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<i>IOSUD UNIVERSITY OF CRAIOVA</i>	<i>Romanian Agency for Quality Assurance in Higher Education</i>
<i>"CONSTANTIN BELEA" DOCTORAL SCHOOL</i>	
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INTERNAL EVALUATION REPORT
for
MAINTENANCE OF THE ACCREDITATION
OF THE DOCTORAL STUDY FIELD OF
MECHATRONICS AND ROBOTICS

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CRAIOVA
JANUARY 2026



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PERIODIC INTERNAL EVALUATION REPORT
for
MAINTAINING ACCREDITATION
OF THE DOCTORAL UNIVERSITY STUDIES FIELD OF
MECHATRONICS AND ROBOTICS

Approved by
the Quality Assurance Committee
of the University of Craiova (CEAC-UCV)
in the meeting of 19 January 2026

Approved by
the Senate of the University of Craiova,
in the meeting of 29 January 2026

CRAIOVA
JANUARY 2026



**“CONSTANTIN BELEA” DOCTORAL SCHOOL
FIELD: MECHATRONICS AND ROBOTICS
FACULTY OF AUTOMATION, COMPUTERS AND
ELECTRONICS**

Craiova, 107 Decebal Boulevard, 200440,
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IPS Professor Irineu Ion POPA, PhD**

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



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Abbreviations

ACE	Automation, Computers and Electronics
ANSI	Nonlinear Automation and Intelligent Systems
ANSO	Nonlinear Automation. Stability and Oscillations
ARACIS	Romanian Agency for Quality Assurance in Higher Education
CDI	Research, Development and Innovation
CEAC	Quality Assessment and Assurance Commission
CERCA	Interdisciplinary Centre for Research in Computers, Automation and Robotics
CNATDCU	National Council for the Accreditation of Academic Titles, Diplomas and Certificates
CNCSIS/CNCS	National Council for Scientific Research in Higher Education
CSD	Doctoral School Council
CSUD	Council for Doctoral Studies
CTI	Computers and Information Technology
DMR	Department of Mechatronics and Robotics
DMC	Department of Quality Management
EERIS/EERTIS	Engage in the European Research Infrastructures System/Engage in the European Research and Technology Infrastructures System
EUA	European University Association
FACE	Faculty of Automatic Control, Computers and Electronics
IEEE - CSS	Institute of Electrical and Electronics Engineers - Control Systems Society
IFAC	International Federation of Automatic Control
INCESA	Research Infrastructure for Applied Sciences
IOSUD	Institution Organising Doctoral Studies
IS	Systems Engineering
MR	Mechatronics and Robotics
PNCDI	National Plan for Research, Development and Innovation
PPUA	Training programme based on advanced university studies
REI	Internal Evaluation Report
SDCB	Constantin Belea Doctoral School
SRR	Romanian Robotics Society
UCv	University of Craiova
UEFISCDI	Executive Unit for Financing Higher Education, Research, Development and Innovation
ZEM	Mechatronics Education Days

I. General information

I.1. General description of IOSUD – University of Craiova

I.1.1 Legal framework, evolution, mission and objectives, governance

Brief history and legal framework. *The University of Craiova (UCV)* is a public higher education and scientific research institution, which appeared in the Romanian university system in the mid-20th century, being, in historical order, the fifth university, after those in Iași, Bucharest, Cluj and Timișoara. The University of Craiova is an accredited state higher education institution. The establishment and perpetuation of the institution are legally supported by “Law No. 138/25 April 1947 for the establishment and organisation of the University of Craiova and its Eforia” and Decision No. 894/27 August 1965 of the Council of Ministers, which grants it its own legal status, established by the founding act, according to [the UCV founding documents](https://www.ucv.ro/despre/istoric/evolutie/integrare.php). UCV is a fundamental unit of higher education, an essential component of the educational system and, at the same time, a leading institution in contemporary society. Currently, the University of Craiova comprises 12 faculties: the Faculty of Letters, the Faculty of Sciences, the Faculty of Orthodox Theology, Faculty of Physical Education and Sport, Faculty of Agronomy, Faculty of Horticulture, Faculty of Law, Faculty of Social Sciences, Faculty of Economics and Business Administration, Faculty of Electrical Engineering, Faculty of Mechanics, Faculty of Automation, Computers and Electronics. The University of Craiova also has an autonomous department, the Department for Teacher Training (DPPD). (<https://www.ucv.ro/despre/istoric/evolutie/integrare.php>)

The University of Craiova is an Organising Institution for Doctoral Studies (IOSUD) and comprises 10 doctoral schools (section I.1.2). The University of Craiova organises and carries out teaching and scientific research activities based on university autonomy, understood as a specific form of self-governance in accordance with **the legal framework established by the Romanian Constitution and the National Education Law No. 199/2023**. All internal regulations and decisions comply with the specified legal framework, and all activities of the institution comply with the provisions [of the UCV Charter](#), approved by the Senate on 28 November 2023, drawn up in accordance with the University's institutional reform measures. Following its approval, the full content of the Charter was made public in printed and electronic format.

Mission and objectives. UCV undertakes *the general mission* of Romanian higher education, as provided for by Law 199/2023. Thus, the University's mission is to provide high-quality education and research for the training of specialists with higher education capable of working in national and international companies and organisations at the occupational standards required by employers in the country and in the EU. These specialists will also be prepared to train future generations in the spirit of innovation, creativity and novelty required by the knowledge economy, in accordance with the tradition of our university, Romanian university education and social responsibility. Based on university autonomy and in accordance with the national qualifications framework, the University has established **its specific mission** in society, as stated in the Charter of the University of Craiova, in Article 12:

- the generation and transfer of knowledge to society through education and advanced research;
- initial and continuing higher education for specialists capable of meeting the competence needs of the socio-economic environment through professional integration;
- initial and continuing training of teaching staff;
- contributing to the progress of fundamental and applied sciences through scientific research, innovation and technology transfer;
- personal development of its students in the spirit of individual and collective creativity;
- promoting the free exchange of opinions and critical thinking;
- promoting European values in the scientific, cultural and educational fields through international academic cooperation.

UCV has a number of **objectives** enshrined in its Charter, such as ensuring the quality of research and the teaching process; efficient resource management; supporting individual excellence; participating in programmes of excellence in research and education; maintaining a high level of professional integration of graduates; increasing international visibility; assuming the position of a national scientific, cultural and educational hub.

From a **strategic management** perspective, actions aimed at fulfilling the mission and objectives are carried out in accordance with [the 2024-2029 Strategic Plan](#). These were developed taking into account forecasts regarding the evolution of the local, regional and national socio-economic context, the specific nature of the institution's educational and continuing training offer, and the existing human and material resources. Based on the strategic objectives, the operational objectives included in [the UCV Operational Plans](#) were formulated. These documents are known to the academic community of the University, being published on the website <https://www.ucv.ro>.

Managerial activity and specific institutional structures. The management system within the University of Craiova comprises management structures represented by the rector, vice-rectors, deans, vice-deans and department heads who hold the academic rank of professor, associate professor or lecturer, being tenured in higher education under the conditions of the law and with the basic norm at the university. The management bodies of UCv, with an indication of the selection methodology, their responsibilities and mode of operation, are mentioned in the University Charter: the University Senate; the President of the University Senate; the Rector; the Vice-Rectors; the Board of Directors. At the IOSUD level, the governing bodies are represented by the Director of the Council for Doctoral Studies (CSUD), the Council for Doctoral Studies (CSUD), the directors of doctoral schools and the Doctoral School Councils (CSD). Student representatives are elected by students to be part of the management structures of the university, faculties and doctoral schools, and communication with members of the academic community is carried out electronically, via the Intranet/Internet. All information of public interest is available on the websites of the University of Craiova or the faculties/doctoral schools.

The structures of the University of Craiova are presented in [the UCV Management Organisational Chart](#). With regard to [the governance, leadership and management](#) of the University of Craiova, the management structures are elected in accordance with *the Election Methodologies at the University of Craiova* and have autonomy in terms of strategic management. In all its activities, the University of Craiova promotes **the principle of information transparency and access to public information**. In this regard, most of the information is presented on the notice boards within the faculties/doctoral schools, on [the UCV website](#), and through the media. Furthermore, the communication process within the secretariats of the University of Craiova has been subject to internal audits by a third party.

From an administrative point of view, the administrative structures created at the institutional level are involved in achieving all the objectives set, as specified in [the Regulations for the functioning of UCV departments and services](#). Administrative management is ensured by an administrative director general, appointed on the basis of a competition organised by the rector. Decisions related to management, assets and investments are taken at a centralised level, at the initiative of departments, faculties and doctoral schools.

Academic integrity is ensured and maintained by [the UCV Code of Ethics and University Conduct](#), developed by *the Ethics Committee of the University of Craiova*, which explicitly formulates the principles, values and moral norms that members of this academic community agree to respect, the methods for achieving them, the facts and actions that constitute violations of university ethical conduct, as well as the related sanctions. The Ethics Committee of the University of Craiova prepares *the Ethics Committee Report*.

Anti-plagiarism software: The University of Craiova uses anti-plagiarism software by purchasing the services provided by the <https://www.sistemantiplagiat.ro> platform and [Turnitin/iThenticate](#).

Public accountability and responsibility are based on internal auditing practices in the main areas of university activity at the University of Craiova, to ensure that the commitments it has made are rigorously respected, in conditions of public transparency. The University of Craiova has an **Audit Office** whose activity is coordinated directly by the University Rector. Its main activities involve auditing university services. Internal evaluation (CEAC) and monitoring structures (the University of Craiova Quality Council) monitor students' educational results based on performance indicators and provide feedback from the external environment, covering the set of requirements of European standards and guidelines (ESG) relating to the approval, monitoring and periodic review of programmes and degrees. Student assessment is carried out on the basis of regulations with precise criteria, the application of which is monitored. In terms of quality assurance for teaching staff, the University of Craiova applies a staff recruitment policy that complies with the criteria imposed at national level (especially for professor and lecturer positions) within the limits of available resources.

The University of Craiova has **internal regulations on the allocation of learning resources, teaching staff and available financial resources, and provides assistance to students through structures** such as the Career Guidance and Counselling Centre (CCOC). The University of Craiova has an **information system** that covers most educational processes. Thus, based on the data collected, those responsible for study programmes calculate student performance indicators, the CCOC monitors the progress of candidates, the professional integration of graduates and the degree of student satisfaction, departments and doctoral schools monitor the efficiency of human resources, faculties monitor the efficiency of material resources, and the management of the University of Craiova guarantees the institution's performance indicators. The dissemination of public information is one of the priorities of the University of Craiova, organised on three levels: advertising, media promotion production, and direct communication. The advertising component is managed by the Vice-Rectorate for International Relations and Academic Image. The University of Craiova has a very powerful tool at its disposal: its own television station, Tele U. This communication channel is complemented by media appearances planned by the Department of Public Relations and Academic Image (DRPIA).

I.1.2 History of IOSUD, structure, doctoral schools and fields of doctoral studies, external evaluation procedures for the quality of education

Brief history of IOSUD. As proof of our institution's tradition in the field of doctoral studies, we briefly mention the first doctoral programmes organised within the University of Craiova:

- in the field of Agronomy, specialising in Botany, doctoral research was coordinated by Professor Alexandru Buia, doctoral supervisor in the years 1960-1964;
- In the field of Horticulture, specialising in Viticulture, Professor Mircea Oprean was the doctoral supervisor between 1966 and 1983; in the specialisation of Floriculture and Pomology, Vasile Şonea was the doctoral supervisor (1967-1988); in the specialisation of Fruit Growing, the doctoral supervisor was Professor Marius Popescu (1971-1988).
- In Economic Sciences, the first doctoral studies took place starting in 1970, under the coordination of Professor Constantin Botea;
- In Philology, the great professor Alexandru Piru worked as a doctoral supervisor at UCv between 1968 and 1985, in the specialisation of Romanian Literature History, while Professor Constantin Papastase supervised doctoral students between 1971 and 1974, in the specialisation of French Language and Literature;
- In Mathematics, specialising in Mathematical Analysis, Professor Eugen Dobrescu was a doctoral supervisor between 1967 and 1988;
- In the field of Physics, specialising in Theoretical Physics, Professor Oliviu Gherman coordinated doctoral theses for a long period, from 1967 until after 2000.
- In the Technical field, Professor Constantin Belea laid the foundations for doctoral education in the specialisation of Automation, Professor Victor Saviuc in the specialisation of Electrical Machines (1973 - until after 1990) and Professor Profir Degeratu (1974 - until after 1990).

Thus, **in 1988, UCV had 15 active doctoral supervisors** and another **10 doctoral supervisors** who had completed their work. **After 1990, doctoral scientific research** expanded and diversified as a result of the increase in the number of higher education graduates eligible to pursue doctoral studies, but also due to the increase in the number of teaching staff at the University of Craiova who obtained the status of doctoral supervisor.

ARACIS accreditations. Currently, IOSUD - University of Craiova (IOSUD - UCv) has **10 DOCTORAL SCHOOLS** within its structure, established with the approval of the Senate of the University of Craiova, following a reorganisation process, in the meeting of 29 September 2015. The ten doctoral schools and related fields were accredited in this structure approved by the university senate through MEN Order no. 5382/2016. IOSUD - University of Craiova with its accredited doctoral schools is mentioned in the annex to OM under no. 25. **In 2021, an external evaluation of IOSUD – UCv, its doctoral schools and fields was carried out with a view to maintaining accreditation.** On 17 December 2021, the Ministry of Education issued an Order regarding the maintenance of UCV accreditation for the organisation of doctoral study programmes. In accordance with this OME, all 10 doctoral schools and their doctoral fields were re-accredited, as specified in Table I.1.1.

Table I.1.1. Doctoral schools of IOSUD – UCv

SD COD E	Doctoral School	No.	Doctoral field
1	“Alexandru Piru” Doctoral School	1	Philology
2	“Saint Nicodim” Doctoral School of Orthodox Theology	2	Theology*)
3	Doctoral School of Social Sciences and Humanities	3	History*)
		4	Sociology
		5	Sports Science and Physical Education
4	Doctoral School of the Faculty of Law	6	Law
5	Doctoral School of Economic Sciences “Eugeniu Carada”	7	Economics
		8	Cybernetics and Statistics
		9	Finance
		10	Accounting
		11	Management
6	Constantin Belea Doctoral School of the Faculty of Automatic Control, Computers and Electronics	12	Systems Engineering
		13	Computers and Information Technology*)
		14	Mechatronics and Robotics
7	Doctoral School of Electrical and Energy Engineering	15	Electrical Engineering
8	Doctoral School “Academician Radu Voinea” of the Faculty of Mechanics	16	Mechanical Engineering
		17	Industrial engineering
9	Doctoral School of Animal and Plant Resource Engineering	18	Agronomy

		19	Horticulture
10	Doctoral School of Sciences	20	Mathematics
		21	Physics
		22	Chemistry
		23	Geography*)

Of the 24 accredited fields (23 described in Table 1 and one newly established – Economic Informatics), four fields received conditional accreditation*): History, Theology, Computers and Information Technology, and Geography. Following the re-evaluation process, one year after maintaining conditional accreditation, ARACIS decided to maintain accreditation for these fields:

1. History – ARACIS Council Decision No. 93/H/27.04.2023;
2. Theology – ARACIS Council Decision No. 92/H/27.04.2023;
3. Computers and Information Technology – ARACIS Council Decision 135/H/25.05.2023;
4. Geography – ARACIS Council Decision No. 321/H/29.11.2023.

Between 2020 and 2025, IOSUD – Ucv obtained ARACIS accreditation for a new doctoral field within the “Eugeniu Carada” Doctoral School of Economic Sciences, **namely Economic Informatics**, which was accredited by Order of the Ministry of Education No. 6515 of 12 October 2025. The new name of the Doctoral School of Economic Sciences, the “Eugeniu Carada” Doctoral School of Economic Sciences, was approved by Order of the Ministry of Education No. 5073 of 14 July 2023.

IOSUD - UCv structure. The Council for Doctoral Studies of IOSUD - UCv ([CSUD-UCv](#)) consists of 8 members: 6 doctoral supervisors and two doctoral students (Table I.1.2):

Table I.1.2. Council for Doctoral Studies of IOSUD – UCv

No.	First and last name	Position in the council	Field in which he/she is a doctoral supervisor/doctoral student	CV CSUD-UCv MEMBERS
1	Prof. Irineu Ion POPA	Director of CSUD	Field of Theology	CV
2.	Prof. Adriana BURLEA ȘCHIOPOIU	Member of CSUD	Management	CV
3.	Prof. Solange Odile SALIU	Member of CSUD	Physics	CV
4.	Prof. Ligia RUSU	Member of CSUD	Sports Science and Physical Education	CV
5.	Prof. Dan SELISTEANU, PhD	Member of CSUD	Field Systems Engineering	CV
6.	Prof. Daniel GHIȚĂ	Member of CSUD	Field of Law	CV
7.	Eugenia Ioana CIOBANU-VLAD	Member of CSUD	Field of Philology	CV
8.	Dr. Ancuța LUNGU (DUMITRU)	Member of CSUD	Field of Philology	CV

[The organisational structure of doctoral schools](#) is presented in Table I.1.3:

Table I.1.3. Organisational structure of doctoral schools in IOSUD – UCv

SD COD E	Doctoral School	Director	Council members	No.	Doctoral field
1	Alexandru Piru Doctoral School	Prof. Titela VÎLCEANU CV	Prof. Nicu Panea Prof. Mihaela Popescu Doctoral student Adriana Dragomir (Barbu)	1	Philology
2	Doctoral School of Orthodox Theology “Saint Nicodim”	Associate Professor Constantin BĂJĂU CV	Associate Professor George Adrian Boldișor Associate Professor Iulian Mihai Constantinescu PhD student Robert Lupu	2	Theology
3	Doctoral School of Social Sciences and Humanities	Prof. Germina COSMA CV	Prof. Sorin Liviu Damean Prof. Adrian Otovescu PhD student Andreea Daniela Brăguță	3	History
				4	Sociology
				5	Sports Science and Physical Education
4	Doctoral School of the Faculty of Law	Prof. Dan Claudiu DĂNIȘOR CV	Prof. George Liviu Gîrleşteanu Prof. Lucian Bernd Săuleanu PhD student Adriana Mirela Bogheanu	6	Law
5	al Doctoral School of Economic Sciences “Eugeniu Carada”	Prof. Marian SIMINICĂ CV	Prof. Amelia Bădică Prof. George Bocean Prof. Ramona Pîrvu Prof. Anca Băndoi	7	Economics
				8	Cybernetics and statistics
				9	Finance

			PhD student Lavinia Adelina Mitrache	10	Accounting
				11	Economic informatics
				12	Management
6	Constantin Belea Doctoral School of the Faculty of Automation, Computers and Electronics	Prof. Costin BĂDICĂ CV	Prof. Dorian Cojocaru Dorian Prof. Daniela Danciu PhD student Alexandru Diță	13	Systems Engineering
				14	Computers and Information Technology
				15	Mechatronics and Robotics
7	Doctoral School of Electrical and Energy Engineering	Prof. Mihaela POPESCU Mihaela POPESCU CV	Prof. Sorin Enache Prof. Petre Marian Nicolae PhD student Marius Boncea	16	Electrical Engineering
8	“Academician Radu Voinea” Doctoral School of the Faculty of Mechanics	Prof. Daniela TARNIȚĂ Daniela TARNIȚĂ CV	Prof. Nicolae Dumitru Prof. Ionel Dănuț Savu PhD student Marin Andretti Ciungu	17	Mechanical Engineering
				18	Industrial engineering
9	Doctoral School of Animal and Plant Resource Engineering	Prof. Gheorghe MATEI CV	Prof. Sina Niculina Cosmulescu Prof. Liviu Olaru PhD student Florin Daniel-Stamin	19	Agronomy
				20	Horticulture
10	Doctoral School of Sciences	Prof. Eugen CIOROIAN U CV	Prof. Sorin Micu Prof. Sandu Boengiu, PhD Prof. Eugenia Iacobescu, PhD PhD student Anisia-Mădălina Teca	21	Mathematics
				22	Physics
				23	Chemistry
				24	Geography*)

The **10 doctoral schools** have [170 teaching staff](#) who are doctoral supervisors in the 24 accredited fields and 11 teaching staff who are qualified in doctoral fields not yet accredited at IOSUD – UCv (Visual Arts, Music, Communication Sciences, Biology).

IOSUD – UCv pursues a policy of encouraging and supporting the professional and scientific performance of tenured teaching staff, with a view to meeting the criteria required for the accreditation of new doctoral fields. Thus, of the 181 teaching staff affiliated with UCV doctoral schools, 11 are qualified in fields that are not currently accredited by IOSUD. They are not entitled to supervise doctoral students, but they can be active as members of the supervisory committees until the field in which they are qualified is accredited by IOSUD – UCv.

In terms of **research infrastructure**, IOSUD – UCV has adequate research facilities and equipment in all doctoral schools, and through **UCV's RESEARCH INFRASTRUCTURE IN APPLIED SCIENCES (INCESA)**, it ensures optimal research conditions for all doctoral students, who have access to modern, well-equipped laboratories. Also noteworthy is the existence and good organisation of research stations and specific entities:

- [The Caracal Teaching Research and Development Station](#), a research unit that provides support for doctoral research to students in the fields of horticulture and agronomy
- [The Banu Mărăcine Teaching Research Station](#), a centre for practical training and doctoral research in the field of winemaking
- [The Vâlcea Research and Development Station for Fruit Growing \(SCDP Vâlcea\)](#)
- [Rânca Lac Cabin and Mountain Botanical Garden](#)
- [The “Al. Buia” Botanical Garden](#)
- [The University of Craiova Library](#) provides doctoral students with the latest publications in all four major areas of doctoral research: Exact Sciences, Engineering Sciences, Social and Political Sciences, and Humanities.

IOSUD – UCv activity – regulations, methodologies and evaluation. The activity of IOSUD – UCv and doctoral schools is carried out in accordance with the provisions of:

- Higher Education Law No. 199/2023, as amended;
- Order of the Minister of Education approving the Framework Regulation on doctoral studies No. 3020/2024;

- Order No. 4653/2025 amending and supplementing the Framework Regulation on doctoral studies, approved by Order of the Minister of Education No. 3.020/2024;
- Order of the Minister of Education No. 5.760/2024, published in the Official Gazette of Romania, Part I, No. 799 of 12 August 2024, approving the Regulation on the organisation and functioning of the National Commission for the Accreditation of Academic Titles, Diplomas and Certificates (CNATDCU), with the amendments and additions made in accordance with Order No. 3560/2025;
- Order 3741 of 8 April 2025 approving the Methodology for analysing the administrative procedure carried out at the level of institutions organising doctoral studies for the award of doctoral degrees;
- Order of the Minister of Education No. 3693/2024 approving the Framework Methodology for organising admission to higher education in short-term, bachelor's, master's and doctoral university study cycles;
- Joint Order No. 3900/2046/129/2017 approving the “Methodology for the enrolment of Romanians everywhere in state pre-university education in Romania, in places of study without paying tuition fees, but with a scholarship, respectively without paying tuition fees, but without a scholarship starting with the 2017-2018 school year” and the “Methodology for the enrolment of Romanians everywhere in state higher education in Romania, in places of study without paying tuition fees, but with a scholarship, respectively without paying tuition fees, but without a scholarship starting with the 2017-2018 academic year”;
- Order of the Minister of National Education No. 3473/17.03.2017 approving the Methodology for the admission and enrolment of foreign citizens starting with the 2017-2018 academic year, with subsequent amendments and additions;
- Order of the Minister of National Education No. 3236/2017 approving the Methodology for the admission and enrolment of foreign citizens in places without tuition fees and with scholarships and in places without tuition fees but without scholarships, in accredited state higher education institutions, with subsequent amendments and additions;
- Order No. 5956 of 13 August 2024 on the automatic recognition of the status of doctoral supervisor obtained in higher education or research and development institutions abroad;
- Order No. 7234/2024 of 10 October 2024 approving the Methodology for the recognition of doctoral degrees and titles in science or in a professional field obtained abroad;
- Order No. 6129/2016 of the Ministry of Education approving the minimum standards required and mandatory for the award of teaching titles in higher education and professional degrees in research and development;

The internal evaluation of IOSUD – UCv was carried out with a view to maintaining the accreditation of doctoral schools and doctoral study fields and was based on the provisions and recommendations of the following normative acts:

- Decision No. 962 of 8 August 2024 on the approval of the Methodology for the external evaluation of the quality of education in higher education;
- GUIDE for conducting external quality assessment procedures for the provisional authorisation, accreditation or maintenance of accreditation of a doctoral field of study;
- Specific quality standards regarding the conduct of activities related to doctoral study fields, in the third cycle of studies, differentiated according to the fields of study.

The evaluation included the following levels:

- Assessment of the activity of doctoral supervisors and doctoral students who were in the legal training period at the time of the assessment;
- Evaluation of the results of doctoral research completed through the defence of doctoral theses in public sessions and the obtaining of CNATDCU resolutions following the analysis of these theses;
- Assessment of each doctoral field, with reference to the criteria and performance indicators mentioned (A, B, C);
- Assessment of the activity of each doctoral school of IOSUD – UCv;
- Evaluation of the activity of IOSUD – UCv.

In the process of evaluating IOSUD – UCv, the following criteria and performance indicators were taken into account: *A. INSTITUTIONAL CAPACITY; B. INSTITUTIONAL EFFECTIVENESS; C. QUALITY MANAGEMENT*. The results of this evaluation process were summarised in the periodic evaluation reports for the doctoral fields, accompanied by annexes, as well as in the internal evaluation report at institutional level – University of Craiova.

