed that the last audit was on February 10, 2026. The Quality Management Service (QMS) at PGU, through accredited auditors, audits both annually and the Doctoral School, and the annual reports can be found at the address <https://www.upg-ploiesti.ro/index.php/ro/raport-anual-de-activitate>. In the AEROQ 2020 and 2025 audit, IOSUD-UPG and the Doctoral School were also audited, as can be seen from [Anexa Audit AEROQ 2020 și 2025](#). An example of an internal audit is presented in [Anexa Audit AEROQ 2020 și 2025 si plan audit](#)

[CSUD-SD 2026](#), and the audit plan for 2026 in [Anexa Audit AEROQ 2020 și 2025 și plan audit CSUD-SD 2026](#).

The doctoral school's self-assessment, progress, and annual reports are approved by the University Senate/CSUD and are available at the address: <https://www.upg-ploiesti.ro/index.php/scoala-doctorala-arhiva/metodologii-regulamente-si-legislatie/>

Standard S.C.1.2. Stakeholder engagement The HEI proves that it engages the stakeholders who have relevant activity in applying the procedures

Indicator I.P.C.1.2.1 The opinions of the members of its own community and of other stakeholders are taken into account in the procedure implementation process.

An important component of internal evaluation is the assessment of doctoral supervisors by doctoral students, whose purpose is to quantify the level of satisfaction of doctoral students within IOSUD-UPG regarding the support and mentoring activities provided to students by their supervisors. There is also a **Procedure for evaluating the satisfaction of students and other stakeholders**, which is implemented. ([Anexa Evaluarea satisfacției studentilor și a altor parti interesate](#)) which is also applicable to doctoral students. As a result of its implementation, doctoral students are handed an anonymous questionnaire ([Anexa Chestionare de evaluare cu raspunsuri, studenti, cadre didactice, parteneri economici](#)) through which they can make recommendations for improving the quality of academic and administrative services provided. The responses provided by the doctoral supervisors, doctoral students and economic partners, in 2026 are found in [Anexa Chestionare de evaluare cu raspunsuri, studenti, cadre didactice, parteneri economici](#).

Criterion C.2. Functionality of education quality assurance structures, including in the field of academic ethics and conduct, according to the law

Standard S.C.2.2. Operation Quality assurance and academic ethics and conduct organisational structures adequately perform their specific role and functions.

Indicator I.P.C.2.2.2. The academic ethics commission operates based on the regulation approved by the University Senate, and performs actions that are compliant with the law, independently from any other structure or person in the higher education institution.

The Ethics Committee operates in accordance with the **Regulation on the organization and functioning of the University Ethics Committee of the Petroleum-Gas University of Ploiești (REGULAMENTUL DE FUNCTIONARE)**, independent and respectful [R-01-01-CODUL-DE-ETICA-SI-DEONTOLOGIE-UNIVERSITARA.pdf](#).

Criterion C.3. Procedures for the initiation, monitoring and periodic review of the study programmes and domains and of the performed activities, involving students, employers and other stakeholders

Standard S.C.3.1. Procedures and implementation of procedures The HEI has procedures for initiating, monitoring, and periodically reviewing the study programmes and domains and the performed activities, and applies them systematically.

Indicator I.P.C.3.1.1 The organisational component consistently applies the procedures, and proves their impact on quality assurance

As presented at [Indicatorul I.P.C.1.1.1](#), IOSUD UPG, the doctoral school and the field of doctoral study **MECHANICAL ENGINEERING** comply with the procedures and regulations in accordance with the latest legislative changes.

Indicator I.P.C.3.1.2 Members of its own community and other stakeholders are involved in the procedure implementation process.

PhD supervisors and PhD students in the **Mechanical Engineering** doctoral field comply with the regulations and procedures (being also checked for compliance [Indicatorul I.P.C.1.1.1](#)). There is an order for preparing the documents, they are SMQ standardized ([Intranet UPG - DOCTORAT - Toate documentele/ Regarding the doctoral school, there are 59 standardized files](#)).

