

## **The External Evaluation Report of a Doctoral Study Domain**

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### **I. Introduction<sup>1</sup>**

#### **Visiting Team:**

- Prof. PhD. Mircea Horia TIEREAN, "Transilvania" University of Braşov – coordinator
- Prof. PhD. Gultekin GOLLER, Universitatea Tehnică Istanbul – internaţional expert
- Andrei CERGHIZAN, Technical University of Cluj-Napoca – student representative

Within IOSUD-UPT, in accordance with the Institutional Regulation for the organization and development of doctoral studies at the Polytechnic University of Timişoara (RIODSUD-UPT), the activity of doctoral studies is carried out within a single doctoral school, the Doctoral School of Engineering Studies, established with the approval of RIODSUD-UPT.

In IOSUD-UPT, CSUD is headed by a director, appointed following the public competition organized by UPT, in accordance with the Institutional Regulation for organizing and conducting elections for the organizational structures and management functions of doctoral studies at the level of the organizing institution doctoral university Polytechnic University of Timişoara

In Politehnica University Timişoara (UPT), the Doctoral School of Engineering Studies from IOSUD-UPT manages 13 fields of doctoral university studies. The Doctoral School of Engineering Studies has a team of Ph.D. supervisors consisting of 148 total IOSUD-UPT affiliated Ph.D. supervisors of which 78 full-time Ph.D. supervisors (professors with an employment contract for an indefinite period in IOSUD-UPT), 53 associate Ph.D. supervisors (with a fixed-term employment contract). A small part of the associated Ph.D. supervisors does not have a contract with IOSUD-UPT at the date of this report because they do not currently coordinate Ph.D. students, but are professionally active. 61 full-time Ph.D. supervisors who have obtained the habilitation certificate. In Materials Engineering domain, there are 9 total PhD supervisors. 5 of them are working full time in UPT and 5 of them have habilitation. The person in charge of the doctoral field in Materials Engineering is prof. dr. eng. Ion Dragoş UȚU. There are currently 31 PhD students in this doctoral field.

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<sup>1</sup> Each time when applicable the information shall be presented gender-wise.



## II. Methods used

As a part of evaluation process, online meetings were done with the panel members, PhD students, academic staff, ethics and quality commission and employers of the doctoral graduates. All meetings were very productive. All the questions asked were answered and the suggestions were received very positively. It can be said that graduated students are allocated in highly prestigious institutions. Based on the information given in the meetings and shared documents, it was understood that the laboratories of the doctoral school were very well equipped and suitable for scientific researches. All ethical issue aiming to control all unexpected situation probable as well.

Since I did not have the chance to visit the school, I cannot comment on the physical spaces of the school.

## III. Analysis of ARACIS's performance indicators

### **Domain A. INSTITUTIONAL CAPACITY**

#### **Criterion A.1. The administrative, managerial institutional structures and the financial resources**

*Standard A.1.1. The institution organizing doctoral studies (IOSUD) has implemented the effective functioning mechanisms provided for in the specific legislation on the organization of doctoral studies.*

**Performance Indicator A.1.1.1.** *The existence of specific regulations and their application at the level of the Doctoral School of the respective university doctoral study domain:*

(a) *the internal regulations of the Doctoral School;*

**Institutional Regulation for the Organization of Doctoral Studies at the Politehnica University Timișoara publicly available at:**

[http://upt.ro/img/files/carta/anexe/Anexa\\_10\\_CartaUPT\\_Regulament\\_doctorat.pdf](http://upt.ro/img/files/carta/anexe/Anexa_10_CartaUPT_Regulament_doctorat.pdf)

**Considering that in the frame of IOSUD-UPT there is only one doctoral school, the Doctoral School of Engineering Studies that coordinates all doctoral fields, there is a single document that includes regulations for organizing the doctoral studies.**

(b) *the Methodology for conducting elections for the position of director of the Council of doctoral school (CSD), as well as elections by the students of their representative in CSD and the evidence of their conduct;*

**The methodology for organizing the elections at the CSD level is provided in:**

**1. The Institutional Regulation for Organizing the Elections for the Organizational Structures and Management Functions of the Doctoral Studies at IOSUD-UPT Level, approved by HS 13 / 10.05.2012, for the legislature 2012-2016: Annex\_A.1.1.1.b-1.**

**publicly available at:**

[http://www.upt.ro/administrare/dgac1/file/2011-2012/regulamente/IOSUD-UPT\\_CSUD2012.pdf](http://www.upt.ro/administrare/dgac1/file/2011-2012/regulamente/IOSUD-UPT_CSUD2012.pdf)