IOSUD – UCv has **implemented the efficient operating mechanisms** provided for in the specific legislation on the organisation of doctoral studies, as reflected in the Regulations in force applicable to the third cycle of university studies – doctoral studies:

- [The institutional regulations for the organisation and functioning of doctoral study programmes at IOSUD – University of Craiova](#) are drawn up and adopted on the basis of Education Law No. 199/2023 and

the Framework Regulations on doctoral studies approved by Order of the Minister of Education No. 3020/2024

- [Own regulations for admission to bachelor's, master's and doctoral studies](#) for the academic year 2025-2026
- [Admission procedure for doctoral studies](#) starting in 2025-2026
- [Methodology for admission, organisation and completion of postdoctoral programmes](#) within IOSUD – UCv
- [Methodology for appointing members of the council for doctoral studies](#) at IOSUD – UCv (CSUD - UCv) and for organising the public competition for appointing the director of CSUD - UCv
- [Methodology for electing directors of doctoral schools and doctoral school councils](#)
- [Methodology for granting the certificate of accreditation](#) to the institution organising doctoral studies at the University of Craiova:
- [Methodology for the recognition by IOSUD University of Craiova of the status of doctoral supervisor](#) obtained in accredited higher education institutions abroad:
- [Methodology for the recognition of doctoral degrees and titles in science](#) or in a professional field obtained abroad.

I.2. General description of the “Constantin Belea” Doctoral School

I.2.1 Establishment and evolution

University education in Automation at **UCV** began in the 1966-1967 academic year, with the establishment of the Automation specialisation. Starting with the 1976-1977 academic year, with the implementation of a new curriculum, two options were established within the Automation department: the Automation option and the Computers option, and the specialisation changed its name to Automation and Computers. The primary role in the development of the Automation and Computers specialisation was played by the late professor, doctor, associate professor and engineer Constantin Belea, founder of the School of Automation in Craiova. In its current form, the “Constantin Belea” Doctoral School was established within UCV by regrouping the three doctoral fields of Systems Engineering, Computers and Information Technology, and Mechatronics and Robotics within the Faculty of Automation, Computers and Electronics into a single doctoral school, in accordance with the provisions of LEN No. 1/2011 and as a result of H.G. No. 681/2011 on the Code of Doctoral Studies. Initially, from October 2012, the new doctoral school operated within the Doctoral School of Engineering Sciences, later becoming a separate school, directly subordinate to IOSUD – UCv, by decision of the **UCV** Senate on 29 September 2015. MENCS Order No. 5382/17 November 2016 presents the structure of IOSUD – University of Craiova, which includes the “Constantin Belea” Doctoral School.

Although young, the “Constantin Belea” Doctoral School (**SDCB**) had leading precursors in the field of Automation. In 1968, Professor Constantin Belea obtained the status of doctoral supervisor at UCv in the field of Automated Systems. In the period since this historic event, doctoral activity has undergone continuous development, with some of the teaching staff of the Automation and Computers Department at that time obtaining the title of Doctor of Engineering under the guidance of Professor Constantin Belea. The first doctoral thesis in Automatic Systems was defended in 1974 under the guidance of Professor Constantin Belea by Professor Mircea Ivănescu, who obtained his doctorate in 1975. The number of doctoral supervisors increased substantially after 1989. Thus, in 1993, Professors Vladimir Răsvan and Matei Vinătoru obtained the status of doctoral supervisor in Automatic Systems, and in 1994, Professor Mircea Petrescu obtained the status of doctoral supervisor in Computers. In 2005, Professor Marin Constantin obtained the status of doctoral supervisor in Automatic Systems. Subsequently, in 2007, Professors Costin Bădică and Mihai Lucian Mocanu obtained the status of doctoral supervisors in Computers and Information Technology, and in 2008, Professors Dorian Cojocaru, Nicu George Bîzdoacă and Mircea Nițulescu obtained the status of doctoral supervisor in Mechatronics and Robotics. Also, in 2008, Professors Dan Popescu and Emil Petre obtained the status of doctoral supervisors in Systems Engineering, and Professor Dumitru Dan Burdescu obtained the same status in the field of CTI. In 2016, Professor Dan Selișteanu obtained his habilitation certificate in Systems Engineering, becoming affiliated with SDCB in the same year, and in 2018, Professor Elvira Popescu obtained her habilitation in the field of CTI, becoming affiliated with the Doctoral School in the same year. In 2018, Professor Monica Roman and Professor Dorin Șendrescu defended their habilitation theses in Systems Engineering, being confirmed and affiliated with the doctoral school in 2019. Also in 2018, Associate Professor Sorin Grigorescu from the “Transilvania” University of Brașov obtained his habilitation in Mechatronics and Robotics, being affiliated with the SDCB in the same year. In 2019, Professor Daniela Danciu obtained her habilitation certificate in Systems Engineering, being affiliated with the doctoral school in the same year. In 2020, Gigel Măceșeanu and Tiberiu Teodor Cociaș from Transilvania University in Brașov obtained their habilitation in Mechatronics and Robotics within the SDCB. Subsequently, they, together with

Associate Professor Sorin Grigorescu, decided to establish a doctoral school in the field of Mechatronics and Robotics at Transilvania University in Braşov.

Following the ARACIS evaluation visit in 2021, new colleagues were affiliated with the SDCB between 2021 and 2025. Thus, in the field of Computers and Information Technology, Prof. Marius Brezovan (habilitation thesis defended in 2023) and Assoc. Prof. Cristian Marian Mihăescu (habilitation thesis defended in 2024) obtained their habilitation and were affiliated with the SDCB in 2024. In 2024, Associate Professor Marcel Nicola (field of Systems Engineering) was habilitated and affiliated with the SDCB. Also, in the field of Mechatronics and Robotics, Associate Professor Cristina Pană and Associate Professor Cristian Ionel Vladu obtained habilitation and were affiliated in the 2023-2024 academic year. Also in 2024, Associate Professor Marius Adrian Marian obtained accreditation in the field of Computers and Information Technology, being affiliated with SDCB in 2025. In 2025, Professor Cornelia Aurora Györödi from the University of Oradea obtained the accreditation certificate in Computers and Information Technology within SDCB. She subsequently decided to establish a doctoral school in the field of Computers and Information Technology at the University of Oradea.

1.2.2 Structure, governance and research mission

Doctoral supervisors. The “Constantin Belea” Doctoral School has [16 tenured doctoral supervisors](#) (there were 11 at the time of the ARACIS visit in 2021), assigned to the three fields within the school as follows:

- 5 PhD supervisors in the field of Systems Engineering (during this period, Prof. Dan POPESCU turned 70 and no longer supervises PhD students)
- 6 PhD supervisors in the field of Computers and Information Technology
- 5 PhD supervisors in the field of Mechatronics and Robotics (two more teaching staff have defended their habilitation thesis and are awaiting the habilitation order)

The list of doctoral supervisors is presented in Table I.2.1.

Table I.2.1. List of doctoral supervisors – SDCB

No.	First name	Surname	Affiliation	Order/date of conferral
1. Computers and Information Technology				
1	Costin	BĂDICĂ	Faculty of Automation, Computers and Electronics (FACE), University of Craiova	1805/20.08.2007
2.	Mihai Lucian	MOCANU	FACE, University of Craiova	1805/20.08.2007
3.	Elvira	POPESCU	FACE, University of Craiova	3379/22.03.2018
4.	Marius	BREZOVAN	FACE, University of Craiova	6355/27.09.2023
5.	Cristian Marian	MIHĂESCU	FACE, University of Craiova	3898/28.02.2024
6.	Marius Adrian	MARIAN	FACE, University of Craiova	34154/18.12.2024
2. Systems Engineering				
7	Dan	SELIŞTEANU	FACE, University of Craiova	4010/07.06.2016
8.	Monica	ROMAN	FACE, University of Craiova	3821/01.04.2019
9.	Gheorghe-Dorin	ŞENDRESCU	FACE, University of Craiova	3822/01.04.2019
10.	Daniela	DANCIU	FACE, University of Craiova	4105/28 May 2019
11.	Marcel	NICOLA	FACE, University of Craiova	5291/28.06.2024
3. Mechatronics and Robotics				
12	Nicu George	BÎZDOACĂ	FACE, University of Craiova	5842/04.11.2008
13.	Dorian	COJOCARU	FACE, University of Craiova	5842/04.11.2008
14.	Mircea	NITULESCU	FACE, University of Craiova	5842/04.11.2008
15.	Cristina Floriana	PANĂ	FACE, University of Craiova	6404/27.09.2023
16.	Cristian Ionel	VLADU	FACE, University of Craiova	6866/21.12.2023

The Council of the “Constantin Belea” Doctoral School. [The Council of the “Constantin Belea” Doctoral School](#) consists of three doctoral supervisors and one doctoral student, structured as follows:

- Prof. Costin BĂDICĂ, PhD - Director of the Doctoral School, doctoral supervisor in Computers and Information Technology
- Prof. Dorian COJOCARU, PhD (Mechatronics and Robotics)
- Prof. Daniela DANCIU, PhD (Systems Engineering)
- Doctoral student: Drd. ing. Florin-Alexandru DIȚĂ (Mechatronics and Robotics)

Doctoral students. Between 2015 and 2020, the “Constantin Belea” Doctoral School had 14 doctoral graduates, distributed as follows: Systems Engineering - 6 graduates, Computers and Information Technology - 5 graduates, **Mechatronics and Robotics - 3 graduates**. Between 2021 and 2025, another 24 doctoral students graduated, as follows: Systems Engineering - 8 graduates, Computers and Information Technology - 9 graduates, **Mechatronics and Robotics - 7 graduates**. More than 20 theses are currently being prepared in all three areas of the school. All theses defended by students of our doctoral school have been confirmed by

CNATDCU. This intense scientific activity has resulted in the recent publication by doctoral students of the Doctoral School, individually or in collaboration, of over 150 articles in ISI-rated journals and conference proceedings and over 100 articles in journals and conference proceedings indexed in international databases.

Research mission. The SDCB's mission derives from the mission of IOSUD and UCv through the training of specialists for research and education in the fields of Computers and Information Technology, Systems Engineering, and Mechatronics and Robotics. The main objectives of the SDCB are as follows:

- Academic training, at the highest level of performance, of doctoral students in order to satisfy their intellectual, professional and social development needs, as well as society's need for a highly skilled workforce;
- Preparing doctoral students to participate in research programmes;
- Promoting excellence in scientific research, development, innovation and knowledge transfer to Romanian society, thus responding to its need for progress;
- Innovation in the field of research, development and knowledge transfer, for the creation of a knowledge-based society and the European Research Area;
- Developing young human resources involved in academic and research activities, as well as promoting the research profession.

1.2.3 Quality certification level, quality management measures and promotion of ethics and deontology

In 2025, there were 87 universities operating in Romania: 52 public universities (including military ones) and 35 private universities. The University of Craiova is a traditional university and the first institution of its kind in the region, consistently ranked among the top universities in Romania. Between 2021 and 2025, the University of Craiova entered the top three international academic rankings for the first time. The situation in 2024 is summarised below:

- *Shanghai Ranking.* The most recent achievement is the ranking, in the 301-400 range, in the renowned [Shanghai Ranking for Academic Subjects](#), in the field of Mathematics (2024). This is the third consecutive year that UCv has been ranked in this hierarchy, occupying the same position in 2023, which is higher than in 2022, when it was ranked between 400 and 500.
- *Times Higher Education (THE) World University Ranking.* For the third consecutive year (in advance for 2025), the [university](#) ranks in the 1501+ range. Also, by field of study, the university ranks 1001+ for Computer Science and Computing, 1251+ for Engineering and Technology, and 1001+ for Science.
- *QS World University Rankings.* The University of Craiova also maintains its position in the latest [QS global ranking](#) (ahead of 2025), in the 1401+ range.

UCv is also ranked 14th in [the UniRank Ranking for Romanian universities](#) for 2024, which lists 74 Romanian universities. UniRank evaluates online authority, accreditation, educational offerings, etc. UCv [ranks 211-220](#) in the QS University Ranking - Emerging Europe & Central Asia, out of 450 universities.

ARACIS evaluations. In [2009](#), the University of Craiova underwent the periodic institutional evaluation process by ARACIS for the first time, and following the evaluation, the ARACIS Council issued a certificate awarding it the rating “High degree of confidence”, the documents being available on the ARACIS website. In 2011, following an independent evaluation (National Research Evaluation Exercise - ENEC) conducted by UEFISCDI through a project financed by structural funds, UCv obtained very good results in the evaluation of research and doctoral programmes. Thus, the University of Craiova ranked very well (field P17: Systems Engineering - 5th place, field P18: Computers and Information Technology - 5th place, field P7: Mechanical Engineering and Mechatronics - 7th place).

In [2012](#), with the support of a project financed by structural funds, “Performance in research, performance in teaching quality, diversity and innovation within Romanian universities”, coordinated by UEFISCDI, the University of Craiova was externally evaluated internationally and by the European University Association (EUA) through the Institutional Evaluation Programme (IEP) included in the European Register of Quality Agencies. In [2015](#), the University of Craiova was re-evaluated institutionally by ARACIS, and following the external quality evaluation report, the ARACIS Council awarded it the rating “High degree of confidence”. In [2021](#), the University of Craiova was again institutionally evaluated by ARACIS, and following the external quality assessment report, available on the ARACIS website, the ARACIS Council awarded it the rating “High degree of confidence”. Between 2015 and 2019, all seven bachelor's degree programmes of the Faculty of Automation, Computers and Electronics were externally evaluated by ARACIS, all of which maintained their accreditation, and some of which increased their enrolment capacity. Subsequently, in 2021-2022, these programmes were re-evaluated by ARACIS, with accreditation maintained. The Faculty of Automatic Control, Computers and Electronics offers six master's degree programmes within the three fields of study covered by the faculty. In 2019 and again in 2024, ARACIS carried out a periodic external evaluation of the master's degree fields, all of which retained their accreditation.

In 2021, ARACIS carried out the periodic external evaluation procedure for doctoral study fields, which obtained **accreditation maintenance** (the fields of Systems Engineering and Mechatronics and Robotics

through [ARACIS Council Decision No. 95/25.11.2021](#), and the field of Computers and Information Technology obtained conditional accreditation by ARACIS Council Decision No. 95/25.11.2021 and subsequently maintained its accreditation by ARACIS Council Decision No. 135/H/25.05.2023. In 2024, [progress reports](#) were drawn up for the doctoral fields of Systems Engineering and **Mechatronics and Robotics**, whose external evaluation was carried out by ARACIS in 2025, with the evaluation procedures being approved by [ARACIS Council Decision no. 193/H/07.08.2025](#). Thus, in the field of Systems Engineering, the conclusion was that the recommendations had been implemented, while in the field of Mechatronics and Robotics, there remain 5 recommendations that have not been implemented and for which the implementation analysis will be integrated into the next periodic evaluation procedure.

Quality management and promotion of ethics and deontology measures. Quality management and assurance at SDCB level are regulated by [the Regulations of the “Constantin Belea” Doctoral School](#) of the Faculty of Automation, Computers and Electronics of the University of Craiova. Thus:

- (1) The SDCB Director, together with the field coordinators, shall prepare an annual self-assessment report on the school, which shall be presented to the General Assembly of Doctoral Supervisors and submitted for approval to the SDCB Council. This report shall assess the effectiveness of quality assurance procedures and structures, as well as their impact on doctoral studies.
- (2) The conclusions of the annual quality self-assessment report are analysed at the General Assembly of Doctoral Supervisors in order to identify problems and solutions for the continuous improvement of quality at SDCB level.
- (3) The internal quality assurance and monitoring policy at SDCB level is transparent and is implemented in accordance with these regulations, which include clear and quantifiable criteria to be met by doctoral supervisors, doctoral students and research results.
- (4) Internal quality assurance at SDCB and its monitoring are carried out through:
 - (a) Periodic evaluation of doctoral supervisors at SDCB, in accordance with Art. 5, point (9) and Art. 30, points (1) and (4).
 - (b) Periodic evaluation of the quality of the proposed doctoral study programmes, in accordance with Art. 30, points (1) and (2).
 - (c) Periodic evaluation of the quality of students' research activity, in accordance with Art. 30, points (1) and (3).
 - (d) Periodic evaluation of the quality of research results produced by doctoral students, in accordance with Art. 17, point (2), Art. (10), points (2), (4), (7), (9), (10), (11), (12).
 - (e) Establishing standards for the preparation, drafting and quality of doctoral theses, in accordance with Art. (25), points (3) and (4).
- (5) The SDCB Regulations are closely linked to the quality assurance and management system at the University of Craiova.

Measures to promote ethics and professional conduct are regulated by [the Regulations of the “Constantin Belea” Doctoral School](#). Thus:

- (1) Compliance with the rules of ethics and professional conduct is ensured by Art. (31), point (1).
- () The prevention, detection and punishment of academic fraud is achieved through the measures provided for in Art. (31), points (2) and (3).

1.2.4 Human resources and research infrastructure

The human resources of SDCB consist of 16 tenured doctoral supervisors in the fields of doctoral studies within SDCB (4 female and 12 male professors), of which: 6 doctoral supervisors in the field of Computers and Information Technology, 5 doctoral supervisors in the field of Systems Engineering, and 5 doctoral supervisors in the field of Mechatronics and Robotics. In addition, there are FACE teaching staff with recognised experience in research, as members of the doctoral student guidance committees. Starting in 2024, in accordance with the new Higher Education Law No. 199/2023 and subsequent regulations, teaching staff/researchers from outside IOSUD – UCv are also co-opted into the guidance and integrity committees, so that each guidance committee has at least one member from outside IOSUD – UCv.

Research infrastructure. The “Constantin Belea” Doctoral School has the logistical support of the Research Centres assigned to each of its composite fields of study, the Research Infrastructure in Applied Sciences – INCESA and the teaching staff of the Faculty of Automation, Computers and Electronics, some of whom are members of the Guidance Committees. At the same time, SDCB benefits from the educational infrastructure of the ACE Faculty, which consists of classrooms, seminar rooms and laboratories suitable for carrying out teaching activities within SDCB. The research activity within SDCB is carried out in close connection with the research activity within FACE. This activity is supported by the research centres and laboratories associated with the faculty and SDCB.

At the level of FACE of UCV, the following research centres were active between 2015 and 2020:

- Nonlinear Automation, Stability and Oscillations (ANSO), in the field of Systems Engineering, certified by CNCIS on 11 February 2001 (certificate 19/CC-B) and recertified by CNCIS on 12 September 2006 (certificate no. 10);
- Multimedia Application Development (DAM), in the field of Computers and Information Technology, accredited by CNCIS on 12 September 2006;
- Mechatronics and Robotics (CCMR), in the field of Mechatronics and Robotics.

In 2021, a procedure was initiated to reorganise the research centres, proposing a FACE-level Research Centre called the Interdisciplinary Research Centre for Computers, Automation and Robotics ([CERCA](#)), which was institutionally evaluated and recognised at the University of Craiova in 2021. This centre comprises three research laboratories for each field (CTI, IS and MR).

1.2.5 Elements of educational effectiveness in doctoral study fields

Doctoral students who obtained their PhD from the University of Craiova between 2011 and 2020, under the guidance of SDCB doctoral supervisors, are currently working in academia, research institutes or companies in their field of doctoral study, as follows: *Academic environment: 17, Pre-university environment and research institutes: 2, Companies in the doctoral field: 19.*

Doctoral students who obtained their PhD from the University of Craiova between 2021 and 2025, under the guidance of SDCB doctoral supervisors, are employed in academia, research institutes or companies in the field of their PhD.

- Academic environment: 5 (CTI) + 5 (IS) + 5 (MR) = 15
- Pre-university environment and research institutes: 1 (IS)
- Companies in the doctoral field: 4 (CTI) + 2 (IS) + 2 (MR) = 8

In the field of Systems Engineering, the 8 graduates from the 2021-2025 period are employed as follows:

- Academic environment: 4 (Claudiu Ionel NICOLA - 2022, Mădălin MĂMULEANU - 2023, Geanina UNGURITU - 2023, Anca ALBIȚA - 2024, Daniel GAGIU - 2025)
- Research institutes: 1 (Bogdan MONEA - 2021)
- Companies in the doctoral field: 2 (NICHÎTELEA Teodor - 2023, Horia CĂPRIȚA - 2024).

In the CTI field, the 9 graduates from 2021-2025 are active as follows:

- Academic environment: 5 (Paul Ștefan POPESCU - 2020, Constantin - Renato IVĂNESCU - 2023, Gabriel BADEA - 2023, Didi-Liliana POPA - 2024, Ionuț MURAREȚU - 2025)
- Companies in the field of doctoral studies: 4 (Călin CONSTANTINOV - 2021, Hummam AL-CHALABI - 2023, Hussein AQEEL - 2023, Andras FERENCZI - 2025).

In the field of **Mechatronics and Robotics**, the 7 graduates from 2021-2025 are active as follows:

- Academic environment: 5 (Marian IONESCU - 2021, Florina BESNEA (PETCU) - 2023, Horațiu ROIBU - 2023, Marian ABAGIU - 2025, Ștefan CISMARU - 2025)
- Companies in the doctoral field: 2 (Lidia BĂZĂVAN - 2023, Yahya JAWAD - 2025).

1.3. General description of the field of doctoral studies in Mechatronics and Robotics

UCV was granted the status of Organising Institution for Doctoral Studies (I.O.S.U.D.) in the field of Mechatronics and Robotics by Order of the Minister of Education, Research and Youth no. 4969/31.07.2008. Subsequently, by Order of the Minister of Education, Research and Youth No. 5842/04.11.2008, the following university professors were granted the status of doctoral supervisors within I.O.S.U.D. University of Craiova, in the field of Mechatronics and Robotics, to the following university professors: Nicu George Bîzdoacă, Dorian Cojocaru Mircea Nițulescu.

This doctoral school is the result of the internationally accepted concept that mechatronics is an integrative scientific field for the systemic approach to elements of mechanics, electronics, computers and automation. Currently, I.O.S.U.D. University of Craiova has a “Constantin Belea” Doctoral School of the Faculty of Automation and Computers, which includes all doctoral supervisors in the technical fields of ACE: Computers and Information Technology, Systems Engineering, and Mechatronics and Robotics. The “Constantin Belea” Doctoral School of Engineering Sciences has a Council made up of one representative from each doctoral field. Currently, this representation falls to Prof. Dr. Eng. Dorian Cojocaru.

This **internal evaluation report for the doctoral field of Mechatronics and Robotics** was approved at the SDCB CSD meeting on 13 January 2026 at the CSUD meeting of IOSUD – UCv on 15 January 2026 and was approved at the meeting of the Senate of the University of Craiova on 29 January 2026. The following is a brief presentation of the mission and objectives of the doctoral school in the field of Mechatronics and Robotics, the evolution of the field and changes since the last external quality assessment procedure, the curricula, the doctoral supervisors, the evolution of the number of doctoral students and the number of doctors in recent years, and the research infrastructure.

1.3.1 Mission and objectives

The doctoral school in the field of Mechatronics and Robotics has experienced an upward trend in recent years. As mentioned in the previous sections, the “Constantin Belea” Doctoral School was established at its current form by merging the three doctoral fields of Systems Engineering, Computers and Information Technology, and Mechatronics and Robotics within the Faculty of Automation, Computers and Electronics into a single school. The SDCB separated from the Doctoral School of Engineering Sciences by decision of the UCv Senate in 2015, and has since been subordinate to IOSUD – UCv. However, *the mission, objectives and current curriculum of the doctoral school* in the field of Mechatronics and Robotics (**MR**) are the result of a long evolution. The team benefits from the academic prestige and previous teaching and research activities of Prof. Dr. Eng. Mircea Ivănescu, PhD supervisor, a personality who has made a remarkable and recognised contribution to the establishment and development of all the study programmes currently running in the Faculty of Automatic Control, Computers and Electronics. Prof. Dr. Eng. Constantin Belea obtained the status of doctoral supervisor at the University of Craiova in the field of Automatic Systems in 1968. Subsequently, Prof. Mircea Ivănescu, Prof. Vladimir Răsvan, Prof. Constantin Marin, Prof. Matei Vinătoru, and Prof. Emil Petre also obtained this status. The mission of the Mechatronics and Robotics field is in line with the mission of UCv (described in [the University Charter](#)), the mission of the faculty (described in [the faculty's strategic development plan](#)), and that of the “Constantin Belea” Doctoral School. The educational and scientific research mission is clearly defined, as shown in [the Curricula](#) of the “Constantin Belea” Doctoral School, **MR** field.

The mission of the field is to train highly qualified specialists in the field of **MR** for research, development, innovation and educational activities, in line with the requirements and principles of the European Higher Education Area, with interdisciplinary implications in various scientific and engineering fields. In recent years, the fields addressed have been related to automatic robot control, integrated mechatronic systems and artificial intelligence applied in industry, fault diagnosis, mixed reality and biomedical applications, intelligent distributed control of autonomous systems, the development of advanced integrated sensor systems for societal security, the creation of intelligent prostheses based on magnetorheological fluids, intelligent modular systems with IoT functionalities, brain-computer interaction, intelligent sustainable mobility solutions, semi-automatic control of assistive robots, and integrated mechatronic systems applied in the medical industry.

In line with its mission, the doctoral programme has set a series of objectives in terms of both teaching and educational activities and research. *The main objectives* pursued within the **MR** field are in line with the mission and objectives of UCv, SDCB and the faculty, as well as with the requirements identified on the highly skilled labour market:

- Ensuring the quality of scientific research and high-level education through appropriate university and research management, with an emphasis on excellence in RDI;
- Deepening and expanding doctoral students' knowledge in the field of automation, with the aim of adapting to the requirements of the highly skilled labour market that integrates fundamental research, applied research and technological innovation;
- Developing graduates' research skills and abilities to enable them to access teaching and research activities in higher education, as well as research activities in institutes and company departments;
- Participation in national and international research, development and innovation programmes, projects and partnerships, including with partners from the business community;
- Improving the quality of publications, the level of dissemination of scientific research results and the visibility of the teaching staff and doctoral students.

