



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

Higher Education Institution/Provider Organization:	"LUCIAN BLAGA" UNIVERSITY OF SIBIU
Doctoral School:	Doctoral School of Engineering Sciences and Mathematics
Doctoral Domain:	Computers and Information Technology
The objective of the external evaluation:	Maintaining accreditation (MAC)

Members of the ARACIS Evaluation Panel

No.	Last Name and First Name	Team role	Signature
1.	<i>PROF. DR. ING. HABIL. RUGHINIȘ RĂZVAN</i>	Expert evaluator	
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I. Introduction

- the context in which the external evaluation report was drafted (the type of evaluation, the period covered by the evaluation, membership of the external quality experts' panel, etc.);
- description of the higher education institution / Romanian Academy (establishment, evolution, mission, governance, structure, study programmes/domains, external quality evaluation procedures applied);
- general description of the doctoral study domain (why it was established - in the case of a provisional authorisation to operate; evolution and/or changes since the last external quality evaluation procedure - in the case of procedures intended for accreditation or maintaining accreditation, as applicable).

This external evaluation report was drafted in the context of the procedure for maintaining the accreditation of the doctoral study domain Computers and Information Technology, organised by IOSUD - "Lucian Blaga" University of Sibiu, within the Doctoral School of Engineering Sciences and Mathematics. The evaluation concerns the period 2021-2025 and is based on the internal evaluation report submitted by the institution, its supporting documents and annexes, supplementary clarifications requested by the ARACIS panel, and the external evaluation visit carried out on 18-19 May 2026. The ARACIS evaluation panel consisted of Prof. Dr. Ing. Răzvan Rughiniș, expert evaluator and chair of the panel, Prof. Dr. habil. Gabor Kiss, international expert evaluator, and Marius Nistor, doctoral student evaluator.

"Lucian Blaga" University of Sibiu is a public, non-profit higher education institution established by Romanian Government Decision No. 225/1990, with institutional origins in the Institute of Higher Education in Sibiu created in 1976. The university operates on the basis of university autonomy, in accordance with the Romanian Constitution, the Higher Education Law, the ULBS Charter, and the other regulations applicable to higher education in Romania. ULBS defines its mission as the provision of advanced education and research, the training of highly qualified human resources, and the generation and transfer of knowledge to society. In the 2024-2025 academic year, ULBS had 14,736 students, including 11,488 bachelor's students, 2,777 master's students, and 471 doctoral students enrolled in 16 doctoral domains. The university comprises nine faculties, 24 teaching departments, and six doctoral schools.

Doctoral studies at ULBS are organised by IOSUD-ULBS through accredited doctoral schools. Following the 2021 ARACIS evaluation of IOSUD and the doctoral domains, ULBS maintained its accreditation for the organisation of doctoral studies and reorganised its former interdisciplinary doctoral school into six doctoral schools, a structure operationalised by Ministerial Order No. 6067/2022. The Doctoral School of Engineering Sciences and Mathematics includes five doctoral domains: Computers and Information Technology, Industrial Engineering, Mechanical Engineering, Engineering and Management, and Mathematics. As of 1 October 2025, the doctoral school had 78 doctoral students and 23 doctoral supervisors.

The doctoral domain Computers and Information Technology is organised within the Doctoral School of Engineering Sciences and Mathematics and is coordinated in accordance with the institutional regulations governing doctoral studies at ULBS. According to the internal evaluation report, as of 1 October 2025 the CTI doctoral domain had 17 doctoral students and 6 doctoral supervisors, including external supervisors. The doctoral programme lasts four years, comprises 240 ECTS credits, and leads to a level 8 qualification in the EQF/CNC framework. Its mission is to provide advanced training for specialists in Computers and Information Technology, with emphasis on scientific research, development, innovation, and knowledge transfer. The main research directions include artificial intelligence, advanced computing systems, dedicated computing, programming languages, simulation, quantum computing, image processing, databases, data and communication security, automation, human-computer interaction, and natural language processing. Doctoral research in the domain is supported especially by the Research Center for

Advanced Information Processing Architectures and the Research Center for Connected Intelligence, as well as by the broader research infrastructure and library/database resources of ULBS.

II. Methods used

- Analysed documents (internal evaluation report and its annexes; additional documents requested before and during the on-site visit, if any; other documents or data);
- On-site visit (general list of visited locations and categories of persons with whom debates have been organised);
- Other relevant methods or aspects.

The external evaluation was based on the analysis of the internal evaluation report prepared by IOSUD-ULBS for the doctoral study domain Computers and Information Technology, together with the annexes and supporting documents made available by the institution. The evaluation panel also analysed the public documents and information available on the ULBS and IOSUD-ULBS websites, including regulations, methodologies, operational procedures, CSUD documents, doctoral-school information, admission information, quality-assurance documents, ethics documents, information on doctoral supervisors, doctoral theses, research infrastructure, and other public information relevant to the evaluated domain.

The panel examined the supplementary clarifications provided by ULBS in response to the requests formulated during the preliminary documentary analysis. These clarifications concerned, in particular, stakeholder consultation, support measures for candidates with special educational needs and/or disabilities, the involvement of external stakeholders in quality-assurance procedures, the internal monitoring and review of the CTI doctoral domain, the involvement of external partners and alumni, and the analysis of students' evaluation of teaching staff.

The evaluation also included the external evaluation visit carried out at "Lucian Blaga" University of Sibiu on 18-19 May 2026. During the visit, the panel held technical discussions within the evaluation team and meetings with the representatives of the management of the organisational component, the team that drafted the internal evaluation report, representatives of quality-assurance structures, doctoral supervisors and teaching staff involved in the doctoral domain, doctoral students, alumni, employers, staff responsible for research centres and laboratories, and members of the University Ethics Committee. The visit also included the inspection of the material resources and research infrastructure used by the CTI doctoral domain.

The visit schedule included the following meetings and activities: technical discussions within the ARACIS evaluation panel; meeting with the management representatives of the organisational component; meeting with the team that prepared the internal evaluation report; meetings with representatives of quality-assurance structures; meeting with doctoral supervisors and teaching staff involved in the CTI doctoral domain; visit of the material resources at the Faculty of Engineering, including the infrastructure relevant to doctoral research; meeting with alumni of the doctoral domain; meeting with employers of graduates; meeting with doctoral students; meeting with the persons responsible for research centres and laboratories; meeting with members of the University Ethics Committee; final working meetings of the panel; and the final meeting with the representatives of the institution and of the evaluated domain for communicating the preliminary conclusions of the evaluation process.

The assessment was carried out by correlating the information provided in the internal evaluation report, the annexes and public institutional documents, the supplementary clarifications, and the evidence obtained during the visit. Particular attention was given to the correspondence between the documentary evidence and the actual functioning of the doctoral domain, including the organisation of doctoral studies, human and material resources, research infrastructure, doctoral-student experience, quality-assurance mechanisms, ethics and academic integrity procedures, stakeholder involvement, internationalisation, and the implementation of previous ARACIS recommendations.

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

DOMAIN A. Institutional capacity

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

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

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

Indicator I.P.A.1.1.1	For delivering the study programme/domain, the HEI has adequate organisational components and an adequate management system, which operate based on methodologies, regulations and procedures that are periodically reviewed as required by law.
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The CTI doctoral domain at ULBS functions within IOSUD-ULBS and the Doctoral School of Engineering Sciences and Mathematics, in a formally regulated institutional framework that ensures the organization and coordination of doctoral studies through clearly defined management structures, responsibilities, and procedures. The REI refers in this respect to the university organizational chart, the Regulation on the organization and conduct of doctoral studies, the Regulation of the Doctoral School of Engineering Sciences and Mathematics, and the rules governing the election and functioning of academic management structures (REI, p. 18). The IOSUD doctoral studies website and its public sections dedicated to CSUD and doctoral documents, linked in the REI, also show the structure of IOSUD, the doctoral schools, annual IOSUD activity reports, quality-assurance reports, doctoral study contracts, and operational procedures. The CTI doctoral domain therefore benefits from adequate organizational components and a coherent management system based on methodologies, regulations, and procedures that are periodically reviewed.