**• The elections at the level of CSUD / CSD in the legislature 2012-2016 can be found in Annex\_A.1.1.1.b-2.**

**publicly available at:**

[http://www.upt.ro/Informatii\\_alegeri-consiliu-csud\\_299\\_en.html](http://www.upt.ro/Informatii_alegeri-consiliu-csud_299_en.html)

• The decision on the appointment of CSUD members in 2012-2016 can be found in Annex\_A.1.1.1.b-3.

publicly available at:

<http://www.upt.ro/administrare/dgac1/file/2011->

[2012/doctorat/alegeri\\_csud/Numire\\_membri\\_CSUD\\_22\\_06\\_2012.pdf](http://www.upt.ro/administrare/dgac1/file/2011-2012/doctorat/alegeri_csud/Numire_membri_CSUD_22_06_2012.pdf)

• The elections for the CSUD director for the 2012-2016 legislature can be found in Annex\_A.1.1.1.b-4.

publicly available at:

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[http://www.upt.ro/Informatii\\_concurs-public---director-al-csud\\_298\\_en.html](http://www.upt.ro/Informatii_concurs-public---director-al-csud_298_en.html)

• The decision to appoint the director of CSUD in 2012-2016 can be found in Annex\_A.1.1.1.b-5.

• The decision to appoint the director of CSD in 2012-2017 can be found in Annex\_A.1.1.1.b-6.

publicly available at:

[http://www.upt.ro/img/files/2017-2018/doctorat/Decizie\\_numire\\_DSD\\_Andreescu\\_Gh-Daniel.pdf](http://www.upt.ro/img/files/2017-2018/doctorat/Decizie_numire_DSD_Andreescu_Gh-Daniel.pdf)

2. The regulation for organizing the processes for establishing the managing structures and for electing / designating competition regarding the management positions at the Politehnica University Timisoara for the 2016-2020 legislature is attached Anexa\_A.1.1.1.b-7.

publicly available at:

[http://www.upt.ro/img/files/hs/HS\\_207\\_26.11.2015\\_Regulament\\_alegeri.pdf](http://www.upt.ro/img/files/hs/HS_207_26.11.2015_Regulament_alegeri.pdf)

• Organizing the elections for CSUD / CSD members for the 2016-2020 legislature can be found in Annex\_A.1.1.1.b-8.

publicly available at:

[http://www.upt.ro/Informatii\\_alegeria-membrilor-csud-si-csd-pentru-mandatul-2016-2020\\_840\\_en.html](http://www.upt.ro/Informatii_alegeria-membrilor-csud-si-csd-pentru-mandatul-2016-2020_840_en.html)

• The report of the electoral commission on the appointment of CSUD members in 2016-2020 can be found in Annex\_A.1.1.1.b-9. publicly available at:

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[http://www.upt.ro/img/files/alegeri\\_2016/mcsud\\_mcsd/Raport\\_comisie\\_electorala\\_CSUD\\_CSD.pdf](http://www.upt.ro/img/files/alegeri_2016/mcsud_mcsd/Raport_comisie_electorala_CSUD_CSD.pdf)

• The decision to appoint the director of CSUD in 2016-2020 can be found in Annex\_A.1.1.1.b-10.

publicly available at:

[http://www.upt.ro/img/files/alegeri\\_2016/csud/Decizie\\_numire\\_director\\_CSUD\\_2016.pdf](http://www.upt.ro/img/files/alegeri_2016/csud/Decizie_numire_director_CSUD_2016.pdf)

• The decision to appoint the director of CSD in 2017-2022 can be found in Annex\_A.1.1.1.b-11.

publicly available at:

[http://www.upt.ro/img/files/2017-2018/doctorat/Decizie\\_numire\\_DSD\\_Dorin\\_Lelea.pdf](http://www.upt.ro/img/files/2017-2018/doctorat/Decizie_numire_DSD_Dorin_Lelea.pdf)

3. The regulation for organizing the processes for establishing the managing structures and for electing / designating competition regarding the management



positions at the Politehnica University Timisoara for the 2020-2024 legislature is attached in Annex\_A.1.1.1.b-12.

publicly available at:

[http://upt.ro/img/files/carta/anexe/Anexa23\\_CartaUPT\\_Regulament\\_alegeri-2020.pdf](http://upt.ro/img/files/carta/anexe/Anexa23_CartaUPT_Regulament_alegeri-2020.pdf)

• The proof of the competition for CSUD director in the 2020-2024 legislature is presented in Annex\_A.1.1.1.b-13.