Criterion C.4. Procedures for the periodic evaluation of the quality of the activities of teaching staff, auxiliary teaching staff, and administrative staff

Standard S.C.4.1. Procedures Applying the methodologies and procedures contributes to improving the quality of the staff's activities

Indicator I.P.C.4.1.1 The organisational component analyses the results of the students' biannual evaluation of teachers.

At PGU of Ploiești, the **Methodology for evaluating the results and professional performances of the teaching and research staff at the Petroleum-Gas University of Ploiești** exists and is applied. ([04-R-04-13-METODOLOGIE-DE-EVALUARE-A-REZULTATELOR-SI-PERFORMANTELOR-PROFESIONALE-ALE-PERSONALULUI-DIDACTIC-SI-DE-CERCETARE-DIN-UNIVERSITATEA-PETROL-GAZE-DIN-PLOIESTI-dupa-CA-1.docx](#)).

Within the field of **Mechanical Engineering PhD**, the **Customer Satisfaction Assessment Questionnaire** also exists and has been applied ([Anexa Evaluarea satisfactiei studentilor si a altor parti interesate](#)) who collected the responses of the doctoral students in the field ([Anexa Chestionare de evaluare cu raspunsuri, studenti, cadre didactice, parteneri economici](#)). The answers provided by the doctoral supervisors, doctoral students and economic partners, in 2026 can be found in [Anexa Chestionare de evaluare cu raspunsuri, studenti, cadre didactice, parteneri economici](#).

Criterion C.5. Systematically updated databases on internal quality assurance

Standard S.C.5.1. DatabasesThe HEI uses databases to support internal quality assurance activities.

Online access to scientific resources for research within the university is provided based on the subsidiary contract (Anelis Plus) to the Funding Contract No. 1/Axis 1/18.07.2017 for the implementation of project code My SMIS 2014+: 102839 entitled "National electronic access to scientific literature for supporting the research and education system in Romania – ANELIS PLUS 2020," within the POC-Axis 1-RDI program, concluded by the Association of Universities, Research-Development Institutes, and Central University Libraries in Romania (ANELIS PLUS) with the Petroleum-Gas University of Ploiești (ANELIS PLUS contributing member). Under this contract, access is provided to the databases: Science Direct, Scopus, SpringerLink Journal, Thomson Reuters – Derwent Innovations Index, Thomson Reuters – Web of Science, Thomson Reuters – Journal Citation Reports, OnePetro, Wiley Online Library, and 2000 electronic book titles from all the domains that can be accessed full-text, in the ANELIS PLUS National Repository at the address: <https://dspace.anelisplus.ro/xmlui/> .

In PGU from Ploiești there are several organizational structures specific to quality management ([DEPARTAMENTUL DE MANAGEMENT AL CALITATII \(DMCU\) – Universitatea Petrol-Gaze Ploiești](#)): The Committee for Evaluation and Quality Assurance at UPG in Ploiești (CEACU), the Quality Management Department (DMCU), the Internal Monitoring Committee (CMI). All the mentioned structures check all activities at the university.

Criterion C.6. Transparency of information of public interest, including those regarding the study programmes and domains offered, and transparency regarding the related certificates, diplomas and qualifications

Standard S.C.6.1. TransparencyThe organisational component ensures transparency of information, as required by the law.

Indicator I.P.C.6.1.1 The organisational component ensures publication and access to information of public interest regarding the evaluated study programme.

The doctoral school and the doctoral field of Mechanical Engineering present all information of public interest ([Acasă - Școala doctorală - UPG Ploiești](#))

Indicator I.P.C.6.1.2 The organisational component ensures transparent decision-making processes.

The Senate decisions can be found at the address [Hotărâri ale Senatului din anul 2025 – Universitatea Petrol-Gaze Ploiești](#), and those of CSUD at [CSUD - Școala doctorală - UPG Ploiești](#) and address [Metodologii, regulamente și legislație – Universitatea Petrol-Gaze Ploiești](#).

