

The Romanian Agency for Quality Assurance in Higher Education



External Evaluation Report (REE) for the procedure for obtaining a maintaining accreditation (MAC) of Doctoral Study Domain

Higher Education Institution/Education Provider Organization:	Technical University of Cluj-Napoca
Doctoral School:	UTCN Doctoral School
Doctoral Domain:	Engineering and Management
The objective of the external evaluation:	Maintaining accreditation (MAC)



Members of the ARACIS Evaluation Panel

No.	Last Name and First Name	Team role	Signature
1.	<i>CANANAU Sorin</i>	Expert evaluator	
2.	<i>CAZACU Vitalie</i>	International Expert	
3.	<i>BUNGĂU Tudor</i>	PhD Student Evaluator	

I. Introduction

- The external evaluation committee, composed of Prof. Sorin CANANAU, Ph.D., Eng. (National University of Science and Technology "POLITEHNICA" of Bucharest), Prof. Vitalie CAZACU, Ph.D., Eng. (international expert – University of Moldova, Republic of Moldova), and Ph.D. candidate Tudor BUNGAU- Oradea University, approved by the ARACIS Council by Decision HC nr. 152/H/07.05.2026 (accepted by IS) participated from July 1–3, 2026, at the Technical University of Cluj-Napoca, in the external quality assurance process for the procedure to obtain maintenance accreditation (MAC) for the doctoral program in **Engineering and Management, offered by the TECHNICAL UNIVERSITY OF CLUJ-NAPOCA**,
- The Technical University of Cluj-Napoca is a state, accredited higher education institution, with legal personality, of public interest, with a non-profit character, an integral part of the national higher education system. The Technical University operates in compliance with the Constitution and legislation of Romania and in accordance with the norms provided by the Great Charter of Universities of Bologna (1999), being a signatory thereof (2004).
- In accordance with the Higher Education Law no. 199/2023, Order no. 3020/2024 for the approval of the Framework Regulation on doctoral studies and the Institutional Regulation on the organization and conduct of doctoral studies and advanced research postdoctoral programs in the Technical University of Cluj-Napoca (RI), IOSUD-UTCN is organized according to the organizational chart, displayed on the iosud.utcluj.ro website. The work within the university's doctoral studies is administered by the Council for Doctoral Studies (CSUD), which is headed by the director of the CSUD. The position of director of the CSUD is assimilated to that of vice-rector, in accordance with the legal provisions, and the person who occupies it receives the responsibility and authority related to the said position by right. The basic organizational unit in IOSUD UTCN is the doctoral school. In UTCN, doctoral studies are carried out in the Doctoral School of the Technical University of Cluj Napoca, which is established in accordance with the legal regulations in force. The doctoral school is a structure within IOSUD-UTCN made up of doctoral supervisors (teachers/researchers) and doctoral students, which is focused on scientific research and learning through research and whose activity is completed by doctoral theses, scientific publications, innovations, patents and other results of scientific research. The scientific research activity within the doctoral school is integrated into the scientific research activity of the existing scientific research structures in UTCN
- By Order 5500/27.10.2021, published in Part I of the Official Gazette no. 1067/8.11.2021, it was approved to maintain the accreditation for the organization of doctoral study programs for UTCN as an Organizing Institution for Doctoral Studies (IOSUD-UTCN) and for the 14 fields of doctoral studies in the Doctoral School within UTCN.
- The mission for the field of doctoral studies in engineering and management is to generate an educational framework associated with the Socratic triptych of framing in truth, good and utility. Against this background, the field of Engineering and Management starts from the knowledge of reality and the realization, in these circumstances, of the Individual and social good that ultimately provides utility
- On this motivational background, the objectives pursued materialized in: 1. The development of research, innovation and creativity initiated from a broader professional thematic framework that capitalizes on predominantly engineering knowledge and procedures to be driven in a managerial paradigm, from idea to application. Promoting entrepreneurship in line with the EU's Europe 2020 strategy. 2. Obtaining results that fit into the Socratic trinomial: truth, goodness, utility and ensuring performance through harmony, balance and sustainability of the diversity of natural and social factors, being part of the semantics of the concept of

progress. 3. Increasing the level of professional and general culture of those who complete these forms of improvement and transferring to the community the personal model of activism and ethical conduct, with an impact on the development of the community they are part of and of the human society as a whole, incitement to self-improvement for each individual and increasing respect for any personal effort that contributes to the social good

- the University's website <https://utcluj.ro/>

II. Methods used

- the ARACIS evaluation committee analyzed the Internal Evaluation Report (IER) and its annexes, uploaded on the ARACIS platform, visited the facilities, and met with the leadership of the organizational component, the team that prepared the IER, employers, graduates, doctoral students, PhD supervisors in the field analyzed, research center coordinators, members of quality assurance structures, staff concerning secretarial services at the IOSUD level.
- Analyzed documents (internal evaluation report and its annexes; additional documents requested before and during the on-site visit, if any; other documents or data);
 - Internal evaluation report and its annexes (IER)
 - Annexes :
 - AS 1 Doctoral Theses - 2021–2025 - Engineering and Management
 - AS2 Guidance Committees by Supervisor
 - AS3 PhD Advisors who have participated in mobility programs
 - AS4 Skills and Competencies. ESCO Groups and Subgroups
 - AS5 Verification Mechanisms
 - AS6 AJOFM Accreditation
 - AS7 Statistics on the Years of Completion of IM Doctoral Degrees
 - AS8 Statistics on Students expelled between 2020 and 2024
 - AS9 Students in Research Projects Mobility Programs
 - And documents
 - IM Ph.D. Advisors
 - Feedback 24-25
 - Participation in Mobility Programs and IM Conferences
 - PhD thesis-Thira Ciprian
- Additional documents requested before and during the on-site visit:

III. Judgement on the extent to which the standards and performance indicators are fulfilled

DOMAIN A. Institutional capacity

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

Standard S.A.1.1. Organisational components and institutional processes

The HEI has organisational components in its structure, which function based on adequate competences, responsibilities, processes, and implementation procedures, and ensure an effective management system.

Indicator 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.
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- ✓ [Presentation of the state of facts](#)
- ✓ The Technical University of Cluj-Napoca is a state, accredited higher education institution, with legal personality, of public interest, with a non-profit character, an integral part of the national higher education system. The Technical University operates in compliance with the Constitution and legislation of Romania and in accordance with the norms provided by the Great Charter of Universities of Bologna (1999), being a signatory thereof (2004).
- ✓ The self-assumed mission of the Technical University of Cluj-Napoca in [the University Charter](#) and in the [Strategic Plan 2024-2029](#) refers to the development of value in people, processes and products
- ✓ At the IOSUD-UTCN level, the structures with responsibilities in the organization and functioning of the doctoral cycle are published in a transparent manner, with names, attributions and contact details: [IOSUD Structure](#)
- ✓ The organization is visually detailed in the [IOSUD-UTCN Organizational Chart \(2024\)](#), which illustrates the relationship between the Rector, the Senate/Board of Directors, CSUD, the Doctoral School, the field coordination councils and ethics/integrity structures (OEIA/BEIA), as well as the operational relations with the IOSUD secretariat, relevant to the field of Engineering and Management
- ✓ [Analysis of the state of facts](#)
- ✓ The management system includes the [Regulations – IOSUD](#), (and Regulation of the Doctoral School 2024), a document that expressly refers to Law 199/2023 and OM 3020/2024. For admission, the framework is established and approved by HSU no. 1785/21.03.2024 – Doctoral Admission Regulations
- ✓ Updating and publishing the internal regulatory framework [Regulation ȘD 2024 ; OM 3020/2024 \(M.Of.\)](#)
- ✓ Admission (HSU 1785/2024) and completion (procedure + OPIS + forms F1–F18), -from IER pag.18, which prove the standardization of essential flows – HSU 1785/2024; [Finalisation procedure – IOSUD](#)
- ✓ Publication of the "DSUD Matrix - documents (Engineering and Management)" (XLSX/PDF)- IER pag.18,
- ✓ Public version index for documents at the Engineering and Management level (article, date, approval act, link)- IER pag.19

[The indicator is: fulfilled](#)

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 extension* and of other stakeholders are considered in the process of adopting and revising methodologies, regulations and implementation procedures.
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- ✓ [Presentation of the facts:](#)
- ✓ The process of adopting and revising methodologies, regulations, and procedures, IOSUD-UNCNT attaches semnificative importance to the opinions expressed by doctoral supervisors, academic guidance and integrity committees, doctoral students, doctoral thesis public defense committees,

* The faculty, department, subsidiary, extension - hereinafter "organisational components"

doctors, and other stakeholders from economic field.. These are integrated through formal and informal consultation mechanisms, thus ensuring transparency and the active involvement of all relevant parties

