### **External Evaluator's Report**

# to the Romanian Agency for Quality Assurance in Higher Education (ARACIS)

# about the Institution Organizing Doctoral Study Programmes (IOSUD)

"Gheorghe Asachi" Technical University of Iasi 2021

#### **INTRODUCTION**

I was appointed as an International Expert for the Romanian Agency for Quality Assurance in Higher Education (ARACIS) and was invited to join the evaluation team for the evaluation (IOSUD) of "Gheorghe Asachi" Technical University of Iasi (TUIASI). Since 2009, I have been participating in quite a number of accreditation procedures in Romania but it was the second time that participated in an evaluation at IOSUD level. The audit took place between 13-17 September. The evaluation process was conducted online. The evaluation team had a preliminary meeting (Zoom) Wednesday 8 September in the morning to discuss the main methodological aspects related to the institutional evaluation and establish the details of the visit.

A relatively huge evaluation team (40 members) took part in the evaluation process as TUIASI has an Interdisciplinary Doctoral Schools with 13 doctoral programmes carried out in 2 fundamental fields. TUIASI has 769 PhD students from 17 countries. TUIASI is an important representative of the Romanian higher education, it has oldest tradition in engineering education in Romania.

The evaluation process began on Monday 13 September at 9 a.m. at Zoom platform with the introductory statements of Prof. univ. dr. Ion Popa (mission director) and prof. univ. dr. Calin Rosca (coordinator of the IOSUD committee). Next prof. univ. dr. prof. univ. dr. ing. Dan Cascaval (rector of TUIASI) welcomed the evaluation team.

#### **METHOD**

In my role as an International Expert Evaluator, I was responsible for establishing an overview of IOUSUD.

#### Therefore

- I previously studied the Self-evaluation Report of the IOSUD and its' Annexes;
- I also studied the websites of TUIASI, which were available in English;
- I attended most of the common sessions according to the timetable of the institutional evaluation visit (13-17 September) as an observer (simultaneous translation was available);
- I addressed written questions to the stakeholders, which I could not discover in the documents in advance or could not follow during the online meetings.

My findings and comments are based on the studied documents, the information I have gained from the websites of TUIASI and I have heard during the meetings. Some quality indicators are used according to Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) to carry out the diagnosis.

#### **INSTITUTIONAL CAPACITY**

## The administrative, managerial institutional structures and the financial resources

TUIASI is a public higher education institution and its Doctoral Schools seem to operate according to the legal provisions that govern the higher education system in Romania and in compliance with the university's own internal regulations. The regulations at the level of IOSUD and of the Doctoral School can be found on the TUIASI website only in Romanian.

The Council of Doctoral Studies of IOSUD - "Gheorghe Asachi" Technical University of lasi has 17 members (13 professors and 4 students). They are partially appointed or elected. It was considered that CSUD members should represent all the faculties in which the TUIASI has accredited doctoral fields. Doctoral School Council (CSD)

has seven members (one director, who is also a supervisor; three supervisors of the doctoral school; two PhD students and one member of CSD is from another Romanian university).

**Comment**: The composition of CSD recommended to be revised according to article 14 para 2 in the Doctoral Studies Code.

The Doctoral School is organised interdisciplinary, linked to fundamental domains. Synergies can be found among the different doctoral programmes. Scientific research is continuously monitored and evaluated annually.

The records of doctoral students are made through an adequate database computer system and through the Unique Matriculation Register.

#### Research infrastructure

It is very difficult to gauge that the research infrastructure of the Doctoral School fulfil all the requirements (research and development units, laboratories, libraries etc.) without being present myself on site. I was convinced by my colleagues, who took part in the site visit, that the research facilities are very good and improved in the last few years.

According to the Self-evaluation Report with its annexes and the information gained on ERRIS (Engage in the European Research Infrastructures System) platform, TUIASI has collaboration agreements concluded with higher education institutions, research institutes, research networks for the joint exploitation of various research infrastructures. 24 research centres operating within TUIASI accredited by National Council for Scientific Research (CNCSIS).

TUIASI has the necessary patrimony to carry out doctoral programmes within a process of quality education and scientific research. The permanent renewal of the research infrastructure at TUIASI ensures doctoral students access to current research resources.

#### **Quality of Human Resource**

The quality of human resources and the scientific potential at TUIASI is on a good level. According to the self-evaluation report, TUIASI has 132 PhD supervisors at the moment.

The doctoral supervisors' number is in ratio with the number of students. The workload must be reduce of those supervisors who has too many doctoral students for the quality. In a few doctoral programmes an aging problem can be found among the supervisors.

**Comment**: Those associate professors and professors who are not taking part in the activity of the doctoral school, might be encouraged and supported to become doctoral supervisors in order to replace the elderly professors.