The **MR** field pursues its mission and objectives by ensuring that teaching staff and doctoral students respect and promote a set of principles stipulated in [the UCv Charter](#): the principle of academic freedom, the principle of student-centred education, the principle of transparency and fairness, the principle of respect for the rights of students and staff, and the principle of freedom of thought and critical thinking.

1.3.2 Curricula

The curricula for the Mechatronics and Robotics doctoral programme are included in the curricula of the “Constantin Belea” Doctoral School, which can be consulted on the SDCB website: <https://ace.ucv.ro/sdcb/educatie.html>. The content of the training programme (subjects, reports and projects, publications) in the current curriculum is also based on the research directions defined at the level of the Faculty of Automatic Control, Computers and Electronics ([ACE Research Plan 2024-2029](#)) and at the level of the Department of Mechatronics and Robotics (DMR). Thus, the DMR research plan defines the following major research directions:

- D1. Mechatronics;**
- D2. Robotics;**
- D3. Artificial Intelligence.**

These directions are further developed through current, modern research sub-directions with clear potential for application. The MR doctoral programme curriculum focuses in particular on areas D1 and D2, which enable the development of artificial intelligence applications in the control of automated systems and robots in practical industrial (automobile manufacturing and use) and non-industrial (medical, educational) applications. The following research directions have been adopted for the 2025-2026 academic year: Artificial Intelligence Applications for Robotic Systems, Artificial Intelligence Applications for Mechatronic Systems, Integration of Artificial Intelligence and Computer Vision Techniques in Mechatronics Applications, Integration of Artificial Intelligence and Computer Vision Techniques in Robotic Applications, Advanced Mechatronic Systems, Behavioural Modelling of Complex Systems (Digital Twins with Behavioural Simulation), Integrating Artificial Intelligence into Mechatronic Systems, Using Artificial Intelligence (AI) and Virtual Reality (VR) in Engineering and Medicine. The doctoral programme for each doctoral student in the field of Mechatronics and Robotics is coordinated by a doctoral supervisor and includes: (a) a training programme based on advanced university studies (PPUA) within the doctoral school and (b) an individual scientific research programme. The curriculum includes compulsory and optional subjects, as well as subjects chosen by the doctoral supervisor (depending on the topic addressed), research activity and individual study. All subjects in the PPUA are taught by teaching staff who are qualified doctoral supervisors/habilitated.

The subjects in the field of Mechatronics and Robotics in the current [curriculum](#) are as follows:

1. Information Security of Automotive Mechatronic Systems
2. Behavioural Modelling of Robotic and Mechatronic Systems
3. Advanced Robotics Theory
4. Sensory and Actuation Systems in Mechatronics and Robotics
5. Architectures and technologies for the smart city
6. Architectures and technologies for IoT systems
7. Robotic Vision
8. Computer-Aided Design for Mechatronic Systems
9. Artificial Intelligence
10. Data Modelling and Analysis
11. Medical Robotics
12. Biotechnology Systems
13. *Methodology of Scientific Research*
14. Ethics and Academic Integrity

The subjects *Methodology of Scientific Research* and *Ethics and Academic Integrity* are core subjects for all SDCB fields. The curriculum also includes four research reports (R0-R3) to be prepared by doctoral students, as well as a plan for disseminating scientific research results through the publication of papers in journals (rated ISI - Clarivate Analytics and BDI recognised) and in scientific conference proceedings (indexed ISI and BDI). It also provides for the drafting, evaluation and defence of the doctoral thesis before the Academic Guidance and Integrity Committee, as well as its defence before the Specialised Committee.

The condition for promotion to the next year of doctoral studies is the defence of at least one scientific research report in the current year. 30 credits can be obtained by choosing compulsory subjects from the common core (6 credits) and other subjects from the field of doctoral studies in which the doctoral student is enrolled (24 credits). According to Order No. 6.129/2016 of the Minister of National Education and Scientific Research on the approval of the minimum standards required and mandatory for the awarding of teaching titles in higher education, the following international databases are recognised: ISI Web of Science, Scopus, IEEE Xplore, ScienceDirect, Elsevier, Springerlink, ACM, DBLP, EURASIP, Wiley, Inspec. According to Order No. 5510/2018 of the Minister of National Education, some of the credits obtained through the dissemination of scientific research results must be obtained from publications and/or patents that meet the minimum national standards required and mandatory for the award of the scientific title of doctor, approved at the meeting of the Senate of the University of Craiova on 27 September 2018. At least two articles must be published/accepted for publication (with proof of acceptance) in Web of Science indexed journals, and the doctoral student must be the first author. One of these two articles may be equivalent to a patent, with the doctoral student as the first author.

Evolution of the curriculum. [The curriculum](#) had 180 credits allocated, 60 for each of the three years of training in the field of MR, and from 2023-2024, according to the new Law No. 199/2023, 240 credits are allocated, 60 for each of the four years. Doctoral students enrolled in 2021-2022 and 2022-2023 who have not completed and will not complete their doctoral thesis in 3 years will have the opportunity to extend the doctoral programme to a 4-year curriculum. The curricula have also been improved by adding new subjects that reflect the rapid dynamics of the field (for example, in recent years (2022-2025) subjects such as Computer-Aided Design for Mechatronic Systems (CAD for Mechatronic Systems), Artificial Intelligence, Medical Robotics

and Biotechnology Systems have been introduced in recent years (2022-2025). Since the main purpose of doctoral studies is to develop human resources competent in scientific research, the learning outcomes, defined in terms of knowledge, skills/abilities, responsibility and autonomy, are set out in the current curriculum and in the course descriptions. This ensures the development of professional skills (content, cognitive and research) in the field of Mechatronics and Robotics, as well as transversal skills.

1.3.3 Evolution of doctoral supervisors and doctoral students

In 2020, two other teaching staff from the “Transilvania” University of Braşov, Gigel Măceşanu and Tiberiu Cocias, were accredited in the field of Mechatronics and Robotics at the “Constantin Belea” Doctoral School. Both were senior lecturers when they obtained their accreditation, but have since become associate professors. This brings the number of teaching staff at this university with such accreditation to three, which will allow the formalities for the accreditation of the field at this institution to begin. This achievement can be considered a real success for the School of Mechatronics and Robotics in Craiova. In 2021, a fourth teacher from the “Transilvania” University of Braşov, Prof. Dr. Ing. Claudiu Pozna, was accredited. A fifth teacher from the same university, Prof. Dr. Ing. Ionel Stareţu, was accredited in 2022. With the accreditation of the doctoral programme in Mechatronics and Robotics at Transilvania University in Braşov, in 2023 the accredited teaching staff at the University of Craiova transferred to Braşov.

In 2021, three doctoral students were admitted: Ciuică Cerbulescu M. Cristina - Gabriela, budget with scholarship, coordinator Nicu George Bîzdoacă, Jawad Yahya Kadhim Jawad, Romanian state scholarship holder, coordinator Prof. Dr. Ing. Mircea Niţulescu, Purcărin C. Andrei-Florian, fee, coordinator Prof. Dr. Ing. Dorian Cojocaru (the student was subsequently expelled for non-payment of fees).

A remarkable success was the reaccreditation for a period of 5 years of the doctoral study programme in Mechatronics and Robotics (responsible for the self-assessment file Prof. Dr. Ing. Dorian Cojocaru and Asist. Drd. Ing. Florina Petcu) within the “Constantin Belea” Doctoral School. Prof. Dr. Eng. Nicu Bîzdoacă and doctoral student Radu Dumitru Antohi were also particularly involved in the evaluation visit.

The self-assessment of the doctoral field highlighted the conclusion that the future of this field of doctoral studies also depends on the empowerment of colleagues in the department, and that in the specific conditions of the immediate future, a feasible option for strengthening the team is to integrate doctoral students into teaching and research activities. Unfortunately, what appeared to be an opportunity at one point did not materialise in the long term as desired. This refers to the permanent employment of two young researchers in a complex research project. Instead, there were three doctoral students who carried out teaching activities on an hourly basis, and a larger number of doctoral students who carried out research activities in collaboration with colleagues from the department.

No new doctoral students were admitted in 2022. In 2023, three doctoral students coordinated by Prof. Nicu Bîzdoacă defended their doctoral theses and received their PhDs in Mechatronics and Robotics: Florina Luminiţa Besnea (Petcu), Horaţiu Roibu and Lidia Băzăvan. In 2023, Associate Professor Cristina Pană obtained the qualification to coordinate doctoral studies in the field of Mechatronics and Robotics. Also in 2023, Mr. Ş.l. Dr. Eng. Ionel Cristian Vladu from the Faculty of Electrical Engineering at the University of Craiova obtained the qualification to coordinate doctoral studies in the field of Mechatronics and Robotics. In 2023, no new doctoral students were admitted.

In 2024, three doctoral students defended their doctoral theses and received the title of Doctor in Mechatronics and Robotics: Marian Marcel Abagiu, supervised by Prof. Dr. Eng. Dorian Cojocaru, Ştefan Irinel Cismaru, supervised by Prof. Dr. Eng. Nicu Bîzdoacă, and Jawad Yahya Kadhim Jawad, supervised by Prof. Dr. Eng. Mircea Niţulescu. In 2024, new doctoral students were admitted: Florin Alexandru Diţă and Gabriel Ion Mănescu, supervised by Prof. Dr. Eng. Nicu Bîzdoacă, Alexandru Costinel Filip, supervised by Prof. Dr. Eng. Dorian Cojocaru, and Nicolae Răzvan Vrajitoru, supervised by Assoc. Prof. Eng. Cristina Pană.

In 2025, Associate Professor Florin Manta and Associate Professor Ionuţ Reşceanu obtained accreditation to supervise doctoral studies in the field of Mechatronics and Robotics. In 2025, a new doctoral student was admitted: Marius Lucian D. Dumitriu, supervised by Prof. Dr. Eng. Mirecea Niţulescu.

Between 2020 and 2025, the teaching staff of the department were members of numerous evaluation committees for admission, thesis defence or examination within the doctoral programme, either as chair or member.

All supervisors affiliated with SDCB in the MR field are tenured at UCv Craiova and meet all the necessary quality standards and criteria ([Annex 1](#)).

1.3.4 Development of infrastructure and scientific research centres/laboratories

The “Mechatronics and Robotics” Research Centre (CCMR), coordinator: Prof. Dr. Eng. Mircea Ivănescu, accredited on 02.06.2005 Certificate no. 83/CC-C, approval to continue operating from 18.02.2013,

Senate of the University of Craiova, was re-evaluated in November 2016 at the level of the University of Craiova. In 2025, the CCMR was in the process of changing its legal status.

In 2021, the Research Centre of the Faculty of Automation, Computers and Electronics ([CERCA](#)) was organised in accordance with the opinion of the Research Council dated 20 May 2021 and the approval of the Senate meeting on 27 May 2021. The Mechatronics and Robotics Laboratory (LMR) is one of the three laboratories of CERCA. The laboratory coordinator is Associate Professor Ionuț Cristian Resceanu, PhD. In 2022, LMR had 16 members, namely 8 CDTs from DMR, 1 CDA from DMR and 7 PhD students in the field of MR.

The research directions of the LMR defined at its establishment are:

- Research and development in main research areas: Medical bioengineering; E-learning; Mobile robotics; Biomimetic robotic systems; Modular robotic structures based on smart materials; Image acquisition, processing and recognition.
- Research and development in related research areas: Advanced control methods with applications in biotechnology; chemistry, aeronautical energy; Distributed intelligent systems; Multimedia information systems; Advanced systems and technologies for education (e-learning).

All doctoral students in the field of Mechatronics and Robotics have access to the scientific research laboratories and infrastructure within the Faculty of Automatic Control, Computers and Electronics. The Mechatronics and Robotics doctoral programme also benefits from the research laboratories within the Applied Sciences Research Infrastructure – INCESA. The laboratories, equipment and research services related to INCESA and the ANSI laboratory were presented on the EERIS platform and subsequently migrated to the [EERTIS](#) platform. In order to carry out the documentation necessary for teaching and research activities, members of the Doctoral School (teachers and doctoral students) have access to the university and faculty libraries, which are well equipped in terms of both monographs and journal collections (IEEE, IFAC, Springer, Elsevier, etc.), including mobile access through [ANELIS](#).

Research activity has been continuously supported by contracts and grants carried out by SDCB teaching staff in the MR field, resulting in numerous high-level publications by both PhD supervisors and PhD students ([Annex 2](#)).

Three research projects are reported on the UCV research portal as being active in 2024:

- Active and passive recovery of the lower limb, National, University of Craiova, PN-III-P2-2.1-PED-2021-1917, Experimental demonstration project (PED), UEFISCDI, 610PED/2022, Popescu Dorin, Manta Florin, Pană Cristina, Roibu Horatiu, 567,195 lei.
- HEInnovasport: Building innovation capacity and entrepreneurship in sport science HEIs, International Norwegian School of Sports Science, Horizont, Research, European Institute of Innovation and Technology, HE-220822, Bizdoaca Nicu, 108,000 euros.
- Innovative VR tools for enhancing the security of NATO external borders, International, University of Craiova, NATO Science for Peace and Security, Multi Year Project – MYP NATO SPS MYP G 6234, Bizdoaca Nicu, Resceanu Ionut, Petcu Florina, Cismaru Ștefan-Irinel, 321,400 euros.

At the award ceremony for the research results of the University of Craiova, the 2023 Research Gala, for the field of Engineering Sciences, the following teaching staff from DMR were awarded for their results in 2022: Manta Liviu Florin, Bizdoacă Nicu George, Petcu Florina-Luminița, Cismaru Ștefan-Irinel, Cojocaru Dorian, Roibu Horațiu, Pană Cristina Floriana, Resceanu Ionuț-Cristian.

Two research projects scheduled for 2023 are also reported on this portal:

- Intelligent modular system for calibration/metrological verification of time and distance parameters for urban transport, with robotic assistance and IoT functionalities – SMARTTEST; Coordinator: EURO QUIP INTERNATIONAL SRL; Competitiveness Operational Programme Research, technological development and innovation (RDI) in support of economic competitiveness and business development; Ministry of Research, Innovation and Digitalisation, as Intermediate Body for the Competitiveness Operational Programme 2014-2020; Code SMIS121456, contract no. 372/390048/29.09.2021; Project Director: Manta Florin; Members DMR: Pană (Resceanu) Cristina, Popescu Dorin, Cojocaru Dorian; 2021 - 2023; 16,580,306 RON; Partners EURO QUIP INTERNATIONAL SRL, Polytechnic University of Bucharest.
- “Active and passive recovery of the lower limb”, Coordinator: University of Craiova; PN-III-P2-2.1-PED-2021-1917; Experimental demonstration project (PED); UEFISCDI; 610PED/2022; Director: Popescu Dorin; DMR members: Manta Florin, Pană Cristina, Roibu Horatiu, Dragomir Andrei; 2022-2024; 567,195 RON; 2023 - 323,366 RON, 2022 – 139,004 RON.

Three research projects with activity in 2022 are also reported on this portal:

- Intelligent modular system for calibration/metrological verification of time and distance parameters for urban transport, with robotic assistance and IoT functionalities – SMARTTEST - Competitiveness Operational Programme - Research, technological development and innovation (RDI) in support of economic

competitiveness and business development – director Florin Manta, members of DMR: Bizdoaca Nicu, Pană Cristina, Popescu Dorin, Cojocaru Dorian – total value 16,580,306 RON.

- Active and passive recovery of the lower limb - PN-III-P2-2.1-PED-2021-1917 - Experimental demonstration project (PED) – director Dorin Popescu - members of DMR: Manta Florin, Pană Cristina, Roibu Horațiu, Dragomir Andrei – total project value 567,195 RON.
- Experimental Intelligent Ankle Prosthesis Based on Intelligent Fluids - PN-III-P2-2.1-PED-2019 – PED - director Ionel Cristian Vladu - members of DMR: Pană Cristina, Bizdoaca Nicu, Cojocaru Dorian, Patrașcu Daniela, Stoian Viorel, Manta Florin, Mariniuc Alexandru, Dragomir Andrei, Besnea Florina, Trăsculescu Andrei, Cismaru Ștefan - total project value 599,000 RON.

At the award ceremony for research results at the University of Craiova, five teaching staff members (Nicu Bîzdoacă, Dorian Cojocaru, Ionuț Resceanu, Florin Manta, Cristina Pană) and five doctoral students from the department were awarded for 2022.

In 2021: 5 research projects: 2 with directors from DMR (Prof. Dr. Eng. Dorian Cojocaru: in a team of 8 CDT DMR + 2 DRD DMR and Ș.I. Dr. Eng. Florin Manta: in a team of 5 CDT DMR), 1 with a director from ACE UCV (in a team: 1 CDT from DMR), 1 with a director from IE UCV (in a team: 7 CDT from DMR + 4 DRD from DMR), 1 with a director from outside UCV – external funding (in a team: 1 CDT from DMR).

At the award ceremony for research results at the University of Craiova, the following were nominated as winners for 2021 (12 nominations): In Engineering Sciences: Prof. Dr. Eng. Nicu-George Bîzdoacă, Prof. Dr. Eng. Dorian Cojocaru, Asst. Dr. Eng. Florina Petcu, Ș.I. Dr. Eng. Florin Manta, Prof. Dr. Eng. Dorin Popescu, Prof. Dr. Eng. Mircea Nițulescu, Prof. Dr. Eng. Mircea Ivănescu; In Research Management: Prof. Nicu-George Bîzdoacă, PhD, Eng., Prof. Dorian Cojocaru, PhD, Eng.; Entrepreneurial Research: Lecturer Dr. Eng. Florin Manta; Research and Social Involvement: Assistant Dr. Eng. Florina Petcu; Innovation through Knowledge Transfer: Prof. Dr. Eng. Dorin Popescu + team.

In 2020: 4 research projects: 2 complex CDI UEFISCDI projects in partnership, with sub-project managers/directors from DMR: Prof. Dr. Eng. Dorian Cojocaru, Senior Lecturer Dr. Eng. Cristina Pană, 9 members from DMR and 2 PhD students, total value: 1,057,500 lei, for 2020: 365,100 lei; Prof. Dr. Eng. Dorin Popescu, 2 members from DMR and 2 PhD students, total value: 380,000 lei, for 2020: 131,123 lei; 2 projects with members from DMR: - Prof. Dr. Eng. Dorin Popescu, Competitiveness Operational Programme, ANCSI, 1 member from DMR; - Prof. Dr. Eng. Nicu Bîzdoacă, Complex RDI Projects, UEFISCDI, 1 member of the DMR.

1.3.5 Substantial changes since the last external evaluation

Legislative changes. The main legislative change that has occurred since the last external evaluation and which has an impact on doctoral studies is the Higher Education Law No. 199/2023. Subsequent to this law, a series of regulations, methodologies and specific procedures for doctoral studies were developed. Thus, among the main changes with an impact on SDCB and the field of Mechatronics and Robotics, the following can be listed:

- The drafting, endorsement and approval of a series of regulations and methodologies regarding doctoral studies, both at the level of IOSUD – UCv and doctoral schools. These [regulations and methodologies](#) can be consulted on the UCv website
- Increasing the number of years of doctoral training – four years according to the new legislation, which also led to the corresponding modification of the curricula. [The curricula](#) are updated annually on the SDCB website, where those for the field of **MR** doctoral studies can also be found
- Change in the structure and role of the guidance (and academic integrity) committees that support the doctoral supervisor in activities carried out with doctoral students (at least one of the members being from outside IOSUD – UCv).
- Major changes in terms of public defence of doctoral theses, including transparency of the thesis submission and defence procedure.

Prof. Nicu Bîzdoacă, PhD, has coordinated advanced research projects in areas such as automatic robot control, integrated mechatronic systems and artificial intelligence applied in industry. , he completed the doctoral training of five doctors who received their doctoral degrees, and a sixth is in the public defence phase. In addition, a doctoral student (Cristina Gabriela Ciuica Cerbulescu) and a master's student (Iftimiciuc G. Ionuț-Nicușor) participated in the International Summer School - 24-28 June 2025 - in Luxembourg at a business incubator in the field of innovation. Through the project “University of Craiova - New Horizons in the Digital Age”, managed by the Department of Mechatronics and Robotics, equipment and software products in the field of robotics, automotive and manufacturing worth over 1,000,000 euros were purchased. In 2025, the Mechatronics Education Days event was organised, bringing together ALL universities in the country that offer Mechatronics and Robotics programmes, with PhD students from Craiova involved in preparing students and judging the tests.

Prof. Dr. Eng. Dorian Cojocaru reports the following achievements for the period 2020-2024:

- He received the rating “Very Good” in the annual evaluation carried out at the level of the management of the Faculty of Automation, Computers and Electronics every academic year, without exception.
- He has met the performance criteria set by the CNATDCU minimum standards required for the award of teaching titles in higher education, both for Commission 17 and Commission 15, every year. This achievement has also been verified in the periodic ARACIS evaluations and in the (re)organisation of the faculty's research centres.
- He has been awarded every year by the management of the University of Craiova for his research results.
- A doctoral student, Marian Marcel Abagiu, received confirmation of his doctoral title from the National Council for the Accreditation of Academic Titles, Diplomas and Certificates (CNATDCU); A second doctoral student, Alexandru Mariniuc, completed his doctoral thesis and made his final defence in September 2025. A candidate, Alexandru Filip, was admitted and became a doctoral student in September 2024.
- In 2024, I was part of several committees in my doctoral work: member of the doctoral admission committee of the “Constantin Belea” Doctoral School; member of the doctoral research guidance committees at Transilvania University of Braşov: Mohammad Nakshbandi, Ziad Sharawy; IOSUD doctoral habilitation committee, University of Craiova, habilitation Cristian Vlad; doctoral title committee, Transilvania University of Braşov – Bogdan Trăsnea; Doctoral title committee, Polytechnic University of Bucharest – Alexandru Crăciunescu; Member of multiple doctoral student evaluation/examination committees.
- In 2024, he identified 85 citations in Google Scholar in 2024, h-index: 13; i10-index: 18; Research Gate Research Interest Score: 285.3, h-index 11; ISI Clarivate H-index: 6; Scopus H-index: 8;
- For the requirements of Commission 17, between 1 July 2019 and 1 July 2023, the following was also achieved (an increase compared to the March 2023 report): 5 articles in ISI-rated journals (WOS with impact factor); 20 articles in other BDI publications (WOS & SCOPUS); - 1 grant/project won through competition - national (Director/responsible); 4 grants/projects won through competition - national (Team member); 39 citations in BDI publications (WOS & SCOPUS) (excluding self-citations); one book from 2020 and 3 book chapters.
- For the requirements of Commission 15 for the above period: 21 articles in ISI-rated journals and papers in ISI-indexed scientific event volumes; 5 articles in journals and scientific event volumes indexed in other recognised international databases (BDI); 1 nationally competitive research grant/project - Project Director; 4 nationally competitive research grants/projects - Team Member; 48 citations in books, journals and volumes of ISI-indexed scientific events (excluding self-citations); 3 positions as member of editorial boards or scientific committees of ISI-indexed journals, chair, co-chair or member of organising committees of ISI-indexed international scientific events;
- In 2024, I published 3 articles as co-author in ISI impact factor journals (Q2 and Q3); I was a member of two research contracts (POC and PED); Member of four scientific organisations (EAEIE - Member of the Council, SRR, SRAIT, IFAC TC Technical Committees 4.2 Mechatronic Systems); national and international expert (Ministry of Research, Development and Innovation, EU Expert Evaluator - evaluated 11 projects); Member of the editorial boards of two ISSN journals; member of the scientific committees of several (7) conferences; evaluated scientific articles for several (12) IF journals and for several scientific conferences (6 IEEE and 2 Springer); participated in several events in the field of higher education: Mechatronics Education Days 2025; Romanian AI Days 2024 & 2025; Continental Sibiu - 20 years of achievements; was a member of teams that submitted funding proposals for 4 projects, including research projects;
- In 2024, member of the ARACIS Institutional Commission - evaluation of bachelor's degree programmes (7), master's degree programmes and doctoral studies.

Prof. Dr. Eng. Mircea Niţulescu reports the following achievements for the period 2020-2024:

- Completion of doctoral studies and confirmation for two students (2021 and 2024), both foreign nationals, the first with CPV and the second with a Romanian state scholarship;
- From 2025, coordination of a new Romanian doctoral student, full-time, without a scholarship;
- Scientific advisor for 5 doctoral theses (1 at UCv, 4 in other university centres);
- Member of several doctoral supervision committees (approx. 5, 1 in another university centre)
- Participation in several doctoral admission and examination committees (approx. 10);
- Publication of several articles and scientific papers in ISI CLARIVATE (App. Sci.) journals, and several ISI Proc., SCOPUS and IEEE conferences (ICSTCC, ICC, ISR, ISMSR, CoDIT, MTM & ROBOTICS, SYROM & ROBOTICS, MEDER, etc.)
- Member of the organising committees for several conferences in Romania and abroad (e.g. ICC, MEDER, MTM7ROBOTICS, SYROM7ROBOTICS, ISR, etc.);
- Secretary General of SRR until July 2021 and registration of SRR in GRC (Global Robot Cluster) in Korea;

- From July 2021 to present President of SRR;
- Member of the IFR Scientific Committee;
- Member of IFAC TC 4.2, 4.3, 5.1;
- Member of ARACIS national committees for the evaluation of doctoral schools (UPB and UTCN);
- Member of ARACIS national commissions for the evaluation of bachelor's and master's programmes in mechatronics and robotics (UPB, U. Oradea).
- Member of national committees for habilitation in the field of M&R or teaching promotion (UCv, UTI, UPB, UPET)
- Member of other commissions dealing with issues specific to the field of robotics (UPB), at ICDI (Body of Expert Evaluators and RNE) or UEFISCDI (equipment programme through PNNR);
- AUF scientific evaluator for DOC and POSTDOC scholarships in the Eugen Ionescu programme (60);
- Member of scientific committees for 3 foreign journals;
- Author of reviews for articles submitted to international journals (ISI, SCOPUS, IEEE, Copernicus) and international conferences (ISI Proc., IEEE, SCOPUS).

