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:	"LUCIAN BLAGA" UNIVERSITY OF SIBIU
Doctoral School:	Engineering Sciences and Mathematics
Doctoral Domain:	Mechanical Engineering
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.	*DRĂGAN Nicuşor*	Expert Evaluator	
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I. Introduction

The evaluators panel composed by Prof.dr.eng. Nicușor DRĂGAN ("Dunărea de Jos" University of Galați), Prof.dr.eng. Grigore MARIAN (international expert – Technical University of Moldova, Chișinău Republic of Moldova) and Stud.drd. Gabriel-Adrian CHIRIAC (National University of Science and Technology POLITEHNICA Bucharest), approved by the ARACIS Council through Decision no. 70/H/05.03.2026, has participated in period 14-15.05.2026, at the "Lucian Blaga" University of Sibiu, for external quality assurance for the procedure for **obtaining a maintaining accreditation (MAC)** of Doctoral Study Domain **Mechanical Engineering (DSUD-IM**).

Lucian Blaga University of Sibiu (ULBS) is a public, non-profit higher education institution established by Romanian Government Decision No. 225/1990. The institution operates in accordance with the provisions of the Romanian Constitution, the Higher Education Law, the ULBS Charter, and other normative acts regulating the higher education system in Romania. ULBS operates as a state institution, based on the Romanian Constitution and the Higher Education Law, on the basis of university autonomy, in accordance with the University Charter and in accordance with other normative acts regulating the education system and process in Romania. ULBS is funded from the state budget, but at the same time, it also has its own income obtained and used under the conditions of university autonomy. ULBS is a comprehensive university, comprising 9 faculties: 2 engineering faculties and 7 faculties with various profiles (humanities, sciences, economics, law, medicine, theology, etc.). In the 2024–2025 academic year, ULBS had 14,736 students enrolled, of which 471 doctoral students in 16 doctoral programs (in Romanian and foreign languages). Doctoral studies are organized by IOSUD-ULBS only within accredited doctoral study programs offered by doctoral schools, in accordance with the Order of the Minister of Education No. 5498/2021 regarding the maintenance of accreditation of the ULBS for the organization of doctoral study programs. IOSUD-ULBS activities are organized by CSUD (Council for Doctoral Studies) and are carried out within the Doctoral Schools of ULBS. At present, according to Decision No. 1211/31.03.2021 of the Senate of ULBS and Ministry of Education Order No. 6067/10.10.2022, six multidisciplinary doctoral schools operate within IOSUD-ULBS: Doctoral School of Engineering Sciences and Mathematics, Doctoral School of Social Sciences, Doctoral School of Philology and History, Doctoral School of Theater and Performing Arts, Doctoral School of Theology and Doctoral School of Medicine. The Doctoral School of Engineering Sciences and Mathematics (SDSIM), which manages 5 doctoral fields (Computers and Information Technology, Industrial engineering, **Mechanical engineering**, Engineering and management, Mathematics), operates with 22 doctoral supervisors affiliated with three faculties of the university (The Faculty of Engineering, The Faculty of Sciences, The Faculty of Agricultural Sciences, Food Industry and Environmental Protection) and a has total number of 78 enrolled doctoral students. In 2021, IOSUD-ULBS and its doctoral study fields underwent the external evaluation process of doctoral studies conducted by Romanian Agency for Quality Assurance in Higher Education (ARACIS). Following the evaluation, the ARACIS Council issued Decision No. 74/30.09.2021 (https://backend.deqar.eu/reports/ARACIS/20230122_1239-Hot-74_2021-Eval-IOSUD-Blaga-Sibiu.pdf), which stated that for IOSUD-ULBS within the university and the doctoral study field Mechanical Engineering, the decision was "Maintenance of Accreditation". This decision was subsequently confirmed through the Ministerial Order No. 5498/2021 (https://lege5.ro/Gratuit/he3damrrguzq/ordinul-nr-5498-2021-privind-mentinerea-acreditarii-universitatii-lucian-blaga-din-sibiu-in-vederea-organizarii-programelor-de-studii-universitare-de-doctorat), regarding the maintenance of accreditation of ULBS for the organization of doctoral study programs.

II. Methods used

For the external quality evaluation aimed at maintaining the DSUD-IM accreditation, 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, research center coordinators, members of quality assurance structures, and staff providing secretarial services at the IOSUD level, according to the visit schedule. The documents analyzed before and during the on-site visit, uploaded on the ARACIS platform, are the following:

1. *IER - Internal Evaluation Report* / REI - Raport de evaluare internă
2. *Annex I.P.A.2.1.1-1 List of licensed software used by doctoral students / Anexa I.P.A.2.1.1-1 Lista cu software licentiat utilizat de studentii doctoranzi*
3. *Annex I.P.A.2.1.1-2 Laboratory equipment Faculty of Engineering of ULBS / Anexa I.P.A.2.1.1-2 Dotari laboratoare Facultatea de Inginerie din ULBS*
4. *Annex I.P.A.3.1.1. FV_Qualification standards_Mechanical engineering_certificate / Anexa I.P.A.3.1.1. FV_Standarde abilitare_Inginerie mecanica_cert*
5. *Annex I.P.A.3.1.2 Doctoral supervisors involved in projects / Anexa I.P.A.3.1.2 Conducatori de doctorat implicati in proiecte*
6. *Annex I.P.B.9.2.1 List of scientific articles published by doctoral supervisors and doctoral students / Anexa I.P.B.9.2.1 Lista articolelor stiintifice publicate de conducatorii de doctorat si de doctoranzi*
7. *Annex I.P.C.1.1.1 Report-SCEAC_-IOSUD-ULBS-2025 / Anexa I.P.C.1.1.1 Raport-SCEAC_-IOSUD-ULBS-2025*
8. *Annex I.P.C.1.2.1 Report measuring the degree of satisfaction and the need for mentoring drd_cert / Anexa I.P.C.1.2.1 Raport masurarea gradului de satisfactie si nevoia de mentorat drd_cert*
9. *List of doctoral theses defended in the period 2021-2025 / Lista tezelor de doctorat sustinute in perioada 2021-2025*

During the visit, the evaluation committee, following the visit schedule, inspected the following research spaces/centers:

- IM005 - Digital image correlation and plastic deformation laboratory
- IM107A - Mechanical testing and structural analysis laboratory
- IM107B - Numerical simulations and computer-aided design (CAE & CAD) laboratory
- IM108 - Additive manufacturing and plastic injection laboratory
- IM117 - CNC machining center laboratory
- IM316 - Experimental measurements and data acquisition laboratory;
- Center for Studies and Research on Plastic Deformations – CSCDP
- Research Center for Complex Physical Systems – CCSFC
- Research Center for Connected Intelligence – INCON.

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.

✓ Presentation of the state of facts

✓ ULBS has a transparent university management system, adapted to the mission and assumed objectives which is regulated by methodologies, regulations, and procedures that are periodically

updated. The consistency and efficiency of academic and administrative processes are based on the next documents: The institution's organizational chart, ULBS ROF, Organizational and operational regulations for organizational components.

- ✓ The activity of IOSUD-ULBS, including the conduct of doctoral studies in the field of Mechanical Engineering (SDSIM), is supported by a well-defined management system which is regulated by: Regulations for the organization and conduct of doctoral studies, Regulations of the Doctoral School of Engineering Sciences and Mathematics, Regulations on the conduct of the election process for management positions and structures.
- ✓ Analysis of the state of facts
- ✓ ULBS and SDSIM have adequate organizational components and a management system, https://doctorate.ulbsibiu.ro/ro/csud/, whose operation is based on methodologies, regulations and procedures, periodically reviewed, under the conditions of the law.
- ✓ The organizational structure of the ULBS – Senate, Board of Directors, Rector, executive management, support structures – is an efficient one, with a clear distribution of attributions and responsibilities. The existence of transparent mechanisms for updating the internal regulatory documents reflects the institution's ability to adapt to changes of all kinds in the educational and socio-economic environment.
- ✓ The University Charter, annexed to the Senate Decision no. 1861/27.03.2025, is the main instrument for the implementation by higher education institutions of the values and principles that govern the university activity of initial education and continuing education and that of scientific research, expressing the fundamental aspects of university autonomy and the major, structural, functional and organizational options of the university community.

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.