The indicator is: fulfilled.

Standard S.A.1.2. Stakeholder engagement

The HEI proves that it engages the relevant stakeholders in developing methodologies and regulations, as well as implementation procedures.

Indicator I.P.A.1.2.1	The opinions of the faculty and department members, of the subsidiary or extension* and of other stakeholders are considered in the process of adopting and revising methodologies, regulations and implementation procedures.
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The CTI doctoral domain is integrated into a governance framework in which doctoral students, doctoral supervisors, and doctoral-school structures participate in the adoption and revision of regulations and procedures. The REI states that IOSUD-ULBS takes into account the opinions of doctoral students, doctoral supervisors, academic guidance and integrity committees, and other stakeholders, including employers and socio-economic partners, in the development and revision of methodologies and procedures (REI, p. 19). The CSUD page and the doctoral studies website, both linked in the REI, show the public visibility of the governance structures of doctoral studies and the existence of student representation within CSUD and the doctoral schools. The participation of stakeholders is therefore integrated into the functioning of the doctoral domain.

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

The HEI owns adequate movable and immovable assets to enable it to carry out the study programme/domain.

Indicator I.P.A.2.1.1	The HEI legally owns venues for the related education, research and administrative processes, as well as for services for students, doctoral students and trainees, thus providing an enabling environment for living and studying, including for disabled persons. Optimal venues are also provided for activities of the staff. Such venues are adequately equipped.
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The CTI doctoral domain benefits from an adequate material base for teaching, research, and administrative activities. The REI presents quantitative data on the university's educational and research spaces and states that doctoral activities in CTI are carried out within the Faculty of Engineering and in research centres equipped with modern infrastructure, access to databases, and specialized equipment (REI, pp. 19-20). The university library page linked in the REI shows the availability of subscribed databases and library services, while the EERIS research-infrastructure records linked in the REI describe active research facilities at ULBS, including advanced computer architecture and processing systems and the Connected Intelligence Research Center. The CTI doctoral domain thus has access to the premises, equipment, and support resources necessary for the conduct of doctoral studies.

The indicator is: fulfilled.

Standard S.A.2.2. Management of material resources

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

Indicator I.P.A.2.2.1	The movable and immovable assets are properly maintained to ensure optimal conditions for studying, living and research, as well as for work.
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The movable and immovable assets used by the CTI doctoral domain are managed within the Faculty of Engineering and the Doctoral School of Engineering Sciences and Mathematics in a manner that ensures continuity of academic and research activity. The REI describes regular maintenance, repairs, cleaning, modernization, and investment planning supported by institutional financial documents and the institutional development strategy (REI, p. 21). The same framework presents the infrastructure as safe, functional, and adapted to current research requirements. The assets used in the CTI doctoral domain are therefore maintained in conditions adequate for study, research, and work.

The indicator is: fulfilled.

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

Standard S.A.3.1. Human resources

The HEI has the required human resources to organise and deliver the evaluated study programme/domain.

Indicator I.P.A.3.1.1	The human resources of the organisational component are suitable to perform the activities pertaining to the evaluated study programme/domain. The teaching staff has the required qualifications and professional competences to teach the subject matters assigned to them in the job list.
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The CTI doctoral domain is supported by doctoral supervisors affiliated with IOSUD-ULBS in accordance with the institutional regulations and the habilitation framework applicable to doctoral studies. The REI lists the doctoral supervisors associated with the domain and states that the affiliated supervisors meet the minimum and mandatory CNATDCU standards (REI, pp. 21-22), while Annex I.P.A.3.1.1 documents the fulfillment of habilitation standards. The REI also identifies the teaching staff involved in the advanced training component and explains the role of the academic guidance and integrity committees in the coordination of the doctoral students' individual research program. The human resources available to the CTI doctoral domain are therefore adequate for the conduct of the program.

The indicator is: fulfilled.

Indicator
I.P.A.3.1.2

The HEI ensures professional and personal development for its staff.

The professional and personal development of staff involved in doctoral studies is supported at ULBS through institutional strategic objectives related to continuous improvement and internationalization, as well as through research activity, training, and mobility opportunities. The REI refers in this respect to the institutional development framework and to Erasmus-related mobility procedures applicable to staff (REI, p. 23). The doctoral documents and regulations pages linked in the REI show that doctoral studies at ULBS operate within a structured institutional framework that includes annually updated documents, operational procedures, and institutional reporting. The university therefore ensures the professional and personal development of the staff involved in the doctoral domain.

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.

The recruitment and co-option of new doctoral supervisors are governed at ULBS by a legal and institutional framework that includes the national methodology for granting the habilitation certificate, the ULBS habilitation methodology, the doctoral studies regulations, and the methodology for filling vacant teaching and research positions (REI, p. 23). The ministerial orders and the doctoral regulations made publicly available on the IOSUD website, in sections linked in the REI, illustrate the transparency of this framework. Recruitment procedures relevant to the CTI doctoral domain are legally grounded, publicly regulated, and transparently organized.

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.

The CTI doctoral domain benefits from the use of IT tools in the administrative and academic processes managed by IOSUD-ULBS and the Doctoral School of Engineering Sciences and Mathematics. The REI refers to online access to services and documents, applications for student and administrative management, online forms for collecting feedback, and the anti-plagiarism platform used in doctoral procedures (REI, pp. 23-24). The IOSUD doctoral studies website and the documents section linked in the REI illustrate the online availability of doctoral regulations, contracts, forms, and guidance materials, while the national platforms for thesis consultation and thesis validation show the digital support used in doctoral finalization procedures. IT tools are thus effectively used to improve access and support the quality of services relevant to doctoral studies.

The indicator is: fulfilled.

DOMAIN B. Educational efficacy

Criterion B.1. Content and relevance of study programmes

Standard S.B.1.1. Content of study programme/s*

The study programme is based on a curriculum designed so that students can acquire the expected learning outcomes.

Indicator I.P.B.1.1.1	The study programme is developed and structured according to the expected learning outcomes, and organised based on transferable study credits. It includes all learning, teaching, practical training, research and evaluation experiences, which, together, lead to a higher education qualification.
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The CTI doctoral program is structured in accordance with expected learning outcomes and the ECTS system and combines an advanced training component with an individual scientific research program. The REI clearly distinguishes between the advanced training component, worth 30 ECTS, and the research component that covers the rest of the doctoral trajectory through research activity, reporting, dissemination, and thesis completion (REI, pp. 24-26). The Courses section and the Documents section of the IOSUD website, both linked in the REI, show the existence of subject descriptions, annual study arrangements, doctoral contracts, and the individual doctoral study program. The curriculum therefore combines learning, research, and assessment in a structured way.

The indicator is: fulfilled.

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

Standard S.B.2.1. Alignment with the qualification level and the intended competences

In the curriculum design and development process, the organisational component seeks to ensure the qualification level, as well as correlation with the envisaged occupations.

Indicator I.P.B.2.1.2	The expected learning outcomes are correlated with the competences required by those occupations, according to the occupational standards and/or the European Skills, Competences and Occupations (ESCO).
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The expected learning outcomes of the CTI doctoral program are correlated in the REI with level-8 qualifications in the EQF/CNC framework and with occupational categories from the ESCO classification, especially in science and engineering, education, and information and communications technology (REI, pp. 26-27). The REI also details the specific and transversal competencies targeted by the program, including advanced research skills, scientific communication, digital competences, project management, and research ethics. The ESCO page linked in the REI corresponds to this occupational framework. The CTI doctoral program is therefore aligned with the qualification level and the intended competences.