- ✓ The regulations, methodologies, procedures and rulings in extenso for the period 2020-2024 are presented IOSUD-UTCN website at: <http://iosud.utcluj.ro/regulamente.html> and <http://iosud.utcluj.ro/hotarari-si-decizii-utcn.html>.
- ✓ Concerning other stakeholders there is proof the collaborations/consultations for the field of Engineering and Management.
- ✓ Analysis of the state of facts:
- ✓ The <https://iirmp.utcluj.ro/scoala-doctorala.html> website demonstrate that the proposals/documents go through all the stages of consultation/approval before adoption, giving the evaluator visibility on the procedural path.
- ✓ In relation to employers, there are regulations shown in [https://crmse.utcluj.ro/index.php/documente-utcn.html?file=files/Documente UTC-N/Documente generale/Procedura CRMSE - Incheierea contractelor de colaborare cu mediul socio economic.pdf](https://crmse.utcluj.ro/index.php/documente-utcn.html?file=files/Documente%20UTC-N/Documente%20generale/Procedura%20CRMSE%20-%20Incheierea%20contractelor%20de%20colaborare%20cu%20mediul%20socio%20economic.pdf)
- ✓ The New page for the content for Engineering and Management is <https://iirmp.utcluj.ro/scoala-doctorala.html>

The indicator is: fulfilled

Criterion A.2. The 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.
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- ✓ Presentation of the state of facts
 - ✓ The laboratories and research units associated with the doctoral program in Engineering and Management are administered by three faculties (the Faculty of Industrial Engineering, Robotics, and Production Management, the Faculty of Engineering, and the Faculty of Sciences). [Industrial Engineering and Management - Technical University of Cluj-Napoca Research](#)
 - ✓ The UTCN Library Directorate provides documentation services and access to collections (printed/electronic), and the [Online Catalogue \(OPAC – Liberty\)](#) allows you to quickly search and locate resources. For access to licensed scientific bases, the university benefits from the [ANELIS Plus Portal](#) and operational information published by UTCN/Research on the use of institutional access: [ANELIS Access – UTCN/Research](#)
- ✓ Analysis of the state of facts
- ✓ The Commission visited:
 - M304b Lab - PRUSIN Lab Types of software used: statistical software, ASIS, and ARENA. Many surveys are used in the creation of doctoral dissertations
 - Laboratory - B 01 CCIMC
 - Laboratories B07, 08 - 3D Measurement and Scanning Laboratory - Scanning, measurement, and reverse engineering; certified process control; statistics; wear measurement; scanning for automotive parts.

- Industrial Robotics Systems Laboratory within the “Engineering and Innovation Management” Research Center - User interaction with robotic applications.
- Tribology and Mechanical Transmissions Laboratory
- E06b Advanced Digital Robotics Laboratory - Used for producing prototypes from various materials. Fanuc and Kukka robots used for medical or industrial applications, also utilized by doctoral students in Engineering and Management. 3D printers that produce objects using resin and PLA.
- Laboratory E07 - Machine Tools Laboratory
- Intelligent Dedicated Systems Laboratory - Laboratory used for doctoral theses: a series of mobile robot applications for highly variable surfaces; two prototypes were built. A prototype has been created that can be used for project delivery; it operates using AI.
- Industrial Automation Laboratory, Room 13
- ✓ PhD students in the field of Engineering and Management have access to scientific collections and databases relevant to the field (e.g. journal collections, indexing metadata), supporting the documentation and writing of the thesis. [OPAC – Liberty](#) ; [ANELIS Portal](#) ; [Anelis Plus – website](#) ; UTCN – Access ANELIS. The research infrastructures published <https://research.utcluj.ro/index.php/industrial-engineering-and-management.html> ensure the access of doctoral students to the most advanced laboratories in each direction of the thesis
- ✓ The publication of the procedure/OPIS/forms on the IOSUD website (and procedures) [Link – completion procedure](#)
- ✓ [Aspects that constitute best practice examples](#)
Activities within the doctoral program in Engineering and Management have a specific research center [RESIN Brad.pdf](#)
- ✓ [Recommendations](#)
Expansion of facilities for doctoral students and digitization of services and up-date the page of [RESEARCH CENTER FOR ENGINEERING AND MANAGEMENT OF INNOVATION](#)

The indicator is: fulfilled

Standard S.A.2.2. Management of material resources

The organisational components manage the movable and immovable assets used for the evaluated study programme/domain in an optimal, sustainable manner.

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.
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- ✓ [Presentation of the state of facts](#)
The Faculty of Engineering, which also carries out activities in the field of doctoral studies in Engineering and Management, adequately manages the immovable and movable property used in the implementation of the program based on advanced university studies and the individual research program. UTCN publishes the [DMCDI Instructions](#) detailing the operational sequence: drafting the document, registering in JobRouter (process automation software platform) with the corresponding options (e.g. "Contracts with third parties – Z-CERCET"), generating the internal number, submitting for approval (Jurist → DMCDI Director → Economic Director → Rector) and the return with the reception report at the completion of the works.
- ✓ [Analysis of the state of facts](#)
- ✓ The equipment are properly maintained through dedicated budget allocations and regular repairs as are described in The [procedural provisions \(DMCDI\)](#) -IER pag.21.
- ✓ The publication of the list of applications (JobRouter, SIMAC+, IOSUD Platform, SINU) IERnforces the proof of the existence of the IT infrastructure that supports the administrative and academic processes relevant to the PhD field of Engineering and Management. IT & Digitalization – Applications

The indicator is: fulfilled

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.
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✓ Presentation of the state of facts

The IOSUD-UTCN organization provides the human resources necessary for the specific activities in the field of doctoral studies in Engineering and Management.

Phd Supervisors in the field of Engineering and Management have the necessary qualifications and professional competences for this activity. Also, their activity is certified through the scientific profile and projects in SIMAC+ (official publicly listed tool)

✓ Analysis of the state of facts

✓ The doctoral field of Engineering and Management, a number of 15 doctoral supervisors, (13 in present activity, 2- Popescu Sorin Gabriel, Marian Liviu, in extended activity) IER pag. 21, <https://iirmp.utcluj.ro/scoala-doctorala.html>. Their activity is quantified at UTCN level through the [SIMAC+ platform](#) (listed in the IT & Digitalisation – Applications portal) for the record of scientific production (publications, citations), involvement in research projects, activity in the doctoral field of Engineering and Management and a series of other scientific and didactic contributions.

✓ All doctoral supervisors are presented in the [IOSUD-UTCN page and there is a connection to the the working framework of the supervisor-doctoral student relationship](#).

The indicator is: fulfilled

Indicator I.P.A.3.1.2	The HEI ensures professional and personal development for its staff.
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✓ Presentation of the state of facts

IOSUD-UTCN actively promotes the professional and personal development of doctoral supervisors including clear directions for continuous improvement and internationalization of academic activities as is shown in the UTCN Strategic Plan 2024=2029 (https://www.utcluj.ro/media/page_document/309/Plan_strategic_2024-2029.pdf)

✓ The training and continuous professional development of teaching staff is mentioned in IER pag.22.

✓ The Specialized Department with a Psychopedagogical Profile (DSPP) continues to provide training for teachers, according to the Strategic Plan, www.dspp.utcluj.ro/formare-continua.html.

✓ Analysis of the state of facts

✓ IOSUD- UTCN offers various opportunities for improving the professional skills of professors, doctoral advisors, and PhD students in national and international mobilities (<https://lmc.utcluj.ro/>, www.dspp.utcluj.ro/formare-continua.html)

✓ Detailed information on these activities can be found in the annex Autoevaluari Conducatori-IM for teachers and supervisors

✓ Recommendations

- ✓ Identification of needs in the field of professional and personal training and Intensifying participation in international mobility projects ERASMUS+ in research activities.