- ✓ Presentation of the state of facts
- ✓ According to REI (IER), page 18, in the process of adopting and revising methodologies, regulations and procedures, IOSUD-ULBS attaches particular importance to the opinions expressed by doctoral students, doctoral supervisors, academic guidance and integrity committees, doctoral thesis public defense committees, doctors, and other stakeholders. These are integrated through formal and informal consultation mechanisms, thus ensuring transparency and the active involvement of all relevant parties.
- ✓ Analysis of the state of facts
- ✓ From the REI analysis, but also from the minutes of the meetings with the representatives of the management, the doctoral supervisors in the field and the doctoral students, employers, economic partners, it can be seen that the process of consultation of the interested parties is carried out through the following institutional mechanisms:
  - Periodic meetings of the CSUD in which the proposals for updating the regulations specific to doctoral studies are debated
  - Periodic meetings with doctoral supervisors, doctoral students and research teams (symposiums, workshops, conferences, etc.) https://doctorate.ulbsibiu.ro/ro/stiri/
- ✓ At the meeting with the doctoral students, they state that they are in general involved in the decision-making processes, both through their representatives in the Council of the Doctoral School and in the CSUD, and through feedback collected through https://www.ulbsibiu.ro/wp-content/uploads/news/Chestionar-evaluare-studenti.pdf

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

- ✓ REI (pp 18-19) mentions periodic meetings with industrial and socio-economic partners involved in research activities, an aspect also identified at the meeting with employers.
- ✓ PhD supervisors and doctoral students are promptly informed by electronic means of communication (email) or through their representatives in the CSUD, https://doctorate.ulbsibiu.ro/ro/csud/.
- ✓ At the meeting with QAMCD-ULBS members, they stated that when developing and revising methodologies, regulations and procedures, the views of stakeholders are considered and included where appropriate.
- ✓ Recommendations
- ✓ Formalizing meetings with doctoral students, doctoral supervisors, academic guidance and integrity committees, as well as other stakeholders (employers, economic partners) by meeting minutes.

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.

- ✓ Presentation of the state of facts
- ✓ Acc. to REI (page 19), ULBS has the necessary infrastructure for teaching, research, and administrative processes, as well as spaces for services for students, doctoral students, and trainees, ensuring an adequate framework for study, academic life, and social integration.
- ✓ The spaces are adequately equipped, including with access facilities for people with disabilities, and offer optimal conditions for the activity and for teaching, research, and administrative staff.
- ✓ IOSUD-ULBS has adequate facilities for teaching, research, administrative and student services, including for people with disabilities. These are well equipped -modern classrooms, laboratories with equipment, libraries, educational and research software (Annex I.P.A.2.1.1-1 List of licensed software used by doctoral students)-, contributing to a good environment to study and social integration. Supporting documents include asset records, technical reports, equipment records and internal regulations.
- ✓ Activities within the field of doctoral studies in Mechanical Engineering are carried out in the premises of the Faculty of Engineering as well as in the Research Centers within the same faculty. These have modern research infrastructure, ensuring unlimited access to the most well-known databases through the national program Anelis Plus 2020.
- ✓ Analysis of the state of facts
- ✓ From the REI analysis and the visit to the material base, DSUD-IM has a research infrastructure (Annex I.P.A.2.1.1-2 Laboratory equipment Faculty of Engineering of ULBS) and offers research services https://cercetare.ulbsibiu.ro/ro/infrastructura-de-cercetare/centre-de-cercetare/lista-centre-de-cercetare/.
- ✓ ULBS provides free learning resources (textbooks, treatises, bibliographic references) for each doctoral field, in libraries and resource centers https://bcu.ulbsibiu.ro/ro/#.
- ✓ The research infrastructure of the DSUD-IM is detailed in the EERTIS platform https://eertis.eu/.
- ✓ The following research units in the field of Mechanical Engineering operate within the ULBS, in which the research activities of the doctoral studies can be carried out:
  ●INCON - Connected Intelligence Research Center, http://centers.ulbsibiu.ro/incon/, https://eertis.eu/errf-2300-000c-0517

●Center for Studies and Research on Plastic Deformations https://centers.ulbsibiu.ro/cscdp/, https://eertis.eu/errf-2300-000p-0520
●Research Centre for Sustainable Products and Processes, http://centers.ulbsibiu.ro/ccpps/index.php, https://eertis.eu/errf-2300-000z-0486

✓ Aspects that constitute best practice examples
✓ Development and endowment of research centers/laboratories with modern equipment, suitable for carrying out advanced research activities and for training experts in the field of Mechanical Engineering.
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.

✓ Presentation of the state of facts
✓ According to REI, page 20, the Faculty of Engineering, which also runs the Mechanical Engineering doctoral program, manages the real estate and movable property used in the advanced university studies program and the individual research program in an appropriate manner. These are constantly maintained to ensure optimal conditions for study, research, work, and university life, thus contributing to the smooth functioning of academic processes and the creation of a safe and attractive educational environment.
✓ Analysis of the state of facts
✓ Also at the institutional level there is a Occupational Health and Safety Committee (CSSM) and a procedure for eliminating and preventing work accidents, for ensuring optimal working conditions and health by monitoring the health status of all ULBS employees.
✓ Members of the ARACIS team visited the spaces intended for teaching and research activities for DSUD-IM and concluded that the equipment and spaces are well maintained, so that the activities within the doctoral studies can be carried out in optimal conditions.
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.

✓ Presentation of the state of facts
✓ According to REI (page 21), a number of 3 doctoral supervisors are active in DSUD-IM;
✓ All doctoral supervisors within DSUD-IM meet the qualification criteria in force.
✓ Analysis of the state of facts
✓ At the time of the on-site visit, the ARACIS commission retained the following information: a number of 22 PhD supervisors work within SDSIM, of which 3 work in the field of Mechanical Engineering.
✓ In the case of DSUD-IM, the CNATDCU minimum standards in force, necessary and mandatory for obtaining the habilitation certificate, are 100% met (Annex I.P.A.3.1.1. FV_Habilitation standards_Mechanical Engineering).

- ✓ Based on the analyzed information, https://doctorate.ulbsibiu.ro/ro/domenii-si-conducatori/, the ARACIS commission found that the staff of DSUD-IM meet the legal requirements for occupying the positions provided in the list of functions.
- ✓ The teaching and research activities (PPA and PCS) are supported by administrative and technical staff, contributing to the smooth running of the doctoral study program.
- ✓ The indicator is: fulfilled.

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

- ✓ Presentation of the state of facts
- ✓ According to REI, page 22, ULBS actively promotes the professional and personal development of doctoral supervisors by integrating specific strategic objectives into Strategic Plan, which includes clear directions for continuous improvement and internationalization of academic activities.
- ✓ Teachers, including doctoral supervisors, are encouraged to participate in continuing education courses, scientific conferences and international mobilities (including through the EC's Erasmus+ programme).
- ✓ Analysis of the state of facts
- ✓ The teaching staff of the ULBS participated in professional and personal development activities, also having access to financial resources for participation in scientific events, educational fairs, etc., financed by scientific/institutional developing grants/projects (Annex I.P.A.3.1.2 Doctoral supervisors involved in projects) and an Operational procedure for rewarding scientific research results .
- ✓ At institutional level, there is a Regulation for staff mobility under the Erasmus+ programme, both for teaching mobilities and for training mobilities and an Operational procedure "Organization of outgoing training mobility within the Erasmus+ program for teaching, non-teaching, and auxiliary teaching staff who hold administrative positions within the faculty/university.
- ✓ The Department of Continuing Education (DFC) provides a wide range of professional training courses for DSUD-IM affiliated doctoral supervisors, but also for IOSUD doctoral students.
- ✓ At the meeting with the teaching staff, the doctoral supervisors of DSUD-IM confirmed that they benefit from a wide range of postgraduate and non-graduate professional training courses, organized by ULBS.

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.

- ✓ Presentation of the state of facts
- ✓ Acc. to REI (page 22), the recruitment procedures for co-opting new doctoral supervisors fully comply with the applicable legal framework and are designed and implemented in a clear, transparent and fair manner.
- ✓ Recruitment is carried out publicly, in accordance with the criteria of legality, fairness, and professional competence. Applications are evaluated in accordance with CNATDCU and institutional standards https://doctorate.ulbsibiu.ro/ro/abilitari/abilitari-2025/.
- ✓ Analysis of the state of facts
- ✓ For the recruitment of teaching and research staff, ULBS applies a Framework methodology for filling vacant teaching and research positions in higher education through competition and a Methodology for conducting competitions for filling teaching positions approved annually by the Senate, based on competence criteria and strictly complies with the legal provisions in force. All information regarding the Teaching and Research Staff Recruitment Competitions is available on the ULBS website.

✓ ULBS applies a Methodology for granting the habilitation certificate at ULBS (Senate Decision no. 4193 of 24.07.2025) according to the legal provisions in force (OM 3998/2024 on the Methodology for granting the habilitation certificate).
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.