PhD supervisor Conf. Dr. Eng. Cristina Pană reports, in relation to activities and performance, respectively research capacity, that during the period 2020–2025, professional and scientific activity was carried out in accordance with ARACIS standards regarding the quality of human resources, the relevance of teaching activity and research performance. This activity resulted in: 11 ISI articles with impact factor, over 20 ISI/BDI indexed articles, 3 research projects as a member of the implementation team, 2 new project proposals, 2 patent applications, scientific reviewer (specialist member) for 3 defended doctoral theses, scientific supervisor for 1 doctoral thesis, 3 professional activities in the scientific community (2 invited sessions in impact factor journals, from 2023 - present - Editorial Board Members, Medical Robotics, ISSN: 2790-1025). Between 2023 and 2024, upon obtaining the qualification to supervise doctoral students in the field of Mechatronics and Robotics, the activity carried out in this field demonstrates consistency, visibility and impact, reflected in relevant scientific output, involvement in advanced research and active integration into the relevant academic community. To this end, five ISI articles with impact factor and two BDI articles have been published, addressing current topics in robotics, mechatronics, fault diagnosis, mixed reality and biomedical applications. His research activity is consolidated by his participation in a completed national PED project, the submission of two new UEFISCDI project proposals and the registration of two patent applications, demonstrating his capacity for innovation and technology transfer. Involvement in advanced training is confirmed by the status of PhD supervisor and scientific reviewer in three PhD thesis defence committees. International visibility is supported by editorial roles in impact factor journals, the coordination/organisation of two Special Issues and membership of the Editorial Board of the journal Medical Robotics. All these achievements confirm his contribution to the development of the field and his research capacity, with a direct impact on the excellence and visibility of the Doctoral School in Mechatronics and Robotics.

Mr. Conf. Dr. Eng. Ionuț Resceanu reports that between 2020 and 2025 he coordinated the modernisation of laboratories, the development of research infrastructure and the implementation of projects in the field of robotics and mechatronic systems. He is the coordinator of the Mechatronics and Robotics Laboratory and has strengthened the centre's scientific activities, collaborations and visibility. His research activity includes two books, two book chapters and 78 scientific papers, of which 45 are indexed in Web of Science, with publications in Q1–Q4 journals and 6 papers currently being indexed by ISI. He has contributed to two patent proposals currently under evaluation by OSIM, participated in three international projects, one national project as director and 22 others as a team member. Supporting habilitation in the field in September 2025, he trains and coordinates young researchers within study programmes, supporting the training of a new generation of specialists.

Mr. Conf. Dr. Eng. Florin Manta reports that in the period after 2020, he has contributed consistently to the consolidation and development of the field of Mechatronics and Robotics through active participation in advanced research projects, both as a member (three projects) and as the representative of the University of Craiova (one project) in national initiatives. He has been involved in complex projects aimed at the intelligent distributed control of autonomous systems, the development of advanced integrated sensor systems for societal security, the creation of intelligent prostheses based on magnetorheological fluids, as well as in experimental demonstration projects dedicated to the active and passive recovery of the lower limb or the development of intelligent modular systems with IoT functionalities for calibration and metrological verification. He participated in the formulation and submission of three research initiatives in emerging fields such as brain-computer interaction and intelligent sustainable mobility solutions. At the same time, he supported the quality of research by acting as a scientific reviewer for six prestigious international conferences in the field of control, robotics and intelligent systems. He represented the University of Craiova in multiple events dedicated to digitisation, industrial transition, electric mobility and sustainability, contributing to the promotion of our field

and its connection with the industrial and research environment. All these activities have strengthened the visibility and relevance of the field of Mechatronics–Robotics.

Mr. Ș.I. Dr. Eng. Cristian Vladu reports that he has coordinated and participated in advanced research projects in areas such as semi-automatic control of assistive robots and integrated mechatronic systems applied in the medical industry. During that period, he assisted in the doctoral training of students at the doctoral school.

In 2025, the Mechatronics Education Days event was organised, bringing together ALL universities in the country that offer mechatronics and robotics programmes, with doctoral students from Craiova involved in preparing students and judging the tests.

Changes regarding doctoral supervisors and doctoral students.

By Order of the Minister of Education, Research and Youth No. 5842/04.11.2008, the following professors were granted the status of doctoral supervisor within I.O.S.U.D. University of Craiova, in the field of Mechatronics and Robotics, to the following university professors: Nicu George Bîzdoacă, Dorian Cojocaru Mircea Nițulescu. Ms Cristina Pană and Mr Cristian Ionel Vladu obtained their accreditation and were affiliated in the 2023-2024 academic year. In 2025, Ionuț Cristian Resceanu and Florin Manta completed all the stages of accreditation and are currently awaiting confirmation from CNATDCU. Paragraph 1.3.3 provides information on cooperation in this field with Transilvania University of Brașov. The individual reports of the doctoral study coordinators were presented in the previous paragraph. From the analysis of this data, conclusions can be drawn regarding the changes that have taken place, the elements that support positive assessments, and the difficulties that remain to be addressed and overcome in the future.

Internationalisation. One important change relates to internationalisation and consists of co-opting specialists from foreign universities into public defence committees, as well as initiating international joint doctoral contracts in the field of MR (see Section I.3.3 and indicator I.P.B.8.1.1). Since the last evaluation, international workshops have been organised for SDCB doctoral students, thus implementing a series of recommendations made by the expert evaluators (see also Section IV).

Publications and projects. The UCV research portal (and [Annex 2](#)) reports 10 articles published in 2024 in journals by DMR members, including doctoral students, doctors and doctoral supervisors in the field of MR: 9 ISI journals and 1 in the Journal of the Department of Finance of FEAA Craiova. The portal recorded 13 articles published in 2024 by the same group in BDI-indexed conference proceedings. Another 2 SCOPUS papers and 4 IEEE papers published at international conferences were authored by doctoral supervisors, doctors and doctoral students in the field of MR. On the UCV research portal for 2023: 7 articles published in ISI journals; 13 articles published in BDI-indexed conference proceedings - 12 IEEE. On the UCV research portal for 2022: 15 articles, 6 in ISI journals and 10 at IEEE conferences. On the UCV research portal for 2021: 6 articles in ISI-rated/indexed journals; 24 articles in BDI-indexed volumes (21 IEEE, 7 of them also with WOS). For 2020, the following were reported: 5 articles in ISI-rated journals, 1 article in a BDI journal, 21 articles in BDI-indexed volumes. Between 2021 and 2025, a series of research contracts were carried out (see also Section I.3.4) involving members of the doctoral school as well as doctoral students. In terms of infrastructure, the University of Craiova has recently carried out several **projects to rehabilitate its education and research infrastructure**, three of which also target the SDCB infrastructure located on the campus of the electrical engineering faculties. These three projects have received European funding (POR, ERDF through the South-West Oltenia Regional Programme) totalling over €20,000,000, with two already completed and the third nearing completion:

- [REHABILITATION AND MODERNISATION OF EDUCATIONAL SPACES - BUILDINGS A\(C8\), B\(C9\) and C\(C10\) IN THE ELECTRICAL ENGINEERING FACULTY COMPLEX](#) - SMIS2021 code: 326947, 2017-2025 (nearing completion);
- [RENOVATION AND MODERNISATION OF EDUCATIONAL SPACES - BUILDINGS D\(C5-6\), E\(C4\) AND F\(C11\) BUILDINGS IN THE ELECTRICAL ENGINEERING FACULTY COMPLEX](#) - SMIS code 123507, 2017-2023 (completed);
- [RENOVATION AND MODERNISATION OF EDUCATIONAL SPACES - BUILDINGS G\(C12\), H\(C16\), I\(C13\), J\(C14\) AND K\(C15\) IN THE ELECTRICAL ENGINEERING FACULTY COMPLEX](#) - SMIS Code 123506, 2015-2024 (completed).

These investments will have a major impact on the educational and research process, including the activities carried out at the “Constantin Belea” Doctoral School.

II. Preparation of the internal evaluation report

II.1 Team for the preparation and planning of evaluation activities

The internal evaluation of the Mechatronics and Robotics doctoral programme within the “Constantin Belea” Doctoral School is carried out periodically to ensure the quality of the educational process and to

progressively increase teaching and research capacity. The internal evaluation report is prepared to verify compliance with current academic standards, to analyse the strengths and opportunities of the field, and to identify weaknesses and threats in order to improve activities. The team responsible for preparing the REI for the field of Mechatronics and Robotics is made up of all the doctoral supervisors in the field of Mechatronics and Robotics. The person responsible for the field of doctoral studies in Mechatronics and Robotics is Prof. Dorian Cojocaru, PhD. The development of the DSUD Mechatronics and Robotics is in accordance with the articles of [the UCV Charter](#) regarding the organisation of doctoral schools and fields of doctoral studies (Chapter 6 - Organisational structure of the university and Chapter 7 - Organisation of university studies), as well as with [the 2024-2029 Strategic Plan](#) and [the university's annual Operational Plans](#). Furthermore, the provisions of the ARACIS Quality Standards for doctoral study fields have been complied with at all times. The results of previous ARACIS evaluations have been very good and are described in Sections I2.3 and I3 of this REI.

The planning of internal evaluation activities in preparation for the external evaluation by ARACIS of the doctoral fields within IOSUD-UCV began in mid-May 2025, with a working meeting being organised to assess the state of preparation for the evaluation process of IOSUD, doctoral schools and doctoral fields. This meeting was attended by: the Director of CSUD – Prof. Ion POPA, [CSUD members](#) and [the directors of the 10 doctoral schools](#) within IOSUD-UCV. The meeting discussed the stages and methodology of the external evaluation process, the structure of the internal evaluation report and the evaluation guide published by ARACIS. The established schedule was clear and rigorous, with responsibilities precisely distributed among the structures and teams involved in the internal evaluation process. Several working meetings were held at SDCB level, including CSD meetings, which focused on the internal evaluation process of the doctoral fields within the doctoral school. Regular monthly meetings were also held between the members of the REI development team for DSUD MR.

The stages of REI development are briefly described below:

1. Collection of necessary data and documents
 - Analysis of the legislative framework and internal regulations;
 - Analysis of curriculum documents, human resources (teaching staff, doctoral supervisors, doctoral students), logistics and information on scientific research activities;
 - Assessment of available material and digital resources;
 - Analysis of feedback from doctoral students, graduates and teaching staff.
2. Analysis of compliance with quality standards - correlation of DSUD MR objectives with ARACIS requirements. The REI was prepared in such a way as to highlight both the strengths and areas for development identified at the doctoral programme level in accordance with the standardised structure established by ARACIS.
3. SWOT analysis of DSUD MR – an introspective assessment was used to identify the positioning of the doctoral field in relation to the strengths, weaknesses, opportunities and threats of the field being evaluated.
4. Internal evaluation - the internal evaluation committee of IOSUD - UCv analysed the content of the report in order to certify its compliance with ARACIS standards and performance indicators, the consistency of the information and the accuracy of the data included in the report. Recommendations were made following the process.
5. Implementation of recommendations: the recommendations were put into practice by updating certain documents and by measures to strengthen research and doctoral training activities, with a view to the continuous optimisation of the programme.

II.2 Standards, performance indicators and stakeholder involvement

In order to properly prepare the REI for DSUS MR, the standards and performance indicators from the three fundamental parts of the ARACIS evaluation methodology were analysed:

- Institutional capacity – highlights the organisational potential and resources of the field. It mentions the existence of efficient management structures, a clearly defined coordination framework, qualified human resources and the availability of adequate material resources to support research and doctoral training activities.
- Educational effectiveness – defines the coherence of the doctoral programme and its relevance to the current requirements of the labour market and the research environment. The training process encourages scientific autonomy being student-centred, and interdisciplinarity and the transfer of research results to the socio-economic environment are carried out in accordance with the principles of sustainability, digitisation of agriculture and rural areas.
- Quality management – is supported by clear quality assurance and verification strategies, continuous monitoring of educational and research processes, periodic review of the curriculum, as well as transparency of information regarding academic activity, the way results are exploited and their impact on

the academic and economic environment. No new performance indicators were introduced in the report compared to ARACIS standards, but the report highlights the alignment with international best practices and the strategic need to develop the field of Mechatronics and Robotics at the University of Craiova. In order to prepare the REI for the doctoral field of Mechatronics and Robotics, the information necessary for the report was obtained through the involvement of doctoral supervisors in the MR field as well as the doctoral students they supervise. In addition, teaching staff and researchers with expertise in Mechatronics and Robotics, representatives of specialist companies in the field, and students from related master's programmes were consulted, providing the perspective of direct beneficiaries on the academic and professional opportunities created by the doctoral programme. The process of preparing the Internal Evaluation Report (IER) was carried out in accordance with the internal procedures for ensuring the quality of programmes ([Regulations for the initiation, approval, monitoring and periodic evaluation of study programmes managed by UCV](#)).

III. Information necessary for assessing the degree of compliance with standards and performance indicators

AREA A. Institutional capacity

Criterion A.1. Institutional 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 that operate on the basis of appropriate competences, responsibilities, processes and application procedures, ensuring an effective management system.

Indicator I.P.A.1.1.1 In order to carry out its field of university studies, the HEI has appropriate organisational components and a management system, whose functioning is based on methodologies, regulations and procedures that are periodically reviewed, in accordance with the law.

Presentation of the current situation. *The management system* within UCV comprises the management structures, represented by the rector, vice-rectors, deans, vice-deans and department heads who have the teaching rank of professor, associate professor or lecturer, being tenured in higher education in accordance with the law and with the basic norm at the university. The management bodies, with an indication of the selection methodology, their responsibilities and mode of operation, are mentioned in [the UCV Charter](#). According to this, the governing bodies are: *the University Senate; the President of the University Senate; the Rector; the Vice-Rectors; the Board of Directors*. IOSUD–UCv has organisational components that operate on the basis of competences, responsibilities, processes and appropriate procedures that are periodically reviewed, in accordance with [the UCv organisational chart](#). With regard to the governance, leadership and management of UCv, the management structures are elected in accordance with [the Election Methodologies at the University of Craiova](#) and have autonomy in terms of strategic management as presented in [the Quality Assurance Code at the University of Craiova](#). Decisions are taken centrally, at the level of [the Board of Directors](#), and the implementation of decisions is carried out in a decentralised manner, at the level of faculties or doctoral schools. In all its activities, UCv promotes *the principle of information transparency and access to public information*. To this end, most information is posted on faculty notice boards, on [the university's website](#) and in the media. Furthermore, the communication process within the UCv secretariats has been subject to internal audits by a third party. Issues of ethics and integrity are regulated by [the university's Code of Ethics and Professional Conduct](#), established in accordance with the legislation in force, which is known and applied by members of the academic community, supplemented by [the UCV Charter](#).

At the level of IOSUD – UCv, there is a *Council for Doctoral Studies*, headed by the *Director of CSUD* (see Section I.1). *The methodology for appointing members of the Council for Doctoral Studies at IOSUD (CSUD – UCv) and for organising the public competition for the appointment of the Director of CSUD – UCv* is approved by the Senate ([Election Methodologies at the University of Craiova](#)). IOSUD – UCv has 10 doctoral schools (see Section I.1), whose activity is based on [the Regulations for the organisation and conduct of doctoral programmes of the institution organising doctoral studies](#). The management, organisation, conduct of activities and decision-making at the level of the “Constantin Belea” Doctoral School are carried out in accordance with [the Regulations of the “Constantin Belea” Doctoral School](#). The SDCB is headed by the Director of the doctoral school and the [SDCB Council](#) (Section I.2). The Director of the doctoral school is an ex officio member of the CSD. The Director and members of the CSD are elected by universal, direct, secret and equal vote of the doctoral supervisors and doctoral students of the SDCB, respectively, for a term of 5 years, in accordance with [the Methodology for the election of directors of doctoral schools and doctoral school councils](#) approved by the Senate. The structure, governance and mission of the SDCB are presented in detail in Section I.2.2, and the measures for quality management and the promotion of ethics and deontology in Section I.2.3. The mission and objectives of the DSUD Mechatronics and Robotics are described in Section

I.3.1. The teaching, research and administrative activities of IOSUD – UCv, including those in the doctoral fields, are carried out in accordance with [the regulations and methodologies developed](#), periodically updated and approved by the Senate. Within IOSUD – UCv and SDCB, the status of doctoral supervisor is obtained in accordance with [the Methodology for granting the certificate of habilitation of the institution organising doctoral studies at the University of Craiova](#) (IOSUD-UCV), a document that also covers the recognition of the status of doctoral supervisor obtained in accredited higher education institutions in Romania and abroad.

Analysis of the current situation. Based on the above, it appears that a solid and coherent institutional framework has been created at UCv, with an efficient organisation of management structures, both at the level of IOSUD – UCv and SDCB, which includes the field of doctoral studies in Mechatronics and Robotics. Responsibilities are clearly defined and distributed proportionally between the management of IOSUD, CSUD, administrative structures and the SDCB management team, ensuring transparency, coordination and consistency in decision-making at all stages of the doctoral process. The regulations, methodologies and procedures governing the activity of IOSUD – UCv are monitored and updated periodically, in accordance with legislative changes, and are aligned with the requirements of the European Higher Education Area. [The UCV Charter](#), together with [the regulations](#) of the UCv management structures, methodologies and operating procedures, forms the basis of a modern academic and research framework, in line with the UCv's mission. In the field of Mechatronics and Robotics, there is a real functionality of academic governance mechanisms, correlated with the active involvement of PhD supervisors and PhD students in scientific activities, projects and national and international activities. Through the digitisation of administrative and research processes, the operational processes of IOSUD – UCv and SDCB are monitored and streamlined, thus increasing the degree of monitoring of doctoral activity.

Future directions for action. The activity within IOSUD – UCv, but also at the level of SDCB and DSUD MR, will continue to be carried out within the existing institutional framework, in compliance with the regulations, methodologies and procedures approved by the University Senate and in accordance with the specific legislation in force. The aim will be to strengthen quality assurance mechanisms, intensify interdisciplinary collaboration within IOSUD – UCv and expand academic and research partnerships at European and international level. Another priority is to improve the digital infrastructure for managing the doctoral process, increase the visibility of scientific publications and encourage doctoral students to participate in international scientific events.

Standard S.A.1.2. Stakeholder involvement

IÎS demonstrates that it involves relevant stakeholders in the development of methodologies and regulations, as well as application procedures.

Indicator I.P.A.1.2.1 *The opinions of faculty and department members, as well as those of branches or extensions and other stakeholders, are taken into account in the process of adopting and revising methodologies, regulations and implementation procedures.*

Presentation of the current situation. The University of Craiova demonstrates a constant commitment to actively involving stakeholders in the process of developing and updating methodologies, regulations and implementation procedures. This participatory approach ensures the transparency, relevance and efficiency of institutional processes, reflecting the needs and expectations of the academic community and society. Members of the academic community, together with other stakeholders (doctoral students, employers, institutional partners), contribute to shaping and improving the regulations and methodologies applied. Such an approach aims to ensure transparency and increase acceptance of and compliance with regulations. Methodologies and regulations remain up to date and applicable in the context of the real needs of the academic and professional environment. This practice is essential for the proper functioning of UCv, promoting collaboration, constructive feedback and the improvement of administrative and academic processes. [The strategic plan of the University of Craiova](#) directly addresses the issue of opening the university to the economic and socio-cultural environment. This can also be seen in the work [of the Quality Management Department](#), which reflects the idea that UCv wants to be not only a generator of knowledge, but also takes on the task of finding applications that are as well integrated as possible into the realities of the social, economic and cultural environment at regional, national and international level.

[The Council for Doctoral Studies](#) operates at institutional level, playing a strategic and decision-making role. The Doctoral School Council is the governing body at the level of each doctoral school. The CSUD acts as a strategic governance body, while the CSD functions as an implementation and monitoring body at local level. The interaction between them ensures both the unity and coherence of the IOSUD () and the autonomy of each doctoral school within it ([Regulations for the organisation and conduct of doctoral programmes at the IOSUD-UCv](#)). The structure of the CSD and CSUD includes *both doctoral supervisors and doctoral students* who actively participate in the process of adopting and reviewing specific methodologies and procedures. The participation of doctoral students in the decision-making process is regulated in the UCv Charter and is achieved through their direct involvement in the management structures. Students have elected representatives

in the CSUD and CSDs, where they have the right to vote and contribute to decisions regarding doctoral programmes. *The opinions of doctoral students within the SDCB* represent a means of self-control, evaluation and improvement of university activity. Consulting students by the management structures of UCv and the doctoral school is a common practice. Within SDCB and FACE, [meetings](#) were organised between students/master's students/doctoral students and representatives of the labour market or public institutions. Awareness campaigns, study visits and consultations with employers and institutional partners have been carried out in order to better integrate research and teaching activities. Such meetings, which also discussed curriculum and methodology issues, were also held during job fairs such as the [Jobs4IT](#) career fair and [the UCv Career Forum – FoCar](#).

At SDCB level, the process of adopting and reviewing methodologies, regulations and procedures is carried out in a participatory and transparent manner, with the active involvement of members of the academic community (PhD supervisors, members of academic guidance and integrity committees, PhD students, graduates, employers). Consultation with partners from academia, industry and research has contributed to the definition of the field of Mechatronics and Robotics and the research topics. Traditional partners include Continental (Aumovio), Hella-Forvia Craiova, Kautex, Softronic and Romtronic. In fact, DSUD MR has had and continues to have doctoral coordinators and doctoral students with direct links to these partners.

Analysis of the current situation. The University of Craiova ensures transparency and access to documents by publishing the regulations, methodologies and procedures in force on its official website, ensuring free access to these documents for all interested parties (<https://www.ucv.ro/>). This approach facilitates the accurate and up-to-date information of the academic community and the general public. The development and revision of institutional documents is carried out with the active participation of teaching staff and administrative personnel. They contribute their expertise and experience to the development of policies and procedures that effectively meet educational and administrative needs. In turn, doctoral students are represented in the university's governing bodies, such as the University Senate, CSUD and CSD of SDCB, thus having the opportunity to contribute directly to the process of drafting and revising the regulations and methodologies that concern them, their interests being taken into account in institutional decisions. In addition, regular consultation with doctoral supervisors, doctoral students, graduates ([alumni](#)) and support structures helps to ensure a participatory and transparent framework that supports both the implementation of quality policies and the alignment of the objectives of the DSUD Mechatronics and Robotics with the University of Craiova's mission to promote education, research and innovation.

Future directions for action. UCv will continue the process of alignment with the policies and procedures set out in national and international quality standards, through collaboration with accreditation and regulatory bodies. At the same time, UCV will continue to support an organisational culture that promotes the active participation of all members of the academic community in the decision-making process, which will lead to greater ownership and accountability in the implementation of institutional policies. The aim is to strengthen feedback and communication mechanisms, expand continuing education programmes for doctoral supervisors, and diversify forms of support for doctoral students through *academic partnerships, mobility, and active involvement in national and international research projects* (including within [ACROSS](#)). Through these directions, the MR field aims to contribute to the development of an organisational culture based on collaboration, performance and excellence. *In conclusion*, UCv demonstrates a solid commitment to involving stakeholders in the process of developing methodologies, regulations and application procedures, contributing to the development of an inclusive and excellence-oriented academic environment.

Criterion A.2. Material resources and optimisation of their use

Standard S.A.2.1. Material resources

IÎS has adequate immovable and movable property for the implementation of the programme/field of university studies.

Indicator I.P.A.2.1.1 The HEI has, in accordance with the law, premises dedicated to teaching, research and administrative processes, as well as services for students, doctoral students and trainees, ensuring a favourable environment for living and studying, including for those with disabilities. Optimal spaces are also provided for staff activities. These are adequately equipped.

Presentation of the current situation. [The institution's assets](#) are substantial but also functionally balanced, comprising: 1 central building, 6 university campuses, 11 student halls of residence, over 156 lecture and seminar rooms, 352 lab, 58 seminar rooms, 1 central library, 14 libraries and 40 reading rooms, 4 teaching and experimental resorts, 1 university club ([Material base](#), [Annex 3](#)). The lecture/seminar/laboratory rooms are equipped with technical learning, teaching and communication equipment that facilitates the work of teaching staff and the receptivity of doctoral students. The University of Craiova has a strong infrastructure, grouped into **seven educational complexes**: the central building - Rectorate, **the Electrical Engineering faculty complex** (where SDCB activities take place), the Mechanics complex, the Agronomy complex, the

Physical Education and Sports Faculty complex, the Orthodox Theology Faculty complex and the Drobeta Tr. Severin University Centre. These include buildings for teaching and research, sports grounds and student halls of residence with a total **area of over 100,000 m²**. In addition, UCv owns or manages: the Botanical Garden, the Banu Mărăciine Educational Resort, the Caracal Agricultural Research and Development Resort, the Research Centre for Grassland Culture, Biodiversity Conservation and Agritourism (Preajba – Râncea), the Râmnicu Vâlcea Fruit Growing Research and Development Station and the Râncea - Gorj Practical Infrastructure - see also Section I.1.2. Since 2016, the Infrastructure for Research in Applied Sciences - [INCESA](#) has been in operation, which includes 48 modern research laboratories with a surface area of 2300 m² (some of which also host SDCB activities).