The indicator is: fulfilled

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.
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- ✓ Presentation of the state of facts
 - ✓ In UTCN the recruitment procedures for teaching staff and new doctoral supervisors comply with the applicable legal framework and are designed and implemented in a transparent manner. Recruitment is carried out publicly, in accordance with the criteria of legality, fairness, and professional competence. -IER pag.22
- ✓ Analysis of the state of facts
 - ✓ For the recruitment of teaching and research staff, the UTCN applies a [Methodology \(22.02.2024\)](#), a approved annually by the UTCN Senate,
 - ✓ Applications are evaluated in accordance with CNATDCU and institutional standards.
 - ✓ Transparency is proven through announcements, applications and public results; compliance is anchored in the UTCN methodology (correlated with the national framework). The use of JobRouter ensures the digital traceability of administrative steps. [Example contest page](#)

The indicator is: fulfilled

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.
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- ✓ Presentation of the state of facts
 - ✓ At IOSUD-UTCN and the Doctoral School of Engineering and Management is taken into account with special attention to the digitization of institutional processes, having a vice-rector for digitization and a Department for digitization. A number of projects implemented or in the implementation stage (<https://utcluj.digital/ecampus> or <https://eut4all.utcluj.digital>)
 - ✓ Admission page – [IOSUD](#) remains the centralized information point (documents by fields. Starting with the 2025 Admission, [the IOSUD 2025 Tutorial \(EN\)](#) and [the IOSUD 2025 Tutorial \(RO\)](#) have started the migration to an improved platform.
 - ✓ A new platform (sem.2, 2025-2026) will receive the digitization of the entire activity during the doctoral internship (online registration, candidate account, email verification, document upload, options, online fee payment, PPUA, research report support, thesis defense).
- ✓ Analysis of the state of facts
 - ✓ IOSUD-UTCN implements modern IT solutions that support the streamlining of academic processes. contributing to transparency, accessibility, and increased quality of services offered to members of the university community and indirect beneficiaries.
 - ✓ The Commision has identified the migration of the registration flow to SIS (candidate-doctorate-admission) is documented in the IOSUD 2025 tutorials (RO/EN), which explicitly

specify the steps of registration, email validation, filling in personal data, selecting the field/council, uploading documents and paying the fee online

- ✓ The Commission has identified the means, transparency, and accessibility of IT solutions for communication, learning, and technical support for the administration. These have been identified through [servicii IT](#), [Sistem de acces unic la serviciile MyAccount](#).

The Commission also identified the existence of tools for supervisors to verify the similarity (plagiarism) of doctoral students' work by Turnitin platform

Recommendations

Is recommended to improve the existing tools with Online forms for collecting information and feedback from doctoral supervisors and doctoral students.

The indicator is: fulfilled

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.
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✓ Presentation of the state of facts

- ✓ The DSUD-IM program, offered by UTCN, is build in accordance with the Higher Education Law no. 199/2023, MEC Order no. 3020/2024 on doctoral studies, Order no. 3018/2025 on the minimum standards for conferring the doctoral degree, the UTCN Charter, the Institutional Regulation on the organization and conduct of doctoral studies and the Regulations of the Doctoral Schools. The programs comply with the standards of the European Higher Education Area and the principles of the National Qualifications Framework (CNF) and the European Qualifications Framework (EQF)-IER pag 24
- ✓ The structure contains two mandatory components, in accordance with the institutional framework: the [Advanced University Training Program \(PPUA\)-30 ECTS](#) and the [Scientific Research Path \(PCS\)-120 ECTS](#), under the guidance of the doctoral supervisor and the Academic Guidance and Integrity Commission (with external member IOSUD-UTCN). Supporting documents (https://www.utcluj.ro/media/decisions/2024/06/28/H.Senat_nr._1817_Regulamentul_Institutional.pdf) with progress reports at each 6 months-IER pag 24

✓ Analysis of the state of facts

The application of the regulations is carried out by:

- ✓ Regulations of the Doctoral School (art. 9 para. 11–12) and the Operational Procedure for ensuring level 8 CNC/EQF (CA UTCN 06.04.2021; rev. 11.05.2021) – curricular design, validation and updating mechanisms; https://iosud.utcluj.ro/files/Legislatie/Regulamente%202019/REGULAMENT_Scoala_Doctorala_CA_CSUD_23.01.19.pdf

* The term “programmes” concerns the external quality evaluation for the study programmes contained in a master/doctoral domain. The term “programme” shall be used hereinafter.

- ✓ The Doctoral Studies Agreement and the Disciplines Contract – rights/obligations, ECTS structure, evaluations; <https://iosud.utcluj.ro/admitere.html>
 - ✓ Annual progress assessments, including verification of academic ethics and integrity;
 - ✓ Transparency and public information (IOSUD/Doctoral Schools website; procedures, calendars, methodologies). (<https://iosud.utcluj.ro/>, <https://doctorat.utcluj.ro/>, <https://sis.utcluj.app/>)
 - ✓ The offer of PPUA disciplines is provided by tenured teachers at the level of professor/associate professor or researchers with relevant expertise.
 - ✓ The programs encourage the involvement of doctoral students in research projects (national/international <https://research.utcluj.ro/index.php/proiecte-de-cercetare-in-derulare.html>), access to scientific databases (through subscriptions and/or national platforms https://iirmp.utcluj.ro/files/Acasa/Site/documente/250404_Baze_date_acces_electronic.pdf and the use of relevant licensed software, Enforcing the coherence between curricular objectives, assessment results and actual acquired competences.
 - ✓ The Aracis Commission has identified 82 disciplines offered by doctoral school [Discipline Sheets](https://iirmp.utcluj.ro/files/Acasa/Site/scoala_doctorala/Discipline%20program%20de%20studii%20la%20universitate.pdf)https://iirmp.utcluj.ro/files/Acasa/Site/scoala_doctorala/Discipline%20program%20de%20studii%20la%20universitate.pdf. (two as fundamental disciplines (Statistical Data Analysis, Academic Ethics and Integrity)
- ✓ **Recommendations**
- ✓ Regularly updating the curriculum and course descriptions-the DSUD-IM program, at least for fundamental disciplines, Academic Ethics and Integrity, Statistical Data Processing
 - ✓ Considering the recommendations of stakeholders (graduates, doctoral advisors, doctoral students, inclusive the companies) in order to adapt to changing labor market demands.

The indicator is: fulfilled

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).

- ✓ **Presentation of the state of facts**
- ✓ The purpose of doctoral studies is to develop human resources competent in scientific research, capable of entering the highly skilled labor market. The studies place major emphasis on original scientific research and the formation of scientific and advanced research skills, advanced professional skills in engineering and management and transversal skills (critical analysis, synthesis, scientific communication, ethics). - IER pag.26
 - ✓ Advanced scientific and research skills: identifying and formulating complex problems in engineering, industrial management, logistics, manufacturing, technological systems, developing methods, algorithms or original solutions for optimizing technical and managerial processes, designing and conducting research at an advanced level, using statistical methods, modeling and simulation, artificial intelligence and industrial information systems, advanced experimental methods, - IER pag.26
 - ✓ Advanced professional skills in engineering and management: analysis and management of industrial systems – production, maintenance, quality, operations, strategic planning and management of complex technical and technological projects, innovation and technology

- management (Technology Management), development of integrated systems (quality management, environmental management, energy management, process safety and reliability), evaluation of the economic and technical performance of the industrial organizations, leadership in digital transformation (Industry 4.0, digitalization, automation, data). - IER pag.26
- ✓ Transversal skills: high autonomy in research and innovation activities, interdisciplinary teamwork and their leadership, ethics and academic integrity in research, advanced scientific communication, in Romanian and English, management of research resources and projects, technology transfer capacity and collaboration with industry
 - ✓ Expected Learning Outcomes (IER): These focus on developing the capacity to independently and responsibly conduct scientific research, produce original knowledge and publish results at international standards (according to national minimum standards, e.g. WOS/Scopus articles)
 - ✓ **Analysis of the state of facts**
 - ✓ The Commission verified the inclusion in the list of qualifications of potential occupations in accordance with the ESCO Code classification and more restricted ISCO groups,
 - ✓ The Doctor of Engineering and Management qualification corresponds to occupations that require the highest level of expertise and autonomy in research and development, such as (AS 4Essential skills and competencies acquired upon completion of the doctoral degree)-Supplementary Annex in Engineering and Management at UTCN:
 - University Professor/Associate Professor (academic career) -ESCO/ISCO-08-2310
 - Senior scientific researcher (in research institutes, R&D centers) -ESCO/ISCO-08-21xx (
 - Production manager ESCOISCO code relevant to production management-ESCO/ISCO-08-1321
 - Quality manager in the industrial environment.- ESCO/ISCO-08-1219
 - R&D manager in the industrial environment. -ESCO/ISCO-08-1223, ESCO/ISCO-08-1219,
 - Innovation manager at the technological level.- ESCO/ISCO-08-1223
 - Operations Manager, Industrial Logistics-ESCO/ISCO-08 -2421/1324
 - ✓ The ARACIS Commission also found that the curriculum supports the development of these competencies by integrating theoretical training, research, and evaluation activities.
 - ✓ Support documents:
 1. Regulations of the doctoral school (describes the mission, competences and structure of the program). https://iosud.utcluj.ro/files/Anunturi/Regulament_Scoala_Doctorala_2024.pdf
 2. Individual file of the doctoral student (includes the research topic, training stages, research plan, RAI specific to the thesis).
 3. Minimum national standards for granting the doctoral degree (Commission 16 CNATDCU), <https://www.edu.ro/sites/default/files/fisiere%20articol/OMEN%205110-2018.pdf>
 4. Annual report of IOSUD/doctoral school (highlights the employability rate of graduates, including in research/development positions).