✓ Presentation of the state of facts

✓ ULBS and SDSIM-IM use modern IT tools to streamline administrative and academic processes, thus contributing to improving the quality of services offered to members of the university community (university community, including students, administrative staff) and indirect beneficiaries and University partners (REI, page 22).

✓ Transparency, accessibility, and efficient information management within IOSUD-ULBS are supported using Internet and Intranet information and communication systems, online forms for collecting information and feedback from doctoral supervisors and doctoral students, licenses for assessing the degree of similarity in doctoral theses.

✓ ULBS integrates a series of academic and administrative platforms and modules dedicated to academic staff (teachers, students, adminstratives) https://ccom.ulbsibiu.ro/ro/servicii.htm

✓ Analysis of the state of facts

✓ During the visit, the ARACIS Commission noted the use of digital tools within the teaching and administrative activity of the ULBS in accordance with its own digitization strategy.

✓ The management of students and, implicitly, of doctoral students is carried out through the https://support.ulbsibiu.ro/ums/ platform which is currently in full implementation, replacing the old digital platform.

✓ Students have at their disposal the https://myaccount.ulbsibiu.ro/ platform and https://ccom.ulbsibiu.ro/ro/email.htm for easy communication with teachers and adminstrative, the https://ccom.ulbsibiu.ro/ro/o365.htm platform for the creation of MSOffice 365 accounts, the https://ccom.ulbsibiu.ro/ro/classroom.htm e-Learning platform, the https://ccom.ulbsibiu.ro/ro/matlab.htm platform for didactic and scientific activities.

✓ ULBS Library https://bcu.ulbsibiu.ro/en/ provides access to electronic resources and facilitates access to the consultation of doctoral theses; the AnelisPlus program https://ccom.ulbsibiu.ro/ro/anelis.htm provides access to international databases (WoS, Scopus, Science Direct, aso.)

✓ ULBS provides free hosting space (max. 200 MB) for teachers and student organizations: Web/ Database hosting https://ccom.ulbsibiu.ro/ro/webhost.htm, https://ccom.ulbsibiu.ro/ro/dbhost.htm.

✓ ULBS provides Licenses for assessing the degree of similarity in doctoral theses (sistemantiplagiat.ro) in order to verify doctoral thesis and dissertation thesis for plagiarism check.

✓ The evaluation of doctoral supervisors by doctoral students is regulated by an Operational procedure on monitoring and evaluation of all staff involved in study programs and is done through an evaluation form on a digital platform that ensures the anonymization of the answers.

✓ At the meeting with the administrative staff that provides the IOSUD secretarial service, the participants stated that they use the digital platforms of the ULBS in their daily administrative activities, but also the electronic means of communication in relation to doctoral students and doctoral supervisors
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.

✓ Presentation of the state of facts

✓ The doctoral study program in Mechanical Engineering (PSUD-IM / DSUD_IM) is developed based on a coherent curriculum, oriented towards the formation of competencies and the achievement of expected learning outcomes, in accordance with national and European standards, as presented in the REI. The program is organized based on the transferable credit system (ECTS), in accordance with Order No. 6.768/2023 of December 12, 2023, approving the Methodology for awarding transferable credits in lifelong learning, integrating teaching, learning, research and evaluation activities.

✓ Acc. to the REI (chap. I.3, pp. 13–14), the fulfillment of the program requirements is supported by relevant documents, such as: the SDSIM regulation, the curriculum, subject sheets, the description of competencies in relation to EQF/CNC and the periodic reports of doctoral students on research activity. The program is structured in two components – a training program based on advanced studies and an individual scientific research program.

✓ The analyzed documents confirm the existence of the curriculum, program structure, subject sheets, and organization based on ECTS credits.

✓ Analysis of the state of facts

✓ In relation to the requirements of the indicator, the study program is adequately structured and includes the main components of the doctoral educational process (learning, teaching, research and evaluation), supported by the documents analyzed, https://doctorate.ulbsibiu.ro/wp-content/uploads/Planuri-invatamant-2025-2026_SDSIM.pdf, https://doctorate.ulbsibiu.ro/wp-content/uploads/FD_Inginerie-mecanica_2025-2026.pdf.

✓ The documentary analysis highlights some limitations regarding the complete demonstration of the learning outcomes-based approach. Learning outcomes are not explicitly and unitarily defined at the program level, and the systematic correlation between disciplines, learning outcomes and competences is not presented through specific tools (e.g. correlation matrices).

✓ The doctoral study regulations do not contain complete identification elements (edition, approval date and entry into force date), which limits the formal validation and traceability of the document.

✓ Aspects that constitute best practice examples

✓ clear structuring of the doctoral program into two components: training and research;

✓ use of the ECTS system and existence of the curriculum;

✓ existence and application of subject sheets;

✓ monitoring of the activity of doctoral students through periodic reports.

✓ Recommendations

✓ Updating the regulations of doctoral studies by including complete identification elements and explicit definition of learning outcomes, accompanied by their correlation with the targeted disciplines and competencies.

The indicator is: fulfilled.

* 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.

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

✓ Acc. to the REI (pag. 26), the expected learning outcomes for the DSUD IM are correlated with the specific competencies of the doctoral qualification level (level 8 EQF/CNC) https://esco.ec.europa.eu/ro/classification/occupation_main#overlayspin, being oriented towards the training of researchers capable of carrying out advanced scientific activities.

✓ The documents analyzed indicate the existence of descriptions of the competencies and the graduate profile, as well as references to their correlation with the European Qualifications Framework and the National Qualifications Framework. The program curriculum is structured in such a way as to support the development of these competencies through training and research activities (chap. III, pp. 26–27).

✓ Elements regarding the insertion of graduates and the relevance of the program for the labor market, in the context of the field of mechanical engineering, are also mentioned.

✓ Analysis of the state of facts

✓ The document analysis confirms the existence of a correlation between the expected learning outcomes and the targeted competencies, in line with the doctoral qualification level and the requirements of the EQF/CNC framework. The structure of the program and the content of the disciplines contribute to the development of research, analysis and innovation competencies specific to the field of mechanical engineering.

✓ The correlation between the curriculum and the qualification is achieved functionally, reflected in the program documents and in the activities carried out by the doctoral students. Although this correlation is expressed mainly at a descriptive level, without the systematic use of synthetic tools (such as correlation matrices), the set of documents and practices analyzed demonstrates the alignment of the program with the targeted competencies and occupations.

✓ Aspects that constitute best practice examples

✓ alignment of the program to EQF/CNC level 8 and to the requirements of the doctoral qualification;

✓ coherent integration of research activities in the development of skills;

✓ functional correlation between the curriculum and the graduate profile;

✓ orientation of the program towards the requirements of the research environment and the labor market.

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.

✓ Presentation of the state of facts

✓ Acc. to the IER/REI (pag. 27), the organizational component of the doctoral program in Mechanical Engineering implements the principles of student-centered learning through the structure of the curriculum and the organization of individual research activities. The doctoral program includes both a training program based on advanced university studies and an individual scientific research program, adapted to the research topic and the training needs of each doctoral student.

- ✓ The curricula, subject sheets and individual research programs reflect the use of active teaching, learning and assessment methods, adapted to the needs and individual pace of development of doctoral students, as well as the orientation towards the development of research skills and the valorization of scientific results (REI, chap. III, page 28).
- ✓ The implementation of these principles is supported by relevant institutional documents (The ULBS Charter, The ULBS Student Rights and Obligations Code, The ULBS Doctoral Student Guide), as well as strategic documents (The vision, mission, values, and strategic objectives of ULBS, ULBS Strategic Plan 2024-2029, ULBS Strategy for 2025-2034). Student-centered learning is also reflected in the doctoral admission process, carried out on research topics.
- ✓ Analysis of the state of facts
- ✓ The analysis of the documents highlights that the principles of student-centered learning are adequately implemented within the doctoral program, by individualizing the training program and by integrating research as a central element of the educational process.
- ✓ The curricular documents (curriculum, subject sheets, individual research programs), in conjunction with institutional and strategic documents (Strategic objectives, Strategic Plan 2024-2029, Strategy 2025-2034), support the active involvement of doctoral students in the learning and research process, as well as its adaptation to individual needs. The approach is specific to the doctoral cycle and corresponds to the requirements of student-centered learning.
- ✓ Aspects that constitute best practice examples
- ✓ individualizing the doctoral path through research programs;
- ✓ integrating research as a central element of the learning process;
- ✓ using strategic and institutional documents to support the student-centered approach;
- ✓ correlating admission with research topics.