The indicator is: fulfilled.

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

Standard S.B.3.1 Principles

The organisational component implements the principles of student-centred learning.

Indicator I.P.B.3.1.1	The organisational component ensures implementation of the student-centred learning in the curriculum and through the teaching strategies used in the learning and teaching activities and experiences.
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The CTI doctoral program implements student-centred learning primarily through the individualized scientific research path of doctoral students, through the connection between admission and research topics, and through the use of individual research programs adapted to the doctoral student's research profile and pace of development. The REI refers in this regard to the ULBS Charter, the Code of Rights and Obligations of Students, the doctoral student guide, and the institutional strategic framework (REI, p. 28). The doctoral documents section linked in the REI includes the doctoral student guide and the individual

* 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.

doctoral study program, which corresponds to the student-centred structure described in the REI. The principles of student-centred learning are therefore implemented in the CTI doctoral program.

The indicator is: fulfilled.

Indicator I.P. B.3.1.2	The organisational component ensures opportunities for students to participate in academic mobility programmes organised in person and/or virtually.
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The CTI doctoral program offers doctoral students real opportunities to participate in academic mobility and other international academic activities. The REI documents examples of conference participation, summer-school participation, an Erasmus practical mobility, and FORTHEM-supported participation by doctoral students in the evaluated period (REI, pp. 28-29). These opportunities are framed institutionally through the doctoral studies website and through international project and partnership pages linked in the REI, including HUBCAP, RECODE-MLG, and RIBES, which illustrate the wider international cooperation context in which the domain operates. Doctoral students therefore have access to opportunities for in-person and other academically relevant mobility experiences.

Recommendation: Increase the systematic promotion of short-term international mobility opportunities, summer schools, and research visits that are compatible with the professional obligations and employment status of doctoral students.

The indicator is: fulfilled.

Standard S.B.3.2. Fairness

The organisational component provides fair opportunities for students.

Indicator I.P.B.3.2.1	The organisational component provides fair opportunities for students, in line with their potential and aspirations, taking into account the diversity of learning styles and abilities
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The CTI doctoral program is situated within an institutional framework that promotes fair opportunities for students, taking into account diversity of learning styles and, where applicable, special needs. The REI refers in this respect to equity and inclusion policies, the SmartHub integrated student services structure, the ULBS Charter, the Code of ethics and academic conduct, and support measures such as tutoring, educational advising, and personalized learning sessions (REI, pp. 29-30). The public doctoral framework and the doctoral documents section linked in the REI illustrate the existence of institutional mechanisms relevant to the equitable treatment and support of doctoral students. Fair opportunities are therefore ensured within the CTI doctoral program.

Recommendation: The Doctoral School and the University should better communicate the opportunities available for doctoral students, including the doctoral yearly grant.

The indicator is: fulfilled.

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

Standard S.B.4.1. Access to resources and services

The organisational component provides access to adequate resources and support services, according to the needs of the students.

Indicator I.P.B.4.1.1	The organisational component provides students, including those with special educational needs/disabilities, with access to resources and services designed to support the learning process, adequate for the individual learning needs, the study domain, the study cycle, and the form of organisation of the study programme.
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Doctoral students in the CTI domain benefit from access to resources and support services relevant to the learning and research process, including library services, digital resources, research infrastructure, and institutional support structures. The REI refers to accessibility and support policies, to SmartHub, to institutional support for students with special educational needs or disabilities, and to measures concerning physical and digital accessibility (REI, p. 30). The library page and the research-centre pages linked in the REI confirm the availability of subscribed databases, library services, and research infrastructure relevant

to the domain. Access to resources and support services is therefore ensured in a manner appropriate to the needs of doctoral students.

The indicator is: fulfilled.

Criterion B.5. Learning outcomes

Standard S.B.5.1. Definition and evaluation

Learning outcomes are adequately defined and evaluated.

Indicator I.P.B.5.1.1	Learning outcomes are adequately described, and they support understanding of the students' and teachers' expectations regarding the content of the subject matters in the curriculum.
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The learning outcomes of the CTI doctoral program are described through course descriptions, curricula, and examples structured by knowledge, skills, and responsibility/autonomy, in accordance with level 8 of the National Qualifications Framework (REI, pp. 30-32). The REI gives concrete examples of such outcomes in the first-year curriculum, while the Courses and Documents sections linked in the REI show the existence of subject descriptions and program-related documentation relevant to doctoral studies. The expected learning outcomes are thus formulated in a way that clarifies the academic expectations associated with the curriculum.

The indicator is: fulfilled.

Indicator I.P.B.5.1.2	Achievement of the learning outcomes is checked in ongoing examinations and study completion exams.
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The achievement of learning outcomes in the CTI doctoral program is verified through a coherent system of assessment covering the advanced training component, the scientific research project, the scientific research reports, and the final public defense of the doctoral thesis. The REI details the grading logic, the obligation to accumulate credits, the role of the doctoral supervisor and the academic guidance and integrity committee, and the consequences of repeated unsatisfactory results (REI, pp. 32-34). The doctoral documents section and the thesis-related pages linked in the REI illustrate the procedural framework for these stages. The verification of learning outcomes is therefore organized in a systematic and rigorous manner.

The indicator is: fulfilled.

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

Standard S.B.7.1. Admission

The admission procedures and principles ensure access to higher education.

Indicator I.P.B.7.1.1	The organisational component applies the admission procedures.
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Admission to the CTI doctoral program is organized through publicly communicated regulations and annually updated procedural information concerning admission conditions, calendar, required documents, and available places. The REI states that this process is managed through CSUD and the doctoral schools in accordance with principles of fairness, transparency, and equal access (REI, p. 34). The admission page linked in the REI shows the admission regulation, the calendar, and the documents required for application. The admission procedure is therefore publicly and transparently organized.

The indicator is: fulfilled.

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

candidates with special educational needs and/or disabilities (REI, pp. 34-35). The REI cites in this respect the admission regulations, the methodology for preventing discrimination and violations of human dignity, and the methodology concerning the organization and functioning of the Career Counseling and Guidance Department. The admission and doctoral documents pages linked in the REI illustrate the visibility of the admission framework and of the associated institutional documentation. The admission process therefore includes the institutional support framework required by the indicator.

Recommendation: Make the support measures available for candidates with special educational needs and/or from vulnerable groups more explicit in the doctoral admission information.

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.
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The academic progress of doctoral students in the CTI domain is governed by the institutional regulations on doctoral studies, by the operational procedure for the completion of doctoral studies, by the doctoral study contract, and by the assessment requirements included in the curriculum (REI, p. 35). The REI also indicates that the Doctoral, Postdoctoral and Habilitation Studies Service monitors and documents the academic status, promotion, individual performance, and compliance with ethical standards of doctoral students. The doctoral documents section linked in the REI includes the corresponding contracts, forms, and completion procedures relevant to this academic trajectory. The academic path of doctoral students is therefore regulated and monitored in a structured way.

The indicator is: fulfilled.

Criterion B.8. Internationalisation process

Standard S.B.8.1. Internationalisation

Improving the quality of education and research through internationalisation actions.

Indicator I.P.B.8.1.1	The organisational component carries out international cooperation actions supporting mobility of the members of its own community and collaboration in academic and research activities.
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The internationalization of doctoral studies at IOSUD-ULBS is supported through educational, research, and mobility partnerships, Erasmus agreements, FORTHEM activities, and the possibility of international co-supervision or the inclusion of foreign members in doctoral committees, as described in the REI (REI, pp. 36-37). The REI also records concrete actions relevant to doctoral studies, including information sessions, workshops, mobility-related events, and participation in international academic initiatives. The international project pages linked in the REI, including HUBCAP, RECODE-MLG, and RIBES, illustrate that ULBS is involved in international collaborative initiatives that support the wider international environment of doctoral studies. The CTI doctoral domain thus benefits from an active internationalization framework.