The indicator is: fulfilled

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.
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- ✓ **Presentation of the state of facts**
 - ✓ The curricula, course descriptions, and individual research programs within the doctoral program in Engineering and Management reflect active teaching, learning, and assessment

methods to ensure the implementation of the principles of student-centered learning. The Steering Committee monitors research activities, analyzes the results of theoretical and experimental research, for a student-centered evaluation, which favors the development of research skills and improvement of the results obtained-IER pag.28

- ✓ The relevant disciplines in the field of Engineering and Management are those that also represent the main research directions of doctoral supervisors in the field.

Analysis of the state of facts

- ✓ The Advanced University Preparation Program (PPUA) for doctoral students of the Technical University of Cluj-Napoca also includes the course of Ethics and Academic Integrity, which is included in the Subject Contract. Currently.
- ✓ PhD students have the opportunity to take part in any of the disciplines of Ethics and Academic Integrity, included in the curricula of the master's programs at UTCN. The course is mandatory, is dedicated to ethics in scientific research and intellectual property and has a well-defined theme on this subject.
- ✓ The research methodology is focused on the specific direction of the thesis, and the sound principles of ethics in scientific research and the learning outcomes at the end of the PPUA must provide the doctoral student with the knowledge, skills, responsibility and autonomy necessary to efficiently carry out future research activities
- ✓ On the web page of the Engineering and Management (<https://iirmp.utcluj.ro/scoala-doctorala.html> field) there is information related to the content of the study programs and the thematic areas addressed.
- ✓ The list of relevant disciplines in the training program for doctoral students in the field of Engineering and Management can be found at: https://iirmp.utcluj.ro/files/Acasa/Site/scoala_doctorala/Discipline%20program%20de%20studii%20univer_sitare%20avansate.pdf.

The indicator is: fulfilled

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.
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- ✓ Presentation of the state of facts
 - ✓ At IOSUD-UTCN there is an active commitment—including financial support—to enabling doctoral students to participate in international academic mobility programs, in accordance with the Ministry of Education and Research and the Technical University of Cluj-Napoca.
 - ✓ Doctoral academic mobility and exchange programs are encouraged, carried out by doctoral research in co-supervision and participation in prestigious international scientific events.
- ✓ Analysis of the state of facts
 - ✓ The ARACIS Comision found opportunities to participate in academic ERASMUS + mobility, and all these activities by (https://bri.utcluj.ro/erasmus_plus_candidati_burse.php)- (AS3 PhD Advisors who have participated in mobility programs, AS9 Students in Research Projects Mobility Programs)
 - ✓ The ARACIS Comision found opportunities to participate in academic CEEPUS mobility, and all these activities -Centralizator Conducatori de Doctorat IM (<https://iirmp.utcluj.ro/scoala-doctorala.html>)
 - ✓ IOSUD-UTCN provides financial support to doctoral students, including for the publication of articles in WOS-listed journals, on the one hand, and awards/rewards for achieving these results-at the visit, discussions
 - ✓ CEEPUS networks that are coordinated by UTCN in the fields of Industrial Engineering, Engineering and Management. RO 0013, RO 0058, RO 0202

(<https://www.ceepus.info/content/find>), from which doctoral students have benefited and benefit from mobility

✓ **Recommendations**

- ✓ It is recommended to strengthen collaboration with European universities by signing cooperation agreements and facilitating opportunities for UTCN students to undertake doctoral internships at partner universities, for research concerning PhD thesis (at least 3 months)

The indicator is: fulfilled

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
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✓ **Presentation of the state of facts**

- ✓ Ensuring the necessary resources for carrying out doctoral training is an obligation of UTCN, IOSUD UTCN, UTCN Doctoral School, coordination councils and supervisory faculties of each field (https://iosud.utcluj.ro/files/Anunturi/Regulament_Scoala_Doctorala_2024.pdf).
- ✓ The Code of Rights and Obligations of the Student of the Technical University of Cluj-Napoca (https://www.utcluj.ro/media/page_document/157/H_Senat_nr_1915_Codul_drepturilor_si_obligatiilor_studentului.pdf), although it is a general one, also applies to doctoral students and includes: principles of equity, non-discrimination and equal access to resources, the right to academic and professional advice, contestation and feedback mechanisms.

✓ **Analysis of the state of facts**

- ✓ The access of doctoral students to documentary resources and software applications is also ensured with institutional support (institutional accounts M365 – <https://utcluj.digital/ecampus>, specialized literature through the Anelis platform – <https://portal.anelisplus.ro/content/membri>, specialized software Matlab – (<https://www.mathworks.com/academia/tah-portal/universitatea-tehnica-din-cluj-napoca-31428158.html>))

The indicator is: fulfilled

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.
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✓ **Presentation of the state of facts**

The Technical University of Cluj-Napoca (UTCN) has a solid teaching and research infrastructure: lecture and seminar rooms, specialized laboratories and workshops, individual and team study spaces, as well as recreational spaces on campus. The university's libraries operate centrally and through branches, offering reading rooms with free shelf access and home loan services. -IER pag.31

✓ **Analysis of the state of facts**

ARACIS Commission reviewed and discussed documents on physical and digital accessibility measures for the campus and educational as:

Services -IER pag.31:

- Physical resources and computing equipment: IOSUD-UTCN provides doctoral students with access to specialized research laboratories (<https://research.utcluj.ro/index.php/industrial-engineering-and-management.html>) high-performance computing equipment, such as CloudUT infrastructure and GPU servers, used in doctoral projects and research centers. Dedicated spaces (offices, laboratories, work rooms) provide adequate conditions for individual and team scientific activity.
- Access to resources is ensured through the Library Directorate
- Registration services based on annual permit, home loan, reading rooms with free access to the shelf (Daicoviciu, Observator, Mărăști branches)
- Online catalog and collections organized by domains

Documents -IER pag.31:

- The resources are correlated with the bachelor's, master's and doctoral programs (textbooks, collections, laboratory guides, electronic resources), supporting both individual study and research activities. <https://biblioteca.utcluj.ro/index.php>
- CCOC in Cluj Napoca and Baia Mare, accredited by AJOFM for counseling and mediation, <https://consiliere.utcluj.ro/>

Mesures -IER pag.31:

- UTCN implements concrete measures for equal access to education: adapted infrastructure (ramps, elevators, adapted toilets, accessible circulations) in the main buildings (Cluj-Napoca and CUN Baia Mare)
- IOSUD-UTCN monitors the degree of use and satisfaction through periodic questionnaires, feedback from students and annual reports (<https://www.utcluj.ro/universitatea/despre/informatii-publice/rapoarte/>) that substantiate decisions for improvement

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The indicator is: fulfilled

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.
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✓ **Presentation of the state of facts**

The content of the disciplines in the curriculum and PPUA is designed to improve the research skills of doctoral students and includes at least 3 disciplines relevant to the research direction of each doctoral student.

Analysis of the state of facts

- ✓ Before the visit, The ARACIS Commission studied the following documents https://iirmp.utcluj.ro/files/Acasa/Site/scoala_doctorala/Discipline%20program%20de%20studii%20universitare%20avansate.pdf (82 total, 76 titulari, 6 pensionari)
- ✓ The training programs for research skills in the field of Engineering and Management include both fundamental research components and applied research directions, sometimes interdisciplinary or multidisciplinary. The discipline sheets include their objectives and thematic content, in the course/application structure, from which the knowledge, skills,

responsibility and autonomy that will be acquired as well as the way of examination and evaluation result.

✓ **Recommendations**

Presenting learning outcomes for progress reports (possibly as a separate section in the curriculum)

The indicator is: fulfilled

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

- ✓ The verification of the achievement of the learning outcomes is carried out through evaluation exams for the subjects included in the PPUA and through the evaluation of the Research Reports, by the Guidance Commission, in accordance with the national legislation, the decisions and decisions of the UTCN and the UTCN's own regulations.

✓ **Analysis of the state of facts**

The verification of learning outcomes is carried out by:

- UTCN's own regulations. <https://iosud.utcluj.ro/regulamente.html>
 - The learning outcomes and competences of the doctoral student are also evaluated, the knowledge, skills, responsibility and autonomy necessary to efficiently carry out future research activities. https://iosud.utcluj.ro/files/Files/EN_Files/Sustinerea%20tezei%20de%20doctorat/Procedura%20sustinere%20teza_Editia%20II_Revizia%201_CA_22.02.22.pdf
- IER pag.33,

The indicator is: fulfilled

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.
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✓ **Presentation of the state of facts**

- ✓ Admission to IOSUD - UTCN is conducted on a competitive basis, under transparent conditions, through the publication of information regarding the admission schedule, selection criteria, entrance exams, the number of available spots, and eligibility requirements on the institution's website, as well as the program directors for each field.
- ✓ All information can be found on the website dedicated to <https://iosud.utcluj.ro/admitere.html>, in compliance with the principles of transparency, fairness and equal opportunities.