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publicly available at:

[http://www.upt.ro/Informatii\\_concurs-pentru-ocuparea-functiei-de-director-al-csud-pentru-\\_1533\\_en.html](http://www.upt.ro/Informatii_concurs-pentru-ocuparea-functiei-de-director-al-csud-pentru-_1533_en.html)

• The decision to appoint director of CSUD in 2020 (Annex\_A.1.1.1.b-14.)

publicly available at:

[http://www.upt.ro/img/files/csud/Decizie\\_numire\\_director\\_CSUD\\_2020.pdf](http://www.upt.ro/img/files/csud/Decizie_numire_director_CSUD_2020.pdf)

• Election of the student representative in the CSD (Annex\_A.1.1.1.b-15.)

publicly available at:

[http://www.upt.ro/img/files/alegeri\\_2016/mcsud\\_mcsd/PV\\_CSD\\_drd.pdf](http://www.upt.ro/img/files/alegeri_2016/mcsud_mcsd/PV_CSD_drd.pdf)

• Election of the student representative in the CSUD (Annex\_A.1.1.1.b-16.)

publicly available at:

[http://www.upt.ro/img/files/alegeri\\_2016/mcsud\\_mcsd/PV\\_CSUD\\_drd.pdf](http://www.upt.ro/img/files/alegeri_2016/mcsud_mcsd/PV_CSUD_drd.pdf)

• By HS no. 38 / 21.01.2021, the mandate of CSUD / CSD members was extended until 17.07.2021 (Annex\_A.1.1.1.b-17.)

publicly available at:

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[http://www.upt.ro/img/files/hs/2021/21.01.2021/HS\\_38\\_21.01.2021\\_Prelungire-mandat-membri-CSUD- and-CSD.pdf](http://www.upt.ro/img/files/hs/2021/21.01.2021/HS_38_21.01.2021_Prelungire-mandat-membri-CSUD- and-CSD.pdf)

*c) the Methodologies for organizing and conducting doctoral studies (for the admission of doctoral students, for the completion of doctoral studies);*

**Within IOSUD-UPT are used:**

• The institutional procedure regarding the organization of the admission to doctoral studies in UPT session 2019, approved by HCA-UPT no. 54 / 11.06.2019 is presented in Annex A\_1.1.1.c-1.

publicly available at:

[http://www.upt.ro/img/files/2018-2019/admitere/doctorat/IOSUD-UPT-admitere-2019\\_procedura.pdf](http://www.upt.ro/img/files/2018-2019/admitere/doctorat/IOSUD-UPT-admitere-2019_procedura.pdf)

• The Institutional Procedure for organizing the admission to Doctoral Studies at the Politehnica University Timișoara, 2018 session, approved by HCA no. 18 / 24.04.2018 (in Annex\_A.1.1.1.c-2. The version used in September 2018 is presented),

publicly available at:

[http://www.upt.ro/img/files/2017-2018/admitere/doctorat/IOSUD-UPT-admitere-2018\\_PROCEDURA\\_ANEXE.pdf](http://www.upt.ro/img/files/2017-2018/admitere/doctorat/IOSUD-UPT-admitere-2018_PROCEDURA_ANEXE.pdf)

• The Institutional Procedure for organizing the admission to Doctoral Studies at the Politehnica University Timișoara, the 2017 session approved by HCA no. 31 / 16.05.2017- presented in Annex\_A.1.1.1.c-3.

publicly available at:



[http://www.upt.ro/img/files/2016-2017/admitere/doctorat/IOSUD-UPT-admitere-2017\\_PROCEDURA\\_ANEXE.pdf](http://www.upt.ro/img/files/2016-2017/admitere/doctorat/IOSUD-UPT-admitere-2017_PROCEDURA_ANEXE.pdf)

• The Institutional Procedure for organizing the admission to Doctoral Studies at the Politehnica University Timișoara - September 2016 approved by HCA no. 37 / 30.06.2015. In Annex\_A.1.1.1.c-4. the

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version used in September 2016 is presented,

publicly available at:

<http://www.upt.ro/img/files/2015->

[2016/admitere/doctorat/Proctuctura\\_admitere\\_doctorat\\_2015-2016.pdf](http://www.upt.ro/img/files/2015-2016/admitere/doctorat/Proctuctura_admitere_doctorat_2015-2016.pdf)