Recommendation: Formulate a strategy to strengthen the internationalization of the CTI doctoral domain through more domain-specific mobility, co-supervision, and research collaboration opportunities, including English language information on the website.

The indicator is: fulfilled.

Criterion B.9. Scientific research results

Standard S.B.9.1 Scientific research in the education process

Scientific research activities support students in achieving the learning outcomes.

Indicator I.P.B.9.1.1	Learning based on scientific investigation and research results support and are capitalised upon in achieving the learning outcomes envisaged through the study programme.
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Scientific research is integrated directly into the training process of doctoral students in the CTI domain through the individual research program, research reports, publications, conference participation, and the

development of the doctoral thesis. The REI explicitly links these activities to the learning outcomes targeted by the study program and refers to course descriptions, individual research programs, research reports, scientific papers, and doctoral theses as supporting evidence (REI, pp. 37-38). The Courses and Documents sections linked in the REI are consistent with this structure of research-based doctoral training. Learning based on scientific investigation is therefore embedded in the CTI doctoral program.

Recommendation: Continue encouraging doctoral students to publish in internationally recognised, indexed journals and to use recognised journal-quality lists when selecting publication venues.

The indicator is: fulfilled.

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

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

Indicator I.P.B.9.2.1	The results of scientific research are visible at national and international level in that scientific domain, and capitalised upon in an adequate manner.
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The REI presents a substantial and recent body of scientific results associated with the CTI doctoral domain, including publications by doctoral students and graduates in Q1 and Q2 journals and participation in national and international research projects (REI, pp. 38-39). The project websites linked in the REI, such as HUBCAP, RECODE-MLG, and RIBES, illustrate the participation of ULBS in international collaborative initiatives relevant to the research profile of the domain. Together with the publication list and project list included in the REI, these elements show that the scientific results of the domain are visible and appropriately capitalized at national and international level.

The indicator is: fulfilled.

DOMAIN C. Quality management

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

Standard S.C.1.1. Application

Adequately implemented strategic directions, actions, and procedures

Indicator I.P.C.1.1.1	The organisational component consistently carries out actions and applies procedures, proving their impact on improving the quality of education at the level of the study programme
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The CTI doctoral study program within IOSUD-ULBS, coordinated by the Doctoral School of Engineering Sciences and Mathematics, operates in accordance with the institutional quality assurance policies of ULBS. The existence and functionality of the internal quality assurance mechanisms are documented through annual operational plans, CEAC reports concerning the implementation of specific measures, annual SCEAC reports at the IOSUD-ULBS level, and the institution's annual activity reports (REI, p. 40). Strategic directions for quality enhancement are integrated into the Rector's annual reports concerning the state of the university, undergoing subsequent analysis and approval as evidenced by the minutes of the Senate meetings (Raportul Rectorului privind starea ULBS în perioada martie 2025 – februarie 2026). The efficacy and applicability of the procedures governing the doctoral trajectory are assessed via feedback mechanisms, specifically through evaluations and satisfaction questionnaires completed by the doctoral candidates (Chestionar privind măsurarea gradului de satisfacție și nevoia de mentorat), and the continuous monitoring of the quality of scientific activities is ensured through the systematic reporting of research by both the doctoral students and the tenured doctoral supervisors at IOSUD-ULBS (REI, p. 40).

The indicator is: fulfilled.

Standard S.C.1.2. Stakeholder engagement

The HEI proves that it engages the stakeholders who have relevant activity in applying the procedures.

Indicator I.P.C.1.2.1	The opinions of the members of its own community and of other stakeholders are taken into account in the procedure implementation process.
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The evaluated CTI study program within IOSUD-ULBS demonstrates the active involvement of stakeholders, such as doctoral candidates and doctoral supervisors, through specific regulations and procedures (Regulament privind organizarea și funcționarea Comisiei pentru evaluarea și asigurarea calității în cadrul Universității „Lucian Blaga” din Sibiu; REI p. 40). Doctoral candidates are consulted via questionnaires, with the collected data subsequently synthesized into reports (Anexa I.P.C.1.2.1 Raport măsurarea gradului de satisfacție și nevoia de mentorat). Students are represented across all institutional structures (University Senate, Board of Directors, CSUD, Doctoral School Council, CEAC Commission, etc.), in accordance with the regulations currently in force. At the IOSUD-ULBS level, the Quality Assessment and Assurance Subcommittee includes a representative of employers... Following these consultations, the perspectives of the academic community members are integrated into the strategic documents and revised regulations at the IOSUD-ULBS level (Planul strategic multianual; Plan operațional privind activitatea managerială pe anul 2026; REI p. 40).

The indicator is: fulfilled.

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

Standard S.C.2.2. Operation

Quality assurance and academic ethics and conduct organisational structures adequately perform their specific role and functions.

Indicator I.P.C.2.2.2.	The academic ethics commission operates based on the regulation approved by the University Senate, and performs actions that are compliant with the law, independently from any other structure or person in the higher education institution.
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At the level of the educational institution, the University Ethics Commission is established and operational, acting autonomously from any structure or individual within the university, in strict accordance with the provisions of national legislation. Its operation is governed by specific normative documents, such as the code of university ethics and deontology and its own organizational regulation (Regulamentul Comisiei de etică universitară din Universitatea "Lucian Blaga" din Sibiu; REI p. 41). The transparency of the commission's activities and decisions is ensured through the publication of annual activity reports and adopted resolutions on the institution's website (www.ulbsibiu.ro/ro/despre/organizare/structura/consilii-si-comisii/comisia-de-etica). Furthermore, the assurance of academic integrity throughout the elaboration of doctoral theses is supported by an internal strategy dedicated to preventing and combating plagiarism, as well as verifying compliance with ethical standards (Strategia Universității „Lucian Blaga” din Sibiu de prevenire și combatere a fenomenului de plagiat și de verificare a respectării eticii și deontologiei universitare în elaborarea tezelor de doctorat). Dedicated specifically to doctoral university studies, a research ethics subcommittee operates with the responsibility of implementing policies pertaining to scientific integrity. Its sphere of competence obligatorily encompasses the following aspects: publication norms and authorship, upholding the dignity of research participants, the application of ethical standards in research involving human subjects and in animal experiments, adherence to general bioethical principles, research data management, the governance of collaborations and conflicts of interest, fraud prevention, the provision of an effective research environment, as well as the prevention of prejudice in research and innovation endeavors (REI p. 41).

Recommendation: Develop and publish institutional guidance on the responsible and ethical use of artificial intelligence in doctoral research, academic writing, evaluation, and thesis preparation.

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.
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IOSUD-ULBS possesses a regulatory framework governing the initiation, monitoring, and revision of study programs and domains, alongside their associated activities, ratified by the Senate Decision of September 25, 2025 (Regulament privind inițierea, aprobarea, monitorizarea și evaluarea periodică a programelor de studii). Furthermore, a dedicated support service for quality assurance and internal managerial control operates within the institution, tasked with the implementation, development, and monitoring of the quality management system for education and research (Regulament de organizare și funcționare a serviciului asigurarea calității și control intern managerial; REI p. 42). These procedures were applied concretely to the CTI doctoral domain through the 2025 progress report evaluated by ARACIS and through the revision of the curriculum and doctoral-study completion procedures following the extension of doctoral studies from three to four years.

The indicator is: fulfilled.