✓ **Analysis of the state of facts**

- ✓ Admission usually has two sessions per year: July (main session) and September (additional session, if there are places left). The eligibility conditions (admission file) are checked, the availability of a doctoral supervisor is confirmed and the proposed topic or field of interest is validated through a colloquium held in front of the admission committee (the doctoral supervisor and at least two members. During the colloquium, motivation is evaluated, a discussion on the proposed topic is held, research skills are verified and knowledge in the field is assessed. The selection criteria take into account the candidate's previous results

- ✓ Admission to the doctoral program in Engineering and Management is carried out in accordance with the principles of fairness, equal opportunities, and social inclusion. All information can be found on the website dedicated to <https://iosud.utcluj.ro/admitere.html>.
- ✓ The provisions of the Regulation on the organization of admission to the cycle of doctoral studies in UTCN are strictly observed. ✓
https://www.utcluj.ro/media/decisions/2024/03/22/H.Senat_nr._1785_Regulamentul_de_admitere_la_doctorat.pdf
- ✓ Registration for admission to the doctorate is done using the platform dedicated to <https://sis.utcluj.app/candidate-doctorate-admission>.

The indicator is: fulfilled

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.
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- ✓ Presentation of the state of facts
 - ✓ The admission procedures are public, transparent and equally applicable to all eligible candidates, -IER pag 34
 - ✓ A major concern of UTCN is for inclusion and equitable access for candidates with disadvantaged resources or backgrounds — which also potentially concerns future PhD students. The admission procedure follows the steps mentioned above. Support measures are provided for candidates from vulnerable groups, as well as for those with disabilities, ensuring equal access to doctoral studies.
- ✓ Analysis of the state of facts
 - ✓ Admission to the doctoral program in Engineering and Management is carried out in accordance with the principles of fairness, equal opportunities, and social inclusion, in accordance with national regulations and the institutional policy of IOSUD-UTCN.
 - ✓ support measures are provided in specific cases or openness of the IOSUD management for specific requests. (e.g. support for registration for the admission contest, justified fee reductions, etc.). Examples of support actions: scholarships for doctoral students, <https://iosud.utcluj.ro/burse.html>, project CNFIS-FDI-2023-F-0322 "Tutoring and counseling for inclusive education and career success at the Technical University of Cluj-Napoca"
https://old.utcluj.ro/media/page_document/86/PROGRAM_DE_CONSILIERE_PRIN_ACTIVITATI_DE_GRUP_si_sprijin_financiar_proi_BI21NmW.pdf

The indicator is: fulfilled

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.

- ✓ Presentation of the state of facts
 - ✓ The organizational component carries out actions in support of the students' academic path. Therefore,
The Coordination Council of the Industrial Engineering, Engineering and Management doctoral programs ensures the implementation of the legal and institutional framework for the professional activity of doctoral students and doctoral supervisors in the field-IER pag.35.

Documents:

- The Higher Education Law no. 199/2023, which defines the general framework of doctoral studies as the third cycle of higher education, with a focus on advanced scientific research;
- Order of the Ministry of Education no. 3020/2024, which approves the Framework
- Regulation on the organization and conduct of doctoral studies;
- ✓ The UTCN Charter, which includes specific provisions on ethics, academic responsibility and university autonomy.
https://old.utcluj.ro/media/documents/2025/CARTA_UTCN_2025.pdf
- ✓ IOSUD-UTCN Institutional Regulation
(https://www.utcluj.ro/media/decisions/2024/09/27/1853_26.09.2024_H.Senat_Regulamentul_Institutional.pdf)
- ✓ The Regulation of the Doctoral School of IOSUD detailing the organizational structure, the responsibilities of the actors involved and the way of carrying out the professional activities of doctoral students.
(https://iosud.utcluj.ro/files/Anunturi/Regulament_Scoala_Doctorala_2024.pdf).
- ✓ Analysis of the state of facts
- ✓ Aracis Commission has identified that The Coordination Council of the field of Industrial Engineering, Engineering and Management has been actively involved in:
 - ✓ elaboration of regulations on the professional activity of doctoral students and empowerment – periodic consultations of doctoral supervisors on amendments to institutional regulations with submission of observations and proposals to the CSUD.;
 - ✓ affiliations to the Doctoral School in the field of Engineering and Management – for the reporting period there were 5 new affiliations: prof. dr. eng. Emilia Ciupan, prof. dr. eng. Emilia Brad, prof. dr. eng. Miorita Ungureanu, associate professor dr. eng. Cristina Feniser, Associate Professor of Engineering Claudiu Mircea Fulea; <https://iosud.utcluj.ro/teze-de-abilitare.htm>;
 - ✓ The number of doctoral theses defended since the last evaluation was 38 (with 56 members of these committees, except for doctoral supervisors)
 - ✓ developing proposals for the enrollment and expulsion of students at the proposal of doctoral supervisors or as a result of recent legislative changes regarding the grace period; for the reporting period, the number of enrolled students varied between 128 (2021/2024) and 159 (2023) and 96 expelled students;
 - ✓ similarity checks using the Turnitin program provided by the UTCN Doctoral School. The percentage of similarity detected on the set of 38 theses verified in the period since the last report had values considered acceptable for doctoral theses developed in the field of Engineering and Management
 - ✓ The Coordination Council of the Engineering and Management field and the doctoral supervisors working in it have also carried out actions regarding informing doctoral students about the doctoral program, periodic monitoring and evaluation of the academic progress of doctoral students, ensuring the access of doctoral students to logistics, documentation resources, providing institutional financial support for doctoral students to participate, in the country or abroad, in scientific events, workshops and summer/winter schools in the doctoral field in which they chose the topic of their doctoral thesis
<https://research.utcluj.ro/index.php/granturi-suport-de-cercetare-stiintifica.html>;

The indicator is: fulfilled

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.
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✓ Presentation of the state of facts

- ✓ Concerning International activity at the organization, IOSUD-UTCN supports the improvement of the quality of education and research through concrete internationalization actions. UTCN and IOSUD-UTCN carry out international cooperation actions that support the mobility of members of their community and collaboration in academic and research activity aimed at evaluating the framework and the institutional activities meant to support. These actions can be structured on the mobility of doctoral students, teaching and research staff and effective collaboration in academic and research projects at international level.

✓ Analysis of the state of facts

- ✓ From IER pag.37 and the documents presented at the visit, ARACIS Commison has identified as international activity: Doctoral theses in co-supervision- 1 International and 7 in national co-supervision, 27 International experts who have given lectures/courses, 11 International PhD students, 4 International experts who have been included in guidance/support committees, 10 Mobility traineeships / participation in training/traineeships abroad (students), 3 International PhD students received/coordinated in internships, 4 Field coordinators involved in doctoral activities abroad.
- ✓ 107 Participation in international conferences/congresses/seminars
- ✓ 20 Mobility agreements
Some activities among the actions taken towards the internationalization of doctoral studies are:
- ✓ Prof. Mihai Dragomir, Ph.D. – This is a partnership with colleagues from the Industrial Engineering department. In the fields of Engineering and Management, the main objectives are: integrating AI into production management, and the transition from Industry 4.0 to Industry 5.0. Dr. Dragomir received a “Fulbright” international scholarship to study in the United States. Examples of major projects include: HOPE—a project valued at 600,000 lei. Smart housing for elderly people with disabilities is another project. Horizon Europe, at the Danube Transfer Center (54 centers, from Germany to Ukraine), a 450,000-Euro project over 4 years that is set to be signed (an agreement in principle exists; the contracts are currently being drafted).

✓ Recommendations

- ✓ In accordance with the UTCN International Cooperation Strategy it is recommended to attract new international students.

The indicator is: fulfilled

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.
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✓ Presentation of the state of facts

Research activities at IOSUD-TTCN are systematically integrated into the doctoral curriculum, contributing significantly to the acquisition of professional and transversal skills and to the achievement of the learning outcomes set out in the curriculum-IER pag.38

✓ **Analysis of the state of facts**

The list of papers published at the Conferences of the last 5 years of PhD students in the field of Engineering and Management has been centralized based on individual reports. annexes

(https://iirmp.utcluj.ro/files/Acasa/Site/scoala_doctorala/Activitati%20doctorale/IM3_Lista%20lucr%C4%83rilor%20%C8%99tiin%C8%9Bifice%20publicate%20in%20ultimii%205%20ani%20IM.pdf)

This integration is reflected and documented in (IER pag.38-39):

- The course descriptions include references to learning strategies based on scientific investigation; Curricula and individual research programs;
- Research reports prepared by doctoral students;
- Scientific papers/articles publication -There are 47 WOS Articles and more than 162 BDI Articles reported

The indicator is: fulfilled

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.
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✓ **Presentation of the state of facts**

The scientific research activity is aligned with the doctoral study program in Engineering and Management and aims to strengthen the specific scientific field by generating relevant, innovative, and applicable knowledge. The research results are visible at national and international level.