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.

- ✓ Presentation of the state of facts
- ✓ Acc. to the IER (pag. 28), the organizational component of the field of doctoral studies in Mechanical Engineering provides doctoral students with opportunities to participate in academic mobility and international research activities, through the Erasmus+ programs, the European university alliance FORTHEM and the international research partnerships developed by ULBS.
- ✓ Within the SDSIM, specific measures are implemented to support the participation of doctoral students in national and international conferences, internships and research activities, including through mobility grants and partnerships with organizations and universities in the country and abroad. The REI/IER highlights the existence of the Methodology for granting mobility grants and internal regulations, as well as supporting the participation of doctoral students in scientific events and the publication of research results in journals indexed in international databases.
- ✓ The doctoral program aims to integrate doctoral students into national and international research networks and projects, encouraging mobilities, exchange of experience and multidisciplinary collaborations.
- ✓ Analysis of the state of facts
- ✓ The analysis of the documents and information presented in the REI highlights the existence of an adequate institutional and organizational framework for supporting academic mobility and the participation of doctoral students in international research activities.
- ✓ ULBS's membership in the FORTHEM alliance, the existence of Erasmus+ partnerships and the implementation of support mechanisms for mobility and participation in scientific events demonstrate the institution's concern for the internationalization of doctoral studies. At the same time, the objectives of the doctoral program explicitly include the integration of doctoral students into international research networks and projects, an aspect supported by the activities and measures presented in the REI/IER.
- ✓ Aspects that constitute best practice examples
- ✓ ULBS membership in the European university alliance FORTHEM;

- ✓ Existence of the Methodology for granting mobility grants;
- ✓ Supporting the participation of doctoral students in international conferences and scientific activities;
- ✓ Integrating international mobilities and collaborations into the objectives of the doctoral program.

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

- ✓ Presentation of the state of facts
- ✓ Acc. to the IER (pag. 29), the organizational component (SDSIM) of the field of doctoral studies in Mechanical Engineering ensures equitable opportunities for doctoral students, in accordance with their potential and aspirations, by flexibly organizing the doctoral program and by adapting research activities to the specifics of each doctoral student.
- ✓ The doctoral program is structured in two components – a training program based on advanced university studies and an individual scientific research program – which allow for the individualization of the academic path and the integration of doctoral students in research activities specific to the topics addressed.
- ✓ The REI/IER highlights the existence of institutional and organizational measures aimed at supporting an inclusive and equitable doctoral environment, including: the regulation for organizing and conducting doctoral studies, the admission regulation, the methodology for granting mobility grants, the existence of IOSUD-ULBS scholarships for high-performing doctoral students and the involvement of the guidance and academic integrity committees in monitoring the progress of doctoral students.
- ✓ Admission to doctoral studies is based on research topics, and the activity of doctoral students is supported by access to research infrastructure and by their integration into accredited research groups and centers of ULBS.
- ✓ Analysis of the state of facts
- ✓ The analysis of the documents and information presented in the REI/IER highlights the existence of an organizational framework that supports the assurance of equity and equal access to doctoral training opportunities (Strategies/methodologies/tools to ensure equity, incentives, educational support services). The flexible structure of the doctoral program and the organization of research activities allow the adaptation of the academic path to the profile and individual needs of the doctoral students.
- ✓ The existence of institutional support mechanisms, scholarships awarded by IOSUD-ULBS, mobility grants and access to research infrastructure contribute to the creation of a doctoral environment favorable to the academic and professional development of doctoral students. At the same time, the involvement of the academic guidance and integrity committees ensures individualized monitoring of progress and support for research activities.
- ✓ Aspects that constitute best practice examples
- ✓ Individualization of the doctoral path through adapted research programs;
- ✓ Granting IOSUD-ULBS scholarships for high-performing doctoral students;
- ✓ Using mobility grants to support academic development;
- ✓ Integrating doctoral students into accredited research centers and groups.

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.

✓ Presentation of the state of facts

✓ Acc. to the IER (pp 29-30), the organizational component of the field of doctoral studies in Mechanical Engineering ensures access to doctoral students to resources and services designed to support the learning and research process, appropriate to the specifics of the doctoral program and individual training needs;

✓ Doctoral students benefit from access to the existing research infrastructure at the ULBS level, the accredited faculties and research centers, as well as to the resources of the ULBS Central University Library. Within the field of Mechanical Engineering, research activity is supported in particular through the Center for Studies and Research for Plastic Deformations and the Research Center for Sustainable Products and Processes, to which the doctoral supervisors and doctoral students in the field are affiliated.

✓ EER/REI highlights the existence of institutional measures regarding the support of doctoral students' activities, including access to computer programs for verifying the similarity of theses https://www.sistemantiplagiat.ro/educatie, participation in scientific events, mobility grants and integration into projects and research teams. At the same time, online platforms and resources dedicated to doctoral activities and access to academic and administrative information are mentioned.

✓ Analysis of the state of facts

✓ The analysis of the documents and information presented in the REI highlights the fact that the evaluated doctoral field has adequate resources and services to support the learning and research process. The access of doctoral students to the research infrastructure (https://cercetare.ulbsibiu.ro/ro/infrastructura-de-cercetare/centre-de-cercetare/lista-centre-de-cercetare/), to accredited research centers (https://centers.ulbsibiu.ro/cscdp/index.html?lang=en, https://sites.google.com/ulbsibiu.ro/ccpps) and to library resources (https://bcu.ulbsibiu.ro/en/, https://www.ulbsibiu.ro/news/anelis-plus-2020/.) contributes to the development of activities specific to the field of Mechanical Engineering under appropriate conditions.

✓ The institutional measures regarding the support of participation in scientific activities, access to digital tools (https://www.ulbsibiu.ro/wp-content/uploads/documents/ca/2022/Anexa-2-Strategie-digitalizare.pdf) and the integration of doctoral students into research teams demonstrate the existence of a functional framework to support doctoral learning and research. The available resources are appropriate to the specifics of the field and contribute to the development of the professional and research skills of doctoral students.

✓ Aspects that constitute best practice examples

✓ Access of doctoral students to accredited research centers and specialized research infrastructure;

✓ Integration of doctoral students into research teams and projects;

✓ Use of computer programs to verify the similarity of theses;

✓ Support for participation in scientific events and academic mobilities.

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.

✓ Presentation of the state of facts

✓ Acc. to the IER (pp 30-31), the learning outcomes related to the field of doctoral studies in Mechanical Engineering are reflected through the research activity carried out by doctoral students, through the development and defense of research reports, the publication of scientific results and the development of doctoral theses.

✓ The doctoral program is organized in such a way as to allow the development of professional and research skills specific to the doctoral qualification level, through integrated activities of advanced training and individual research. The evaluation of the progress of doctoral students is carried out periodically through research reports and the activities carried out within the academic guidance and integrity committees.

✓ The REI/IER highlights the participation of doctoral students in national and international scientific events, the publication of research results in journals and volumes indexed in international databases and their integration into research projects and collectives.

✓ At the same time, doctoral theses are subject to verification of similarity and the procedures for evaluation and public defense provided for by institutional and national regulations.

✓ Analysis of the state of facts

✓ The analysis of the documents and information presented in the REI highlights the fact that learning outcomes are assessed through mechanisms specific to the doctoral cycle (Internal regulations on the definition and assessment of learning outcomes), based on monitoring research progress and capitalizing on the scientific results obtained by doctoral students (Internal procedures for reviewing and updating learning outcomes, in line with educational developments and labor market requirements).

✓ Research activities, the preparation of periodic reports, participation in conferences and the publication of results contribute to the development and demonstration of professional and transversal competencies associated with the doctoral level. At the same time, the procedures for evaluating and verifying doctoral theses (https://doctorate.ulbsibiu.ro/ro/presustineri/presustineri-2024/, https://doctorate.ulbsibiu.ro/ro/documente/, https://www.sistemantiplagiat.ro/educatie) support the assurance of academic quality and integrity.

✓ Aspects that constitute best practice examples

✓ Periodic monitoring of doctoral students' progress through research reports;

✓ Integration of doctoral students into research activities and groups;

✓ Participation of doctoral students in conferences and publication of research results;

✓ Use of procedures for verifying the similarity of doctoral theses.

✓ Recommendations

✓ Strengthening mechanisms for monitoring the exploitation of doctoral research results and stimulating the increase in the international visibility of doctoral students' publications.

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.

✓ Presentation of the state of facts

✓ Acc. to the IER (pp 31-32), the field of doctoral studies in Mechanical Engineering uses specific mechanisms and procedures (The regulations on the organization and conduct of doctoral studies at IOSUD-ULBS, The operational procedure for the completion of doctoral studies at IOSUD-ULBS)

for evaluating the activity of doctoral students and for monitoring the achievement of research objectives and learning outcomes.