• The Institutional Procedure for organizing the admission to Doctoral Studies at the Politehnica University Timișoara - September 2015 approved by HCA no. 37 / 30.06.2015. In Annex\_A.1.1.1.c-5. the version used in September 2015 is presented,

publicly available at:

<http://www.upt.ro/img/files/2014->

[2015/admitere/doctorat/Proctuctura\\_admitere\\_doctorat\\_2015.pdf](http://www.upt.ro/img/files/2014-2015/admitere/doctorat/Proctuctura_admitere_doctorat_2015.pdf)

• The procedure for public defense of the doctoral thesis and set up the doctoral file of the Ph.D. student in IOSUD-UPT, 2016 (Annex\_A.1.1.1.c-6.),

publicly available at:

<http://www.upt.ro/img/files/2015->

[2016/doctorat/Proctuctura\\_sustinere\\_teza\\_incepan\\_du\\_04-2016.pdf](http://www.upt.ro/img/files/2015-2016/doctorat/Proctuctura_sustinere_teza_incepan_du_04-2016.pdf)

• The procedure for the completion of doctoral studies and the public defense of the doctoral thesis in UPT, adopted by HCA 5 / 15.01.2019 (Annex\_A.1.1.1.c-7.),

publicly available at:

<http://upt.ro/img/files/2019->

[2020/doctorat/HCA\\_5\\_din\\_2019\\_Instructiune\\_de\\_lucru\\_sustinere\\_teze\\_doctorat.pdf](http://upt.ro/img/files/2019-2020/doctorat/HCA_5_din_2019_Instructiune_de_lucru_sustinere_teze_doctorat.pdf)

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• IOSUD-UPT has adopted, acc. Art 83 of RIODSUD, its own minimum performance criteria for the public defense of doctoral theses (publishing minimum 2 papers indexed Web of Science), a criterion currently correlated with the minimum standards of CNATDCU (National Council for Attestation of University Degrees, Diplomas and Certificates) for granting the title of doctor acc. OM 5110/2018.

• In the current epidemiological context, for the online defense of doctoral theses, the “Procedure for online defense of doctoral theses in UPT is established for academic year 2019-2020” (HS no.111 / 14.05.2020) presented in Annex\_A.1.1.1.c-8.

publicly available at:

[http://www.upt.ro/img/files/hs/2020/14.05.2020/HS\\_111\\_14.05.2020\\_Proctuctura-sustinere-](http://www.upt.ro/img/files/hs/2020/14.05.2020/HS_111_14.05.2020_Proctuctura-sustinere-online-teze-doctorat.pdf)

[online-teze-doctorat.pdf](http://www.upt.ro/img/files/hs/2020/14.05.2020/HS_111_14.05.2020_Proctuctura-sustinere-online-teze-doctorat.pdf)

• Through HS 231 / 17.09.2020 (Annex\_A.1.1.1.c-9.) the validity of the Procedure for the online defense of doctoral theses in UPT for the academic year 2020-2021 has been extended.

*d) the existence of mechanisms for recognizing the status of a Doctoral advisor and the equivalence of the doctoral degree obtained abroad;*



**IOSUD-UPT through the Doctoral School uses its own procedure for the recognition of the doctoral diploma and the doctoral title obtained abroad (Annex\_A.1.1.1.d-1.).**

**In the annex Annex\_A.1.1.1.d. the Recognition Certificates issued by IOSUD-UPT are presented for doctoral diplomas recognized by IOSUD-UPT.**

**Also, IOSUD-UPT collaborates permanently with CNRED regarding the recognition process, and sends periodically to CNRED a list of the recognition requests.**

**IOSUD-UPT through the Doctoral School uses its own procedure for recognizing the quality of doctoral coordinator obtained in other states (Annex\_A.1.1.1.d-2.).**

*e) functional management structures (Council of the doctoral school), giving as well proof of the regularity of meetings;*

**According to the regulation in Annex\_A.1.1.1.a. IOSUD-UPT operates under the coordination of the Rector of UPT having all the structures provided by law. The structures are transparent: The UPT management structure is presented in Annex\_A.1.1.1.e-1., the CSUD / CSD structure is presented in Annex\_A.1.1.1.e-2.**

**publicly available at:**

**[http://www.upt.ro/Informatii\\_conducerea-universitatii-politehnica-timisoara\\_311\\_en.html](http://www.upt.ro/Informatii_conducerea-universitatii-politehnica-timisoara_311_en.html)**