Criterion C.8. Participation in external evaluation processes, according to the law

Standard S.C.8.1. Compliance with the external evaluation obligationThe HEI undergoes external quality evaluation as required by the law.

Indicator I.P.C.8.1.1 The organisational component carries out the procedures pertaining to the external quality evaluation process, aiming to organise the evaluated study programme as provided by the law.

The internal evaluation reports of the doctoral field MECHANICAL ENGINEERING, after being prepared, are endorsed by the CSD, CSUD, Quality Management, the Board of Administration, and approved by the University Senate, then sent to ARACIS according to the law. The doctoral field MECHANICAL ENGINEERING following the external evaluation by ARACIS during the period **September 20-24, 2021**, and the decision of the ARACIS council **no.97/25.11.2021** [Hotararea-Consiliului-ARACIS-nr.-97-din-25.11.2021.pdf](#), ([Anexa Raport coordonator si expert international, raport IM, raport progres IM](#)) obtained the **Maintenance of accreditation**. IOSUD UPG from Ploiești obtained the **Maintenance of accreditation** following the external institutional evaluation of UPG from Ploiești during the period **05.03.2025-07.03.2025** [EI2736 UPG Raport-Consiliu 08.05.2025.pdf](#). The external report of the PhD field MECHANICAL ENGINEERING is presented in [Anexa Raport coordonator si expert international, raport IM, raport progres IM](#). Following the submission of the internal progress report in October 2024, the interim external evaluation report of the doctoral field MECHANICAL ENGINEERING ([Anexa Raport coordonator si expert international, raport IM, raport progres IM](#)) was drawn up on **July 23, 2025**, and was validated by the ARACIS council decision **no. 193/H/07.08.2025**.

IV. The recommendations and main conclusions resulting from the latest external quality assessment procedure, and the actions taken

The external reports of the coordinator and of the international expert are found in [Anexa Raport coordonator si expert international, raport IM, raport progres IM](#), the external report of the doctoral field MECHANICAL ENGINEERING in [Anexa Raport coordonator si expert international, raport IM, raport progres IM](#), and the external mid-term evaluation report in [Anexa Raport coordonator si expert international, raport IM, raport progres IM](#).

Table 6. Summary of performance indicators, obtained rating, received recommendations, and current status

No.	Indicator type (*, IPC)	Performance indicator	External evaluation rating / Implementation of recommendations according to the interim external evaluation report	Recommendations Experts (9.10.2021)	Implementation method
1		A.1.1.1.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	The regulation should be fully translated into English, not just certain parts of it, and posted on the SD website, important for the internationalization of doctoral studies.	The regulation was amended in 2024 to implement the requirements of Law 199/2023 and OM 3020/2024. It is currently being fully translated.
2		A.1.1.2.	completed 09.10.2021 (25.11.2021)	It is not the case	It is not the case

			/implemented 10.2024 (23.07.2025)		
3		A.1.2.1.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	English should be included in the IT system, at least for international students.	The modification of the entire SID software is under discussion. The current one only allows translation for certain documents.
4		A.1.2.2.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	It is not the case	It is not the case
5		A.1.3.1.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	Involvement in research projects of as many PhD students from the program as possible.	The PhD students were involved in 4 research projects/grants
6		A.1.3.2.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	It is not the case	It is not the case
7	*	A.1.3.3.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	1. Ensuring the transmission of information regarding the use of these amounts to all doctoral students and doctoral supervisors. 2. Increasing funding for open access publications.	1. <i>All PhD students and doctoral supervisors are informed about the use of the funds.</i> 2. As can be seen from the report, as well as from the PhD students' publications in journals from red/yellow areas/patents, their funding was ensured by PGU.
8	IPC	A.2.1.1.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	1. Increasing the use of the entire PGU infrastructure for experimental research within doctoral theses. 2. Enhancing collaboration with industry and economic agents in the main topics of interest in the field, with a view to using their research infrastructure.	<i>1. The use of equipment from the UPG infrastructure has increased, also increasing the number of theses defended. Not all equipment from PGU is suitable for mechanical engineering.</i> 2. Specialists from the economic environment have been included in CSUD, CSD, as well as in the guidance and academic integrity committees. New partnership agreements have been concluded.
9	IPC	A.3.1.1.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	However, it would be necessary to increase the number of doctoral supervisors in the field of Mechanical Engineering	<i>Prof. Bădoiu was habilitated in 2024, prof. Zisopol and assoc. prof. Tănase in 2025, and assoc.</i>