#### **EDUCATIONAL EFFECTIVENESS**

The number, quality and diversity of candidates enrolled for the admission contest

The admission requirements and procedures are well documented. The admission criteria and selection procedures are in line with the European standards. Besides the recognition of prior studies results, other scholarly activity such as research and publication records are taken into consideration in the selection process.

The admission contest is carried out in accordance with the selection methodology proposed by each Doctoral Program Coordination Council and announced at least 6 months before the contest date, an interview with the applicant being a mandatory part of the admission procedure.

The dropout rate was very high in academic year of 2015 and 2016. Since then the dropout rate of doctoral students have been decreasing. Most of the dropouts due to

the students' subjective reasons influenced by external factors, not because of dissatisfaction with the doctoral programme.

#### The content of doctoral programmes

Doctoral Programmes at TUIASI try to respond to the needs of the labour market and expectations of the national economy. TUIASI is engaged in scientific research also through doctoral programmes.

The curricula based on advanced university studies at the level of each faculty. The training of doctoral students depend on the specifics of the doctoral fields. At least one course is intended for the in-depth study of research methodology and / or statistical data processing. The curricula for all doctoral fields include the compulsory discipline Ethics and Academic Integrity.

The level of the curriculum design, teaching and assessment and the academic and professional standards are, in general, in line with the standards expected of a qualification at EQF Level 8. I believe that, in general, the learning outcomes of the Doctoral Programmes are consistent.

#### The results of doctoral studies and procedures for their evaluation

Between 1.10.2015-30.09.2020, within IOSUD TUIASI, 223 doctoral theses were publicly defended and validated by CNATDCU in all accredited fields in which doctoral study programmes were carried out.

TUIASI is engaged in scientific research also through doctoral programmes. PhD students are members of research teams. They are involved in the development and implementation of research and development projects. These are materialised in patents, presentations at national and international conferences, publishing research results in national and international publications.

An extensive number of documents and guidelines offered about the research process, supervision and evaluation criteria of the doctoral studies. The evaluation processes of the students are clear.

#### Quality of doctoral theses

There were no invalidated theses in the period between October 2015 and September 2020.

#### **QUALITY MANAGEMENT**

# Existence and periodic implementation of the internal quality assurance system

The internal quality management system is well described and regulated detailed at TUIASI. It has structures, strategies, policies and procedures for quality assurance. The Commission for Quality Evaluation and Assurance (CEAC) with the assistance of the Department for Evaluation and Quality Assurance coordinate, guide and control the activities regarding the quality management. Subcommittees for evaluation and quality assurance at the level of faculties and departments also can be found.

The implementation of the internal quality assurance system, during the last five years, was beneficial on quality management, improvement of education and other activities. Monitoring the internal quality assurance system is a permanently process within TUIASI.

#### Transparency of information and accessibility of learning resources

The doctoral students have access to academic relevant national/international databases and scientific publications.

Academic misconduct and plagiarism are serious breaches of academic standards. The verification of the originality of the scientific papers, which include doctoral theses is available in TUIASI, as an internet-based plagiarism detection service is

available for doctoral students (<a href="https://sistemantiplagiat.ro/">https://sistemantiplagiat.ro/</a>). Each PhD student also has access to scientific research laboratories or other facilities depending on the programme within the doctoral school.

#### Internationalization

TUIASI has 486 Erasmus + inter-institutional agreements (KA103) with programme countries' universities across Europe, out of which 259 are available for doctoral students, based on the data I gained from the international public website and the evaluation report. Also they have 116 Erasmus + institutional agreements (KA107) with partner countries' universities from all over the world.

The mobility among the doctoral students was few for the size of the university, the number of agreements and the number of PhD students. Only 8 incoming and 62 outgoing doctoral students participated in the mobility programme between 2015-2019, before the pandemic situation. It seems that the Erasmus traineeship programme a bit more popular among doctoral students (65 mobility, for 56 PhD students in the period 2016-2020). The PhD students do not show any interest about the grants of CEEPUS at TUIASI. Short mobility, e.g. attending international scientific conferences, is a more popular form among students at TUIASI. At the same time the Erasmus mobility of the academic staff is impressive, especially the figures of the outgoing mobility.

33 doctoral students benefited from the co-supervision agreements between TUIASI and universities from abroad in the period 2016-2020. Out of the 223 defended doctoral theses, 23 were written in English and/or presented in English between 2015-2020. The ratio between the number of doctoral theses elaborated in co-supervision and the doctoral theses defended in the period 2015-2020 is 10.32%, which is above the required criteria.

**Comment:** Involving more foreign professors as co-supervisors and increasing the number of doctoral students' participation in longer mobility is encouraged. It might be beneficial for all stakeholders.

Visible activities for internationalization can be experienced at TUIASI in accordance with its internationalization strategy, but further efforts are needed.