- ✓ The evaluation of doctoral students' progress is regulated by the Regulations for the organization and conduct of doctoral studies and is carried out periodically through research reports, activities carried out within the individual research program and evaluations carried out by doctoral supervisors and academic integrity and guidance committees. The doctoral program includes research activities, development and exploitation of scientific results, reflected by the participation of doctoral students in conferences and the publication of research results in journals and volumes indexed in international databases.
- ✓ At the same time, the REI/IER highlights the existence of institutional procedures for verifying the similarity of doctoral theses and their evaluation before public defense, in accordance with national and institutional regulations on quality assurance and academic integrity.
- ✓ Analysis of the state of facts
- ✓ The analysis of the documents and information presented in the REI/IER highlights the existence of functional mechanisms for evaluating and monitoring the activity of doctoral students, appropriate to the specifics of the doctoral cycle and oriented towards verifying the progress of research and the achievement of learning outcomes.
- ✓ Periodic evaluations carried out through research reports (https://doctorate.ulbsibiu.ro/wp-content/uploads/Raport-privind-activitatea-la-nivelul-IOSUD_ULBS-2025.pdf), the activity of the academic integrity and guidance committees (https://doctorate.ulbsibiu.ro/wp-content/uploads/8.-HCSUD-8-Anexa-3-raport-SCEAC.pdf) and the valorization of scientific results allow the monitoring of the evolution of doctoral students and support the development of research skills specific to the field of Mechanical Engineering. At the same time, the use of similarity verification (https://www.sistemantiplagiat.ro/educatie) and thesis evaluation procedures contribute to ensuring academic quality and integrity.
- ✓ Aspects that constitute best practice examples
- ✓ Periodic monitoring of doctoral students' progress through research reports;
- ✓ Involvement of academic guidance and integrity committees in evaluating doctoral students' work;
- ✓ Capitalization of research results through publications and participation in conferences;
- ✓ Use of procedures for verifying the similarity of doctoral theses.

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.

- ✓ Presentation of the state of facts
- ✓ The admission procedures for IOSUD, including DSUD_IM, are regulated and applied in accordance with the Admission Regulations for Doctoral Studies and other relevant normative documents, in compliance with the principles of equity, transparency and equal access to higher education. This information is publicly communicated by posting on the website https://doctorate.ulbsibiu.ro/ro/admitere/ and through other information channels (mass media), ensuring complete and clear access of candidates to all relevant details.
- ✓ The admission process is organized on research topics proposed by the doctoral supervisors, and information regarding the admission competition, registration conditions, calendar and evaluation criteria are published on the website of the institution (https://doctorate.ulbsibiu.ro/ro/admitere/) and the doctoral school. Admission includes the assessment of the professional skills and research abilities of the candidates, in accordance with the specifics of the doctoral field.
- ✓ Analysis of the state of facts

- ✓ The analysis of the factual situation highlights that the admission process within the Doctoral School is carried out based on clear and uniform institutional procedures (https://doctorate.ulbsibiu.ro/wp-content/uploads/9_Regulamentul-de-admitere-la-studii-universitare-de-doctorat_Senat_ian2025-1.pdf), in accordance with the national and institutional regulations applicable to doctoral studies (Framework methodology for organizing the admission process, established by the Ministry of Education and Research and adapted by ULBS). Information regarding the admission calendar, selection criteria, competition tests, number of places and eligibility conditions are published transparently on the institutional website (https://doctorate.ulbsibiu.ro/ro/admitere/) and updated periodically, ensuring equal and non-discriminatory access of candidates to all relevant information.
- ✓ The organization of the competition on research topics (https://doctorate.ulbsibiu.ro/wp-content/uploads/Teme-de-cercetare-pozitii-vacante-admitere-septembrie-2025_FINAL_25.08.2025.pdf) and the use of clear selection criteria allow for the adequate assessment of the competences and research potential of the candidates. At the same time, the publication of relevant information regarding admission contributes to ensuring transparency and equal access of candidates to the selection process.
- ✓ Aspects that constitute best practice examples
- ✓ organizing admission on research topics;
- ✓ transparency of information regarding the admission competition;
- ✓ use of clear and uniform selection criteria;
- ✓ correlation of admission with the specifics of doctoral research.

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 establishment of support measures to ensure access of vulnerable groups at social and educational risk, including candidates with special educational needs and/or disabilities.

- ✓ Presentation of the state of facts
- ✓ Admission to the DSUD_IM doctoral program is based on the principles of fairness, equal opportunity, and social inclusion, in accordance with national regulations and the institutional policy of IOSUD-ULBS. SDSIM promotes an accessible and equitable admission framework, adapted to the needs of candidates from vulnerable groups, who are at social or educational risk, as well as those with special educational needs and/or disabilities.
- ✓ Engineering is organized and carried out based on transparent criteria and procedures, applied uniformly at the IOSUD-ULBS level.
- ✓ Information regarding admission, research topics proposed by doctoral supervisors, the competition calendar, registration conditions and evaluation criteria are published on the website of the institution and the doctoral school, ensuring the access of the candidates to relevant information regarding the selection process Admitere Online ULBS.
- ✓ The REI/IER highlights the fact that the selection of candidates is carried out based on the assessment of professional skills and research abilities, in accordance with the specifics of the doctoral field and the available research topics. The process is regulated by the methodology and institutional regulations regarding admission to doctoral studies.
- ✓ Analysis of the state of facts
- ✓ The admission process of IOSUD-ULBS is based on the principles of fairness, equal opportunity, and social inclusion, in accordance with national regulations and the institutional policy (https://admitere.ulbsibiu.ro/articol/63/regulament-si-hotarari, https://senat.ulbsibiu.ro/wp-content/uploads/060325/6_Metodologia%20prevenirea,%20combaterea%20si%20sanctionarea%20oricaror%20forme%20de%20discriminare_Senat_martie2025.pdf). organized in a transparent and predictable manner, being supported by clear rules and procedures, accessible to candidates.
- ✓ ULBS organizes admission with an accessible and equitable framework, adapted to the needs of candidates from vulnerable groups and those with special educational needs and/or disabilities (https://senat.ulbsibiu.ro/wp-

content/uploads/060325/7_Metodologie%20privind%20org%20si%20functionarea%20Comparti mentului%20Consiliere%20si%20Orientare%20in%20Cariera_Senat_martie2025.pdf).

- ✓ The analysis of the documents and information presented in the REI/EER highlights the fact that the admission process is organized in a transparent and predictable manner, being supported by clear rules and procedures, accessible to candidates.
- ✓ The publication of information on research topics, admission conditions (https://doctorate.ulbsibiu.ro/ro/admitere/, https://doctorate.ulbsibiu.ro/wp-content/uploads/anunt-calendar-adm-2026.pdf) and evaluation criteria contributes to ensuring a fair selection process and oriented towards identifying candidates with research potential appropriate to the field of Mechanical Engineering. At the same time, the organization of admission by research topics (https://doctorate.ulbsibiu.ro/wp-content/uploads/Teme-de-cercetare-pozitii-vacante-admitere-septembrie-2025_FINAL_25.08.2025.pdf) allows the correlation of the interests of the candidates with the expertise of the doctoral supervisors (https://doctorate.ulbsibiu.ro/wp-content/uploads/Lista-persoanelor-cu-drept-de-conducere-de-doctorat-IOSUD-ULBS-octombrie-2025-site.pdf) and with the research directions of the doctoral school.
- ✓ Aspects that constitute best practice examples
- ✓ transparent publication of information regarding admission and research topics;
- ✓ organization of the admission competition on research topics;
- ✓ use of clear and uniform selection criteria;
- ✓ correlation of the admission process with the research directions of the doctoral field.