✓ **Analysis of the state of facts**

The research results are reflected in:

- 322 Total number of published articles-IER pag.38,
- Average number of articles/publicationjs per supervisor-21,46, Average Hirsch WOS index- 11,26, SCOPUS-6, GOOGLE SCHOLAR-6,53
- International partnerships and collaborations in the field of scientific research, 24 International Coordinated Projects, 31 National Coordinated Projects
- 4 Patents/Patent Applications
- Participation in international conferences and symposiums, including the organization of scientific events;
- Well-known journals: Science Journal (Pilsen, Czech Republic), Applied Science (MDPI), Springer.
- - There are research projects in which doctoral students are both employees and doctoral students at the same time (BICONNECT—project coordinator: Stelian Brad)

The indicator is: fulfilled

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
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✓ Presentation of the state of facts

- ✓ The IER report, on page 39-40, states that IOSUD-UTCN the existence and functioning of quality assurance structures and mechanisms, such as : CEAC reports, SCEAC reports, Annual reports on activities at the IOSUD-UTCN level,
- ✓ The Methodology for self-assessment of the fields within the UTCN Doctoral School was adopted and implemented - approved by the Board of Directors on 13.11.2025 39 Technical University of Cluj-Napoca - University Senate Decision no. 2123 of 27.11.2025, (posted on the IOSUD-UTCN website at: <https://iosud.utcluj.ro/regulamente.html>) and aim:
 - the scientific activity of doctoral supervisors;
 - the infrastructure and logistics necessary to carry out the research activity;
 - the subsequent procedures and norms based on which doctoral studies are organized.

✓ Analysis of the state of facts

- ✓ At the level of DSUD-IM, the mechanisms for periodic polling of the opinion of doctoral students existing at institutional level are applied, including the feedback from active doctoral students.
- ✓ Standards and performance indicators used in the accreditation and periodic evaluation of the fields of doctoral studies (according to - [GD no. 962 of August 8, 2024 on the approval of the Methodology for external evaluation of the quality of education in higher education](#), published in the O.M., no. 807/13.08.2024)
- ✓ According to Article 3, the evaluation shall be carried out periodically in accordance with the regulations in force. Display on the web: https://iosud.utcluj.ro/files/Files/Legislatie%202021/Metodologie%20autoevaluare%20Sc.%20Doctorala%20UTCN_28.01.2021.pdf
- ✓ The coordinators of the coordinating councils of the doctoral programs appointed responsible https://iosud.utcluj.ro/files/Files/Legislatie%202025/HCA%20160%20din%2015.10.2025_responsabili%20evaluare_n.PDF
- ✓ The self-assessment process consists of completion by the doctoral supervisors of the Self-Assessment Sheet of the doctoral Supervisors and the completion by their doctoral students of the Self-Assessment Sheet of the doctoral students.

The indicator is: fulfilled

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.
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✓ Presentation of the state of facts

- ✓ In IOSUD-UTCN the opinions of members of the academic community, but also of a large segment of stakeholders - doctoral students, doctoral supervisors, doctors, employers, institutional partners- are integrated into the process of implementing procedures through consultations and debates at the level of the university Senate, the Board of Directors, as well as at the level of the CSUD and the Doctoral School Councils. -IER pag.41

- ✓ Opinions of students as the main beneficiaries of doctoral research. (<https://dac.utcluj.ro/CEAC.html>, satisfaction questionnaires)
 - ✓ Opinions of teachers and administrative staff through individual activity reports and discussing these reports in regular meetings.
 - ✓ Opinions of employers and other stakeholders.
 - ✓ Applied ethics and deontology mechanisms (<https://www.utcluj.ro/comisia-de-etica/>)
 - ✓ Procedures for preventing and managing plagiarism (e.g. checking papers with anti-plagiarism software), statements of academic honesty signed by students at exams and papers. (F2 Model declaration of own responsibility regarding originality, <https://iosud.utcluj.ro/sustinerea-tezei-de-doctorat.html>).
- ✓ **Analysis of the state of facts**
- Through discussions during the visit, the Commission identified:
- ✓ There are partnerships that support research by providing materials for experiments or laboratories where students can go to develop prototypes and conduct research.
 - ✓ From the employers' perspective, the job market places greater emphasis on actual skills than solely on formal qualifications.
 - ✓ It was noted that, as a rule, companies do not have positions created specifically for PhD holders; hiring is based on applied skills, but the competencies acquired at the doctoral level are highly valued.
 - ✓ There are programs to sponsor doctoral studies.
 - ✓ A legislative initiative is needed to encourage companies to support doctoral students (through tax breaks, tax reductions, etc.).

The indicator is: fulfilled

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.
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- ✓ **Presentation of the state of facts**
- ✓ The UTCN Ethics Committee operates in accordance with the regulations approved by the ULBS Senate, acting independently of any other unit or individual within the university, in accordance with the provisions of national law.
 - ✓ The main tasks of the University Ethics Commission are to implement research ethics policies, investigate and resolve complaints of deviations from ethical norms (plagiarism, inappropriate behavior, discrimination, etc.), propose disciplinary measures to the Senate or the Rector, as the case may be, prepare annual reports on the state of university ethics, provide preventive ethical advice, issue recommendations and proposals for improving the university ethics framework. The activity of the Commission is documented through minutes of meetings and annual reports published within the university, accessible on the dedicated page ([link to the UTCN Ethics Commission page]).
- ✓ **Analysis of the state of facts**
- ✓ The ARACIS Commission identified documents on the basis The UTCN Ethics Committee operates:

- The University Ethics Commission (<https://old.utcluj.ro/comisia-de-etica/>)
- Regulation on the organization and functioning of the University Ethics Commission, approved by the UTCN Senate on 26.11.2024. ([https://www.utcluj.ro/comisia-de-etica/#:~:text=Regulamentul%20de%20organizare%20%C5%9Fi%20func%C5%A3ionar e%20a%20Com isiei%20de%20etic%C4%83%20universitar%C4%83\).](https://www.utcluj.ro/comisia-de-etica/#:~:text=Regulamentul%20de%20organizare%20%C5%9Fi%20func%C5%A3ionar e%20a%20Com isiei%20de%20etic%C4%83%20universitar%C4%83).)
- And Commissions:
- Commission for Evaluation and Quality Assurance (<https://dac.utcluj.ro/CEAC.html>).
- Department of Quality Assurance (DAC) (<https://dac.utcluj.ro/CEAC.html>).
- Evaluation and Quality Assurance Commissions (CEAC) at faculty level ✓ University Senate – Quality Commission
https://www.utcluj.ro/media/documents/2024/Comisii_Senat_2024_.pdf
- University Ethics Commission (<https://www.utcluj.ro/comisia-de-etica/>)
- University Senate – Ethics Commission
https://www.utcluj.ro/media/documents/2024/Comisii_Senat_2024_.pdf

The indicator is: fulfilled

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.

✓ Presentation of the state of facts

- ✓ According to IER, page 43, at the Technical University of Cluj-Napoca, the principles that guide the process of initiation, monitoring and periodic review of programs and fields of study and activities are transparency (all regulations, reports and decisions are public), participation (involvement of staff, students, employers and external partners), relevance (constant adaptation to the needs of the labor market and scientific progress), ethics (all stages comply with the Code of University Ethics) and continuous improvement (evaluation is not an end, but a means of permanent progress)

Analysis of the state of facts

- ✓ Documents:
 - the METHODOLOGY for self-assessment of the fields within the UTCN Doctoral School - approved by the Board of Directors on 11.05.2021 - [Decision of the University Senate no. 1355 of 27.05.2021](#)
 - the METHODOLOGY of self-assessment of IOSUD-UTCN, updated - approved by the Board of Directors on 11.05.2021 - [Decision of the University Senate no. 1354 of 27.05.2021](#)

The indicator is: fulfilled

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

- ✓ In the process of implementing procedures for initiating, monitoring, and periodically reviewing programs and fields of study, members of the academic community of the DSUD-IM and other stakeholders are actively involved-IER pag43-.44
- ✓ The participants involved include PhD students and PhD supervisors, who contribute through feedback and proposals in the periodic consultations, professors from each field who work in the doctoral school councils and specialized committees, administrative staff involved in managing monitoring and reporting processes and collaborations with external institutions relevant to the field of reference, including employers and interested partners
- ✓ The commissions for evaluation and quality assurance (CEAC) at the faculty level envisage the involvement of teachers, students and all people with responsibilities in the field of quality.
- ✓ **Analysis of the state of facts**
At UTCN, the following procedures apply:
 - ✓ The active involvement of members of one's own community and other stakeholders in the application of the procedures ensures real and efficient implementation of quality measures. This practice increases the transparency and legitimacy of internal processes. -IER pag43-.44
 - ✓ The data collected shows that PhD students and teachers are well informed and actively cooperate in reviewing and adapting procedures, and that there is potential to increase the involvement of some stakeholders, in particular employers and cultural experts. -IER pag43-.44
 - ✓ In the field of Engineering and Management, 15 doctoral supervisors and 128 doctoral students carry out their activity. Of these, all PhD supervisors participated in the self-assessment process and in the discussions related to it. Of the doctoral students, 20 participated in 2024 (for the year 2023-2024), and in 2025 (for the year 2024-2025) a number of 25.