**[http://www.upt.ro/Informatii\\_consiliul-pentru-studii-universitare-de-doctorat---scoala-do\\_310\\_en.html](http://www.upt.ro/Informatii_consiliul-pentru-studii-universitare-de-doctorat---scoala-do_310_en.html)**

**The register of minutes of CSUD / CSD meetings can be consulted at the headquarters of the Doctoral School of Engineering Studies. Meetings are organized whenever the situation requires it (analysis and approval of CSUD / CSD decisions, updating methodologies and instructions for doctoral studies, etc.).**

*f) the contract for doctoral studies;*

**The relationship between IOSUD-UPT, the doctoral student and the Doctorate coordinator is formalized according to the law through the Contract for doctoral studies.**

**In Annex\_A.1.1.1.f-1., Annex\_A.1.1.1.f-2., Annex\_A.1.1.1.f-3., Annex\_A.1.1.1.f-4., Annex\_A.1.1.1.f-5., the versions of the Contract used in the period 2019 - 2015 are presented.**

*g) internal procedures for the analysis and approval of proposals regarding the training for doctoral study programs based on advanced academic studies.*

**The Doctoral School aims to ensure the correlation of the topics of training programs based on advanced university studies with the research topics proposed by doctoral coordinators and assumed by IOSUD-UPT, doctoral coordinators and doctoral students through doctoral university contracts.**

**The training program based on advanced university studies is developed on the basis of an individual training plan based on advanced university studies (Annex 1 to the doctoral studies contract) developed solely and independently by the doctoral coordinator for each doctoral student, after admission to doctoral studies.**

**Based on the IOSUD-UPT Procedure for analysis and approval of proposals on the subject of the training program based on advanced university studies (Annex\_A.1.1.1.g-1.), The Doctoral School Council, through the Director of the Doctoral School issues a decision that approves the plans for individual training based on advanced university studies for the current academic year (Annex\_A.1.1.1.g-2.).**

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*



- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**All regulations and relevant informations are given in the Annexes and websites.**

*Recommendations:*

**The indicator is fulfilled.**

**Performance Indicator A.1.1.2.** *The doctoral school' Regulation includes mandatory criteria, procedures and standards binding on the aspects specified in Article 17, paragraph (5) of the Government Decision No. 681/2011 on the approval of the Code of Doctoral Studies with subsequent amendments and additions.*

**According to art.17, par. 5 of GD of the single doctoral school within IOSUD-UPT (681/2011 The regulation) – (Annex\_A.1.1.1.a.) establishes mandatory criteria, procedures and standards regarding the following aspects:**

- a) acceptance of new doctoral coordinators, as well as the regulations regarding the method by that a doctoral coordinator may be revoked as a member of the doctoral school (Art. 16, 17);
- b) the mechanisms through which decisions are taken regarding the opportunity, structure and content of the training program based on advanced university studies (Art. 55-67);
- c) the procedures for changing the doctoral coordinator of a certain doctoral student and the procedures for mediating the conflicts (Art. 15, 25);
- d) the conditions under which the doctoral program may be interrupted (Art. 47, 48);
- e) ways to prevent fraud in scientific research, including plagiarism (Art. 77, 79, 85);
- f) ensuring access to research resources; (Art. 68-72)
- g) The attendance obligations of doctoral students (Art. 41, 53).

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**. Details related with these informations are given in the Annex\_A.1.1.1.a**

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**All regulations and relevant informations are given in the Annexes**

*Recommendations:*

**The indicator is fulfilled.**

*Standard A.1.2. The IOSUD has the logistical resources necessary to carry out the doctoral studies' mission.*

**Performance Indicator A.1.2.1.** *The existence and effectiveness of an appropriate IT system to keep track of doctoral students and their academic background.*

**The computer system for the record of doctoral students and the academic career used in the IOSUD-UPT comprises mainly:**

- The ENROLL admission platform (intended for the management of the information on the admission of students, which is being expanded for doctoral studies for monitoring the activity of doctoral students and setting up the doctoral file in electronic format).



- Starting with the academic year 2017/2018 in IOSUD - UPT, the admission process to doctoral studies is computerized, by accessing by the candidates the ENROLL platform, at the address: <http://admitere.upt.ro/phd/>

- Starting with the academic year 2020/2021, IOSUD - UPT created the possibility for students to have the entire admission file created and submitted on the ENROLL platform.