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
- ✓ Acc. to the EER (pp 33-34), the academic course and research activity of doctoral students in the field of Mechanical Engineering are monitored and evaluated periodically based on the regulations and institutional procedures applicable at the IOSUD-ULBS level.
- ✓ The doctoral program is organized based on an individual research program, developed together with the doctoral supervisor and the academic integrity and guidance committee. The progress of doctoral students is monitored through periodic research reports, intermediate evaluations and monitoring activities carried out throughout the duration of doctoral studies.
- ✓ The REI/IER highlights the existence of institutional mechanisms for monitoring the activity of doctoral students, including through the involvement of doctoral supervisors and guidance committees, as well as through the integration of doctoral students in research activities and groups.
- ✓ Analysis of the state of facts
- ✓ The analysis of the documents and information presented in the REI/EER highlights the existence of functional mechanisms for monitoring and evaluating the academic and research career of doctoral students, appropriate to the specifics of the doctoral cycle (Regulations on the organization and conduct of doctoral studies at IOSUD-ULBS, Operational procedure regarding the completion of doctoral studies at IOSUD-ULBS, Doctoral study contracts, Code of ethics and academic conduct, including sanctions for deviations from academic norm).
- ✓ The organization of research activities based on individual programs and periodic monitoring through intermediate reports and assessments allow for the tracking of the progress of doctoral students and the adaptation of research activities to the established objectives (Training program based on advanced university studies, Pre-defense of doctoral theses, Doctoral thesis defenses).
- ✓ The involvement of doctoral supervisors and guidance committees contributes to supporting the academic career and developing the research skills of doctoral students.
- ✓ Aspects that constitute best practice examples
- ✓ periodic monitoring of doctoral students' activity through research reports;

- ✓ use of individual research programs to organize the doctoral path;
- ✓ involvement of guidance and academic integrity committees in assessing progress;
- ✓ integration of doctoral students into research groups and activities.

The indicator is: fulfilled.

Criterion B.8. Process internationalization

Standard S.B.8.1. Internationalization 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.

- ✓ Presentation of the state of facts
- ✓ Acc. to the IER (pp 34-36), IOSUD-ULBS and SDSIM_DSUD_IM promote the internationalization of doctoral studies by developing international academic and scientific collaborations, participating in mobility programs and integrating into European university networks.
- ✓ ULBS is a member of the European university alliance FORTHEM, officially recognized as a "European University", and implements the institutional Internationalization Strategy 2025–2034, which supports the development of international cooperation in education and research.
- ✓ The REI/IER highlights the existence of Erasmus+ agreements, collaborations with universities and research institutes abroad and institutional mechanisms to support the participation of doctoral students and doctoral supervisors in international mobilities, conferences and projects. At the same time, doctoral students are encouraged to publish research results in internationally indexed journals and to participate in international scientific events.
- ✓ Analysis of the state of facts
- ✓ The analysis of the documents and information presented in the REI highlights the existence of a coherent institutional policy regarding the internationalization of doctoral studies and the integration of the Mechanical Engineering field into the European research and education space.
- ✓ ULBS's participation in the FORTHEM alliance (https://www.forthem-alliance.eu/, https://www.forthem-alliance.eu/alliance/members, https://www.forthem-alliance.eu/alliance/members/universitatea-lucian-blaga-din-sibiu-romania), the existence of Erasmus+ partnerships (https://international.ulbsibiu.ro/news/mobilitati-de-plasament-de-scurta-durata-destinate-doctoranzilor/, https://international.ulbsibiu.ro/news-categories/erasmus-outgoing-phd-students/) and the support of academic mobilities and international collaborations demonstrate the institution's concern for developing the international dimension of the doctoral program. At the same time, the participation of doctoral students in conferences and the publication of research results in indexed journals contribute to increasing the international visibility of the scientific activity carried out within the evaluated doctoral field.
- ✓ Aspects that constitute best practice examples
- ✓ ULBS membership in the European university alliance FORTHEM;
- ✓ implementation of the ULBS Internationalization Strategy 2025–2034;
- ✓ existence of Erasmus+ agreements and international research collaborations;
- ✓ supporting the participation of doctoral students in scientific events and international publications.
- ✓ Recommendations
- ✓ Expanding the number of international mobilities and internships dedicated to DSUD_IM doctoral students and developing research collaborations with universities and international centers.

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.

✓ Presentation of the state of facts

✓ Acc. to the IER (pag. 36), the scientific research activity carried out within the field of doctoral studies in Mechanical Engineering is supported by the integration of doctoral supervisors and doctoral students in accredited research centers and groups of ULBS.

✓ The REI highlights the fact that the research activity is carried out within structures such as the Center for Studies and Research for Plastic Deformations and the Research Center for Sustainable Products and Processes, which have infrastructure and equipment specific to the field of Mechanical Engineering.

✓ The doctoral supervisors and doctoral students participate in research projects and activities, and the research results are capitalized on by publishing scientific articles in journals and volumes indexed in international databases and by participating in national and international scientific conferences.

✓ At the same time, the REI/IER mentions the existence of institutional mechanisms regarding the support of doctoral research, including access to research infrastructure, mobility grants and the integration of doctoral students in research activities and networks.

✓ Analysis of the state of facts

✓ The analysis of the documents and information presented in the REI highlights the existence of an adequate institutional and organizational framework for carrying out scientific research activities within the evaluated doctoral field (https://doctorate.ulbsibiu.ro/ro/legislatie/, https://doctorate.ulbsibiu.ro/ro/csud/, https://cercetare.ulbsibiu.ro/ro/proceduri-si-regulamente/, https://cercetare.ulbsibiu.ro/ro/infrastructura-de-cercetare/centre-de-cercetare/).

✓ The integration of doctoral supervisors and doctoral students in research centers and groups (https://doctorate.ulbsibiu.ro/en/fields-of-research/), access to specific infrastructure and participation in scientific projects and events contribute to the development of a doctoral environment oriented towards scientific performance and innovation. The valorization of research results through publications and participation in conferences (Annex I.P.B.9.2.1 List of scientific articles published by doctoral supervisors and doctoral students) demonstrates the active involvement of doctoral students in research activity and their contribution to the academic visibility of the Mechanical Engineering field (https://gradis.ulbsibiu.ro/login, https://cercetare.ulbsibiu.ro/ro/rapoarte-cercetare/).

✓ Aspects that constitute best practice examples

✓ integration of doctoral students in accredited research centers and groups;

✓ existence of infrastructure and equipment specific to the field of Mechanical Engineering;

✓ participation in national and international scientific projects and events;

✓ valorization of research results through internationally indexed publications.

✓ Recommendations

✓ Continuing to develop international research collaborations and increasing the participation of doctoral students in competitive projects and publications with international visibility.

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.

✓ Presentation of the state of facts

✓ Acc. to the IER (pp 36-38), the field of doctoral studies in Mechanical Engineering promotes the valorization and dissemination of doctoral research results through the participation of doctoral students and doctoral supervisors in national and international scientific conferences and through the publication of research results in journals and volumes indexed in international databases.

✓ EER/REI highlights the fact that doctoral students are integrated into research groups and projects and benefit from institutional support for participation in scientific events and academic mobilities, including through mobility grants and access to the ULBS research infrastructure.

✓ Doctoral research activity is supported through the accredited research centers of ULBS () and through the involvement of doctoral students in applied and interdisciplinary research activities specific to the field of Mechanical Engineering.

✓ Analysis of the state of facts

✓ The analysis of the documents and information presented in the REI highlights the fact that there are functional mechanisms to support the valorization of doctoral research results and for the integration of doctoral students in scientific activities with national and international visibility (https://drive.google.com/drive/folders/1nFE0w7DbEFcmL6gOyunq8UZP7dI7cGcl).

✓ The participation of doctoral students in conferences and the publication of research results in indexed journals contribute to the development of research skills and to the increase of the academic visibility of the doctoral field (https://cercetare.ulbsibiu.ro/ro/gradis/raportarea-activitatii-gradis-in-facultati/). The integration of doctoral students in projects and research groups facilitates the development of applied and collaborative research activities (https://cercetare.ulbsibiu.ro/wp-content/uploads/Rezultate-finale-evaluare-granturi-de-excelenta-LBUS-HPI-ERG-2023.pdf, https://grants.ulbsibiu.ro/tehne/ro/, https://sites.euro.ubbcluj.ro/steam/).

✓ The institutional support granted to participation in scientific events and academic mobilities demonstrates the concern of IOSUD-ULBS for the development of scientific performance and the internationalization of doctoral research (https://cercetare.ulbsibiu.ro/wp-content/uploads/Procedura-privind-recompensarea-tinerilor-cu-rezultate-deosebite-in-activitatea-de-cercetare-stiintifica-si-creatie-artistica-premiul-Ad-Augusta-per-angusta.pdf, https://cercetare.ulbsibiu.ro/ro/rapoarte-cercetare/premierea-activitatii-de-cercetare/).

✓ Aspects that constitute best practice examples

✓ supporting the participation of doctoral students in international scientific conferences and events;

✓ publishing research results in internationally indexed journals;

✓ integrating doctoral students into research projects and teams;

✓ using mobility grants to support research and dissemination activities.

✓ Recommendations

✓ Increasing the number of publications produced in international collaboration and stimulating the participation of doctoral students in competitive research projects with external funding.