				at PGU-Ploiești, by qualifying some younger colleagues.	<i>prof. Neacșa is in the process of habilitation (2026), as well as other colleagues.</i>
10	*	A.3.1.2.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	However, it would be necessary to increase the number of doctoral supervisors in the field of Mechanical Engineering at PGU-Ploiești, by qualifying some younger colleagues.	<i>Prof. Bădoiu was habilitated in 2024, prof. Zisopol and assoc. prof. Tănase in 2025, and assoc. prof. Neacșa is in the process of habilitation (2026), as well as other colleagues.</i>
11		A.3.1.3.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	It is not the case	It is not the case
12	*	A.3.1.4.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	The development of a plan of measures so that doctoral students can complete the thesis in a reasonable time, less than 5 years.	<i>5 of the 15 PhD students completed their thesis in less than 5 years.</i>
13	IPC	A.3.2.1.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	Increasing funding for publishing and the possibilities of open access publishing.	<i>The payment of fees for articles in journals located in the red or yellow zone is covered by UPG. The same applies for PhD students in training, reimbursements are made for conference participation, patent application publications.</i>
14	*	A.3.2.2.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	Increasing activities related to the development of proposals for scientific research projects at national and international competitions.	<i>Information regarding project competitions is also communicated by the SD to the PhD students.</i>
15		B.1.1.1.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	It is not the case	It is not the case
16	*	B.1.2.1.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	It is not the case	It is not the case
17		B.1.2.2.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	A questionnaire for PhD students who drop out will help to find out the key reasons for dropping out.	<i>Abandonment did not occur in the first 3 years, and the main reason is either medical reasons or scientific ones.</i>
18		B.2.1.1.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	The number of courses in the doctoral program may be higher (these can be optional), especially with	<i>The curricula are updated every academic year.</i>

				reference to subjects related to research, innovation, technology transfer, and entrepreneurship.	
19		B.2.1.2.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	It is not the case	It is not the case
20		B.2.1.3.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	Fill in the course form with the skills acquired, in accordance with the indicator's requirements!	<i>The acquired skills have also been entered.</i>
21		B.2.1.4.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	It is not the case	It is not the case
22	IPC	B.2.1.5.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	1. Increasing the number of specialists from the industry and international researchers to be part of the doctoral guidance committees 2. Increasing the number of specialists from other institutions and from abroad for guidance.	1. In 2024, all guidance and academic integrity committees include a specialist from outside IOSUD PGU. 2. All guidance committees include specialists from other institutions. From abroad, for financial reasons, we have not been able to include specialists in the guidance committees until now.
23	IPC	B.3.1.1.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	1. Increasing the number of patents and other knowledge transfer options to enhance collaboration opportunities with industry and other related sectors. 2. Accessing publication opportunities in open access journals.	1. The number of patents has increased (see the lists of publications) 2. The number of publications in high-impact journals has increased through the payment of fees from the research fund.
24	*	B.3.1.2.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	Increasing the participation of doctoral students in scientific events outside the country, not only at national/international conferences in the country	The number of PhD students participating in conferences abroad has increased.
25	*	B.3.2.1.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	Increasing the number of teaching staff at the university who will obtain habilitation / work in the field of Mechanical Engineering doctoral studies.	Prof. Bădoiu was habilitated in 2024, prof. Zisopol and assoc. prof. Tănase in 2025, and assoc. prof. Neacșa is in the process of habilitation (2026), as well as other colleagues.