The indicator is: fulfilled

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.
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- ✓ **Presentation of the state of facts**
 - ✓ At UTCN the degree of satisfaction and mentoring needs of doctoral students takes place annually and is done by collecting feedback using Google Forms. -IER pag44.
 - ✓ The results are centralized and analyzed by the Subcommittee for Evaluation and Quality Assurance at the IOSUD-UTCN level. The results are summarized in the annual reports on the activity of IOSUD-UTCN. b) Future directions for action-IER pag 44-45

Analysis of the state of facts

- ✓ The questionnaires distributed through Classroom, created specifically for doctoral students. This questionnaire has 24 questions, questions relevant to determining the satisfaction of doctoral students and the evaluation of teachers.

The indicator is: fulfilled

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

Standard S.C.5.1. Databases

The HEI uses databases to support internal quality assurance activities.

Indicator I.P.C.5.1.1	The organisational component systematically collects and analyses data required for the internal quality assurance process.
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✓ Presentation of the state of facts

At the level of doctoral study programs, the activity of doctoral students is closely monitored, with an increased focus on the completion of doctoral studies.

In order to ensure internal quality, IOSUD-UTCN systematically collects and analyzes the necessary data using its own databases and IT platforms for the management of doctoral students: They collect information on:

- ✓ distribution by doctoral fields and scientific supervisors, school situation;
- ✓ graduates;
- ✓ doctoral supervisors;
- ✓ habilitation theses.

✓ Analysis of the state of facts

- ✓ IOSUD-UTCN annually prepares reports on doctoral activity, using these databases: <https://iosud.utcluj.ro/scoli-doctorale-146.html>.
- ✓ Annually, ANS, INS, RMU, internal reports are made. ✓ Future directions of action ✓ Improving data structuring and standardization ✓ Implementing a regular update system with clear responsibilities for data collection and entry ✓ Interconnection of databases used
- ✓ Strengthening data protection and privacy, in accordance with the legislation in force.

The indicator is: fulfilled

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. Transparency

The 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.
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✓ Presentation of the state of facts

- ✓ At doctoral students of the Technical University of Cluj Napoca. It publishes information on:
- ✓ a) The Regulations of the Doctoral School of the Technical University of Cluj-Napoca within IOSUD UTCN can be consulted at http://iosud.utcluj.ro/files/Legislatie/Regulamente%202019/REGULAMENT_Scoala_Doctorala_CA_CSUD_23.01.19.pdf
- ✓ b) The regulation on the organization of admission to the doctoral degree cycle at the Technical University of Cluj-Napoca can be found on the page dedicated to doctoral admission. (<http://iosud.utcluj.ro/admitere.html>)
- ✓ c) The procedure for completing doctoral studies within IOSUD-UTC-N can be consulted on the website in Legislation – Regulations (<http://iosud.utcluj.ro/regulamente.html>) and in Doctorate – Doctoral thesis defense (<http://iosud.utcluj.ro/sustinerea-tezei-de-doctorat.html>)
- ✓ d) The abstracts of the doctoral theses to be defended publicly, as well as the date, time and place where they will be defended (<http://iosud.utcluj.ro/sustinerea-tezei-de-doctorat.html>)

The indicator is: fulfilled

Indicator I.P.C.6.1.2	The organisational component ensures transparent decision-making processes.
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- ✓ **Presentation of the state of facts**
 - ✓ At the Technical University of Cluj-Napoca (UTCN), the transparency of decision-making processes is ensured through a formalized system of communication and participation involving university structures, teachers, students and other stakeholders. Thus, the University Senate, the supreme decision-making body, adopts decisions on study programs, academic policy and resources. The decisions are officially registered, published on the UTCN website and posted in accessible places.
- ✓ **Analysis of the state of facts**
 - ✓ UTCN Senate and the specialized commissions, and the information related to doctoral studies is made available through the IOSUD structures (<https://iosud.utcluj.ro/structura-139.html>)\ To strengthen the operational nature of transparency, UTCN conducts public consultations and information sessions with stakeholders, publishes minutes, decisions and impact reports in accessible formats, and maintains a chronological archive of decision-making documents. Those responsible for publication and updating (Senate Secretariat, Communication Office and Faculty Secretariats/IOSUD) ensure the availability of documents within the established deadline after the adoption of decisions, archive previous versions and respond to requests for information according to Law no. 544/2001

The indicator is: fulfilled

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

Standard S.C.8.1. Compliance with the external evaluation obligation The 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.

- ✓ **Presentation of the state of facts**
 - ✓ UTCN fully coordinates and implements the necessary procedures for the external quality assessment, ensuring the preparation of the evaluation file, the selection and communication with the external evaluators, the organization of visits and related events, as well as the timely transmission of the information and documents requested by the accreditation bodies. In line with the legal framework, responsibilities include appointing work teams, establishing the internal training calendar, verifying documentation compliance, archiving versions, and publishing reports and remediation plans.
 - ✓ The strand aims to implement the recommendations resulting from the evaluation through action plans with clear responsibilities and deadlines and monitoring of performance indicators, ensuring the transparency of the process and compliance with legal obligations throughout the entire external evaluation cycle.
- ✓ **Analysis of the state of facts**
 - ✓ Within IOSUD-UTCN, the following apply: – METHODOLOGY for self-assessment of the fields within the UTCN Doctoral School - approved by the Board of Directors on 11.05.2021 - University Senate Decision no. 1355 of 27.05.2021 - update November 2025 – IOSUD-UTCN Self-Assessment METHODOLOGY, - approved by the Board of Directors on 11.05.2021 - University Senate Decision no. 1354 of 27.05.2021

The indicator is: fulfilled

IV. SWOT Analysis

Strengths: ✓ Doctoral programs at IOSUD UTCN are clearly and consistently aligned with national and European research priorities, and the institution has extensive experience in organizing doctoral programs in the fields of engineering and management ✓ The Engineering and Management field allows the orientation of PhDs towards current topics with alignment with global digital and industrial transformations (Industry 4.0) ✓ New laboratories equipped with research infrastructure suitable for doctoral students in the fields of Engineering and Management ✓ The Engineering and Management field has a strategic role for sustainable development and innovation through the link between the academic environment and the socio-economic and business environment ✓ Doctoral students and their advisors could publish their research results in university journals indexed WOS (Acta Technica Napocensis) and in	INTERNAL FACTORS ↑	Weaknesses: ✓ The lack of international joint programs specifically supervision (co-tutelle) of doctoral students ✓ The small number of international students enrolled in doctoral programs ✓ Limited number of long-term ERASMUS mobility stages for doctoral research ✓ Discrepancy among doctoral advisors regarding the number of students they supervise
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various databases		
SWOT analysis		
Opportunities: ✓ Increasing demand on the labor market for interdisciplinary specialists. ✓ Possible collaborations with industry and the business environment. ✓ Access to European funds and grants for research / development / innovation. ✓ Easy integration with global trends: Industry 4.0 / 5.0, green economy, circular economy ✓ The Engineering and Management field has a real adaptability and capacity for reinvention.	 EXTERNAL FACTORS	Threats: ✓ Insufficient funding and sustainability of research at government level that can also influence the completion rate of doctorates. ✓ The need to update curricula with learning outcomes that doctoral students, stakeholders, teachers (coordinators and steering committees) reprofile themselves and learn continuously in order to avoid the risk of obsolete skills ✓ Lack of real correlation with the labor market or industry that can lead to low relevance.