[The UCv](#) has a collection of books sufficient to cover all the subjects in the curriculum. It has a Unique Items Repository, which brings together valuable reference works (approximately 170,000 titles), benefiting from a fully computerised database. The UCv Library has reading rooms and its own collection of books, corresponding to the subjects in the curriculum of the evaluated doctoral study programme ([the Lending Centre of the Faculty of Automation, Computers and Electronics](#)), including [publications from the last 5 years](#). Users also have access to a multimedia room and a conference room, located at the Library's headquarters in Lăpuș. The Library also offers subscriptions, publications and book exchanges with other libraries. **Through the ANELIS consortium**, UCv provides access to scientific databases: *SpringerLink*, *Scopus*, *IEEEExplore*, *Web of Science (Clarivate)*, *Elsevier*, etc., for both research and teaching purposes. Online access is available on campus for doctoral students and teaching staff, with the option of mobile access. Access to the library database is electronic: <http://biblio.central.ucv.ro/>. In addition to the learning resources that doctoral students can consult or use at the Library, teaching staff provide students with free teaching materials in electronic or printed format, including on the UCv's [EvStud](#) platform. The university has **its own publishing house**, [Editura Universitaria](#), for the publication of scientific and teaching materials with ISBN and ISSN. The publishing house operates as a specialised department of UCv and actively participates in the process of training students and supporting research by printing courses, treatises, and monographs developed by the institution's teaching staff, doctoral students, and scientific researchers. UCv has an **ITC network** that covers teaching and research areas, administrative staff areas and the university's student campuses, managed by [the IT and Communications Service](#). The network provides wired and wireless internet access. Students can access the ITC network through terminals located in teaching laboratories, reading rooms, etc., in accordance with [the regulations for using the computer network](#). UCv also provides access to E-learning [platforms](#). For **student accommodation**, the University of Craiova has 8 consolidated and modernised halls of residence, with a capacity of 2,358 places (in 2025-2026), which fully cover student demand. The university has four [university restaurants](#) or dining areas accessible to students, as well as sports fields and halls (Mecanică Complex, FEFS Complex), recreation and socialising areas ([Casa Universitarilor](#), [Botanical Garden](#), [Cabana Râncea](#), [Vila Mircea](#)), etc.

From a **financial** perspective, UCV has sufficient sources of funding and financial resources, as can be seen from [its financial statements](#) and [tuition fees](#).

The activity of **doctoral students in the DSUD Mechatronics and Robotics** is mainly carried out in the premises of the Faculty of Automatic Control, Computers and Electronics (especially in the Department of **Mechatronics and Robotics**), as well as in the research centre and laboratories of [INCESA](#). Thus, the field has [its own](#) modernised [material base](#) through [campus rehabilitation projects](#), so as to provide doctoral students with an environment conducive to study and university life. Thus, **the teaching activities** corresponding to the disciplines in the DSUD MR curriculum have sufficient space at their disposal: a lecture hall, six classrooms for courses and seminars, and their own teaching and research laboratories. [The schedule](#) of teaching activities in the first semester for first-year doctoral students is correlated with the available spaces. The classrooms and laboratories are equipped with modern technology, IT equipment with specialised software and wireless connection, ensuring the optimal conduct of teaching and research activities. **Research** is carried out mainly at [the CERCA Interdisciplinary Research Centre](#), which includes several laboratories, at the [INCESA](#) research infrastructure and at [the DMR laboratories](#), all equipped with appropriate equipment available to teaching staff, students, master's students and doctoral students. The Mechatronics and Robotics Laboratory ([LMR](#)) coordinated by DMR had 16 researchers and 7 doctoral students in the field of MR in 2022 (see also Section I.3.4). UCv's facilities meet the standards of quality higher education and *are adapted to be accessible to people with disabilities*. At UCv, *students with disabilities and/or SEN are a collective responsibility, of the entire academic community*. To support and implement integrated measures to ensure inclusive university education, UCv teaching staff and departments are involved: [the Department for Teacher Training \(DPPD\)](#), [the Centre for Career Counselling and Guidance \(CCOC\)](#) and student volunteers from bachelor's, master's and doctoral programmes. Through the "Education and Employment 2021-2027" programme, UCv won [five European-funded grants](#) in 2025, projects that include concrete measures to support university education for people with special needs.

Analysis of the current situation. IOSUD – UCv has modern and diversified facilities, which provide optimal conditions for doctoral education, scientific research and administrative activities, in line with European quality standards. The existing infrastructure allows for effective integration between theoretical training, applied research and technological innovation, which are essential for the field of Mechatronics and Robotics. The educational spaces – lecture halls, seminar rooms, specialised laboratories and research centres – are well equipped technically and functionally, with multimedia equipment, specialised equipment, IT tools and digital applications that support research and professional training activities. UCv pays constant attention to ensuring appropriate working and research conditions for teaching and research staff, as well as supporting doctoral students in their scientific activities. In the case of students with disabilities, there is ongoing concern and staff involvement in identifying specific needs, analysing them, evaluating them on a semester basis and implementing individual action plans, thus ensuring equal opportunities and full access to educational and research resources. Through constant investments in infrastructure, digitisation and accessibility, UCv is strengthening the capacity of the Mechatronics and Robotics field to provide a high-performance academic environment conducive to interdisciplinary research and doctoral training.

Future directions for action. IOUSD – UCv envisages the continuous modernisation of its material base by renovating and streamlining existing spaces, equipping laboratories with modern equipment and technologies, and developing digital infrastructure. The aim is to attract funds for infrastructure by expanding partnerships with research institutes and companies, as well as obtaining European grants for research equipment. UCv, SDCB and FACE are considering the continuous improvement of the material base necessary for carrying out activities, so as to provide students, master's and doctoral students with a favourable environment for living and studying, including those with disabilities. In this context, the campus of the Faculty of Automatic Control, Computers and Electronics is in the final stage of rehabilitation and modernisation, through [major projects](#) implemented by UCv. The project aims to modernise buildings, laboratories, facilities and educational spaces, as well as to improve accessibility, thus contributing to the creation of an educational environment adapted to current standards in the field of engineering and ARACIS requirements regarding material resources.

Standard S.A.2.2. Management of material resources

The organisational components manage the immovable and movable assets they use for the evaluated university programme/field of study in an optimal and sustainable manner.

Indicator I.P.A.2.2.1 Immovable and movable assets are adequately maintained to ensure optimal conditions for study, research, living and working.

Presentation of the current situation. UCV demonstrates its commitment to academic excellence through efficient management of its material resources. Teaching, research and administrative spaces (lecture halls, classrooms, teaching and research laboratories, reading rooms, dormitories, canteens) are constantly maintained through periodic repairs and technical inspections to ensure optimal conditions for study, research, living and working. These facilities are essential for ensuring a high-quality educational and research environment. Thus, [funds](#) are allocated annually for the maintenance of equipment in teaching and research laboratories, for the purchase of materials, equipment, access to international databases, etc., necessary for the smooth running of academic activities. [The administrative services](#) of UCv provide support for the purchase of products and services, as well as for the maintenance of teaching, research and accommodation facilities. In addition, staff and students receive regular training in occupational safety and emergency management. The existing facilities at FACE and SDCB allow for a judicious distribution between bachelor's, master's and doctoral programmes to meet real needs, taking into account the daily workload and activities. Maintenance and modernisation efforts are also visible at FACE/SDCB through major infrastructure projects that have recently been completed or are nearing completion ([UCv Major Projects](#)). Technical and auxiliary staff provide operational support, contributing to the proper conduct of the activities set out in the curriculum. This ensures a sustainable educational flow, focused on quality, safety and continuous adaptation to the challenges of the academic environment.

Analysis of the current situation. IOSUD–UCv manages its material resources efficiently and responsibly, with a focus on maintenance, modernisation and sustainable use of premises and equipment, including for the field of Mechatronics and Robotics. The material resource management process is carried out in accordance with internal regulations (including strategic and operational plans) and is supplemented by periodic feedback collected from doctoral students, which confirms the adequacy of the conditions for study, research and university life. According to opinion polls (through [the Evaluation Questionnaire by doctoral students of the Doctoral School, the Advanced University Training Programme and the Scientific Research Programme](#)) showed a high degree of satisfaction with the material base and its management. For example, in the 2025 survey, according to [the Evaluation Report](#), criterion C5 (Access for doctoral students, through the Doctoral School, to scientific literature and bibliometric research databases, laboratories and libraries, and subscriptions to specialist journals ensures the efficiency of doctoral research), 84.34% of respondents at

IOSUD-UCv gave the answer “excellent” (92.85% at SDCB level). Immovable and movable assets are well maintained and optimally used, ensuring an environment conducive to academic activities. Therefore, the material base serving UCv and SDCB meets the standards imposed by MEC and ARACIS and is able to ensure the delivery of a quality education process.

Future directions for action. The DSUD Mechatronics and Robotics aims to continue the sustainable management of material and energy resources through the efficient use of existing material resources, waste reduction and periodic monitoring of [doctoral students' satisfaction](#) with the level of equipment and quality of research infrastructure. UCv will continue to invest in maintaining the functionality of the infrastructure and the efficient management of resources, in waste management and sustainable development, contributing to maintaining high standards and promoting excellence in SDCB fields.

Criterion A.3. Adequate human resources and transparent staff recruitment procedures, developed in accordance with the law

Standard S.A.3.1. Human resources

IÎS has the human resources necessary to organise and deliver the evaluated university programme/field of study.

Indicator I.P.A.3.1.1 *The human resources of the SDCB are adequate for carrying out the activities related to the evaluated field of university studies. The teaching staff has the necessary qualifications and professional competences to teach the subjects assigned to them in their job description.*

Presentation of the current situation. The doctoral field of study in Mechatronics and Robotics benefits from the competent guidance of seven doctoral supervisors, who are tenured at the University of Craiova, Faculty of Automation, Computers and Electronics, and Faculty of Electrical Engineering (see also Section I.3.3). IOSUD – UCv ([Annex 4](#) presents the human resources structure, which is adequate and covers all the institution's programmes) and [SDCB](#) ensure full coverage with teaching staff adequately trained to carry out the activities provided for in the subjects in the curriculum for the entire cycle specific to the MR doctoral field. Three doctoral supervisors in the MR field have permanent employment contracts, two doctoral supervisors have retired at the age limit, and two teaching staff with permanent employment contracts from DMR have completed the CNATDCU evaluation for habilitation. In the SDCB job descriptions ([Annex 5](#)) for the period 2021-2025, which also include the holders of the Mechatronics and Robotics field, depending on the doctoral students supervised and the teaching tasks. Table II.A.1 shows the degree of compliance by each doctoral supervisor, in December 2025, with the minimum CNATDCU standards in force, which are necessary and mandatory for obtaining the habilitation certificate in the field.

Table II.A.1. Fulfilment of minimum standards by doctoral supervisors in the field of MR

No.	First and last name of the doctoral supervisor / institution where they are employed	Doctoral supervisor appointment order	Score achieved according to the minimum standards required and mandatory for obtaining the habilitation certificate CNATDCU Commission: 17 [OMENCS No. 6129 / 20.12.2016]	Findings regarding the fulfilment of the indicator	Link to CV / List of works
1.	Prof. Dr. Eng. Nicu BÎZDOACĂ / UCv	O.M. 5842/4.11.2008	Annex1	Completed	Constantin Belea Doctoral School - Organisation
2	Assoc. Prof. Cristina PANĂ, PhD / Ucv	Order O.M. 6404/27.09.202		Completed	
3.	Ș.I. Dr. Eng. Cristian VLADU / UCv	Order O.M. 6866/21.12.2023		Completed	
4.	Prof. Dr. Eng. Dorian COJOCARU / UCv	O.M. 5842/4.11.2008		Completed	
5.	Prof. Dr. Eng. Mircea NITULESCU / UCv	O.M. 5842/4.11.2008		Completed	
6.	Assoc. Prof. Dr. Eng. Ionuț RESCEANU / UCv	Order O. M. 7009/22.12.2025		Completed	
7	Assoc. Prof. Florin MANTA, PhD / UCv	Order O.M. 6764/25.11.2025		Fulfilled	

The files showing compliance with the minimum mandatory standards for obtaining accreditation by each doctoral supervisor are included in [Annex 1](#). All doctoral supervisors are scientifically active, hold a PhD in the field of MR and carry out high-level academic, research and publishing activities, recognised nationally and internationally ([Annex 6](#)). Their scientific activity is reflected in numerous articles published in ISI-indexed journals with impact factor, participation in national and international projects (see CVs and lists of works ([Annex 3](#)), as well as elements of international visibility [Annex 3](#). According to the SDCB [Curriculum](#), doctoral students complete the Advanced University Studies Training Programme (PPUA) in their first year

(see also Section I.3.2). The PPUA subjects in the MR field are taught by the five teaching staff who are PhD supervisors in the MR field, and the core subjects are also taught by PhD supervisors: *Scientific Research Methodology* by Prof. Dr. Eng. Costin BĂDICĂ (Computers and Information Technology field, [CV](#)) – and *Academic Ethics and Integrity* by Prof. Dr. Gabriel OLTEANU (Law field, [CV](#)) – see also the list of positions. The doctoral school of Mechatronics and Robotics also includes members (teaching and research staff) who are not doctoral supervisors, but who are members of the academic guidance and integrity committees ([Annex 7](#)) and/or are directors/members of research projects in which doctoral students in the field of MR are also involved.

Analysis of the current situation. The teaching staff involved in the MR DSUD have the qualifications, scientific skills and professional experience necessary to teach the subjects and supervise the research programme in accordance with ARACIS and CNATDCU standards and the specific requirements of the field. The teaching staff involved in SDCB constantly update the content of their courses and teaching/assessment strategies (Subject files). The structure of the teaching staff is stable, balanced and appropriate to the objectives of the doctoral programme, ensuring the continuity of the training process, the maintenance of scientific quality and the development of the field. The expertise and results achieved by this teaching staff guarantee the training of a generation of researchers capable of responding to current challenges. The number of doctoral supervisors in the MR field has evolved since the last ARACIS evaluation in 2021. According to opinion polls (e.g., through [the Questionnaire on meeting the educational needs of doctoral students in doctoral schools and IOSUD-UCv 2025](#)), in Section II: Doctoral support and coordination (criteria C1. To what extent have you benefited from the support and guidance of your doctoral supervisor? and C2. Does your doctoral supervisor provide you with constructive and regular feedback on your progress?) [the following results](#) were obtained: at the SDCB and IS level, 100% of doctoral students answered “to a very large extent” to C1, and 93.75% answered “always” and 6.25% answered “frequently” to C2. Thus, two teaching staff members received accreditation, and two teaching staff members are in the final evaluation at CNATDCU for accreditation (further details were presented earlier).

Future directions for action. IOSUD University of Craiova aims to continuously develop a faculty with advanced academic training, capable of meeting the new challenges generated by digitisation, technological innovation and paradigm shifts in the field.

Indicator I.P.A.3.1.2 ÎS ensures the professional and personal development of staff.

Presentation of the current situation. The University of Craiova is constantly demonstrating its commitment to the professional and personal development of its staff, recognising the importance of continuous training in maintaining an academic environment of excellence. Through the DPPD, UCv offers a wide range of programmes and activities designed to support teaching staff in their professional development. [The DPPD](#) organises continuing education activities, promoting professional development through training programmes that contribute to maintaining a high standard of education and adapting staff to new pedagogical requirements. UCv encourages staff involvement in research activities, offering opportunities for professional development through:

- Participation in research projects: Teachers are encouraged to get involved in national and international research projects, contributing to the advancement of knowledge in their areas of expertise (see also the major projects in the MR field described in Section I.3.4).
- Publication of scientific papers: Supporting staff in their efforts to publish research results in journals, contributing to the dissemination of knowledge and increased visibility. At UCv level, [the Rules on the establishment and use of the fund to support research activity](#) apply.
- Participation in national and international scientific events specific to the field of interest, as well as the organisation of workshops and conferences with the participation of renowned specialists from Romania and abroad. Prestigious conferences organised/co-organised by SDCB/FACE/DMR were presented in Chapter 1.3.5 in the individual reports.
- Participation in exchanges of experience at prestigious international institutions within various [internationally funded](#) projects and [programmes](#), including the European university alliance [ACROSS](#)
- Annual awards for research results achieved by teaching and research staff at the [Research Gala](#) event. The awards won by SDCB/FACE/DMR members were presented in Chapter 1.3.5 in the individual reports.

UCV provides a coherent, competitive and transparent framework for promotion in the university teaching career, in accordance with [its own methodology](#) and [the specific standards](#) of each faculty. This process aims to consolidate academic excellence, support scientific performance and the professional development of teaching staff.

Analysis of the current situation. Through dedicated structures such as the DPPD, the University of Craiova demonstrates a constant commitment to the professional and personal development of its staff. By offering initial and continuing training programmes, research and development opportunities, UCv provides an environment conducive to the development of teaching staff, thus contributing to maintaining a high

standard of education. UCv has demonstrated its commitment to human resource development by implementing clear strategies in [its Strategic Plan](#) for 2024-2029, which focused on developing mechanisms for training/improving teaching staff, both within and outside UCv, in particular with funding from [European funds](#).

Future directions for action. UCv will implement the following actions: (i) Continuing the policy of promoting all teaching staff, with priority given to young teachers; (ii) Continuing to award prizes for excellence in research; (iii) Attracting funds through projects and partnerships with economic agents for the training of university staff and students, as set out in [the Strategic Plan](#). Workshops and training sessions will also be organised to support teaching staff in adopting best teaching practices and integrating constructive feedback into the educational process. UCv will continue to focus on the continuous training of doctoral supervisors through participation in training programmes, academic mobility and international research networks (including within the European [ACROSS](#) alliance).

Standard S.A.3.2. Recruitment procedures

Recruitment procedures for teaching staff comply with legal provisions.

Indicator I.P.A.3.2.1 Recruitment procedures are in line with legal provisions, established and carried out in a transparent manner.

Presentation of the current situation. Teaching and research staff at IOSUD – UCv, including SDCB, are employed according to recruitment criteria established at institutional level, in accordance with legal provisions. Positions in the staffing table are filled in accordance with the legal regulations in force ([own competition methodology for filling vacant teaching and research positions at the University of Craiova](#)). UCv ensures the transparency of the recruitment process by publishing the competition methodology and [competition announcements](#) on the university's official website <https://www.ucv.ro/>. This practice allows all interested parties free access to relevant information on recruitment procedures. Teaching positions are filled through a public competition, organised in accordance with Higher Education Law No. 199/2023, the UCv Charter and the Decisions of the UCv Senate, in compliance with the principles of transparency, competence and academic merit. Employment is for a fixed or indefinite period, depending on professional status, and teaching staff employed for a fixed period have the status of associate teaching staff. Tenured staff who have reached the age of 65 may request to retain their tenured status in education, in accordance with [the Methodology for continuing work after reaching retirement age by teaching and research staff](#) and in accordance with Article 219, paragraph The requirements in this regard have been raised – the number of doctoral students in training. The status of doctoral supervisor is acquired after obtaining the habilitation certificate, based on the Methodology for granting the habilitation certificate of the institution organising university studies. The status of doctoral supervisor is acquired after obtaining the habilitation certificate, based on [the Methodology for granting the habilitation certificate of the institution organising doctoral studies, the University of Craiova](#) (IOSUD–UCv). Holders of the certificate may apply for affiliation to SDCB, in accordance with the internal procedure of IOSUD, which establishes clear criteria regarding scientific activity, academic performance and involvement in doctoral training. IOSUD–UCv recognises, for the fields in which it is accredited, the status of doctoral supervisor for specialists who have this status in Member States of the European Union, the European Economic Area or the Swiss Confederation. IOSUD–UCv may also recognise the status of doctoral supervisor for specialists from higher education institutions outside these countries by issuing a certificate of recognition of qualification, based on an international mutual recognition agreement.

Analysis of the current situation. At IOSUD–UCv, the recruitment and selection processes for teaching and research staff are carried out in strict compliance with the national legislative framework and institutional regulations, ensuring a transparent, competitive and standardised mechanism for filling positions. This approach ensures a fair and accessible process for all candidates, contributing to maintaining the high academic standards of UCv. To be a member of the SDCB, a doctoral supervisor must cumulatively meet the following requirements ([SDCB Regulations](#)): has the right to supervise doctorates in accordance with the law in one of the SDCB fields, has the written consent of the higher education or research institution where they carry out their main activity; is scientifically active; has an impeccable attitude in all respects within the academic community. The SDCB operates with [doctoral supervisors](#) who have acquired this right under the law. Other researchers or teaching staff from the partner institutions of IOSUD–UCv or from other institutions or research and development units, in Romania or abroad, may also work at SDCB. The organisation of competitions in accordance with national and institutional methodologies contributes to the recruitment of highly qualified staff, thus ensuring the continuity and excellence of academic and scientific activities. Through these measures, IOSUD–UCv ensures a balanced institutional climate, oriented towards performance and sustainable academic development, in accordance with the principles of academic integrity and quality.

Future directions for action. IOSUD–UCv will continue to carry out staff recruitment and selection processes in accordance with legal regulations and institutional procedures, paying particular attention to human resources strategy and planning the teaching staff required to fully cover the subjects in the doctoral

school's curriculum. In view of the dynamic evolution of legislative changes in higher education, IOSUD–UCv will periodically update the methodologies for competition, habilitation and affiliation to SDCB, aligning them with European best practices and strengthening mechanisms for attracting specialists with international experience in the field.

Criterion A.4. Digitisation of institutional processes

Standard S.A.4.1. Digital transformation

The digital transformation process at the organisational level aims to simplify administration and improve the quality of services provided to members of the community and third parties.

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

Presentation of the current situation. The University of Craiova has progressively adopted modern IT solutions to improve the efficiency of administrative processes and facilitate access to quality educational services. Thus, in 2022, UCV adopted [the Digitalisation Strategy](#), through which it aims to become a “DATA DRIVEN UNIVERSITY” by 2027, a digital ecosystem for high-performance education and research, by capitalising on and supporting innovation, initiative, entrepreneurship, performance and academic and research excellence. By digitising its organisational components, UCV ensures efficient resource management and optimised communication between students, teachers and administrative staff. This digital transformation contributes significantly to increasing the satisfaction of members of the academic community and indirect beneficiaries of education. [The University of Craiova's IT system](#), managed by [the IT and Communications Service](#), aims to facilitate the flow of information within UCV, support decision-making processes and optimise the use of information resources.

Digitisation of administrative processes. One of the most important aspects of the use of IT tools at the University of Craiova is the digitisation of administrative processes. Dedicated online platforms, such as the [EvStud](#) academic management platform, allow students to easily manage their [applications for places in UCV halls of residence](#), pay fees, consult course descriptions, teaching materials and assessment results. This platform allows students to submit applications and track their status in real time, without having to be physically present at the counters. On [the UCV website](#) and those of its administrative structures, as well as on the [SDCB](#) website, students can find the information they need for their professional activities. [Online learning](#) and accessibility [platforms](#) are another essential IT tool, such as the [Google Classroom](#) e-learning platform, which facilitates access to educational resources from anywhere and at any time. After enrolment, each doctoral student receives an institutional Gmail account, which is used for correspondence with the institution. UCV uses Google Classroom to enable students and doctoral students to collaborate on academic projects, for tutoring activities, and for access to electronic teaching materials. This method improves the flexibility of learning. [The IT and Communications Service](#) provides ongoing support and technical advice to members of the academic community, with guidelines and procedures for using the infrastructure and related services: the electronic [admission](#) platform, the [EvStud](#) academic management platform, [the online resource library](#), [the research portal](#), student scholarships, [Faculty](#) website, [Doctoral School](#) website, digital application to facilitate the annual evaluation of teaching staff by students, etc. At UCV level, there is a computer program that is used to check the percentage of similarity in all doctoral theses - Sistemantiplagiat.ro, recognised by CNATDCU. In the last year, IT solutions have been implemented at UCV that allow unified, secure wireless access for teaching staff, students and guests, as well as video conferencing systems that can be used at an administrative/operational level by the management of faculties/doctoral schools (RETEA WIRELESS, no. Inventory 252997, value 12,451,877.41 lei, through the University of Craiova project - NEW HORIZONS IN THE DIGITAL AGE, contract no. 14054/16.09.202, Code 686692395).

Analysis of the current situation. The University of Craiova uses IT tools to manage enrolment, the scholarship award process, student accommodation, access to bibliographic databases, student evaluation of teaching staff, etc. The implementation of IT tools has had a positive impact on the academic community, leading to a significant reduction in bureaucracy, optimisation of workflows and greater transparency of institutional processes. Doctoral students and professors benefit from quick access to information and resources, which contributes to an improved academic experience. UCV thus demonstrates a constant commitment to improving access to education and ensuring efficient administrative services through the use of information technologies. At the same time, in the near future, secure access to the Data Centre, Cloud and Big Data infrastructure, acquired by the University of Craiova through the project Increasing the research capacity of the University of Craiova through investments in Cloud and Big Data infrastructures, SMIS 124488, will be generalised at the level of doctoral programmes. Call: CLOUD and Massive Data Infrastructure Projects - LESS DEVELOPED REGIONS (Excluding Bucharest-Ilfov) - <https://www.ucv.ro/media/det.php?id=2140>, namely access to advanced software packages and computing facilities specific to top research centres through the following acquisitions: VMWARE CLOUD

FOUNDATION PRIVATE CLOUD SOFTWARE PLATFORM (Inventory no.: 721030, value 2,113,265.00 lei), SOFTWARE PLATFORM FOR MODELLING, SIMULATION - MATLAB/SIMLINK CAMPUS-WIDE LICENCE FULL SUITE FOUNDATION (Inventory no.: 721020, value 713,835.78 lei), IT RESEARCH CENTRE EQUIPMENT (Inventory no.: 253047, value 2,899,740.80 lei) carried out through the PNRR project - University of Craiova - NEW HORIZONS IN THE DIGITAL AGE, contract no. 14054/16.09.2022 Code 686692395.