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

✓ Presentation of the state of facts

✓ SDSIM aligns with the ULBS quality-assurance policy. The REI/EER evidences annual operational plans, CEAC/SCEAC reports (Annex I.P.C.1.1.1 Report-SCEAC_-IOSUD-ULBS-2025), annual IOSUD activity and Rector's reports, Senate minutes on quality actions and the habilitation methodology (IOSUD regulations). Domain-level applicability is supported by doctoral students' satisfaction/mentoring feedback (Annex I.P.C.1.2.1 Report measuring the degree of satisfaction and the need for mentoring drd_cert) and GRADIS research reporting.

✓ Analysis of the state of facts

✓ A coherent internal quality cycle operates: responsibilities are split across CEAC/SCEAC and the CSUD, supervisors are monitored annually against CNATDCU standards, and feedback is analysed and fed into corrective measures.

✓ The measures and implementation procedures to improve the quality of the doctoral course within the field DSUD_IM are effective and applicable (https://senat.ulbsibiu.ro/wp-content/uploads/290525/7_PO_Evaluarea%20gradului%20de%20satisfactie%20a%20studentilor_Senat_mai2025.pdf, https://www.ulbsibiu.ro/wp-content/uploads/documents/ca/2022/Anexa-10-PO-ULBS-CSIS-03-Evaluarea-satisfactiei-studentilor.pdf, https://doctorate.ulbsibiu.ro/wp-content/uploads/Chestionar-pentru-masurarea-gradului-de-satisfactie-si-nevoia-de-mentorat.pdf).
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.

✓ Presentation of the state of facts

✓ Stakeholders (students, supervisors, doctors, employers, partners) are consulted through the CEAC/SCEAC and Board regulations, the Student Rights Code, and the satisfaction/mentoring report (Annex I.P.C.1.2.1 Report measuring the degree of satisfaction and the need for mentoring drd_cert). Opinions are integrated via debates at ULBS Senate, CSUD and Doctoral School Council level, with decisions published online, and are reflected in the strategic/operational plans, the Charter and the doctoral-studies regulations.

✓ Analysis of the state of fact

✓ Consultation is embedded in the decision chain and feeds strategic and regulatory documents; employer input is visible in the annually advertised research topics, and industrial partners (e.g. Continental) contribute to the research environment. The IER notes external-stakeholder consultation is not yet fully formalized.
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.

✓ Presentation of the state of facts

✓ ULBS Ethics Committee operates on a Senate-approved regulation, independently of any other structure, under Law 199/2023, supported by the Code of Ethics, its annual reports and rulings,

and the anti-plagiarism strategy. A Research Ethics Subcommittee (four-year mandate) covers doctoral research-integrity matters (authorship, human/animal subjects, data management, conflicts of interest, misconduct prevention).

✓ Analysis of the state of facts

A Senate-approved basis, an autonomous mandate and a doctoral-specific subcommittee are demonstrated; the ethics/integrity disciplines and similarity-checking software (https://www.sistemantiplagiat.ro/educatie) reinforce effectiveness.

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

✓ Legally approved procedures regulate the initiation, monitoring and periodic review of programmes/domains (CEAC regulation; initiation/monitoring/review regulations). Consistent application in Mechanical Engineering is evidenced by the CEAC/SCEAC reports, CSUD decisions and the ARACIS evaluation reports

✓ Analysis of the state of facts

✓ The periodic review of the Mechanical Engineering curriculum and course descriptions (alignment with the new legislation and the labor market) and the 2024 progress evaluation - which confirmed implementation of the 2021 recommendations for all 17 indicators - evidence that the review cycle works in practice.

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.

✓ Presentation of the state of facts

✓ SDSIM and Faculty of Engineering members and external stakeholders are involved in the review procedures, supported by the CEAC regulation, Senate decisions, the Doctoral Student Guide, CSUD/Council decisions and the curricula. External partners contribute through the guidance and defence committees, guest lectures and courses for doctoral students.

✓ Analysis of the state of facts

✓ Multi-level internal and external involvement is demonstrated; at least one external member is mandatory in each guidance and integrity committee, embedding inter-institutional input in each doctoral trajectory.

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.

✓ Presentation of the state of facts

✓ Adapted to the third cycle, the periodic evaluation is an annual measurement of doctoral students' satisfaction and mentoring needs, collected via Google Forms/Classroom, centralized and analyzed by the SCEAC and summarized in the annual IOSUD reports.

✓ Analysis of the state of facts
✓ The process is defined, recurrent and assigned to the SCEAC, meeting the substance of the indicator for doctoral studies. The small cohort limits domain-level statistics.
✓ Recommendations
✓ Formalization of the evaluation of teaching staff (doctoral supervisors, SDSIM course holders) by doctoral students, separately or as part of the evaluation of the learning environment: regulation, procedure, online form, statistical analysis of the collected data, reports.
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.

✓ Presentation of the state of facts
✓ A regulated data-collection/analysis system (Quality Assurance Regulation; CEAC methodology) uses internal databases on performance, integration and satisfaction, with indicator sets tied to the strategy. Thesis are posted 90 days for public consultation on rei.gov.ro and uploaded for CNATDCU validation; students have access to sistemantiplagiat.ro.
✓ Analysis of the state of facts
✓ Systematic collection/analysis is demonstrated, combining internal databases with national platforms (REI/CNATDCU) and similarity tools, reported to and analyzed by the Senate. Full automation of reporting flows is still being consolidated.
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.

✓ Presentation of the state of facts
✓ Public-interest information is published on the IOSUD-ULBS doctoral site (regulations, admission, documents/forms, curricula, supervisors, theses, completion/defence) and on the domain page (catalog - Inginerie Mecanica), cross-linked with the faculty research sections.
✓ Analysis of the state of facts
✓ The information's needed by candidates and the public – regulations (https://catalog.ulbsibiu.ro/lista-domenii/?_sft_ciclu-de-studiu-d=doctorat), admission rules (https://doctorate.ulbsibiu.ro/wp-content/uploads/9_Regulamentul-de-admitere-la-studii-universitare-de-doctorat_Senat_ian2025-1.pdf), study contracts (https://doctorate.ulbsibiu.ro/ro/documente/), defence procedures (https://doctorate.ulbsibiu.ro/wp-content/uploads/SITE_PO_Finalizarea-studiilor-univ-de-doctorat_Senat_iunie2025.pdf), supervisors' profiles (https://doctorate.ulbsibiu.ro/wp-content/uploads/Lista-persoanelor-cu-drept-de-conducere-de-doctorat-IOSUD-ULBS-octombrie-2025-site.pdf), research topics (https://doctorate.ulbsibiu.ro/wp-content/uploads/Teme-de-cercetare-2025.pdf), thesis standards and summaries (https://doctorate.ulbsibiu.ro/ro/teze/teze-2025/) - are publicly available and distributed across the IOSUD site, the catalogue and the faculty pages.
The indicator is: fulfilled.

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

✓ Presentation of the state of facts

✓ Decision-making transparency is ensured via the IOSUD-ULBS site and the CSUD/Doctoral Schools pages: the Rector's report, fee/scholarship framework and Senate decisions, governance and ethics decisions, open competitions, methodologies and regulations, transparency rules, the annual activity report and financial documents, and CSUD decisions.

✓ Analysis of the state of facts

✓ Senate, Board, CSUD and Council decisions (https://senat.ulbsibiu.ro/activitate/hotarari-sedinte/, https://www.ulbsibiu.ro/ro/despre/conducere/ca/hotarari/hotarari-ca-2026/, https://doctorate.ulbsibiu.ro/ro/csud/, https://doctorate.ulbsibiu.ro/wp-content/uploads/HCSD-Stiinte-ingineresti-si-mate.pdf) and the fee/scholarship (https://doctorate.ulbsibiu.ro/ro/taxe/) framework are published, demonstrating transparent decision-making.
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

✓ SDSIM carries out the external-evaluation procedures under the law: ARACIS procedures (https://www.aracis.ro/evaluare-doctorat/), the institutional and domain self-evaluation reports, and the action plans implementing prior recommendations. The domain was evaluated by ARACIS in 2021 (maintenance of accreditation, Decision 74/30.09.2021 https://www.aracis.ro/wp-content/uploads/2021/11/Hot-74_2021-Eval-IOSUD-Blaga-Sibiu.pdf) and in a 2024 progress evaluation confirming all 17 recommendations.