26	*	B.3.2.2.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	Increasing the number of collaborations with personalities from research institutes and other universities in the country with interests in the field of thesis topics to reduce the value of this indicator.	<i>The indicator values are continuously monitored.</i>
27		C.1.1.1.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	It is not the case	It is not the case
28		C.1.1.2.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	1. Better interaction among PhD students for the exchange of research ideas, data processing, analysis, but also for other social activities. 2. The questionnaire for students who drop out of their studies can provide some additional information (reason for dropping out).	<i>1. We aim to increase collaboration among doctoral students.</i> <i>2. We will try to carry out such a questionnaire.</i>
29	IPC	C.2.1.1.	completed 09.10.2021 (25.11.2021) /non-implemented 10.2024 (23.07.2025)	For the purpose of internationalizing the doctoral school, all documents regarding the doctoral school must be displayed in English and available on the website.	The modification of the entire software related to SID is under discussion. The current one only allows translation for certain documents. <i>The basic documents are translated. The field of Mechanical Engineering PhD does not have the logistics for full translation.</i>
30		C.2.2.1.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	Better advertising for platforms with academic databases through the use of different media.	<i>In 2024, the University Development Center was created at UPG, and among the proposals approved by the UPG Board of Administration is also the recommendation of the commission.</i> <u>Centru de Dezvoltare Universitara Universitatea Petrol - Gaze din Ploiești (upg-ploiesti.ro)</u>
31		C.2.2.2.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	It is not the case	It is not the case
32		C.2.2.3.	completed 09.10.2021 (25.11.2021)	It is not the case	It is not the case

			/implemented 10.2024 (23.07.2025)		
33	*	C.3.1.1.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	Increasing the number of students who undertake short research internships in institutions abroad.	<i>Students are offered the opportunity to carry out internships through the Erasmus and Ceepus programs through existing agreements. New partnerships are also being sought to be concluded.</i>
34		C.3.1.2.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	It is necessary to support, including financially, the organization of joint international doctoral programs, as well as inviting top-level experts to give courses	<i>Discussions were held with prestigious professors to give lectures. Such a professor is Prof. Dr. Eng. Shao Tianmin from Tsinghua University, who was at our university in 2024. He obtained his doctorate in 1992 under the supervision of Prof. Antonescu PGU Pl.</i>
35		C.3.1.3.	completed 09.10.2021 (25.11.2021) /implemented 10.2024 (23.07.2025)	It is not the case	It is not the case

V. SWOT Analysis of the PhD field in Mechanical Engineering

<p style="text-align: center;">Strengths:</p> <ul style="list-style-type: none"> ✓ Research infrastructure adequate for doctoral studies, both within university faculties and within research centers; ✓ Capacity to face challenges through research and innovation; ✓ Doctoral supervisors with national and international visibility, with scientific publications in journals indexed in international databases; ✓ Existence of Research Centers through which research projects are carried out involving doctoral students; ✓ Low dropout rate of doctoral studies. 	<p>INTERNAL FACTORS</p> <p>⌚</p>	<p style="text-align: center;">Weak points:</p> <ul style="list-style-type: none"> ✓ Lack of scholarships granted by the economic environment to PhD students; ✓ Relatively low retention rate of doctors in research or teaching positions; ✓ Insufficient promotion of the research capabilities available in the Mechanical Engineering doctoral field; ✓ Relatively small number of research projects, with internal or external funding, in which PhD students can be involved; ✓ Insufficient utilization of Erasmus mobility programs for PhD students; ✓ Lack of complete information in English on the university's website.
	<p>SWOT Analysis</p>	
<p style="text-align: center;">Opportunities:</p> <ul style="list-style-type: none"> ✓ Growing needs in the labor market for specialists (doctors or PhD students) to 	<p>⌚</p> <p>EXTERNAL FACTORS</p>	<p style="text-align: center;">Threats:</p> <ul style="list-style-type: none"> ✓ Decreasing interest in doctoral studies from master's graduates, also