Future directions for action. The aim is to expand the digitisation process in the coming period, in particular through the functionalities offered by the UCv platform, in order to improve access and ensure quality services for members of the community and indirect beneficiaries of education. The University of Craiova has committed itself through its 2024-2029 Strategic Plan to the complete digitisation of the process of proposing, developing, approving, submitting, implementing and ensuring the sustainability of projects for accessing structural funds for the development of educational and research infrastructure, as well as related activities associated with these activities. In addition, through the projects signed at the end of 2025: REXQTCS “Romanian Excellence in Quantum Technologies enhancing Cybersecurity” (Romanian Centre of Excellence in Quantum Technologies with an impact on Cybersecurity), financing contract no. 7CoEx of 05.01.2026 and “SENTHICOM_UCV”, financing contract no. 3.PI/I4/C9 of 24.12.2025, data processing capacities and the integration of artificial intelligence into doctoral training will be expanded.

AREA B. Educational effectiveness

Criterion B.1. Content and relevance of study programmes

Standard S.B.1.1. Content of the study programme(s)

The study programme is based on a curriculum designed to enable students to achieve the expected learning outcomes.

I.P.B.1.1.1 The university study programme is developed and structured in relation to the expected learning outcomes and is organised on the basis of transferable study credits. It encompasses all learning, teaching, practical training, research and assessment experiences that lead to a university qualification.

Presentation of the current situation. The DSUD Mechatronics and Robotics programme is developed and structured in accordance with the expected learning outcomes and is organised on the basis of the European Credit Transfer System (ECTS). The programme integrates theoretical, applied and scientific research activities, which cumulatively lead to the attainment of an advanced university qualification, in line with EQF/CNC level 8. IOSUD-UCv has Regulations on the development of curricula and [Regulations on the initiation, approval, monitoring and periodic evaluation of university study programmes](#), which define the procedural framework for teaching and research activities and ensure the consistency, quality and relevance of doctoral programmes. [The curriculum](#) for the field of Mechatronics and Robotics (4 years, 240 ECTS credits) includes, in the first year of study, semester I, within the PPUA, two compulsory core subjects: *Scientific Research Methodology* and *Academic Ethics and Integrity* (common to the other fields in SDCB) as well as 12 optional subjects (described in Section I.3.2). From these 12 subjects, the doctoral student chooses, together with the doctoral supervisor, four subjects relevant to the individual research topic. [Each subject](#) is allocated a number of credits in accordance [with the ECTS User Guide](#). Credits have been allocated taking into account the learning effort required by the subject. The programme is structured and designed to ensure that the expected learning outcomes are achieved and to facilitate academic mobility and the recognition of qualifications at national and international level. The course descriptions include the expected learning outcomes, specifying the knowledge, skills, responsibilities and level of autonomy that the doctoral student must acquire. The type of assessment, number of credits, study time allocated, content and bibliography, teaching, training and assessment methods, etc. are also specified, in accordance with ARACIS standards. Starting with the second semester of the first year, the scientific research programme for each doctoral student includes research activities within relevant thematic areas. Progress in research is assessed through scientific reports and the dissemination of research results, by defending the doctoral thesis before the guidance and integrity committee, and subsequently by publicly defending it (). The entire programme is integrated into a curriculum supported by an adequate infrastructure and qualified human resources. Teaching, learning, research and assessment activities are interrelated, ensuring the acquisition of advanced skills and leading to a university qualification that meets national and European standards of quality in education.

Analysis of the current situation. The doctoral programme in MR has been designed and structured in accordance with the expected learning outcomes, as set out in the course descriptions, and is organised on the basis of the ECTS system. Analysis of the syllabi shows that the programme integrates all learning, teaching, applied training, scientific research and assessment experiences, which cumulatively lead to the acquisition of the professional, scientific and transversal competences necessary for the training of future specialists in the field. The programme is designed to support interdisciplinarity, knowledge transfer and the integration of

applied research into teaching, ensuring doctoral training adapted to the current needs of society and European trends in education and innovation.

Future directions for action. The following directions will be implemented:

- continuous adaptation of internal regulations to ensure the consistency, relevance and quality of the programme, in accordance with ARACIS standards and UCv educational policies;
- monitoring and reviewing by IOSUD–UCv and SDCB the contents of the discipline files as well as the teaching methods to align with developments in the field of MR and to achieve [the learning outcomes](#) of the “Constantin Belea” Doctoral School - Education tailored to the field of Mechatronics and Robotics;
- integration of feedback from stakeholders: doctoral students, graduates, doctoral supervisors and socio-economic partners, for the continuous modernisation of the programme.

Criterion B.2. Consistency between the curriculum and the qualification

Standard S.B.2.1. Consistency with the level of qualification and targeted competences

In the process of curriculum design and development, the organisational component aims to ensure the level of qualification and correlation with the targeted occupations.

I.P.B.2.1.2 The expected learning outcomes are correlated with the competences required by the corresponding occupations, in accordance with occupational standards and/or the European Classification of Occupations (ESCO).

Presentation of the current situation. The expected learning outcomes are highlighted at the IOSUD–UCv level for all areas of doctoral studies, in correlation with the professional and transversal competences provided for in Article 9(9) and (10) of the Framework Regulation on doctoral studies, respectively ME Order No. 3020/2024. (9) and (10) of the Framework Regulation on doctoral studies, respectively [ME Order no. 3020/2024](#). For the field of doctoral studies in Mechatronics and Robotics, the learning outcomes are also formulated in accordance with level 8 of the National Qualifications Framework (CNC) and [ME Order No. 4837/2025](#) on the recognition of non-formal and informal learning outcomes. [The curriculum](#) ensures the development of the professional and transversal skills necessary for a sustainable scientific and professional career. The subjects are structured logically, meeting the requirements set out in the ARACIS methodology on the definition and delimitation of competences, as well as their compatibility [with the National Qualifications Framework and the requirements of the European Higher Education Area](#) (ESCO). The correlation between the curriculum and the requirements of the labour market is achieved by defining student-centred outcomes that combine theoretical knowledge, practical skills, critical thinking and professional autonomy, contributing to the development of competitive training at European level. This process is supported by regular consultation with the economic and institutional environment and the updating of curricula.

Analysis of the current situation. The process of designing and developing the DSUD IS curriculum is complex and multidisciplinary. In this field, there is a complete correlation between the curriculum and qualifications, and graduates have a clearly defined perspective on the occupations and professional skills targeted in the labour market. The expected learning outcomes are structured in correlation with the occupational profile and are explicitly reflected in the curriculum and subject descriptions, ensuring consistency between training objectives, teaching activities and professional expectations. The subject description is a guidance tool for doctoral students, undergoing an approval process at SDCB level. Through the subject descriptions and the curriculum, the IS programme clearly highlights the skills, knowledge, professional autonomy and independent research capacity acquired by doctoral students, in accordance with ARACIS standards and the requirements of the European Qualifications Framework (EQF-level 8). Doctoral students have the opportunity to express their opinion on the curriculum in the teaching evaluation questionnaire. Thus, according to the opinion polls conducted (through [the evaluation questionnaire completed by doctoral students of the Doctoral School, the Advanced University Training Programme and the Scientific Research Programme](#)), there is a high degree of satisfaction with the curriculum. For example, in the 2025 survey, according to [the Evaluation Report](#) on criteria C2 (The subjects within the advanced university training programme provide doctoral students with additional training that facilitates the conduct of the scientific research programme) and C3 (The advanced university training programme ensures the assimilation of advanced knowledge in the field of research methodology, statistical data processing, as well as knowledge of academic ethics and integrity, including at the research level) yielded the following results: at C2 level at IOSUD-UCv, 88.35% of respondents gave the answer “excellent” (78.57% at SDCB level, the rest “very good” and “good”); at C3 at the IOSUD-UCv level, 89.15% of respondents gave the answer “excellent” (78.57% at the SDCB level, the rest “very good” and “good”).

Future directions for action. The curriculum will be continuously adapted to the new skills and qualifications in the COR nomenclature by regularly updating the curriculum and subject files in line with existing professional and research requirements. At the same time, continuous monitoring of learning outcomes, the integration of digital and analytical tools into curriculum design, and the active involvement of

teaching staff, PhD supervisors and PhD students in the process of reviewing and improving the study programme will be ensured, so that it remains relevant, flexible and aligned with European standards for doctoral training.

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

Standard S.B.3.1 Principles

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

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

Presentation of the current situation. Through the policies developed, supported by [Regulations and Methodologies](#), UCV constantly integrates the principles of student-centred learning into the structure of the curriculum and into the teaching strategies applied at the level of doctoral programmes, including for the field of Mechatronics and Robotics. The study programmes emphasise the active involvement of doctoral students in the training process, combining theoretical, applied and individual research activities designed to develop critical thinking, professional autonomy and the capacity for innovation. The teaching and learning methods used, highlighted in the course descriptions, aim to develop professional, scientific and transversal skills, while the organisation of educational activities is supported by modern digital resources and the diversity of learning experiences offered within the SDCB. Teaching staff provide individualised support and guidance. This personalised approach is essential in student-centred learning, contributing to the development of autonomy and responsibility. The course descriptions reflect the student-centred approach to the teaching-learning process, including by providing for specific individual study activities (homework, individual or team projects, etc.) and including them in the assessment process. Each teacher flexibly uses a variety of methods to encourage dialogue, free debate, exchange of opinions and teamwork among doctoral students, using modern technologies (e-mail, e-learning platforms, web pages, virtual libraries, electronic resources). The results obtained during schooling are visible to doctoral students on the [Student Record](#) platform and are recorded in the transcript. After enrolment, each doctoral student receives an institutional account through which they can be contacted and enrolled in virtual classes on Google Classroom, which facilitates the exchange of information and the management of teaching and research activities. Doctoral students are assessed on the basis of clear and transparent criteria, established at the beginning of the academic year, according to the activities carried out and the weights established in the course description. There are also [regulations governing the professional activity of students](#). The assessment also aims to evaluate progress in skills development, research capacity and involvement in scientific activities using a monthly report on the doctoral student's activity. Each doctoral student benefits from the expertise of a guidance and academic integrity committee throughout their doctoral training. The role of this committee is to support and guide the doctoral student in carrying out documentation and research, to collaborate and provide scientific support for participation in conferences, as well as for research projects and thesis development.

The SDCB organises [scientific events](#) (scientific communication sessions, workshops and round tables) with the aim of disseminating information to doctoral students about their future professional activity. FACE also organises annual conferences and symposiums in the field of doctoral studies, in which doctoral students also participate (such as the annual *International Conference on System Theory, Control and Computing ICSTCC*, *International Carpathian Control Conference ICC*, etc.).

Analysis of the current situation. Through its curriculum content – the teaching plan and course descriptions – the Mechatronics and Robotics doctoral programme ensures the implementation of student-centred learning principles in all three fundamental components of the educational process: learning, teaching and assessment. Teaching and research activities are designed to stimulate active participation, autonomy and critical reflection among doctoral students, promoting the development of the necessary skills. Doctoral students can constantly express their opinions and level of satisfaction through [evaluation questionnaires](#) (see I.P.B.2.1.2) on teaching activities, applied every semester for all subjects, with the results being analysed at doctoral school level for the continuous improvement of the teaching-learning process.

Future directions for action. The continuous development of student-centred educational processes will be pursued by diversifying teaching and assessment methods and integrating interactive educational technologies () that promote personalised, collaborative and participatory learning. At the same time, emphasis will be placed on expanding practical and interdisciplinary training opportunities for doctoral students through active partnerships with the socio-professional environment, participation in international mobility programmes (*Erasmus+*, *ACROSS Graduate School*), and monitoring progress using specific tools.

I.P.B.3.1.2 The organisational component provides students with opportunities to participate in academic mobility programmes, conducted in person and/or virtually.

Presentation of the current situation. Academic mobility programmes are a valuable opportunity for students to gain international experience, improve their academic and cultural skills, and increase their chances of integration into the labour market. IOSUD–UCv offers students numerous opportunities for academic mobility, both in person and virtually, providing them with educational and cultural experiences. The “Constantin Belea” Doctoral School offers doctoral students access to international mobility programmes at partner universities abroad, international collaborative projects, online courses, etc. The structure of the SDCB curriculum allows students to participate in international mobility programmes, in accordance with the rules set out [in the regulations governing students' professional activities](#). At the level of IOSUD–UCv, Erasmus+ international mobility programmes have enabled exchanges of teaching staff and doctoral students with other European universities. At SDCB level, mobility is carried out through the Erasmus+ programme in accordance with the methodology set out in [the Erasmus+ guide](#), which is available on the UCv website. FACE has signed [inter-institutional agreements](#) with universities in France, Italy, Austria, Spain, Slovenia, Croatia, Greece, etc. Periodically, information sessions and selections of doctoral students for mobility within various programmes are carried out. IOSUD–UCv and SDCB also offer doctoral students the opportunity to pursue doctoral studies in internal, national and international co-supervision, in accordance with the procedures that provide for the conclusion of [co-supervision agreements](#) with universities, institutes or other entities, strengthening the international dimension of doctoral education and promoting interdisciplinary collaboration and integration into the European academic space.

Analysis of the current situation. During the period under review, IOSUD–UCv provided doctoral students in the field of Mechatronics and Robotics with opportunities to participate in academic mobility programmes, through the involvement of the specialist department, transparent information and material and logistical support for the selection and mobility stages. Doctoral students also benefited from *financial support for the payment of publication fees in WoS-indexed international scientific journals and conferences*, thus contributing to the increased scientific visibility and international impact of the field. Participation in research internships, training courses and international events facilitated the development of intercultural, managerial and applied research skills, strengthening the integration of doctoral students into European scientific networks.

Future directions for action. The aim is to expand international partnerships to increase the number of mobility opportunities available to doctoral students. Virtual and practical mobility will be actively promoted to support participation in a wider range of educational contexts and to diversify training experiences. At the same time, initiatives to encourage doctoral students to participate in international mobility programmes will continue, by facilitating access to funding, counselling and the dissemination of research results. One of the main lines of action is to ensure mobility within the [ACROSS](#) alliance, of which UCv is a member and in which *the ACROSS Graduate School* is being implemented, a postgraduate school that will offer an international and cross-border experience to master's students, doctoral students and early-career researchers.

Standard S.B.3.2. Equity

The organisational component ensures equal opportunities for students.

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

Presentation of the current situation. IOSUD–UCv promotes an inclusive, equitable and personal development-oriented educational environment, providing all students and doctoral students with access to opportunities tailored to their potential and aspirations. In a modern and inclusive educational system, ensuring equal opportunities for students is an essential objective of higher education institutions. SDCB is committed to this by implementing policies and practices that allow each doctoral student to realise their potential, regardless of their learning style or individual abilities. Through an adaptive and inclusive approach, SDCB creates an academic environment conducive to the development of all doctoral students, providing them with the resources and support necessary for academic, scientific and professional success. In order for each student to reach their full potential, SDCB offers academic guidance activities, and each student has the opportunity to receive personalised academic counselling from [doctoral supervisors](#) and academic guidance and integrity committees, which help them shape their educational and scientific research path according to their professional aspirations. IOSUD–UCv offers the possibility of pursuing doctoral studies on a budget, scholarship budget or fee basis, depending on the criteria established by [the doctoral admission regulations](#) and [the SDCB's specific admission procedure/criteria](#). Equal access to educational resources, internship programmes, research and professional training activities is complemented by career counselling and guidance services, available through CCOC, [the Regulations on the professional activity of UCV students](#) and [the SDCB Regulations](#). The principles of equal opportunities and personalised support are also applied in the context of doctoral studies in the field of Mechatronics and Robotics. Doctoral students may request a temporary

interruption of their doctoral studies for justified reasons (medical, family, force majeure, etc.) with the approval of the doctoral supervisor, [the SDCB Council](#) and [the Council for Doctoral Studies](#), extending the total duration of studies by the period of interruption, through an addendum to the study contract and rescheduling the research stages, thus ensuring flexibility, fairness and continuity in the academic path.

Analysis of the current situation. IOSUD–UCv has developed a coherent institutional framework that supports and promotes the principle of equal opportunities and equitable access to education for all doctoral students. By adapting teaching methods, providing support and guidance from the academic environment in research activities, offering mobility opportunities and integrating diversity, SDCB creates an educational space in which every doctoral student has equal chances of success. This encourages excellence, innovation and inclusion in the learning and research process, contributing to the training of well-prepared specialists in the field of Mechatronics and Robotics. Furthermore, the promotion of educational diversity and academic inclusion is achieved through the use of modern and flexible student-centred teaching methods, which allow the learning process to be adapted to different cognitive styles and skill levels.

Future directions for action. SDCB will continue to develop mechanisms and organise activities to ensure a fair environment in which each doctoral student can develop their potential according to their own aspirations and learning abilities. These approaches will enable the identification of real support needs and the development of tailored measures to promote inclusion, equity and diversity.

Criterion B.4. Accessibility and efficiency of resources and support services appropriate to learning

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

The organisational component ensures access to resources and support services appropriate to the needs of students.

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

Presentation of the current situation. IOSUD–UCv ensures equitable access to educational resources and services for all students and doctoral students, including those with special educational needs or disabilities, in accordance with the provisions [of the Regulations for the organisation and conduct of doctoral study programmes of the institution organising doctoral studies](#). The educational process is supported by [the IT and Communications Service](#), which provides ongoing support and technical advice to members of the academic community, facilitating their access to [online platforms](#). Using institutional e-mail accounts, both doctoral students and doctoral supervisors have access to scientific databases for which UCv has purchased unlimited access for members of the academic community (through the [ANELIS](#) consortium). Teaching materials and methods are tailored to the individual needs of students ([Subject files](#)). Doctoral students' individual research plans are developed in accordance with their individual training needs and the specific nature of the IS doctoral field. Counselling and career guidance services complement this framework, contributing to the social inclusion and performance of students and doctoral students (<https://ccoc.ucv.ro/>). The services offered by UCv to students also include the following:

- *Accommodation, meals, transport:* UCv offers 2,358 accommodation places in its eight well-equipped student [halls](#) of residence. Students benefit from discounts on public transport from funds allocated by the Ministry of Education and Research.
- *Cultural and sporting events:* students benefit from reduced rates for cultural and sporting events organised by public institutions.
- *The university library* has and provides an adequate number of volumes and subscriptions to the main specialist journals in the country and abroad.
- *Exchange programmes and mobility:* students are encouraged to participate in exchange programmes through national and international projects.
- *Counselling and career guidance:* UCv, through [CCOC](#), offers students free counselling services, career guidance, facilitation and monitoring of their entry into the labour market.
- *Other forms of support:* UCv provides support to legally constituted organisations by providing the logistics necessary for the smooth running of their current activities and for the implementation of projects. Students can benefit from advantageous loans from the Student Credit and Scholarship Agency. UCv has a [Learning and Training Resource and Support Centre](#) whose purpose is to increase the retention rate of students at risk.

The services offered by students for students include:

- *Democratic representation*: in accordance with legal provisions, doctoral student representatives are part of the CSDs and CSUD. Students are represented in all decision-making and advisory structures where issues that directly concern them are discussed.
- *Monitoring Committee*: The University of Craiova has adopted [the Code of Student Rights and Obligations](#), which provides for the establishment of a Permanent Committee to monitor compliance with student rights and obligations.
- *Events/projects organised by and for students*: UCv students are actively involved in organising scientific, cultural, sporting, charitable and recreational [events](#) and in voluntary activities.

IOSUD–UCv ran the project “[Entrepreneurial University – higher education and training system for the Romanian labour market through the awarding of scholarships for doctoral students and post-doctoral researchers and the implementation of innovative entrepreneurial training programmes](#)“, a project co-financed by the ESF POCU, ID POCU/380/6/13/123990, value: 6,173,828 lei, 2019-2022. In the field of MR, 5 doctoral students (Besnea Florina, Roibu Horațiu, Băzăvan Lidia, Cismaru Ștefan and Trășculescu Andrei) benefited from scholarships. SDCB doctoral students are allocated annual funds for goods and services. For example, in 2025, according to the accounting situation at the “Constantin Belea” Doctoral School (income and expenditure are accounted for at doctoral school level and not by doctoral study field), the basic funding was 132,180 lei, and expenditure on goods and services for doctoral students was 33,761 lei, i.e. 25.54% of the basic funding. Thus, doctoral students received logistical support for their research activities, including the payment of publication and conference participation fees ([Annex 8](#)).

Analysis of the current situation. IOSUD–UCv has constantly strived to ensure equal access for all doctoral students to educational resources and services that effectively support the learning process, in line with individual training needs and the specific nature of the doctoral field assessed. The institution has facilities adapted for doctoral students with special educational needs or disabilities, both in accommodation and in academic buildings, research laboratories and educational centres, ensuring an inclusive, safe and accessible environment for all members of the university community. Through the “Education and Employment 2021-2027” programme, UCv won [five European-funded grants](#) in 2025, projects that include concrete measures to support university education for people with special needs.

Future directions for action. The aim will be to maintain and consolidate a constructive and stimulating socio-educational climate within IOSUD–UCv, conducive to the integration and active participation of doctoral students with disabilities or special educational needs. Efforts will also be made to *increase awareness and promote opportunities for admission to doctoral studies; to make the admission process more flexible for candidates with special needs; to form a support group for students with SEN, involving both student mentors and specialised teaching staff*. This objective will be achieved by promoting open communication and collaboration between students and teaching staff and by consistently applying the principles of inclusion, mutual respect and non-discrimination.

Criterion B.5. Learning outcomes

Standard S.B.5.1. Definition and assessment

The definition and assessment of learning outcomes are carried out appropriately.

I.P.B.5.1.1 Learning outcomes are described appropriately and support the understanding of student and teacher expectations regarding the content of the subjects in the curriculum.

Presentation of the current situation. Learning outcomes are a fundamental element of the university education process, being formulated in the description of the doctoral field and reflected in the course descriptions for each subject in [the curriculum](#). Their scope has been determined in accordance with the provisions of [Ministerial Order No. 3020/2024](#) approving the Regulations framework regulations on doctoral studies and encompasses the professional and transversal competences of the field of doctoral studies in Mechatronics and Robotics, thus ensuring a coherent learning process and facilitating a structured and predictable educational process for students. The course description is the main guidance tool for doctoral students. It contains information on the number of credits (ECTS), the total number of hours of individual study, the expected learning outcomes, professional and transversal skills, training objectives, thematic content, as well as teaching and assessment methods. *To ensure the quality and consistency of the educational process*, course descriptions are updated annually and are subject to an approval process at the SDCB level. Through these, the doctoral field clearly highlights the skills, knowledge and professional autonomy acquired by doctoral students during their studies. Doctoral students have the opportunity to evaluate the curriculum and teaching staff through [their feedback](#), a mechanism that determines the continuous adaptation of the training process to the needs of doctoral students and increases the quality of education. This ensures the transparency and consistency of the programme, providing teaching staff and doctoral students with a common understanding of the training objectives and standards. Statistics related to the questionnaires completed by SDCB doctoral students have been presented above.

Analysis of the current situation. Learning outcomes are clearly and explicitly formulated and published on the SDCB website. Doctoral students are presented with the course description at the first class meeting, which facilitates the transparency of the academic process and allows them to plan their study and research activities efficiently. This practice contributes to the coherence of doctoral training, ensuring a common understanding of academic objectives, competences and expectations between doctoral supervisors and doctoral students.

Future directions. SDCB will continue to monitor and update the content of the doctoral programme in Mechatronics and Robotics, based on feedback from doctoral students, institutional partners and other stakeholders. This approach will allow for the dynamic adaptation of the curriculum content and the strengthening of the professional and scientific relevance of the doctoral programme.

I.P.B.5.1.2 Verification of learning outcomes is achieved through ongoing assessment exams and final exams.

Presentation of the current situation. The SDCB [curriculum](#) – MR field – is the document that covers the entire professional path of the doctoral student, structured by years of study and stages and forms of assessment. Learning outcomes are an integral part of the plan and are highlighted as the student progresses through the stages set out in the training programme. Thus, the verification of learning outcomes in the field of Mechatronics and Robotics is carried out through **annual examinations and assessments**, which include the presentation of research reports and individual progress reports. These are analysed by the academic guidance and integrity committees ([Annex 7](#)) appointed at doctoral school level, in accordance with the internal regulations of [the IOSUD-UCv Regulations for the organisation and conduct of doctoral study programmes](#). **The individual research programme** includes annual reports and the corresponding number of credits, being endorsed by the CSD SDCB and approved by the CSUD–UCv, in order to ensure the coherence of scientific training and the validation of progress stages. **The final assessment** consists of the public defence of the doctoral thesis before a specialised committee, in accordance with the regulations and methodologies of IOSUD–UCv, which guarantee the monitoring of scientific progress and the validation of the skills acquired. To ensure the originality of the doctoral thesis, before the defence, it is scanned using [anti-plagiarism software](#) to detect similarities and verify compliance with academic ethics standards. In accordance with legal provisions, **the doctoral thesis** is available for public consultation for 90 calendar days on the national platform managed by UEFISCDI. During this period, any natural or legal person may submit comments on compliance with ethical standards and identify possible deviations, including suspicions of plagiarism. Complaints may be submitted electronically to the IOSUD e-mail address or directly to the UCv Registry. The final stage before the public defence involves the preparation of a report on the comments regarding any breaches of ethical and professional standards, including from the perspective of plagiarism, for the doctoral thesis written by the doctoral student.