Indicator I.P.C.3.1.2	Members of its own community and other stakeholders are involved in the procedure implementation process.
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Within IOSUD-ULBS, the implementation of quality assurance procedures is realized through a participatory framework that integrates members of the academic community. Academic staff and students are directly engaged via their activities within the Council for Doctoral Studies (CSUD), the Doctoral School Council, and CEAC initiatives, thereby contributing to the evaluation of the study domain and the formulation of enhancement proposals (REI, p. 42). Students provide feedback through annual assessments concerning their level of satisfaction with the academic environment at ULBS, with the pertinent data being gathered via a questionnaire. Subsequently, the derived results are analyzed and utilized by the entities entrusted with quality management (Procedură operațională privind evaluarea gradului de satisfacție a studenților față de serviciile și activitățile oferite de ULBS). External stakeholders are involved through participation in academic guidance and integrity committees and through training activities addressed to doctoral students, including invited lectures and workshops.

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.

Doctoral-student feedback is collected through two recurring processes: a programme and mentoring evaluation in October-November, and an evaluation of the advanced university studies programme in April-May. The questionnaires are distributed digitally, including through Google Forms and Google Classroom, and the results are centralised and analysed by the IOSUD-ULBS quality-assurance structures. The panel recommends clearer CTI domain-level reporting of these results and of the improvement measures adopted. The acquired data is centralized and analyzed by the Sub-commission for Quality Evaluation and Assurance within IOSUD-ULBS, while the evaluation outcomes are synthetically integrated into the annual activity reports of the organizing component (REI p. 43).

Recommendation: Student feedback and teaching evaluation need clearer domain-level reporting.

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.

ULBS has implemented a system for data collection and analysis in accordance with the quality assurance regulations and the pertinent CEAC methodology governing these processes (Regulament privind organizarea și funcționarea comisiei pentru evaluarea și asigurarea calității în cadrul Universității „Lucian Blaga” din Sibiu). This endeavor is underpinned by institutional procedures that leverage internal databases, integrating salient information pertaining to academic performance, professional integration, and student satisfaction levels (Plan operațional privind activitatea managerială pe anul 2026; REI p. 43). Concurrently, at the level of doctoral university studies, the academic trajectory of doctoral candidates is rigorously monitored, placing a significant emphasis on the completion phase of their studies. Consequently, following the preliminary defense of doctoral theses before the guidance and academic integrity commission, the manuscripts are uploaded to the <https://rei.gov.ro/teze-consultare> platform, where they remain accessible for a 90-day period to facilitate public consultation (REI p. 43).

The indicator is: fulfilled.

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

Standard S.C.6.1. Transparency

The organisational component ensures transparency of information, as required by the law.

Indicator I.P.C.6.1.1	The organisational component ensures publication and access to information of public interest regarding the evaluated study programme.
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At the level of IOSUD-ULBS, public information regarding doctoral university studies, including the CTI domain, is disseminated in a transparent manner. These details can be accessed directly on the official website of the “Lucian Blaga” University of Sibiu (<https://www.ulbsibiu.ro>). Furthermore, comprehensive information is available on the dedicated webpage of the Institute for the Organization of Doctoral and Postdoctoral Studies (doctorate.ulbsibiu.ro/ro/). This platform centralizes all documentation essential to the doctoral trajectory, encompassing regulations, methodologies, and procedures, information regarding study domains and doctoral supervisors, as well as data pertaining to admissions, preliminary defenses, public defenses, and the completion of studies (REI p. 44).

The indicator is: fulfilled.

Indicator I.P.C.6.1.2	The organisational component ensures transparent decision-making processes.
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At the level of IOSUD-ULBS, the transparency of the decision-making processes pertaining to the CTI doctoral university study domain is systematically ensured through the university's official website and the dedicated webpage of the Council for Doctoral University Studies (CSUD) and the doctoral schools (<https://doctorate.ulbsibiu.ro/ro/>). Access to information of public interest is internally governed by the Regulation regarding institutional transparency. In this regard, the institution periodically publishes the resolutions of its governing structures, specifically those of the University Senate and the Board of Directors, as well as the decisions of the ethics commissions. Financial and administrative transparency is guaranteed through the publication of financial documents (bugetul anual, sursele de finanțare, cheltuielile), the structure and calculation methodology of the tuition and administrative fees approved by the Senate, alongside the regulations concerning the quantum and allocation of scholarships. Concurrently, the decisions of the CSUD are published on the dedicated website <https://doctorate.ulbsibiu.ro/ro/csud/> (REI p. 45).

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.

The CTI doctoral study program within IOSUD-ULBS underwent an external ARACIS evaluation in 2021, an undertaking that resulted in the maintenance of its accreditation, pursuant to ARACIS Council Resolution No. 74 of 30.09.2021 (REI p. 45). The current assessment was initiated in accordance with IOSUD-ULBS regulations, subsequent to its approval by the CSUD, and in strict adherence to the prevailing methodological requirements. During the preceding ARACIS evaluation visit, a series of recommendations were formulated for this study program; based on the progress evaluation, it is observed that all such recommendations have been successfully implemented.

The indicator is: fulfilled.

IV. SWOT Analysis

Strengths: ✓ The CTI doctoral domain is integrated in a stable and well-regulated institutional framework within IOSUD-ULBS and the Doctoral School of Engineering Sciences and Mathematics. ✓ Doctorates in co-supervision are strongly encouraged. ✓ The domain benefits from experienced doctoral supervisors with national and international visibility and from academic guidance and integrity committees that include external expertise. ✓ Doctoral students have access to relevant research infrastructure, especially through the Research Center for Advanced Information Processing Architectures and the Research Center for Connected Intelligence. ✓ The doctoral programme has clear research directions in areas of high relevance, including artificial intelligence, advanced computing systems, image processing, data security, automation, and human-computer interaction. ✓ ULBS provides support for doctoral students' participation in scientific events, publication of research results, and access to databases and library resources. ✓ Quality-assurance, ethics, and doctoral-study procedures are	INTERNAL FACTORS ①	Weaknesses: ✓ International mobility is present but still limited, especially in relation to longer research stays, international co-supervision, and joint doctoral arrangements. ✓ The documentation of external stakeholder involvement, although improved through clarifications, could be made more systematic and traceable at the level of the CTI doctoral domain. ✓ Employer and alumni consultation should be more consistently reflected in minutes, feedback syntheses, reports, and follow-up decisions. ✓ The mechanisms for analysing student feedback and teaching-staff evaluation would benefit from clearer domain-level reporting and more visible links between feedback and improvement measures. ✓ Doctoral students' participation in mobility and dissemination activities may be constrained by funding, professional obligations, and the employment status of many doctoral candidates.
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institutionally regulated and are supported by public documentation, annual reporting, and internal monitoring mechanisms. ✓ The domain has implemented the recommendations from the previous external evaluation and has updated its curriculum and procedures in response to new legal and institutional requirements.		
SWOT analysis		
Opportunities: ✓ The strong demand for advanced CTI expertise in the socio-economic environment creates favourable conditions for applied doctoral topics, industrial partnerships, and technology-transfer activities. ✓ ULBS membership in the FORTHEM Alliance offers opportunities for international mobility, research collaboration, early-stage researcher training, and participation in European academic networks. ✓ The extension of doctoral studies to four years creates space for better structuring of research training, supervision, publication activity, and international exposure. ✓ The development of artificial intelligence and data-driven technologies can strengthen the scientific profile of the domain and attract new doctoral topics, partners, and candidates. ✓ Partnerships with employers and alumni can be further used to improve doctoral training, identify relevant research problems, and support professional integration outside academia. ✓ The Research Career Guidance Center and existing institutional support structures can contribute to better mentoring, career	↓ EXTERNAL FACTORS	Threats: ✓ National underfunding of doctoral studies may limit scholarships, research resources, mobility, publication support, and the attractiveness of doctoral education. ✓ Competition from industry may reduce graduates' interest in doctoral studies, especially in CTI, where qualified master's graduates have attractive employment alternatives. ✓ The limited availability of national research funding and dedicated doctoral research projects may constrain doctoral students' integration into funded research teams. ✓ The small number of foreign doctoral students may slow the internationalization of the domain. ✓ High workloads and employment obligations of doctoral students may affect mobility participation, research continuity, and timely completion. ✓ Rapid technological change, especially in artificial intelligence, requires continuous updating of doctoral training, research methods, infrastructure, and ethical guidance. ✓ The unethical or insufficiently regulated use of AI tools in research and academic writing may create new risks for academic integrity if not addressed through clear institutional guidance.