- Instructions for completing the admission file in the ENROLL platform are presented in Annex\_A.1.2.1-1.

which are publicly available at:

<http://www.upt.ro/img/files/2019->

[2020/admitere/doctorat/Admitere\\_PHD\\_2020\\_Instructiuni\\_enroll\\_rev3.pdf](http://www.upt.ro/img/files/2019-2020/admitere/doctorat/Admitere_PHD_2020_Instructiuni_enroll_rev3.pdf)

- Each candidate creates a user account, following with the user and password received by e-mail, used to log in and to fill in the required data. Subsequently, the enrollment form for doctoral studies is generated from the ENROLL platform.

- The enrollment form for doctoral studies includes:

#### I. Personal

- Editing personal data

#### II. Studies

- Data on graduated high school

- Data on bachelor's studies

- Data on master's studies / advanced studies

#### III. Statement on own responsibility regarding doctoral studies financed from the state budget

- Choice of doctoral studies options

- Doctoral field

- Financing options

- Doctoral coordinator

- Uploading documents

- Finalizing the registration.

- The ENROLL platform is used starting with 2017 for the generation of doctoral study contracts for admitted doctoral students, respectively for the generation of meta-data necessary for the inclusion of doctoral students in the Unique Matriculation Register (RMU). In the future, ENROLL will be expanded to allow the generation of all documents that are included in the doctoral student's file.

- The ACCESS database "Records of doctoral students enrolled in UPT" is intended to keep track of doctoral students enrolled in UPT and to highlight their academic career.

- For groups of enrolled doctoral students, selected on certain criteria (doctoral field, doctoral coordinator, year of enrollment, type of funding, etc.) various queries and data extraction can be done, that is the raw material for any type of required statistics.

Thus, the following can be highlighted:

- General / personal data for each enrolled student

- The situation of doctoral students enrolled in each field / faculty / for each doctoral coordinator in a field, for a specific period of time,

- The situation of doctoral students expelled for each field / faculty / for each doctoral coordinator in a field, for a certain period of time,





- Situation of doctoral students who have elaborated and defended doctoral theses in a specific period of time,
- Situation of doctoral students who have interrupted doctoral studies,
- Number of doctoral theses defended in the specific period of time,
- The situation of doctoral students with scholarship,
- The situation of doctoral students without scholarship,
- The situation of doctoral students with a fee,
- Observations regarding the doctoral studies: interruption / expulsion / extension.

The academic path can be followed using the fields related to the doctoral program:

- disciplines of the advanced university program and the coordinators of these disciplines,
- date of the defense and the grade awarded for each of the disciplines of the advanced university program,
- title of the research project,
- research reports 1 and 2 , with their supporting data,
- Composition of the advising committee,
- Title of the doctoral thesis,
- Composition of the doctoral committee,
- Date of the doctoral thesis defense and the grade awarded,
- Number of the order of the minister conferring the doctoral degree and its date,
- Number of doctoral degree diploma and the date of its release.

In Annex\_A.1.2.1-2., examples of database usage are presented - List of doctors in the period 2016-2020 in the field of Materials Engineering.

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

<http://admitere.upt.ro/phd/>

Instructions for completing the admission file in the ENROLL platform are presented in Annex\_A.1.2.1-1.

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which are publicly available at:

[http://www.upt.ro/img/files/20192020/admitere/doctorat/Admitere PHD 2020 Instructiuni enroll\\_rev3.pdf](http://www.upt.ro/img/files/20192020/admitere/doctorat/Admitere PHD 2020 Instructiuni enroll_rev3.pdf)

In Annex\_A.1.2.1-2., examples of database usage are given - List of doctors in the period 2016-2020 in the field of Materials Engineering.

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All regulations and relevant informations are given in the Annexes and websites.**

*Recommendations:*

***The indicator is fulfilled.***

**Performance Indicator A.1.2.2.** *The existence and use of an appropriate software program and evidence of its use to verify the percentage of similarity in all doctoral theses.*



IOSUD-UPT performed the verification of the similarity percentage in the doctoral theses elaborated starting with 2016, using the following computer programs, approved by MENCS acc. OM 3485/2016.

- Plagiat.pl, through the computer platform doct.edu.ro/doct of the Ministry of Education, between June 2016 and July 2017.
- SemPlag, through the platform uefiscdi-direct.ro/semplag/index.php, between August 2017 and September 2017.
- iThenticate (purchased by UPT), October 2017 - present.