Analysis of the current situation. In relation to the indicator requirements, IOSUD–UCv has an organised and coherent framework for assessing learning outcomes in doctoral programmes. The assessment process, which is integrated into the course descriptions and communicated to doctoral students at the beginning of each semester, is transparent, accessible and uniformly applied, ensuring the predictability of the educational process. This practice provides doctoral students with a clear understanding of the criteria for assessing academic and scientific performance, contributing to the creation of an educational climate based on fairness and trust. The entire professional path of doctoral students is transparent and details the steps that the doctoral student and the doctoral supervisor must take until the completion and public defence of the thesis, in accordance with IOSUD UCv regulations and national standards on academic integrity.

Future directions for action. Systematic monitoring of feedback from MR doctoral programme graduates will be carried out in order to improve communication between doctoral supervisors and doctoral students. This measure aims to optimise the scientific guidance process, support individual academic progress and reduce doctoral dropout rates through an approach that focuses on the doctoral student.

Criterion B.7. Procedures and practices regarding admission, progression, recognition and equivalence of studies, and certification of results

Standard S.B.7.1. Admission

Admission procedures and principles ensure access to higher education.

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

Presentation of the current situation. IOSUD–UCv and SDCB apply clear procedures and practices regarding admission, academic progress, recognition and equivalence of studies, as well as certification of results. UCv signs a [university study contract](#) with each student enrolled in the doctoral programme, in accordance with the provisions of the regulations on the organisation and conduct of study programmes and in compliance with the legislation in force. Study contracts are not modified during the academic year. Doctoral students are recruited through specific admission procedures. UCv organises **admission competitions** for

bachelor's, master's and doctoral degree programmes, in accordance with its own [regulations](#). For candidates who have graduated abroad, the recognition and equivalence of diplomas is carried out through the National Centre for the Recognition and Equivalence of Diplomas (CNRED) of the Ministry of Education and Research. [The admission conditions](#) are transparent and are posted on the IOSUD–UCv website ([Admission](#)) and on the SDCB website ([Admission criteria](#)) at least 6 months before the admission exam. Only graduates with a bachelor's degree or equivalent from long-term university studies organised in accordance with Law 84/1995 and graduates with a master's degree from master's degree programmes organised in accordance with Law No. 288/2004 are eligible to participate in the admission competition for doctoral studies. Information regarding [the admission process](#) ([number of places](#), [admission criteria](#), [required documents](#), [fees](#)) is made available to interested parties at least 6 months before the registration period. The admission session periods, forms and competition tests are established according to the institution's own methodology and are made public in accordance with the legal provisions in force, by display at the IOSUD–UCv headquarters and by publication on its own web pages. Candidates apply for admission to all study programmes at UCv through the [EvStud](#) electronic platform. Admission to the *Mechatronics and Robotics doctoral programme* is based on quality criteria, as set out in [the Evaluation Criteria for Admission to Doctoral Studies at the “Constantin Belea” Doctoral School](#). Candidates are selected based on: The quality of the doctoral research project and the results obtained during the presentation of the research project and the interview conducted following the oral presentation of the research project; The level of general professional training and training in the field of research; Previous scientific experience. The enrolment situation through admission to the MR field by academic year is presented on the SDCB [website](#), and the total number of doctoral students enrolled each year is presented in Table I.3.2 (Section I.3.3).

Analysis of the current situation. IOSUD–UCv The University of Craiova applies clear and transparent procedures for admission to its study programmes, ensuring an accessible, fair and non-discriminatory process for all candidates. For DSUD IS, admission is based on a competition, the specific conditions of which (procedure, selection criteria, calendar) are established annually and published on the official websites of IOSUD–UCv and SDCB.

Future directions for action. Looking ahead, the aim is to adjust and modernise the methods of selecting candidates in order to increase the efficiency and relevance of the admission process; to intensify efforts to promote DSUD IS, including to companies with research and development departments and other universities. The aim is also to attract candidates from abroad, including through joint supervision.

I.P.B.7.1.2 Admission to university study programmes is carried out in accordance with the principles of fairness and equal opportunities, as well as with the establishment of support measures to ensure access for vulnerable groups at social and educational risk, including candidates with special educational needs and/or disabilities.

Presentation of the facts. IOSUD–UCv ensures a transparent, fair and non-discriminatory admission process to doctoral studies, providing public access to all information through [the institutional website](#) and other digital means of communication. UCv applies a **transparent** student recruitment and admission **policy**. The procedures are clear and accessible, respecting the principles of equal opportunities, objectivity and legality, so that admission takes place in a competitive and fair environment. [Foreign citizens](#) can access the doctoral programmes of IOSUD–UCv under the conditions provided by national legislation. The university implements support measures for [Romanians everywhere](#) and vulnerable candidates, including those with special educational needs or disabilities, ensuring equal access to the admission competition and conditions adapted to their needs. The UCv website offers multiple accessibility options and is equipped with [EqualWeb](#) tools. Information regarding [the admission process](#) ([number of places](#), [admission criteria](#), [required documents](#), [fees](#)) is made available to interested parties at least 6 months before the registration period. The admission session periods, forms and competition tests are made public in accordance with the legal provisions in force, by display at the IOSUD–UCv headquarters and by publication on its own web pages. Through the “Education and Employment 2021-2027” programme, UCv won [five European-funded grants](#) in 2025, projects that include concrete measures to support university education for people with special needs.

Analysis of the current situation. The IOSUD–UCv admission process is governed by an admission system based on fairness, transparency and equal opportunities, which integrates concrete support measures for candidates from vulnerable groups, who are at social or educational risk, including those with special educational needs and/or disabilities. The use of such procedures leads to the consolidation of an inclusive, equitable and socially responsible academic environment, in full accordance with the values promoted by the field of Mechatronics and Robotics.

Future directions for action. IOSUD–UCv will ensure the consistent application of admission procedures, in accordance with institutional regulations and national legislation, while expanding support measures to facilitate access to doctoral studies for candidates from vulnerable groups. The level of

information and promotion of admission opportunities will be increased and the admission process will be made more flexible for candidates with special needs.

Standard S.B.7.2. Students' academic progress

The organisational component carries out actions to support the academic progress of students.

I.P.B.7.2.1 The organisational component applies regulations regarding the professional activity of students.

Presentation of the current situation: IOSUD–UCv rigorously applies the legal and institutional regulations regarding the professional activity of students and doctoral students, in accordance with [the UCV Charter](#). UCv carries out its academic activity in accordance with a set of regulations designed to ensure a coherent and efficient educational path for students. These rules establish clear criteria for the promotion, evaluation and recognition of academic performance, thus providing a predictable framework for the training of future specialists. The professional activity of students is organised in accordance with [the Regulations on the professional activity of students](#). The regulations establish rules regarding the organisation and conduct of academic activities, the assessment and promotion of students, as well as the associated administrative procedures. [The Code of Student Rights and Obligations](#) sets out the rights and responsibilities of students enrolled at the University of Craiova. In addition, [the regulations](#) governing the activities of doctoral students in the field assessed are published transparently on the SDCB website. These regulations define essential aspects such as the structure of the academic year, the number of credits required for promotion, the conditions for access to exams and the activity within the scientific research programme. They also set out the obligations of students with regard to attendance, active participation in courses and compliance with academic standards. According to the provisions of Higher Education Law No. 199/2023, doctoral students may request to interrupt their studies for a period of 1–2 academic years in justified situations (medical, family or force majeure reasons) and subsequently resume the training programme. Doctoral students in the field of Mechatronics and Robotics have the opportunity to pursue their studies under a national or international co-supervision arrangement, under the terms of [the standard agreements](#) adopted by IOSUD–UCv, which establish the legal framework for collaboration between partner institutions and the responsibilities of each party.

Analysis of the current situation. IOSUD–UCv and SDCB implement the provisions of the Regulations on the professional activity of students and the Code of student rights and obligations in their current activities, thus ensuring a fair and transparent academic environment. These regulations ensure flexibility, fairness and continuity in the doctoral training process, providing students with the legal and institutional framework necessary for sustained and responsible academic development.

Future directions for action. Institutional regulations on the academic path of doctoral students will be consistently applied, with an emphasis on internal and international transfers and mobility, in order to support professional development and the internationalisation of doctoral training in the field of Mechatronics and Robotics.

Criterion B.8. Internationalisation process

Standard S.B.8.1. Internationalisation

Improving the quality of education and research through internationalisation actions.

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

Presentation of the current situation. The internationalisation strategy aims both to consolidate the position of IOSUD–UCv in the European higher education and scientific research area and to increase academic performance by opening up to global educational, scientific and cultural values. **Institutional affiliations:** IOSUD–UCv is affiliated with prestigious international academic associations, including: EUA, CER, IAU, IAUP, AUF, BSUN, AEUA, IEEE. **Bilateral agreements:** UCv provides the legal and methodological framework necessary for signing international cooperation agreements. These agreements have resulted in academic and inter-institutional links with European partners, but not only. **Erasmus+ agreements:** IOSUD–UCv has bilateral agreements within [the Erasmus+ Mobility Project for students and staff in higher education](#), Key Action 1, with 307 universities abroad, covering all fields of study offered by the University of Craiova. **Non-Erasmus agreements:** IOSUD–UCv has 77 bilateral agreements in force with non-European countries and EU member states alike. **International mobility:** [Bilateral cooperation agreements](#) have enabled academic exchanges and mobility for study and practice for students and teaching or training for academic staff.

SDCB carries out international cooperation activities aimed at supporting the mobility of its own community members, as well as collaboration in academic and research activities. SDCB teaching staff and doctoral students have been and continue to be involved in **international projects**, facilitating the exchange of good practices in research and the production of joint publications. We mention here the project *Brain-inspired technologies for intelligent navigation and mobility – iNavigate*, but also the major [European University](#)

project [for Cross-Border Knowledge Sharing - ACROSS](#), with 10 European university partners, 2025-2028 (see Indicator I.P.B.3.1.2), in which SDCB – MR teaching staff (PhD supervisors and members of the guidance committees) are also involved. This project implements a package dedicated to borderless research and innovation (WP3 - *Across alliance borderless research & innovation*), aligned with EU policies and agreed upon by all partners. The following will be defined and implemented: an RDI agenda geared towards ERA priorities (*Across border R&I agenda*), an international research network (*Across border R&I network*), a joint doctoral school (*Across Graduate School*), a network of cross-border engagement centres (*Across border engagement centres: Challenge teams, Across Incubator Hub, Across Business Gateway*). We note that a series of ACROSS activities have already been carried out in 2025 (we give as an example [The 1st Across Hackaton: AI-based tools for metrics in education, STEM and social sciences](#), June 2025, organised within ACROSS).

Another direction related to internationalisation is **the organisation of scientific events with international participation**. Between 2021 and 2025, over 500 scientific events took place at UCv: book launches, national and international conferences and workshops were organised by faculties/departments and doctoral schools. Within the SDCB, international [scientific events](#) (scientific communication sessions, workshops and round tables) are organised with the aim of disseminating information to doctoral students for their future professional activity. Recent examples include: ^{1st}Int. Doctoral Workshop on Advanced Approaches in Robotics, Control and Computing – A2RC2 and ^{1st}Int. Doctoral Workshop on Modelling, Diagnosis and Control of Biosystems – MODICOBIO, attended by teaching staff and doctoral students from SDCB – IS. FACE also organises annual conferences and symposiums in the field of doctoral studies, which are also attended by doctoral students (such as the annual events *Int. Conf. on System Theory, Control and Computing ICSTCC*, *Int. Carpathian Control Conf. ICCC*: <https://icstcc2024.ace.ucv.ro/>, <https://icstcc2025.utcluj.ro>, <https://iccc.fberg.tuke.sk/>, <https://iccc.agh.edu.pl/>). In addition, doctoral students in the MR field benefit from travel/participation and payment of fees for national and international conferences (held in person and/or virtually), financed from SDCB funds/FACE research funds (see also Indicator I.P.B.3.1.2).

Following the recommendations of the experts at the previous ARACIS evaluation, other actions were initiated to internationalise the MR doctoral programme. Thus, in the 2024-2025 academic year, Gabriel-Ion Mănescu, a citizen of the United States of America, was admitted to pursue doctoral studies in the field of Mechatronics and Robotics. In addition, specialists from abroad were invited to join the thesis support/coordination committees, such as Hani HAMDAN, Professor of Electrical Engineering and Computer Science at the Université Paris-Saclay – member of the extended coordination committee for doctoral students Andrei Traşculescu and Horațiu Roibu. IOSUD–UCv representatives participated in numerous educational fairs to promote the university and doctoral schools (e.g., *NAFSA (Association of International Educators) 2024 Annual Conference & Expo*, New Orleans, Louisiana, USA, 2024; *EAIE (European Association for International Education) 2024 Annual Conference and Exhibition*, Toulouse, France, 2024). At the same time, doctoral students from the MR doctoral school participated in the international projects “VANGUARD” - InnoVAtive VR tools for enhanciNG the secUrity of NATO exteRnal borDers - multi-year project G6234-doctoral student Ștefan Cismaru, and the HEINNOVASPORT project-BUILDING INNOVATION CAPACITY AND FOSTERING ENTREPRENEURSHIP IN SPORTS SCIENCE HIGHER EDUCATION INSTITUTIONS” PROJECT ID: 220822, funded by the Horizon Europe Programme, Coordinator Innovation Vision Action Plan (IVAP), ensured, between 24-28 June 2025, the participation of PhD student Ciuca Cristina Cerbulescu (and a master's student from the Master's programme in Robot Control Systems – IFTIMICIUC G. IONUȚ-NICUȘOR) in the summer school in Luxembourg - [KNOWLEDGE-DRIVEN INNOVATION AND ENTREPRENEURSHIP](#).

Analysis of the current situation. IOSUD–UCv is heavily involved in international academic life, being a partner in numerous bilateral agreements and institutional affiliations. SDCB's internationalisation activities include: international mobility (doctoral students and teaching staff); research collaborations and bilateral agreements; participation in international projects, organisation of academic events with international participation, international co-supervision activities and thesis defence committees with guests from abroad.

Future directions for action. Future directions for action aim to expand the portfolio of partnerships with prestigious academic institutions abroad, with the aim of increasing the number of joint research project proposals in international competitions, as well as concluding national and international co-supervision agreements within interdisciplinary or complementary research topics.

Criterion B.9. Scientific research results

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

Scientific research activities support students in achieving learning outcomes.

I.P.B.9.1.1 Learning based on scientific investigation and research results supports and is valued in the acquisition of the learning outcomes targeted by the study programme.

Presentation of the current situation. SDCB utilises a modern, student-centred educational approach by integrating learning methods based on scientific investigation into the teaching process and effective scientific research by doctoral students. This approach is fundamental to the development of students' analytical, critical and experimental skills. The [scientific research](#) carried out by university teaching staff and doctoral students has a significant impact on the quality of the educational process. Within SDCB, this link is strengthened by integrating research results, including doctoral research, into the curriculum, teaching methods and practical activities in which students participate. Teaching staff actively involved in research projects contribute to the transfer of knowledge from research to the teaching process by: (i) updating course content with the latest scientific data and concepts; (ii) developing interactive teaching methods based on case studies, experiments and investigation; (iii) producing scientific publications [Annex 6](#), which can become bibliographic sources for doctoral students. At the same time, research carried out by doctoral students can contribute to the process of transferring knowledge from research to teaching and can become relevant bibliographic sources ([Annex 6](#)). These types of transfer support the development of higher-level skills: autonomy, critical thinking, analysis, synthesis, the ability to formulate hypotheses and validate them through experiments. Doctoral students benefit directly from the scientific activity of teaching staff and their own involvement in research activities. They are encouraged to participate in scientific projects carried out within the SDCB or in collaboration with other institutions, having access to and being part of [modern research centres and laboratories](#), with the results of their research being communicated at scientific events and extracurricular activities that are a tradition at the SDCB (see Section I.3.4 and indicators I.P.A.2.1.1, I.P.B.8.1.1). IOSUD–UCv and SDCB support the publishing activities of doctoral students and doctoral supervisors through financial support for the publication of ISI scientific papers with impact factor.

Analysis of the current situation. Learning based on scientific investigation and the exploitation of research results are essential components of the doctoral programme in Mechatronics and Robotics. They contribute to the integration of theoretical knowledge with scientific practice, developing critical thinking, analytical skills and the innovative spirit of doctoral students. Their involvement in research projects, applied studies, case studies and interdisciplinary activities promotes the direct transfer of scientific results into the educational process, transforming research into a central formative resource.

Future directions for action. Continuing the periodic review of course descriptions to include current research topics in the field of MR and the periodic organisation of workshops and scientific seminars with the participation of doctoral students remain priority directions for the evaluated doctoral field. Efforts will be made to strengthen the practical dimension of research-based learning by systematically integrating scientific results into the educational process. Support will continue to be provided to doctoral supervisors and doctoral students for the publication of articles in ISI-rated journals with impact factors in Q1 or Q2.

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

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

I.P.B.9.2.1 The results of scientific research are visible at national and international level in the respective scientific field and are adequately exploited.

Presentation of the current situation. SDCB carries out intensive scientific research, in line with the university's strategic directions and in accordance with European research priorities. [The areas of research excellence](#) at the University of Craiova are reflected in the research areas of Mechatronics and Robotics within FACE and in the research areas within [the CERCA research centre](#). The topics addressed and the research projects of the teaching staff at DSUD – MR fall within the scientific area of doctoral studies. Doctoral students are also involved in these research projects, contributing to their completion. The results of the research activity carried out by doctoral supervisors and doctoral students in **the field of Mechatronics and Robotics** are visible at national and international level [Annex 2](#) and [Annex 6](#) and are exploited through specific means of dissemination and participation in research projects, such as:

- articles published in scientific journals and in the scientific volumes of international conferences [Annex 6](#);
- monographs and chapters published by national and international publishers [Annex 6](#);
- national and international research projects [Annex 2](#).

Section I.3.4 briefly describes the research activity in SDCB – MR field, specifying a number of significant projects and contracts. Members of the MR field have managed **research projects** in recent years. SDCB teaching staff and doctoral students participate in scientific events, thus contributing to the increased visibility of research activity in the field of Mechatronics and Robotics (see events presented in indicators I.P.A.3.1.2, I.P.B.3.1.2, I.P.B.8.1.1). Doctoral students received financial and logistical support for

participating in scientific events, publishing journals and mobility ([Annex 8](#)). Since 2016, UCv has been organising [the Research Gala](#), during which the results achieved during the current year by teaching staff and researchers are awarded. Awards are given for articles published in prestigious ISI-rated journals, patent registrations, the publication of monographs and reference books by prestigious foreign publishers, and the achievement of national and international awards and distinctions.

Analysis of the current situation. All the aspects presented above highlight the high level of involvement and scientific excellence of PhD supervisors and PhD students in the field of Mechatronics and Robotics. An objective indicator of performance is the significant number of articles published in WoS-indexed journals during the period analysed, demonstrating sustained, relevant and internationally impactful research activity. Compared to the previous evaluation period, the number of scientific papers indexed and rated in international databases, especially those rated by ISI, increased between 2021 and 2025.

Future directions for action. The aim is to diversify the sources of funding for research by expanding participation in international programmes such as *Horizon Europe*, *EEA Grants* or *Erasmus+ KA2*, but also through partnerships with the private sector for the development of applied research. At the same time, the development of interdisciplinary research will be promoted by encouraging collaboration with other scientific fields in order to generate complex projects. Financial support will continue to be provided to doctoral students and teaching staff in order to increase the number of articles published in WoS-rated journals in quartiles Q1 and Q2.

AREA C. Quality management

Criterion C.1. Strategies and procedures for quality assurance, including in the field of academic ethics and deontology, involving students, employers and other stakeholders, which are applied consistently and transparently

Standard S.C.1.1. Application

Strategic directions, actions and procedures implemented appropriately

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

Presentation of the current situation. The University of Craiova is firmly committed to promoting and maintaining high standards of *academic quality, ethics and university conduct*. This commitment is reflected in transparent strategies and procedures that actively involve students, employers and other relevant stakeholders. Quality assurance in education and research is a constant concern for the UCv management, being a fundamental aspect of university management, both at the level of the rectorate and at the level of faculties and doctoral schools. From this perspective, the main objectives of UCv are to promote a culture of quality to which members of the university community consciously adhere, to evaluate and ensure the quality of education and the professional integration of UCv students, in accordance with the provisions [of the Quality Assurance Code](#). This is the reference document available to the University for the permanent configuration of an integrated quality management system. The Quality Management System (QMS) ensures internal quality assessment and monitoring of performance indicators. [The procedures and activities for evaluating](#) the quality of education are approved by the University Senate and are made public on the University's website. Quality management is naturally integrated into the work of teaching staff, together with student participation in the evaluation of teaching staff and the evaluation of scientific activity by colleagues. [The Quality Management Department](#) organises evaluation campaigns for all study programmes. Such [evaluation](#) is situated at the boundary between internal and external evaluation and extends the practice of student evaluation of the activity related to different disciplines. [The Quality Assessment and Assurance Committee](#) (CEAC) operates under the [DMC](#) and consists of eight members: a chair, two UCv teaching staff, a representative of the representative trade union, a representative of employers, a representative of the administrative structure within UCv and two student representatives. The activity of the DMC is monitored by [the Commission for Education, Quality Management and Academic Evaluation](#), under the Senate, which reports according to ARACIS (external evaluator) instructions. Feedback on the quality of teaching is provided through the evaluation of teaching staff by students - a process carried out online, anonymously and coordinated institutionally by the DMC. By completing [the student-teacher interaction evaluation form](#), the way in which the teacher's activity is perceived by students after each training cycle is verified. The form is completed exclusively in the absence of any external factors and with the guarantee of the evaluator's confidentiality. In addition, each teacher [self-evaluates](#) annually and is evaluated by the department director, in accordance [with the Annual Professional Performance Evaluation Methodology](#). Most of the FACE teachers, including SDCB members, self-evaluated their work as *very good*, the same rating being given by the department director in the annual evaluation.

Through this complex and transparent structure, IOSUD–UCv ensures an effective quality management system based on responsibility, professional ethics and continuous improvement.

Analysis of the current situation. The University of Craiova demonstrates a strong commitment to quality assurance and compliance with academic ethics and deontology. Quality assurance practices at UCv gravitate cyclically in a matrix with confirmed results: design - implementation - operation and monitoring - evaluation - adaptive response. To ensure transparency and consistency in the application of quality and ethics procedures, UCv has implemented the following measures: [policies and procedures](#) relating to quality assurance and academic ethics are published and accessible to the academic community and the general public; the opinions of members of the university community and other stakeholders are systematically collected and analysed, contributing to the continuous improvement of procedures; UCv conducts regular [internal](#) and external [evaluations](#) to monitor the effectiveness of procedures and identify opportunities for improvement. The internal quality assurance system of IOSUD–UCv is coherent, consolidated and functional, strategically oriented towards excellence and continuous improvement in accordance with European standards of quality in education and research.

Future directions for action. Through the policies it promotes, UCv will continue to pursue the establishment of a culture of educational quality to which members of the university community consciously adhere, pursuing several objectives set out in [the Strategic Plan](#): the continuous development of the quality management system at UCv through the implementation of quality procedures at all levels, faculties/functional departments; promoting student-centred education and increasing student involvement in the quality assurance process at doctoral schools and in the field of Mechatronics and Robotics.

Standard S.C.1.2. Stakeholder involvement

IÎS demonstrates that it involves stakeholders with relevant activities in the application of procedures.

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

Presentation of the current situation. The current demands of society also have an impact on the education and training system, encouraging it to provide broad access to education and culture, which gives members of society greater flexibility and professional mobility. In this context, Romanian higher education has to address a number of challenges related primarily to its position in the European space. UCv recognises the importance of the active involvement of [all stakeholders](#) in the quality assurance process: **Students** are represented in quality assurance structures and participate in the evaluation of study programmes, providing essential feedback for the improvement of the educational process; **Employers** collaborate with the university to align study programmes with labour market requirements, contributing to the adaptation of the curriculum and increasing the employability of graduates; **The academic community** has access to university regulations, which are published and constantly updated. UCv conducts [regular consultations](#) with representatives of the academic community, including students/doctoral students, the socio-economic and cultural-artistic community, and the labour market on the stated objectives and outcomes of study programmes. These consultations take place within the organised framework of official meetings. The university-level [CEAC Commission](#) includes two students appointed by student organisations, a representative of the economic environment and a representative of the administrative structure. In accordance with the national legislation in force, CEAC is required to develop and coordinate the implementation of quality assurance and evaluation procedures and activities approved by the UCv management.

Analysis of the current situation. By actively involving students, employers and other stakeholders in the quality process, UCv ensures the consistent and transparent application of procedures, contributing to the maintenance of an academic environment of excellence. Institutional documents confirm UCv's commitment to integrating the opinions and proposals of members of the university community and external stakeholders into the process of implementing academic procedures. This participatory approach contributes to the continuous improvement of the quality of doctoral education through open and constructive dialogue between the university, doctoral students and socio-economic partners.

Future directions for action. SDCB, which coordinates the Mechatronics and Robotics doctoral programme, will continue to subscribe to UCv policies for the continuous development of collaboration between representatives of the academic community, graduates and employers. Consultation and regular communication mechanisms will be intensified so that the opinions of stakeholders are analysed and taken into account in the process of implementing and updating institutional procedures, contributing to the maintenance of a high-quality education system.