planning, and retention of doctoral students. ✓ The university's increasing research visibility and participation in international projects can support stronger recruitment of doctoral students and supervisors.		
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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	
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	
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	

No.	Performance Indicator	Extent to which it was fulfilled (F/PF/UF)	Recommendations
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	
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	Increase the systematic promotion of short-term international mobility opportunities, summer schools, and research visits that are compatible with the professional obligations and employment status of doctoral students.
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	The Doctoral School and the University should better communicate the opportunities available for doctoral students, including the doctoral yearly grant.
14.	I.P.B.4.1.1 The organisational component provides students, including those with special educational needs/disabilities, with access to resources and services designed to support the learning process, adequate for the individual learning needs, the study domain, the study cycle, and the form of organisation of the study programme.	F	
15.	I.P.B.5.1.1 Learning outcomes are adequately described, and they support understanding of the students' and teachers' expectations regarding the content of the subject matters in the curriculum.	F	
16.	I.P.B.5.1.2 Achievement of the learning outcomes is checked in ongoing examinations and study completion exams.	F	

No.	Performance Indicator	Extent to which it was fulfilled (F/PF/UF)	Recommendations
17.	I.P.B.7.1.1 The organisational component applies the admission procedures.	F	
18.	I.P.B.7.1.2 Admission in higher education study programmes complies with the principles of fairness and equal opportunities, and with the establishing of support measures to ensure access of vulnerable groups at social and educational risk, including candidates with special educational needs and/or disabilities.	F	Make the support measures available for candidates with special educational needs and/or from vulnerable groups more explicit in the doctoral admission information.
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	Formulate a strategy to strengthen the internationalization of the CTI doctoral domain through more domain-specific mobility, co-supervision, and research collaboration opportunities, including English language information on the website.
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	Continue encouraging doctoral students to publish in internationally recognised, indexed journals and to use recognised journal-quality lists when selecting publication venues.
22.	I.P.B.9.2.1 The results of scientific research are visible at national and international level in that scientific domain, and capitalised upon in an adequate manner.	F	
DOMAIN C. Quality management			
23.	I.P.C.1.1.1 The organisational component consistently applies the procedures, and proves their impact on quality assurance.	F	
24.	I.P.C.1.2.1 The opinions of the members of its own community and of other stakeholders are taken into account in the procedure implementation process.	F	
25.	I.P.C.2.2.2. The academic ethics commission operates based on the regulation approved by the University Senate, and performs actions that are compliant with the law, independently from any other structure or person in the higher education institution.	F	Develop and publish institutional guidance on the responsible and ethical use of artificial intelligence in doctoral research, academic writing, evaluation, and thesis preparation.
26.	I.P.C.3.1.1 The organisational component consistently applies the procedures, and proves their impact on quality assurance.	F	
27.	I.P.C.3.1.2 Members of its own community and other stakeholders are involved in the procedure implementation process.	F	
28.	I.P.C.4.1.1 The organisational component analyses the results of the students' biannual evaluation of teachers.	F	Student feedback and teaching evaluation need clearer domain-level reporting.

No.	Performance Indicator	Extent to which it was fulfilled (F/PF/UF)	Recommendations
29.	I.P.C.5.1.1 The organisational component systematically collects and analyses data required for the internal quality assurance process.	F	
30.	I.P.C.6.1.1 The organisational component ensures publication and access to information of public interest regarding the evaluated study programme.	F	
31.	I.P.C.6.1.2 The organisational component ensures transparent decision-making processes.	F	
32.	I.P.C.8.1.1 The organisational component carries out the procedures pertaining to the external quality evaluation process, aiming to organise the evaluated study programme as provided by the law.	F	

Summary Table of Performance Indicators – Degree of Fulfillment

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

Other, general recommendations that were not given within the analysis of a specific performance indicator can be presented here.

Sum up the number of analysed performance indicators, and specify how many were assessed as fulfilled, partially fulfilled, and unfulfilled, if any.

A total of 32 performance indicators were analysed in the external evaluation report. Following the analysis of the internal evaluation report, the supporting documents and annexes, the supplementary clarifications provided by IOSUD-ULBS, and the evidence collected during the evaluation visit, all 32 indicators were assessed as fulfilled. No indicator was assessed as partially fulfilled or unfulfilled.

VI. Conclusions

A number of important aspects noted during the evaluation are reiterated here, and general conclusions are made about the quality of education delivered within the evaluated doctoral study domain.

Propose and substantiate a decision.

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

- accreditation*** (AC)/**maintaining accreditation** (MAC);

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

- b) **conditional maintaining of the provisional authorisation to operate*** (CMPA)/**conditional maintaining of accreditation** (CMAC);
- c) **non-accreditation*** (NAC)/**withdrawal of the accreditation** (WAC).

The external evaluation confirms that the doctoral study domain Computers and Information Technology, organised by IOSUD - "Lucian Blaga" University of Sibiu within the Doctoral School of Engineering Sciences and Mathematics, functions within a coherent institutional, regulatory, and quality-assurance framework. The doctoral domain is supported by appropriate management structures, transparent procedures, qualified doctoral supervisors, adequate administrative support, and access to institutional resources necessary for the organisation and conduct of doctoral studies.

The CTI doctoral domain has a clear academic and research profile, oriented towards relevant directions such as artificial intelligence, advanced computing systems, image processing, data security, automation, human-computer interaction, and related areas of computer science and information technology. The doctoral programme is structured in accordance with the requirements for level 8 qualifications, combines an advanced training component with individual scientific research, and supports the development of professional and transversal competences relevant to doctoral-level research. Doctoral students benefit from supervision, academic guidance and integrity committees, access to research centres and databases, and institutional support for participation in scientific events and publication of research results.

The research infrastructure available to the domain, especially through the Research Center for Advanced Information Processing Architectures and the Research Center for Connected Intelligence, supports the scientific activity of doctoral students and supervisors. The scientific results reported for the evaluated period show visibility at national and international level and are consistent with the objectives of the doctoral domain. The domain has also implemented the recommendations resulting from the previous external evaluation and has updated its curriculum and procedures in response to changes in the legal framework and to the extension of doctoral studies from three to four years.

The quality-assurance mechanisms applicable to the CTI doctoral domain are operational and are supported by institutional procedures, annual reporting, student feedback, internal monitoring, and the involvement of academic structures. The clarifications and the evidence analysed during the evaluation confirmed the application of procedures for monitoring and reviewing the doctoral domain, as well as the involvement of members of the academic community and external stakeholders. At the same time, the panel notes that the documentation of employer and alumni consultation, the visibility of support measures for candidates from vulnerable groups or with special educational needs, and the systematic promotion of mobility and internationalisation opportunities can be further strengthened.

The panel identified several development directions that may further strengthen the CTI doctoral domain. These concern the systematic promotion of short-term international mobility, summer schools, and research visits; clearer communication of opportunities available to doctoral students, including the doctoral yearly grant; clearer public information on support measures for candidates with special educational needs and/or from vulnerable groups; the formulation of a domain-specific internationalisation strategy; continued guidance for doctoral students in selecting recognised and academically appropriate publication outlets; clearer CTI domain-level reporting of student feedback and teaching evaluation results; and the development of institutional guidance on the responsible and ethical use of artificial intelligence in doctoral research, academic writing, evaluation, and thesis preparation.