✓ Analysis of the state of facts

✓ Participation in the external cycle is demonstrated: the 2025 REI under the current framework (Law 199/2023, GD 962/2024, 2025 ARACIS Guide), the 2024 progress report (https://www.aracis.ro/wp-content/uploads/2021/11/IOSUD56_C10_03.07.2025.pdf) and a Senate-adopted Action Plan. The present procedure is the periodic evaluation for maintaining accreditation.
The indicator is: fulfilled.

IV. SWOT Analysis

Strengths:		Weaknesses:
✓ Modern research infrastructure: ULBS has research centers specializing in relevant fields, which provide expertise and equipment for advanced research topics in manufacturing, materials, and processes. ✓ Links with the regional economic/industrial environment. ✓ PhD supervisors in the field of Mechanical Engineering have national and international visibility.	INTERNAL FACTORS	✓ Lack of organization of joint doctoral programs. ✓ Very small number of places allocated for admission to the field of Mechanical Engineering. ✓ Lack of foreign doctoral students; ✓ Low number of ERASMUS mobility programs. ✓ Lack of doctoral supervisors from abroad affiliated with the field of Mechanical Engineering.

SWOT analysis		
Opportunities: ✓ Growth of the technological ecosystem in Sibiu through the opening/expansion of R&D centers in various companies and the presence of factories/production centers offering applied doctoral topics and collaborations. ✓ Existence of international research programs for funding doctoral and postdoctoral research. ✓ Specialization in competitive niches (metal processing, numerical simulations using FEM, polymeric materials, biomedical engineering / bio-mechanics) which can become "brands" of DSUD-IM, if nationally and internationally visible groups are built.	EXTERNAL FACTORS	**Threats:** ✓ Decreasing interest in master's and doctoral studies among bachelor's degree graduates. ✓ Decreaseing the number of places funded by the state budget. ✓ The lack of national research project competitions dedicated to doctoral students. ✓ Suspension of competitions organized by UEFISCDI, namely PNCDI IV - Program 5.2 - Human Resources and Research Results Awards. ✓ Underfunding of education and, implicitly, doctoral studies. ✓ Using artificial intelligence in an unethical way, breaking university ethics rules.

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 revising methodologies, regulations and implementation procedures.	F	Formalizing meetings with doctoral students, doctoral supervisors, academic guidance and integrity committees, as well as other stakeholders (employers, economic partners) by meeting minutes.
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	
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	

No.	Performance Indicator	Extent to which it was fulfilled (F/PF/UF)	Recommendations
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	
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	
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	Updating the regulations of doctoral studies by including complete identification elements and explicit definition of learning outcomes, accompanied by their correlation with the targeted disciplines and competencies.
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	
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	
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	F	Strengthening mechanisms for monitoring the exploitation of doctoral

No.	Performance Indicator	Extent to which it was fulfilled (F/PF/UF)	Recommendations
	the students' and teachers' expectations regarding the content of the subject matters in the curriculum.		research results and stimulating the increase in the international visibility of doctoral students' publications.
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 establishment 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	Expanding the number of international mobilities and internships dedicated to DSUD_IM doctoral students and developing research collaborations with universities and international centers.
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	Continuing to develop international research collaborations and increasing the participation of doctoral students in competitive projects and publications with international visibility.
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	Increasing the number of publications produced in international collaboration and stimulating the participation of doctoral students in competitive research projects with external funding.
	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	

No.	Performance Indicator	Extent to which it was fulfilled (F/PF/UF)	Recommendations
28.	**I.P.C.4.1.1** The organisational component analyses the results of the students' biannual evaluation of teachers.	F	Formalization of the evaluation of teaching staff (doctoral supervisors, SDSIM course holders) by doctoral students, separately or as part of the evaluation of the learning environment: regulation, procedure, online form, statistical analysis of the collected data, reports.
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

Domain Rating	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

The main conclusions and recommendations that emerged from the periodic evaluation visit of the doctoral study program Mechanical Engineering, Doctoral School of Engineering Sciences and Mathematics, "Lucian Blaga" University of Sibiu are summarized as follows:

- ✓ The ARACIS Council issued the ARACIS Council Decision 74/30.09.2021 specifying that, for IOSUD-ULBS and the field of doctoral university studies Mechanical Engineering it was decided to "Maintain accreditation", confirmed by the Order of the Minister of Education no. 5498/2021 regarding the maintenance of the accreditation of the "Lucian Blaga" University of Sibiu in order to organize doctoral degree programs., which stated that for IOSUD-ULBS within the university and the doctoral study field Mechanical Engineering, the decision was **"Maintenance of Accreditation"** (https://backend.deqar.eu/reports/ARACIS/20230122_1239-Hot-74_2021-Eval-IOSUD-Blaga-Sibiu.pdf, https://lege5.ro/Gratuit/he3damrrguzq/ordinul-nr-5498-2021-privind-mentinerea-acreditarii-universitatii-lucian-blaga-din-sibiu-in-vederea-organizarii-programelor-de-studii-universitare-de-doctorat).
- ✓ Based on the analyzed information, the ARACIS external evaluation commission found that the DSUD-IM doctoral supervisors meet the legal requirements for occupying the positions provided in

the state of teaching and research positions; the teaching and research activities (PPA and PCS) are supported by administrative and technical staff, contributing to the proper development of the doctoral study program (https://doctorate.ulbsibiu.ro/wp-content/uploads/Pliant-ULBS-Scoli-Doctorale.pdf, https://doctorate.ulbsibiu.ro/wp-content/uploads/Lista-persoanelor-cu-drept-de-conducere-de-doctorat-IOSUD-ULBS-octombrie-2025-site.pdf, https://doctorate.ulbsibiu.ro/wp-content/uploads/COFARU_NICOLAE_CV_EUROPASS-2016-1.pdf, https://doctorate.ulbsibiu.ro/wp-content/uploads/ADI-PASCU_CV_european_romana_iulie-2016-1.pdf, https://doctorate.ulbsibiu.ro/wp-content/uploads/08-CV-2017-Avrigean-site.pdf).

- ✓ At the time of the on-site visit, the ARACIS commission retained the following information: a number of 22 doctoral supervisors work within SDSIM, of which 3 working in the field of Mechanical Engineering; in the case of DSUD-IM, the CNATDCU minimum standards in force, necessary and mandatory for obtaining the habilitation certificate, are 100% met, (*Annex I.P.A.3.1.1. FV_Qualification standards_Mechanical engineering_certificate* / Anexa I.P.A.3.1.1. FV_Standarde abilitare_Inginerie mecanica_cert).
- ✓ At the time of the on-site visit, 3 doctoral students are activating in the DSUD-IM (with scholarship).
- ✓ The PhD program in Mechanical Engineering (DSUD-IM), organized within SDSIM, is designed in accordance with the expected learning outcomes; the programme is organised based on ECTS and includes learning, research and assessment activities leading to the EQF level 8 university qualification.
- ✓ DSUD-IM has a modern research infrastructure and offers research services (https://cercetare.ulbsibiu.ro/ro/infrastructura-de-cercetare/centre-de-cercetare/lista-centre-de-cercetare/, http://centers.ulbsibiu.ro/incon/, https://eertis.eu/errf-2300-000c-0517, https://centers.ulbsibiu.ro/cscdp/, https://eertis.eu/errf-2300-000p-0520, http://centers.ulbsibiu.ro/ccpps/index.php, https://eertis.eu/errf-2300-000z-0486).
- ✓ The development and endowment of research centers/laboratories with modern equipment is appropriate for carrying out advanced research activities and for training experts in DSUD-IM.
- ✓ During the visit, some recommendations were made regarding the updating of the curriculum and the unitary formulation of the learning outcomes in accordance with the specific ARACIS standards, developed in 2025 and the observations made by the interested parties (doctoral students, doctoral supervisors).

Following the completion of the maintaining accreditation procedure, the decision of the evaluation panel is the following:

Maintaining accreditation (MAC)

VII. Annexes

1. *Program of the visit of the ARACIS evaluation team*
2. *Annex I.P.A.2.1.1-1 List of licensed software used by doctoral students*
3. *Annex I.P.A.2.1.1-2 Laboratory equipment Faculty of Engineering of ULBS*
4. *Annex I.P.A.3.1.1. FV_Qualification standards_Mechanical engineering_certificate*
5. *Annex I.P.A.3.1.2 Doctoral supervisors involved in projects*
6. *Annex I.P.B.9.2.1 List of scientific articles published by doctoral supervisors and doctoral students*
7. *Annex I.P.C.1.1.1 Report-SCEAC_-IOSUD-ULBS-2025*
8. *Annex I.P.C.1.2.1 Report measuring the degree of satisfaction and the need for mentoring drd_cert*
9. *List of doctoral theses defended in the period 2021-2025*