Criterion C.2. Functionality of structures for ensuring the quality of education, including in the field of academic ethics and deontology, in accordance with the law

Standard S.C.2.2. Functioning

The organisational structures in the field of quality assurance and academic ethics and deontology fulfil their specific roles and functions in an appropriate manner.

I.P.C.2.2.2. The academic ethics committee operates on the basis of regulations approved by the university senate and acts independently of any other structure or person within the higher education institution, in accordance with the law.

Presentation of the facts. At UCv, the University Ethics Committee (CEU) operates on the basis of regulations approved by the Senate and acts independently of any other structure or person within the institution, ensuring impartiality in decision-making, in compliance with the legal provisions in force. According to [the Regulations on the organisation and functioning of the University Ethics Committee](#) of UCv, approved in 2024, it is established to ensure compliance with the rules of university ethics and deontology, with a 4-year mandate. The University Ethics Committee monitors compliance [with the Code of Ethics and Professional Conduct](#) within UCv. The Committee is [composed of](#) six teaching staff and two student representatives from UCv. The members are individuals of professional standing who do not hold management positions at the university and have no professional or ethical sanctions. The composition is approved by the Rector, at the proposal of the Board of Directors and with the approval of the Senate. The main responsibilities of the Commission include: *analysing and resolving complaints* (the Commission analyses and resolves complaints regarding breaches of academic ethics and conduct, with the possibility of self-referral in cases of ethical violations); *informing the university community* (at the beginning of each academic year, the Commission informs students and teaching staff about the role and legal provisions relating to ethics and professional conduct); *collaborating with the university management* (in situations subject to criminal law, the Commission urgently notifies the university management and provides it with all the necessary information). In order to ensure the transparency and efficiency of the analysis process, the University Ethics Committee draws up [case reports](#) and ensures confidentiality, with the members of the Committee signing declarations of impartiality and confidentiality, thus guaranteeing the integrity of the analysis process.

Analysis of the facts. The University of Craiova has established the University Ethics Committee to ensure compliance with academic ethics and professional conduct standards. This committee operates on the basis of regulations approved by the University Senate and acts independently, in accordance with the legislation in force. The Committee is responsible for preventing and eliminating unethical practices within the university.

Future directions for action. Efforts will be made to maintain the independence and transparency of the University Ethics Committee, along with the periodic updating of internal regulations to ensure alignment with legislative requirements and European principles of academic integrity.

Criterion C.3. Procedures for initiating, monitoring and periodically reviewing programmes and fields of study and activities involving students, employers and other stakeholders

Standard S.C.3.1. Procedures and their application

IÎS has procedures for initiating, monitoring and periodically reviewing study programmes and fields of study and activities carried out, and applies them systematically

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

Presentation of the current situation. IOSUD–UCv has developed and implemented clear procedures for initiating, monitoring and periodically reviewing study programmes. The initiation, approval, monitoring and periodic evaluation of study programmes is a basic component of academic activities at UCv and is applied in accordance with [the Regulations for the initiation, approval, monitoring and periodic evaluation of study programmes](#). The Regulations and monitoring are associated with periodic quality assessments at the level of each study programme and at the institutional level. Internal evaluation reports on study programmes include a SWOT analysis of the programmes. The quality and efficiency of study programmes are monitored continuously, in line with developments in the labour market, technology and international standards in the field. At faculty level, the study programme committees implement an internal monitoring system and, in collaboration with the CEAC committee, establish concrete measures to optimise the educational process. The Faculty of Automatic Control, Computers and Electronics has focused primarily on defining the responsibilities of its functional entities, the relative positioning between education and research, and the stronger involvement of students in quality assurance. At the faculty and SDCB level, institutional procedures are rigorously applied, ensuring that study programmes comply with national quality standards. The SDCB continuously monitors and evaluates programmes, involving the persons responsible for each field of doctoral study. The faculty has mechanisms in place for peer review of the work of teaching staff, student perceptions of how information is conveyed and assimilated, and its impact on undergraduate programmes. Quality assurance procedures involve the participation of all stakeholders: students, teaching and research staff, graduates/alumni, employers, etc. These are applied periodically and aim to continuously improve teaching and research activities. Those responsible for the study programmes prepare an annual [self-assessment report](#). [The procedure for self-assessment](#) of study programmes is developed institutionally.

Analysis of the current situation. IOSUD-UCv adopts a coherent and sustainable approach to managing programmes and fields of study, through clearly defined and regularly reviewed regulations and evaluation procedures. This approach ensures the maintenance of academic quality, contributing to the increased competitiveness of the educational offer, student satisfaction and the alignment of graduates' skills with labour market requirements. The consistent application of procedures for initiating, monitoring and reviewing study programmes has a positive impact on the quality of education at FACE and SDCB. Internal and external evaluations, such as those carried out by the Romanian Agency for Quality Assurance in Higher Education (ARACIS), carried out periodically in accordance with the legislation in force, confirm the alignment of the study programmes within UCv with quality standards, contributing to the continuous improvement of the educational process.

Future directions for action. Current monitoring activities will be maintained and specific procedures will be updated periodically, whenever required by the legislative context or developments in the field of education, in order to ensure the continuity and relevance of the quality assurance process.

I.P.C.3.1.2 Members of the community and other stakeholders are involved in the implementation of procedures.

Presentation of the current situation. The process of implementing the procedures for initiating, monitoring and periodically reviewing study programmes involves teaching staff, doctoral supervisors, students, doctoral candidates, administrative staff, graduates and representatives of the socio-economic environment. Thus, the internal evaluation reports of the study programmes, prepared by the programme managers, are presented, discussed and approved by the members of the department/doctoral school coordinating the programme. These procedures are communicated and disseminated transparently, and the comments and proposals made are analysed and, where appropriate, integrated into the final form of the documents, strengthening the participatory process of continuous improvement of academic quality. The transparency of information is ensured through the official website of [the Quality Management Department](#). UCv assigns students, as internal beneficiaries, an important role in the development and implementation of decisions, a role that they maintain after graduation (through [CCOC](#)), as external beneficiaries through alumni associations and together with actors from the socio-economic environment. The Faculty of Automation, Computers and Electronics and the “Constantin Belea” Doctoral School have repeatedly invited former graduates employed in various sectors (IT industry, manufacturing, research, specialised companies, etc.) to present to students and doctoral students the skills, abilities and career paths specific to the field of Mechatronics and Robotics, as well as career development opportunities. Such activities were also carried out during events such as “Open Day”, “Our Students Can Do More”, [Jobs4IT](#), etc. These meetings are also mentioned on [the FACE website](#). Over time, numerous consultations have been held with representatives of the socio-economic environment regarding the professional training of students from the programmes run within the faculty and doctoral school, including those related to research topics. Traditional partners include Continental Automotive Systems Sibiu (now Aumovio), Hella-Forvia Craiova, ICMET Craiova, etc. In fact, DSUD MR has had and continues to have doctoral students from these partners. IOSUD-UCv has signed a series of collaboration agreements with strategic partners, including in the fields of SDCB, some of which have special chapters dedicated to research and doctoral programmes – [Annex 9](#).

Analysis of the current situation. The university demonstrates a firm commitment to ensuring the quality of education through the systematic implementation and application of procedures for initiating, monitoring and periodically reviewing programmes and fields of study. These processes actively involve members of the academic community and other stakeholders. UCv applies rigorous procedures for the monitoring and periodic review of study programmes and teaching activities. These procedures include internal and external evaluations designed to ensure that programmes comply with quality standards and to identify opportunities for improvement. This participatory approach allows for the continuous adaptation of procedures to developments in the academic environment and contributes to increasing their relevance, efficiency and transparency within the institution.

Future directions for action. Maintain current efforts and strengthen managerial support for process improvement in order to develop a culture of quality, including through the involvement of community members and stakeholders, to increase the effectiveness of procedure implementation at all organisational levels.

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

Standard S.C.4.1. Procedures

The application of methodologies and procedures contributes to improving the quality of staff activities.

I.P.C.4.1.1 The organisational component analyses the results of the semesterly evaluation process carried out by students on the performance of teaching staff.

Presentation of the current situation. In order to ensure and maintain a high-performing and dynamic staff capable of supporting teaching and scientific research activities at high standards, UCv regularly and rigorously uses specific procedures and forms for the periodic evaluation of the activity of teaching staff, researchers and administrative staff, through the [EvStud](#) platform. IOSUD–UCv collects feedback from doctoral students through the [Google forms](#) platform using questionnaires launched in their institutional accounts. Student evaluations of teaching staff are organised every semester, providing valuable insights into the effectiveness and quality of the educational process. [The evaluation form](#) is standardised and approved by the University Senate, and the results are communicated to the management structures and the evaluated teaching staff. The analysis of the results provides a clear picture of the strengths and areas for improvement in teaching. Detailed reports of these evaluation forms are analysed at the CSUD and SDCB level, and based on the conclusions highlighted, corrective measures are implemented to meet the requirements of doctoral students and the economic environment, thus ensuring a realistic and participatory perspective on the quality of education.

Analysis of the current situation. Feedback from doctoral students is essential for identifying the training needs of teaching staff, adapting their teaching methods and improving teaching materials. Teachers can participate in professional development programmes and exchanges of experience with higher education institutions in Romania and abroad, within the framework of various human resources projects funded by UCv, in order to improve their teaching and communication skills. Also, based on student suggestions, teachers adjust their teaching strategies or update or diversify the educational resources used in teaching in order to increase the efficiency of the learning process.

Future directions for action. The following directions have been identified: increasing the participation of doctoral students in the teacher evaluation process by organising awareness campaigns on the importance of feedback for quality improvement; organising training sessions for teachers based on feedback, as well as creating personalised development plans for each teacher, based on the evaluations received, including within [projects implemented at UCv](#).

Criterion C.5. Systematically updated databases relating to internal quality assurance

Standard S.C.5.1. Databases

ÎS uses databases to support internal quality assurance activities.

I.P.C.5.1.1 The organisational component systematically collects and analyses data necessary for the internal quality assurance process.

Presentation of the current situation. UCv has established a well-defined [Quality Management System](#) (QMS) that includes policies, procedures and practices designed to ensure high academic standards. Internal regulatory activities have consisted of developing methodologies and procedures for periodic evaluation and quality assurance. These documents establish the framework for document and record control, updating regulations and continuous monitoring of academic processes. The university prepares and submits an annual report on the implementation of the provisions of the quality policy programme and on the positive and negative aspects of internal quality assurance. This [report](#) is published on the university's website. Teaching staff have autonomy over how they teach and assess students' knowledge. A system for evaluating teaching staff is also in place, consisting of: student evaluation (“[Student-Teacher Interaction Evaluation Form](#)”), self-evaluation (“[Teacher Self-Evaluation Form](#)”), peer evaluation “[Form for evaluating teacher-department member interaction](#)” and [hierarchical](#) evaluation by the department director. Correlating the results of evaluations with the academic promotion of teaching staff has a significant impact on the quality of education. UCv provides the faculty with a computer system that facilitates the collection, processing and analysis of data and information relevant to the organisation and efficient functioning of study programmes and other activities - [Student Records](#). The evaluation of teachers by students is carried out online and is anonymous. The evaluation form is completed without the influence of any external factors and with the evaluator's confidentiality guaranteed. UCv also has a platform dedicated to the results of research and innovation activities carried out within the institution ([Research Portal](#)) - an important indicator in the evaluation of academic activity. The results of the teaching staff evaluations have been integrated into [the standards](#) for [career promotion](#) and salary increases.

Analysis of the current situation. IOSUD–UCv systematically collects, processes and analyses data on institutional activities and their quality level through a dedicated IT platform. This approach provides a solid basis for decision-making, for the implementation of institutional development strategies and for the continuous improvement of the internal quality assurance system.

Future directions for action. The aim is to continuously improve the IT system used for data collection and analysis in order to achieve the most objective and efficient evaluation possible, which will automatically generate results relevant to the quality assurance process and management optimisation.

Criterion C.6. Transparency of information of public interest, including information on the programmes and fields of study offered, as well as on the relevant certificates, diplomas and qualifications

Standard S.C.6.1. Transparency

The organisational component ensures the transparency of information, in accordance with the law

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

[IOSUD-UCv](#) makes all information of general interest available to the public, in accordance with the principles of institutional transparency information about [the doctoral schools](#) within its structure and the related doctoral fields of study. In addition, [SDCB](#) provides doctoral students with detailed and up-to-date information on its website regarding [the structure of the academic year](#), [curricula](#), [timetables](#), [research topics](#), information on [the organisation and delivery of doctoral programmes](#), information on [the content of doctoral study programmes](#), [learning outcomes](#), information on how studies are financed, the model [framework contract for doctoral studies](#), [the schedule of exam/assessment sessions](#), [reports](#), etc. At the same time, [IOSUD-UCv](#) publishes comprehensive information on research activities, projects and programmes, regulations, methodologies, extracurricular activities and support services, along with the rights and opportunities offered to doctoral students. These resources provide a coherent and accessible information framework, comparable to that of universities in the European Higher Education Area, contributing to maintaining high academic standards and strengthening the visibility of the Mechatronics and Robotics doctoral field.

Analysis of the current situation. IOSUD-UCv ensures a high level of transparency and access to information regarding the activities of SDCB and DSUD Mechatronics and Robotics. Detailed information is available on the organisation of the teaching process, facilities for doctoral students, regulations, procedures and documents of public interest, presented in an accessible and constantly updated format. The transparency and quality of the services offered by the university are supported by diverse communication tools, coordinated at institutional level. The IOSUD-UCv and SDCB websites are the main channels of information and provide relevant data for both the academic community and the general public.

Future directions for action. The aim is to continuously adapt communication strategies to the profile and expectations of new generations of students and doctoral students by expanding the use of digital and interactive platforms that facilitate rapid access to information and reinforce the modern and open image of UCv.

I.P.C.6.1.2 The organisational component ensures the transparency of decision-making processes.

Presentation of the current situation. UCv ensures the clarity and transparency of decision-making processes by applying explicit information and consultation mechanisms that guarantee free access to relevant information for all interested parties. [The decisions](#) of [the University Senate](#) and [the Board of Directors](#) and [the decisions of the CSUD](#) are permanently published on the official websites, together with regulations, methodologies and annual activity reports, thus facilitating the monitoring and understanding of the stages of substantiation and adoption of decisions. [The SDCB](#) acts in accordance with Articles 49 and 50 of [the Regulations on the organisation and conduct of doctoral programmes of the institution organising doctoral studies](#). IOSUD-UCv and SDCB ensure transparency by publishing all public information on their own website: [doctoral school regulations; information on vacancies for doctoral students; information on vacancies for doctoral supervisors; information on doctoral supervisors and the doctoral students they supervise; information on the professional results and performance of doctoral supervisors](#) (CVs, topics); [guidelines on writing doctoral theses](#), [procedures for preparing theses](#); [minimum standards developed by CNATDCU for awarding doctoral degrees; summaries of doctoral theses to be publicly defended](#), as well as the date, time and location of public defences, at least 20 days prior to their defence; addresses where completed doctoral theses can be accessed. IOSUD-UCv also prepares and publishes on its [website](#) the annual self-assessment report, which must contain references to feedback from doctoral students.

Analysis of the current situation. IOSUD-UCv and SDCB ensure the transparency and accessibility of information of public interest by constantly publishing relevant information on the doctoral fields they manage, as well as relevant documents, reports and decisions on their official websites, in accordance with the principles of good academic governance.

Future directions for action. The development of the IOSUD-UCv and SDCB websites will continue, including versions in internationally used languages, which will contribute to increasing the transparency of decision-making processes and optimising access to strategic information, reports and official documents, and will establish the international character of the field of Mechatronics and Robotics.

Criterion C.8. Participation in external evaluation processes, in accordance with the law

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

ÎIS is subject to the external quality assessment process, in accordance with the law

I.P.C.8.1.1 The organisational component carries out the procedures related to the external quality assessment process, with a view to organising, in accordance with the law, the assessed study programme.

Presentation of the current situation. In 2021, the University of Craiova was institutionally evaluated by ARACIS, following which it was accredited and received the rating of “[High degree of confidence](#)“, confirming the quality of its educational, research and university management activities. This rating validated the coherent functioning of [the quality assurance system](#), as well as the institution's commitment to excellence and continuous improvement. Also in 2021, ARACIS carried out a periodic external evaluation of doctoral study programmes (see also Section I.3), which obtained *the maintenance of accreditation* (the field of Mechatronics and Robotics through [ARACIS Council Decision no. 95/25.11.2021](#), [IOSUD170 Coordinator Report 25.11.2021](#), [External Evaluation UCV Mechatronics- Robotics](#)). In 2024, *progress reports* were drawn up for the doctoral field of Mechatronics and Robotics, whose external evaluation was carried out by ARACIS in 2025, the evaluation procedures being approved by [ARACIS Council Decision No. 193/H/07.08.2025](#). The conclusion was that the recommendations had been implemented. Through these results, UCV and SDCB demonstrate a constant commitment to quality, transparency and sustainable institutional development, consolidating the position of the Mechatronics and Robotics field as an accredited doctoral programme within the UCV's educational offer:

Analysis of the current situation. The external quality assessment process is an essential tool for monitoring performance and continuously improving doctoral programmes within IOSUD–UCv, and the field of Mechatronics and Robotics was periodically evaluated by ARACIS in 2021 and, on an interim basis, in 2024, in accordance with national and European standards on the quality of doctoral studies. The results of the evaluation confirmed the effective functioning of the doctoral programme, compliance with academic ethics standards, and alignment with the current requirements of the academic and socio-economic environment.

Future directions for action. Compliance with and implementation of all ARACIS recommendations regarding the educational process will continue to be monitored, as will compliance with the deadlines set for the submission of the internal evaluation report for the field of Mechatronics and Robotics for the 2026 evaluation and the updating of the evaluation documentation in accordance with the new methodological provisions of ARACIS.

IV. Recommendations and main conclusions resulting from the last external quality assessment procedure¹, and actions taken

The last external quality assessment procedure for the doctoral field of Mechatronics and Robotics within the “Constantin Belea” Doctoral School (IOSUD – University of Craiova) took place in 2021, with the expert committee confirming the maintenance of accreditation and formulating a series of specific recommendations for improving the functioning of the doctoral programme.

During the 2021–2025 monitoring period, IOSUD – University of Craiova and the “Constantin Belea” Doctoral School implemented a comprehensive set of structural, administrative and academic measures, which led to a significant improvement in the activities of the field.

1. Recommendations on doctoral programme management and measures taken

- The procedure for selecting doctoral students to the Doctoral School Council was correctly applied, with the composition being updated in accordance with internal methodologies. Doctoral student Florin Diță from the field of Mechatronics and Robotics is a member of the Doctoral School Council, following elections held at the University of Craiova.
- The issuance of administrative documents (interruptions, certificates, academic records) was streamlined by expanding the facilities offered by the Evstud.ucv.ro platform.
- Communication between SCDB and IOSUD was strengthened through systematic reporting and coordination mechanisms.
- Curricula were updated annually, including new subjects in line with developments in mechatronics, robotics, IoT and medical robotics.
- The Academic Ethics and Integrity course was expanded with applied modules on digital ethics and the ethics of artificial intelligence.
- Individual analysis of doctoral students' satisfaction questionnaires is now much easier, as the questionnaires are created using the generation and distribution module on the institutional platform EvStud.ucv.ro.

- The institutional platform is currently implementing specific procedures necessary for the transfer of data and information between the doctoral school and IOSUD.

2. Recommendations regarding research activity and actions implemented

- The team of doctoral supervisors has been strengthened by the appointment of two new teaching staff (Associate Professor Cristina Pană and Associate Professor Cristian Vladu), while two other colleagues, Resceanu Ionuț and Florin Manta, took the habilitation exam, and in December the minister's habilitation order was issued. The application for affiliation to the doctoral school is currently being reviewed by IOSUD.

- Doctoral students have actively participated in national and international research projects (e.g. SMARTTEST, Smart Ankle Prosthesis, neuromuscular recovery projects, "VANGUARD" - InnoVAtive VR tools for enhanciNG the secUrity of NATO exteRnal borDers - multi-year project G6234, University of Craiova, project developed in partnership with the Technical University of Moldova, won in 2024, within the NATO Science for Peace and Security Programme competition, HEInnovaSport-Building innovation capacity and fostering entrepreneurship in sports science higher education institutions - PROJECT ID: 220822).

- Research infrastructure has been expanded through major investment projects worth over EUR 20 million in technical faculties.

- Reporting of doctoral students' research results has been intensified and integrated annually on the UCv Research Portal.

- The doctoral school's website has been completely updated, with an English version and a modernised structure.

3. Recommendations on internationalisation and the state of implementation

- International experts have been co-opted into guidance and integrity committees, in accordance with new legislative provisions.

- IOSUD participated in major international events (NAFSA, EAIE), strengthening its international academic visibility.

- Efforts to increase the number of ERASMUS mobilities and initiate international co-supervision have been intensified, with PhD student Cristina Cerbulescu Ciucă participating in a summer school in Luxembourg.

4. Recommendations still to be implemented

- The mechanism for tracking doctoral student attendance (scholarship holders, non-scholarship holders, fee-paying students) needs to be developed.

- Theses under international co-supervision require intensified institutional measures.

5. General conclusions

Overall, the field of Mechatronics and Robotics has made significant progress in most of the areas evaluated: expansion of the management team, increase in the number of doctoral students, modernisation of infrastructure, updating of curricula, diversification of research projects and strengthening of international visibility. These developments confirm the maintenance of the field's accreditation and provide a solid basis for continued development in line with ARACIS standards and institutional strategy.

V. SWOT analysis

Strengths:		Weaknesses:
<p>✓ The doctoral programme benefits from a coherent curriculum structure, aligned with EQF level 8 and oriented towards advanced research in relevant areas of mechatronics and robotics. The existence of a modern research infrastructure, such as INCESA, provides doctoral students with access to laboratories and equipment suitable for experimental and applied activities. The body of doctoral supervisors has scientific experience and involvement in national and international research projects, which supports the quality of doctoral training. The programme is supported by clear institutional procedures regarding admission, assessment, quality assurance and academic ethics.</p>	<p>INTERNAL FACTORS</p> 	<p>✓ The international visibility of doctoral research results is uneven, with differences between doctoral supervisors and the research topics addressed. The number of international mobilities of doctoral students is below the programme's potential, relative to the opportunities available at European level. Systematic collaboration with the socio-economic environment within doctoral topics is insufficiently formalised. The complete digitisation of doctoral management processes and academic progress monitoring is under development but not yet fully integrated.</p>

SWOT analysis		
Opportunities ✓ The rapid evolution of the fields of intelligent robotics, artificial intelligence and autonomous systems creates significant opportunities for the development of new directions in doctoral research. European funding programmes (Horizon Europe, Erasmus+, NATO SPS) provide the framework for increasing internationalisation and scientific collaboration. Increased demand from industry for specialists in mechatronics and robotics facilitates the development of applied partnerships and technology transfer. The digitisation of education and research enables the implementation of flexible models of learning and international cooperation.	 EXTERNAL FACTORS	Threats: ✓ Increased competition from similar doctoral programmes, both nationally and internationally, may affect the programme's attractiveness to high-level candidates. Instability or frequent changes in the legislative and funding framework may influence the sustainability of the doctoral programme. The migration of qualified human resources to institutions abroad poses a risk to the continuity and development of research. The rapid pace of technological progress may lead to the rapid obsolescence of certain research topics if they are not regularly updated.

VI. Main challenges and directions for development

The Doctoral Programme in Mechatronics and Robotics faces the challenge of continuously adapting its research directions to rapid developments in emerging fields such as intelligent robotics, autonomous systems, artificial intelligence and cyber-physical systems. A strategic priority is to align doctoral topics with European and international research agendas in order to increase scientific relevance and international competitiveness. Strengthening the visibility of research results through high-impact publications and participation in international projects remains an essential direction for development. The programme aims to intensify international cooperation through academic mobility, co-supervision and strategic partnerships with prestigious universities and research centres. Another strategic direction is to capitalise on existing research infrastructures and integrate doctoral students into projects with socio-economic applications. Developing technology transfer and innovation, including through patents and industrial collaborations, is a priority objective for increasing the impact of doctoral research. In this regard, the doctoral school of mechatronics and robotics has shown dynamic growth over the last five years in terms of research patent applications filed by teaching staff and doctoral students of the doctoral school as first authors, with their number increasing from two applications in the previous evaluation period to 4 in the last 2 years alone (Patent application: A/00390/2024, Patent application: A/00391/2024, Patent application: A/00379/2025, Patent application: A/00378/2025). The programme pays particular attention to the development of doctoral students' transversal skills, which are necessary for integration into the international academic and socio-economic space. The digitisation of educational and doctoral management processes is a strategic direction for making activities more efficient and transparent. Ensuring equity, inclusion and personalised support for doctoral students is integrated into the programme's development strategy. Overall, the strategic directions pursued are aimed at strengthening the quality, sustainability and relevance of the Doctoral Programme in Mechatronics and Robotics in a national and international context.

VII. List of Annexes

[ANNEX 1 Checklists for compliance with CNATDCU MR standards](#)

[ANNEX 2 MR grants and projects 2021-2025](#)

[ANNEX 3 Material base legal status IOSUD-UCv](#)

[ANNEX 4 IOSUD-UCv staff structure](#)

[ANNEX 5 SDCB job descriptions 2021-2026](#)

[ANNEX 6 List of works and international visibility of MR leaders 2021-2025](#)

[ANNEX 7 Guidance committees and public defence committees for MR doctorates \(2021-2025\)](#)

[ANNEX 8 Fees for publication in journals and participation in conferences SDCB](#)

[ANNEX 9 Agreements socio-economic partners IOSUD-UCv](#)