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**In Annex\_A.1.2.2-1., there is a list of PhD students in the field of Materials Engineering for which computer programs were used to verify the percentage of similarity.**

**In Annex\_A.1.2.2-2., examples of using the similarity software for PhD students in the field of Materials Engineering.**

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All relevant informations are given in the Annexes and websites.**

*Recommendations:*

**The indicator is fulfilled.**

*Standard A.1.3. The IOSUD makes sure that financial resources are used optimally, and the revenues obtained from doctoral studies are supplemented through additional funding besides governmental funding.*

**Performance Indicator A.1.3.1.** *Existence of at least one research or institutional / human resources development grant under implementation at the time of submission of the internal evaluation file, per doctoral study domain under evaluation, or existence of at least 2 research or institutional development / human resources grant for the doctoral study domain, obtained by doctoral thesis advisors operating in the evaluated domain within the past 5 years. The grants address relevant themes for the respective domain and, as a rule, are engaging doctoral students.*

**List of grants for the field of Materials Engineering:**

- **The doctoral coordinators from the field of Materials Engineering participated, in the reference period, in implementation of grants presented in Annex\_A.1.3.1. The involvement was both in research and in institutional grants.**
- **At the time of submitting the evaluation file, the situation of research grants is as follows:**
  - **Research or institutional development grants / human resources in implementation: 2**
  - **Research or institutional development grants / human resources obtained by doctoral coordinators in the last 5 years: 5**
  - **Total contracts in the referenced field (2016-2020): 18.**

**Research grants address relevant issues for the analyzed doctoral field and, the doctoral students have been engaged in the research projects, according to the legislation in force (see Annex\_A.1.3.2-3.).**

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*



In implementation of grants are given in Annex\_A.1.3.1.

Research grants address relevant issues for the analyzed doctoral field and, the doctoral students have been engaged in the research projects, according to the legislation in force are given in Annex\_A.1.3.2-3.

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All regulations and relevant informations are given in the Annexes.**

*Recommendations:*

**The indicator is fulfilled.**

**Performance Indicator \*A.1.3.2.** *The percentage of doctoral students active at the time of the evaluation, who for at least six months receive additional funding sources besides government funding, through scholarships awarded by individual persons or by legal entities, or who are financially supported through research or institutional / human resources development grants is not less than 20%.*

In the frame of the quality indicator, IOSUD-UPT used and is still using, the following financial resources from its own incomes to support doctoral students, in order to carry out doctoral study programs:

- UPT doctoral scholarships from own income, granted for 2018 based on HCA no. 44 / 11.09.2018 and for 2019 based on HCA 73 / 24.09.2019 (Annex\_A.1.3.2-1.)

Doctoral grants from UPT's own revenues intended to complete doctoral studies, granted based on the Decision of the UPT Senate or the Board of Directors of the UPT (Annex\_A.1.3.2-2.). In the case of scholarships for the extension of doctoral studies, only those doctoral students who benefit from funding at the time of evaluating the doctoral field were taken into account.

- Engaging the doctoral students in research grants according to the legislation in force (Annex\_A.1.3.2-3.).

- In Annex\_A.1.3.2., the list of PhD students in the field is presented for Materials Engineering, with the explicit specification of the Ph.D. students additionally financed from UPT's own revenues.

- Existing doctoral students at the time of evaluation: 31

- Doctoral students existing at the time of evaluation who benefit from sources of funding other than government funding: 15

$15/31 * 100 = 48.39 \%$

- CRITERION FULFILLED  $\geq 20\%$

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**Annex\_A.1.3.2-2**

**Annex\_A.1.3.2-3**

**Annex\_A.1.3.2**

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All regulations and relevant informations are given in the Annexes.**

*Recommendations:*

**The indicator is fulfilled.**



**Performance Indicator \*A.1.3.3.2** *At least 10% of the total amount of doctoral grants obtained by the university through institutional contracts and of tuition fees collected from the doctoral students enrolled in the paid tuition system is used to reimburse professional training expenses of doctoral students (attending conferences, summer schools, training, programs abroad, publication of specialty papers or other specific forms of dissemination etc.).*

**According to the Annex\_A.1.3.3.:**

**S1 / S2 \* 100 = 14.58% CRITERION FULFILLED ≥ 10%**

**S1: total doctoral training expenses (lei)**

**S2: total government revenue + tax (lei)**

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**The data related to the application of the indicator are given in Annex\_A.1.3.3.**

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**All relevant informations are given in the Annexes.**