<p><i>carry out research projects and/or to increase the competitiveness of organizations;</i></p> <ul style="list-style-type: none"> ✓ <i>Preparation to face new trends regarding specific research, with its cutting-edge directions;</i> ✓ <i>Existence of platforms that provide access to international databases for research conducted by PhD students, as well as for disseminating the results of conducted research;</i> ✓ <i>Collaborations with the business environment in the field of the Mechanical Engineering doctorate.</i> ✓ <i>PGU part of the European Green Deal project – green hydrogen in collaboration with Petrom, Hygrid 20 with E.ON.</i> ✓ <i>Continuous identification of the habilitation capacity for members of the academic community and encouraging them to take the necessary steps to obtain the habilitation certificate.</i> 		<p><i>caused by the increased attractiveness of sectors with potential for quick financial gains;</i></p> <ul style="list-style-type: none"> ✓ <i>Reduction in the number of state-funded doctoral positions;</i> ✓ <i>Insufficient dissemination of information regarding doctoral studies in English, negatively impacting the promotion of the educational offer and the attraction of international students;</i> ✓ <i>Reduction of the budget allocated by the Ministry of Education;</i> ✓ <i>Absence of an organization of doctoral graduates, resulting in a lack of proper feedback and difficulties in leveraging the opportunities generated by them in the future.</i>
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VI. Main challenges and development directions

The PhD field in **MECHANICAL ENGINEERING** at IOSUD PGU in Ploiești has experienced significant development in the last 5 years through the increase in the number of PhD supervisors, the number of completed theses, the number of doctoral students, including international ones.

VI.1. The main challenges

The main challenge consists in increasing the attractiveness of pursuing doctoral studies for master's degree graduates. Another challenge is the increase in fees for tuition-paying doctoral students.

VI.2. Development directions

In accordance with the existing facilities, doctoral topics within the field of **MECHANICAL ENGINEERING** should be expanded to cover equipment and technologies in the 'unconventional' category and with reduced polluting emissions, 'renewable and green energies'. There are already completed or ongoing theses in these directions, but we consider that this direction is much more promising. Another direction is to increase the number of theses carried out under co-supervision. At the time of preparing the report, in the field of **MECHANICAL ENGINEERING**, we have 3 doctoral students under co-supervision.

VII. Annex Description

[Anexa DOCUMENTE INFIINTARE UNIVERSITATE SI DREPT ORGANIZARE STUDII DOCTORAT.pdf](#)

[Anexa Raport de activitate 2024-2025](#)

[Anexa Cerere sustinere examen si raport cercetare cu procese verbale](#)

[Anexa Raport coordonator si expert international, raport IM, raport progres IM](#)

[Anexa Articole prezentate la conferinte](#)

[Anexa Acorduri ERASMUS+, parteneri stiintifici, economici](#)

[Anexa_Contract de studii universitare de doctorat buget si cu taxa](#)

[Anexa_Teze sustinute cu comisii](#)

[Anexa_Sedinte CSD CSUD](#)

[Anexa_Incasari si cheltuieli doctoranzi 2024-2025](#)

[Anexa_Rapoarte de similitudine](#)

[Anexa_PPA și PCS](#)

[Anexa_Hotărâre CA privind accesul studentilor doctoranzi](#)

[Anexa_Chestionare de evaluare cu raspunsuri, studenti, cadre didactice, parteneri economici,](#)

[Anexa_Decizii comisii IIA 2020-2025](#)

[Anexa_Audit AEROQ 2020 si 2025 si plan audit CSUD-SD 2026](#)

[Anexa_Gala cercetării](#)

[Anexa_Lista lucrări relevante 2020-2025](#)

[Anexa_Evaluarea satisfacției studenților si a altor parti interesate](#)

[Anexa_Dotari laboratoare IM cu innoire IM 2020-2026](#)