Following the analysis of the internal evaluation report, the annexes and supporting documents, the supplementary clarifications, the public information available on the ULBS and IOSUD-ULBS websites, and the evidence collected during the evaluation visit, all 32 performance indicators were assessed as fulfilled. Therefore, the ARACIS evaluation panel proposes **maintaining the accreditation** of the doctoral study domain **Computers and Information Technology** at IOSUD - "Lucian Blaga" University of Sibiu.



THE ROMANIAN AGENCY FOR QUALITY ASSURANCE IN HIGHER EDUCATION

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*Listed in the European Quality Assurance Register for Higher Education - **EQAR***

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



Calendarul vizitei de evaluare externă a calității
domeniului de studii universitare de doctorat/ The timetable for the evaluation of the external quality evaluation visit
for the doctoral university study domain

Instituția de învățământ superior/Organizația furnizoare de educație/ Higher Education Institution / Education Provider Organization:
UNIVERSITATEA „LUCIAN BLAGA” DIN SIBIU / "LUCIAN BLAGA" UNIVERSITY OF SIBIU

Școala doctorală/ Doctoral School: Școala Doctorală de Științe Inginerești și Matematică / Doctoral School of Engineering Sciences and Mathematics

Domeniul de doctorat/ Doctoral Domain: Calculatoare și Știința Informației / Computers and Information Technology

Obiectivul evaluării externe/ The objective of the external evaluation: *(autorizare de funcționare provizorie/acreditare/menținerea acreditării domeniului de doctorat)* Menținerea acreditării domeniului de doctorat

Perioada vizitei de evaluare/ The evaluation period: 18-19.05.2026

Comisia de experți evaluatori ai ARACIS/Evaluation panel:

Reprezentantul ÎȘ/OFE:

Nr./No.	- Numele și prenumele/ Last Name and First Name	Calitatea/Team role
1.	<i>Prof. Dr. Ing. Rughiniș Răzvan</i>	<i>Membru - Cadru didactic RNE</i>
2.	<i>Prof. Dr. habil. Gabor Kiss PhD.</i>	<i>Membru - Evaluator internațional RNE-I</i>
3.	<i>Nistor Marius</i>	<i>Membru - Student doctorand RNE-S</i>

Nr./No.	Numele și prenumele/Last Name and First Name	Calitatea/Team role
1.	<i>Prof. Dr. Zamfirescu Constantin- Băla</i>	<i>Persoană de contact/Contact person</i>



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Intervalul orar/ <i>Hour</i>	Activități de evaluare/ <i>Evaluation activities</i>	Participanți/ <i>Participants</i>	Locație/ <i>Location</i> /Listă participanți/ <i>List of Participants</i>
Luni/ <i>Monday</i> , 18.05.2026			
08:30-09:00	Discuții tehnice în cadrul comisiei de experți în evaluarea externă a calității/ <i>Technical discussions within the expert committee for external quality evaluation</i>	- Comisia de experți evaluatori ai ARACIS/ <i>Panel members</i>	Sala/Locația/ Room/Location: <u>Rectoratul ULBS, Bulevardul Victoriei nr. 10, Sala Consiliului de Administrație, parter</u>
09:00-09:50	Întâlnirea comisiei de experți în evaluarea externă a calității cu reprezentanții conducerii componentei organizatorice/ <i>Meeting of the external quality evaluation experts' panel with the representatives of the management of the organisational component</i>	- Comisia de experți evaluatori ai ARACIS/ <i>Panel members</i> - Reprezentanți ai conducerii componentei organizatorice aferente domeniului de studii de doctorat evaluat/ <i>Representatives of the management of the organisational component</i> - Persoana de contact/ <i>Contact person</i>	Sala/Locația/ Room/Location: <u>Rectoratul ULBS, Bulevardul Victoriei nr. 10, Sala Consiliului de Administrație, parter</u> Lista persoanelor care vor participa la întâlnire/ List of participants attending the meeting:
10:00-10:50	Întâlnirea comisiei de experți evaluatori în evaluarea externă a calității cu echipa care a realizat raportul de evaluare internă (REI)/ <i>Meeting of the external quality evaluation experts' panel with the team that has drafted the internal evaluation report</i>	- Comisia de experți evaluatori ai ARACIS/ <i>Panel members</i> - Echipa care a realizat REI/ <i>Team that has drafted the IER</i>	Sala/Locația/ Room/Location: <u>Rectoratul ULBS, Bulevardul Victoriei nr. 10, Sala Consiliului de Administrație, parter</u> Lista persoanelor care vor participa la întâlnire/ List of participants attending the meeting:
10:50-11:00	Pauză/ <i>Break</i>		
11:00-11:50	Întâlnirea comisiei de experți în evaluarea externă a calității cu reprezentanți ai structurilor organizatorice în domeniul asigurării calității/ <i>Meeting of the external quality evaluation experts'</i>	- Comisia de experți evaluatori ai ARACIS/ <i>Panel members</i> - Reprezentanți ai structurilor organizatorice în domeniul asigurării	Sala/Locația/ Room/Location: <u>Rectoratul ULBS, Bulevardul Victoriei nr. 10, Sala Consiliului de Administrație, parter</u>

Intervalul orar/ <i>Hour</i>	Activități de evaluare/ <i>Evaluation activities</i>	Participanți/ <i>Participants</i>	Locație/ <i>Location</i> /Listă participanți/ <i>List of Participants</i>
	<i>panel with representatives of the quality assurance organisational structures</i>	calității/ <i>Representatives of quality assurance organisational structures</i>	Lista persoanelor care vor participa la întâlnire/ List of participants attending the meeting:
12:00-12:50	Întâlnirea comisiei de experți în evaluarea externă a calității cu personalul didactic implicat în activitățile din cadrul DSUD/ <i>Meeting of the external quality evaluation experts' panel with the teaching staff involved in the activities within the DSUD</i>	- Comisia de experți evaluatori ai ARACIS/ <i>Panel members</i> - Cadre didactice conducători de doctorat/ <i>Teaching staff who are PhD supervisors</i>	Sala/Locația/ Room/Location: <u>Rectoratul ULBS, Bulevardul Victoriei nr. 10, Sala Consiliului de Administrație, parter</u> Lista persoanelor care vor participa la întâlnire/ List of participants attending the meeting:
13:00-14:00	Pauză de prânz/ <i>Lunch</i>		
14:00-15:00	Vizitarea bazei materiale/ <i>Visiting the material resources</i>	- Comisia de experți evaluatori ai ARACIS/ <i>Panel members</i> - Reprezentanți ai instituției sau Academiei Române, după caz/ <i>Representatives of the HEI or the Romanian Academy, as applicable</i>	Sala/Locația/ Room/Location: <u>Facultatea de Inginerie, Emil Cioran 4, room IE 311</u> Lista persoanelor care vor participa la întâlnire/ List of participants attending the meeting:
15:00-15:50	Întâlnirea comisiei de experți în evaluarea externă a calității cu reprezentanți ai structurilor organizatorice în domeniul asigurării calității / <i>Meeting of the external quality evaluation experts' panel with representatives of the quality assurance organisational structures</i>	- Comisia de experți evaluatori ai ARACIS/ <i>Panel members</i> - Reprezentanți ai structurilor organizatorice în domeniul asigurării calității/ <i>Representatives of quality assurance organisational structures</i>	Sala/Locația/ Room/Location: <u>Facultatea de Inginerie, Emil Cioran 4, room IE 311</u> Lista persoanelor care vor participa la întâlnire/ List of participants attending the meeting::
15:50-16:00	Pauză/ <i>Break</i>		