V. Extent to which the standards and performance indicators are fulfilled, and recommendations

No.	Performance Indicator	Extent to which it was fulfilled (F/PF/UF)	Recommendations
DOMAIN A. Institutional capacity			
1.	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.	F	
2.	I.P.A.1.2.1 The opinions of the faculty and department members, of the subsidiary or extension and of other stakeholders are considered in the process of adopting and	F	

No.	Performance Indicator	Extent to which it was fulfilled (F/PF/UF)	Recommendations
	revising methodologies, regulations and implementation procedures.		
3.	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.	F	Expansion of facilities for doctoral students and digitization of services and up-date the page of RESEARCH CENTER FOR ENGINEERING AND MANAGEMENT OF INNOVATION
4.	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.	F	
5.	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.	F	
6.	I.P.A.3.1.2 The HEI ensures professional and personal development for its staff.	F	Identification of needs in the field of professional and personal training and Intensifying participation in international mobility projects ERASMUS+ in research activities.
7.	I.P.A.3.2.1 Recruitment procedures comply with the provisions of the law, and are established and carried out transparently.	F	
8.	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.	F	Is recommended to improve the existing tools with Online forms for collecting information and feedback from doctoral supervisors and doctoral students.
DOMAIN B. Educational efficacy			
9.	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.	F	Regularly updating the curriculum and course descriptions-the DSUD-IM program, at least for fundamental disciplines, Academic Ethics and Integrity, Statistical data processing Considering the recommendations of stakeholders (graduates, doctoral advisors, doctoral students, inclusive the companies) in order to adapt to changing labor market demands.
10.	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).	F	

No.	Performance Indicator	Extent to which it was fulfilled (F/PF/UF)	Recommendations
11.	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.	F	
12.	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.	F	It is recommended to strengthen collaboration with European universities by signing cooperation agreements and facilitating opportunities for UTCN students to undertake doctoral internships at partner universities, for research concerning PhD thesis (at least 3 month)
13.	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.	F	
14.	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.	F	
15.	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.	F	Presenting learning outcomes for progress reports (possibly as a separate section in the curriculum)
16.	I.P.B.5.1.2 Achievement of the learning outcomes is checked in ongoing examinations and study completion exams.	F	
17.	I.P.B.7.1.1 The organisational component applies the admission procedures.	F	
18.	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.	F	
19.	I.P.B.7.2.1 The organisational component applies the regulations concerning the students' professional activity.	F	
20.	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.	F	In accordance with the UTCN International Cooperation Strategy it is recommended to attract new international students.

No.	Performance Indicator	Extent to which it was fulfilled (F/PF/UF)	Recommendations
21.	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.	F	
22.	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.	F	
DOMAIN C. Quality management			
23.	I.P.C.1.1.1 The organisational component consistently applies the procedures, and proves their impact on quality assurance.	F	
24.	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.	F	
25.	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.	F	
26.	I.P.C.3.1.1 The organisational component consistently applies the procedures, and proves their impact on quality assurance.	F	
27.	I.P.C.3.1.2 Members of its own community and other stakeholders are involved in the procedure implementation process.	F	
28.	I.P.C.4.1.1 The organisational component analyses the results of the students' biannual evaluation of teachers.	F	
29.	I.P.C.5.1.1 The organisational component systematically collects and analyses data required for the internal quality assurance process.	F	
30.	I.P.C.6.1.1 The organisational component ensures publication and access to information of public interest regarding the evaluated study programme.	F	
31.	I.P.C.6.1.2 The organisational component ensures transparent decision-making processes.	F	
32.	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.	F	

Summary Table of Performance Indicators – Degree of Fulfillment

Evaluation Domain	Number of Performance Indicators		
	Fulfilled	Partially fulfilled	Unfulfilled
Domain A. Institutional capacity	8	0	0
Domain B. Educational efficacy	14	0	0
Domain C. Quality management	10	0	0
Total	32	0	0

VI. Conclusions

- ✓ In UTCN, doctoral studies are carried out in the Doctoral School of the Technical University of Cluj Napoca, which is established in accordance with the legal regulations in force. The doctoral school is a structure within IOSUD-UTCN made up of doctoral supervisors (teachers/researchers) and doctoral students, which is focused on scientific research and learning through research and whose activity is completed by doctoral theses, scientific publications, innovations, patents and other results of scientific research. The scientific research activity within the doctoral school is integrated into the scientific research activity of the existing scientific research structures in UTCN
- ✓ By the Decision of the University Senate no. 323 of November 7, 2014, 10 doctoral schools are established within UTCN: Automation and Computers, Electrical Engineering, Electronics, Telecommunications and Information Technology, Mechanical Engineering and Mechatronics, Industrial Engineering and Management, Materials and Environmental Engineering, Construction and Installations, Architecture and Urban Planning, Applied Sciences and Humanities. On December 5, 2017, the Board of Directors of UTCN decided to reorganize the 10 doctoral schools into a single Doctoral School, this decision being approved by the University Senate through Decision 856 of December 15, 2017. The old doctoral schools are reorganized into Coordination Councils of doctoral programs. (<http://iosud.utcluj.ro/scoli-doctorale-146.html>)
- ✓ In accordance with [the Higher Education Law no. 199/2023](#), Order no. 3020/2024 for the approval of the Framework Regulation on doctoral studies and [the Institutional Regulation on the organization and conduct of doctoral studies and advanced research postdoctoral programs in the Technical University of Cluj-Napoca](#) (IER), IOSUD-UTCN is organized according to the organizational chart, displayed on the iosud.utcluj.ro website.
- ✓ In 2025, an external progress evaluation was conducted, followed by a report https://iirmp.utcluj.ro/files/Acasa/Site/scoala_doctorala/Activitati%20doctorale/IM8_Raport%20de%20evaluare%20%28de%20progres%29%20ARACIS%2003.07.2025_Inq.%20si%20managem ent.pdf
- ✓ The external evaluation committee, approved by the ARACIS Council by Decision No. HC nr. 152/H/07.05.2026 (accepted by IS) participated from July 1–3, 2026, at the Technical University of Cluj-Napoca in the external quality assurance process for the procedure to obtain maintenance accreditation (MAC) for the Doctoral Study Program in Engineering and Management (DSUD-IM)
- ✓ Based on the IER, documents analyzed information and Annexes – the ARACIS external evaluation commission found that the DSUD-IM staff - doctoral supervisors meet the legal requirements for occupying the positions provided in the state of the teaching and research activities (PPA and PCS)
- ✓ All the activities for DSUD-IM are supported by administrative and technical staff
- ✓ The PhD program in Engineering and Management (DSUD-IM), organized within is designed in accordance with the expected learning outcomes; The program is organized on the basis of ECTS and includes learning, research and assessment activities leading to the EQF level 8 university qualification;
- ✓ The ARACIS commission retained the following information: at October 1, 2025, the situation at the IOSUD-UTCN, DSUD -IM, (<http://iosud.utcluj.ro/scoli-doctorale-146.html>) is as follows: There are

15 doctoral supervisors, (13 tenured supervisors and 2 in extension programs), and 115 doctoral students, (2021-2025)

- ✓ The PhD program in Engineering and Management (DSUD-IM), is designed in accordance with the expected learning outcomes; The program is organized on the basis of ECTS and includes learning, research and assessment activities leading to the EQF level 8 university qualification;
- ✓ The research centers/laboratories are equipped with modern infrastructure, including research stations, which is suitable for conducting advanced research and training experts within DSUD-IM;
- ✓ During the visit, discussions were held with laboratory supervisors to clarify certain issues regarding the use of research infrastructure by doctoral students. The institution also presented research projects carried out by some of its graduates.
- ✓ During the visit, some observations and recommendations were made:
 - Regularly updating the curriculum and course descriptions-the DSUD-IM program, at least for fundamental disciplines, Ethics, Statistical Data Processing
 - Presenting learning outcomes for progress reports (possibly as a separate section in the curriculum)
 - Considering the recommendations of stakeholders (graduates, doctoral advisors, doctoral students, inclusive the companies) in order to adapt to changing labor market demands
 - Continuing to intensify efforts to identify doctoral thesis topics that are of interest and therefore eligible for additional funding from individuals or legal entities;
 - Attracting international doctoral students with research capabilities and increasing their retention within the teaching and research staff
 - Continued support for academic mobility and internationalization through exchange programs, international joint supervision, research internships, and long-term mobility programs
 - When it comes to Erasmus mobility programs, short-term internships (for example, one week) are more frequently and successfully undertaken. In contrast, long-term internships are more difficult to secure, often due to the professional obligations of doctoral students.
 - Improving research infrastructure by maintaining access to databases, equipping laboratories, and identifying modern analytical and research tools
 - Promoting interdisciplinarity through synergy between research centers and IOSUD laboratories UTCN
 - Strengthening ethics and integrity by organizing specialized courses focused on the ethical use of AI

Propose and substantiate a decision.

Following the completion of the accreditation/maintaining accreditation procedure, the decision of the evaluation panel shall be one of the following:*

maintaining accreditation (MAC);

VII. Annexes

Enclose the schedule of the on-site visit, the list of the documents reviewed, as well as any other documents that are relevant for the evaluation procedure, which are referred to in the EER and cannot be accessed through links.

* When the external quality evaluation for accreditation is performed with undergoing the procedure for obtaining a provisional authorisation to operate.



-Annexes :

- AS 1 Doctoral Theses - 2021–2025 - Engineering and Management
- AS2 Guidance Committees by Supervisor
- AS3 PhD Advisors who have participated in mobility programs
- AS4 Skills and Competencies. ESCO Groups and Subgroups
- AS5 Verification Mechanisms
- AS6 AJOFM Accreditation
- AS7 Statistics on the Years of Completion of IM Doctoral Degrees
- AS8 Statistics on Students expelled between 2020 and 2024
- AS9 Students in Research Projects Mobility Programs

And documents

- IM Ph.D. Advisors
- Feedback 24-25
- Participation in Mobility Programs and IM Conferences
- PhD thesis-Thira Ciprian