#### System for assurance of ethical and academic integrity

TUIASI has procedures for plagiarism and collusion. The supervisor has to do everything to prevent plagiarism, but it is not a supervisor's primary responsibility to ensure that thesis does not contain plagiarised elements. The student should ensure that all copyright requirements avoiding plagiarism are met. It is very much welcomed that "Ethics and Academic Integrity" course was introduced generally in every programme at doctoral level in the academic year of 2018/2019.

Allegations or suspected cases of academic misconduct or plagiarism are investigated and managed by the Ethics and Professional Ethics Commission and they make a Case Report. Cases were not detected by the commission in the last few years. TUIASI did not receive any decisions from CNATDCU to withdraw the doctoral degree in the period 2015-2020.

#### **SWOT ANALYSIS**

#### **Strenghts**

- Appropriate coordination of doctoral programmes;
- Quality assurance approach;
- Developed infrastructure for the doctoral students.

#### Weaknesses

- International visibilty and mobility;
- The supervisors age-tree is getting older in a few doctoral domains;
- Much more information in English or other foreign languages are need at TUIASI's websites. (Not all existing English language websites are available from TUIASI's central homepage!)

#### **Opportunities**

Stronger European/international cooperation;

- Increasing the number of international students;
- Using eLearning environment and culture.

### **Threats**

- Non-competitive wages (maintain the high quality of human resource);
- Lack of appropriate funding for scientific research
- Decreasing number of graduates in master programmes

## **OVERVIEW OF JUDGMENTS AWARDED AND OF THE RECOMMENDATIONS**

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
1.	PI	A.1.1.1.	fulfilled	
2.	PI	A.1.1.2.	partially fulfilled	The composition of CSD recommended to be revised according to article 14 para 2 in the Doctoral Studies Code.
3.	PI*	A.1.1.3.	fulfilled	
4.	PI	A.1.2.1.	fulfilled	
5.	СРІ	A.1.2.2.	fulfilled	
6.	PI	A.2.1.1.	fulfilled	
7.	PI	A.2.1.2.	fulfilled	
8.	PI	A.2.1.3.	fulfilled	
9.	PI*	A.3.1.1.	fulfilled	
10.	СРІ	A.3.1.2.	fulfilled	
11.	PI*	B.1.1.1.	fulfilled	
12.	PI	B.1.1.2.	fulfilled	
13.	PI	B.2.1.1.	fulfilled	
14.	PI	B.2.1.2.	fulfilled	
15.	PI	B.2.1.3.	fulfilled	
16.	PI	B.3.1.1.	fulfilled	

No.	Type of indicator (PI, PI*, CPI)	Performance indicator	Judgment	Recommendations
17.	СРІ	B.4.1.1.	fulfilled	
18.	PI	C.1.1.1.	fulfilled	
19.	PI	C.1.1.2.	fulfilled	
20.	PI	C.1.1.3.	fulfilled	
21.	PI*	C.1.1.4.	fulfilled	
22.	СРІ	C.2.1.1.	partially fulfilled	Much more information in English or other foreign languages are need at TUIASI's websites for the international students.
23.	СРІ	C.2.2.1.	fulfilled	
24.	PI	C.2.2.2.	fulfilled	
25.	PI	C.2.2.3.	fulfilled	
26.	PI*	C.3.1.1.	partially fulfilled	Involving more foreign professors as co-supervisors and increasing the number of doctoral students' participation in longer mobility is encouraged.
27.	PI	C.3.1.2.	lack of sufficient information	
28.	PI*	C.3.1.3.	fulfilled	
29.	PI	C.3.1.4.	lack of sufficient information	
30.	PI	C.4.1.1.	fulfilled	
31.	PI	C.4.1.2.	fulfilled	
32.	PI	C.4.1.3.	fulfilled	
33.	СРІ	C.4.1.4.	fulfilled	
34.	PI	C.4.1.5.	fulfilled	
35.	PI *	C.4.1.6.	fulfilled	
36.	PI	C.4.1.7.	lack of sufficient information	

I would encourage the university to develop its international collaborative links, as there is much to be learned from the experience of colleagues across Europe and elsewhere.

It is recommended to increase the number of students taking part in mobility activities especially doing some of their research abroad.

The information system is well organised, but TUIASI needs to set up a subpage dedicated to the potential international doctoral students available in foreign languages to inform about: selection criteria, intended learning outcomes of the doctoral programme, teaching, learning and assessment procedures used, funding opportunities available for the students etc.

I encourage increasing the number a co-supervisors from different foreign universities.

### **CONCLUSIONS**

I would like to emphasize that TUIASI represents a high quality in the Romanian higher education system and the activity reach the requirement of the European standards of education and scientific research. Although some room for improvement can be found, what I have mentioned in my report. The doctoral students' motivation, the staff (teachers, researches and administrators) commitments and professionalism are the basis of the success of TUIASI.

Finally, I would like to express my thanks to leadership of TUIASI, all the university staff and each member of the evaluation team for the support during the evaluation mission. Also thanks to ARACIS for giving me the opportunity to participate in this online evaluation process.

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