Intervalul orar/ <i>Hour</i>	Activități de evaluare/ <i>Evaluation activities</i>	Participanți/ <i>Participants</i>	Locație/ <i>Location</i> /Listă participanți/ <i>List of Participants</i>
16:00-16:50	Întâlnirea comisiei de experți în evaluarea externă a calității cu absolvenți [†] , [‡] ai DSUD/ <i>Meeting of the external quality evaluation experts' panel with alumni[‡] of the DSUD</i>	- Comisia de experți evaluatori ai ARACIS/ <i>Panel members</i> - Absolvenți ai domeniului de studii evaluat/ <i>Graduates</i>	Sala/Locația/ Room/Location: <u>Facultatea de Inginerie, Emil Cioran 4, room IE 311</u> Lista persoanelor care vor participa la întâlnire/ List of participants attending the meeting::
17:00-17:50	Întâlnirea comisiei de experți în evaluarea externă a calității cu angajatori ai absolvenților DSUD/ <i>Meeting of the external quality evaluation experts' panel with employers[§] of the DSUD alumni</i>	- Comisia de experți evaluatori ai ARACIS/ <i>Panel members</i> - Angajatori/ <i>Employers</i>	Sala/Locația/ Room/Location: <u>Facultatea de Inginerie, Emil Cioran 4, room IE 311</u> Lista persoanelor care vor participa la întâlnire/ List of participants attending the meeting:
Marti/ <i>Tuesday</i>, 19.05.2026			
8:00 - 8:30	Întâlnirea tehnică a comisiei de experți evaluatori (Activitate în colaborare pentru clarificarea aspectelor prezentate în REI)/ <i>Technical meeting of the expert evaluation panel (Collaborative activity for clarifying the aspects presented in the Internal Evaluation Report - IER)</i>	- Comisia de experți evaluatori ai ARACIS/ <i>Panel members</i>	Sala/Locația/ Room/Location: <u>Facultatea de Inginerie, Emil Cioran 4, room IE 311</u>

* Se va evita invitarea absolvenților care sunt angajați ai ÎS sau ai OFE, după caz.

[†] Nu este obligatorie în cazul autorizării domeniilor de studii universitare de doctorat

[‡] Avoid inviting alumni who are also staff of the HEI or members of the Romanian Academy, as applicable.

[§] Avoid inviting employers who are also staff of the HEI or members of the Romanian Academy, as applicable.



THE ROMANIAN AGENCY FOR QUALITY ASSURANCE IN HIGHER EDUCATION

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Intervalul orar/ <i>Hour</i>	Activități de evaluare/ <i>Evaluation activities</i>	Participanți/ <i>Participants</i>	Locație/ <i>Location</i> /Listă participanți/ <i>List of Participants</i>
8:30 - 9:20	Întâlnirea comisiei de experți în evaluarea externă a calității cu studenți* doctoranzi din cadrul DSUD/ <i>Meeting of the external quality evaluation experts' panel with doctoral students of the DSUD</i>	- Comisia de experți evaluatori ai ARACIS/ <i>Panel members</i> - Studenți doctoranzi/ <i>Doctoral students</i>	Sala/Locația/ Room/Location: <u>Facultatea de Inginerie, Emil Cioran 4, room IE 311</u> Lista persoanelor care vor participa la întâlnire/ List of participants attending the meeting::
9:30 - 10:20	Întâlnirea comisiei de experți în evaluarea externă a calității cu responsabilii centrelor/laboratoarelor de cercetare / <i>Meeting of the external quality evaluation experts' panel with the staff in charge with the research centres/laboratories</i>	- Comisia de experți evaluatori ai ARACIS/ <i>Panel members</i> - Responsabilii centrelor/laboratoarelor de cercetare/ <i>Staff in charge with research centres/laboratories</i>	Sala/Locația/ Room/Location: <u>Facultatea de Inginerie, Emil Cioran 4, room IE 311</u> Lista persoanelor care vor participa la întâlnire/ List of participants attending the meeting::
10:20 - 10:30	Pauză/ <i>Break</i>		
10:30 - 11:20	Întâlnirea comisiei de experți în evaluarea externă a calității cu membri ai Comisiei de etică universitară / <i>Meeting of the experts panel with members of the University Ethics Committee</i>	- Comisia de experți evaluatori ai ARACIS/ <i>Panel members</i> - Membri ai Comisiei de etică universitară/ <i>Members of the University Ethics Committee</i>	Sala/Locația/ Room/Location: <u>Facultatea de Inginerie, Emil Cioran 4, room IE 311</u> Lista persoanelor care vor participa la întâlnire/ List of participants attending the meeting:
11:30- 12:20	Întâlnirea comisiei de experți în evaluarea externă a calității cu reprezentanți ai conducerii componentei organizatorice/persoana de	- Comisia de experți evaluatori ai ARACIS/ <i>Panel members</i>	Sala/Locația/ Room/Location: <u>Facultatea de Inginerie, Emil Cioran 4, room IE 311</u>

* Nu este obligatorie în cazul autorizării domeniilor de studii universitare de doctorat/ It is not mandatory in the case of authorization of doctoral university study domain.



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	contact/reprezentanți ai CEAC/reprezentanți ai structurilor organizatorice în domeniul asigurării calității/ <i>Meeting of the external quality evaluation experts' panel with representatives of the organisational component / contact person / representatives of the CEAC / representatives of quality assurance organisational structures</i>	- Reprezentanți ai conducerii / reprezentanți ai CEAC / reprezentanți ai structurilor organizatorice în domeniul asigurării calității/ <i>Representatives of the management / representatives of the CEAC / representatives of the quality assurance organisational structures</i> - Persoana de contact/ <i>Contact person</i>	Lista persoanelor care vor participa la întâlnire/ <i>List of participants attending the meeting:</i>
12:30 - 13:30	Pauză de prânz/ <i>Lunch</i>		
13:30 - 14:20	Finalizarea activităților de evaluare/ <i>Completion of evaluation activities</i>	- Comisia de experți evaluatori ai ARACIS/ <i>Panel members</i>	Sala/Locația/ <i>Room/Location:</i> <u>Facultatea de Inginerie, Emil Cioran 4, room IE 311</u>
14:30- 15:20	Întâlnirea membrilor comisiei de experți evaluatori cu reprezentanții conducerii ÎLS sau a OFE, după caz și ai conducerii componentei organizatorice pentru comunicarea concluziilor procesului de evaluare/ <i>Meeting of the members of the expert evaluators' panel with representatives of the management of the HEI or the EP, as applicable, and management of the organisational component, to communicate the conclusions of the evaluation process</i>	- Comisia de experți evaluatori ai ARACIS/ <i>Panel members</i> - Reprezentanți ai conducerii și ai domeniului de studii evaluat/ <i>Representatives of the management</i> - Persoana de contact/ <i>Contact person</i>	Sala/Locația/ <i>Room/Location:</i> <u>Facultatea de Inginerie, Emil Cioran 4, room IE 311</u> Lista persoanelor care vor participa la întâlnire/ <i>List of participants attending the meeting::</i>

If deemed necessary, and depending on the type of doctoral program being evaluated, additional meetings may also take place, for example with representatives of:

* Clarificarea unor aspecte rezultate din activitățile și discuțiile desfășurate pe parcursul efectuării vizitei, dacă se impune



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- departments providing IT support, for instance regarding the organization of online activities
- departments for international relations and student mobility
- the Counseling and Career Guidance Center, etc.

Prepared by,

<i>Prof. dr. ing. RUGHINIȘ Răzvan Victor</i>	
<i>Prof. dr. ZAMFIRESCU Constantin-Băla</i>	