*Recommendations:*

**The indicator is fulfilled.**

## **Criterion A.2. Research infrastructure**

*Standard A.2.1. The IOSUD has a modern research infrastructure to support the conduct of doctoral studies' specific activities.*

**Performance Indicator A.2.1.1.** *The venues and the material equipment available to the doctoral school enable the research activities in the evaluated domain to be carried out, in line with the assumed mission and objectives (computers, specific software, equipment, laboratory equipment, library, access to international databases etc.). The research infrastructure and the provision of research services are presented to the public through a specific platform. The research infrastructure described above, which was purchased and developed within the past 5 years will be presented distinctly.*

**The spaces and infrastructure of IOSUD / Doctoral School allow the implementation of research activities in the evaluated field, in accordance with the mission and objectives assumed (computers, specific software, equipment, laboratory equipment, library, access to international databases, etc.).**

• **The Central Library of UPT offers access to information resources both traditionally and electronically. The library has the following types of information resources: monographs, periodical publications, electronic resources with local access and remote access. They are 45% free on the book-shelf and 55% in book and magazine stores.**

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<sup>2</sup> The indicators marked with an asterisk (\*) hold a special status, referring exclusively to the evaluation of doctoral studies domains, as per Article 12 from the annex No.1 of the Order of the minister of education No. 3651/12.04.2021 approving the Methodology for evaluating university doctoral studies and the system of criteria, standards and performance indicators used in the evaluation. In case they are not met, the Agency extends a period of maximum 3 years to IOSUD to correct the respective deficiencies.



• The library has an area of 8400 m<sup>2</sup>, 6 levels, 750 reading places, Reading room 24h access with 100 seats, Group study rooms, Conference room, Multimedia rooms, IT spaces, Individual study rooms as well as spaces for relaxation.

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

Access to information resources is made through the Web page, at: <https://library.upt.ro/>.

The Library databases can be accessed at:

<https://library.upt.ro/baze-de-date/>

Within the field of Materials Engineering, the research equipment can be found on the ERRIS platform, accessing the link: <https://eeris.eu/ERIO-2000-000R-0036>

The research infrastructure is given in detail in Annex\_A.2.1.1.

- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All relevant informations are given in the Annexes and websites.**

*Recommendations:*

**The indicator is fulfilled.**

### Criterion A.3. Quality of Human Resources

Standard A.3.1. At the level of each domain there are sufficient qualified staff to ensure the conduct of doctoral study program.

**Performance Indicator A.3.1.1.** Minimum three doctoral thesis advisors within that doctoral domain, and at least 50% of them (but no less than three) meet the minimum standards of the National Council for Attestation of University Degrees, Diplomas and Certificates (CNATDCU) in force at the time when the evaluation is carried out, which standards are required and mandatory for obtaining the enabling certification.

Within the field of Materials Engineering, 9 doctoral coordinators are affiliated to IOSUD - UPT. 7 of them meet the minimum CNATDCU criteria imposed by OMEN 6129/2016.

$7/9 * 100 = 77.7\%$  meet the standards

- **CRITERION FULFILLED  $\geq 50\%$**

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

In Annex\_A.3.1.1. are presented the tables with the minimum standards detailed on criteria, for each of the doctoral coordinators in the field of Materials Engineering

- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All relevant informations are given in the Annexes.**

*Recommendations:*

**The indicator is fulfilled.**



**Performance Indicator \*A.3.1.2.** *At least 50% of all doctoral advisors have a full-time employment contract for an indefinite period with the IOSUD.*

**Within the field of Materials Engineering, 9 doctoral coordinators are affiliated to IOSUD-UPT. 5 of them are tenured professors within IOSUD UPT.**

**5/9\*100= 55.5 % tenured professors**

**- CRITERION FULFILLED ≥ 50%**

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**Annex\_A.3.1.2.**

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All relevant informations are given in the Annexes.**

*Recommendations:*

**The indicator is fulfilled.**

**Performance Indicator A.3.1.3.** *The study subjects in the education program based on advanced higher education studies pertaining to the doctoral domain are taught by teaching staff or researchers who are doctoral thesis advisors / certified doctoral thesis advisors, professors / CS I or lecturer / CS II, with proved expertise in the field of the study subjects they teach, or other specialists in the field who meet the standards established by the institution in relation with the aforementioned teaching and research functions, as provided by the law.*

**The courses in the training program based on advanced university studies related to the evaluated field are supported by professors or researchers who have the level of doctoral coordinator / holders of habilitation degree, professor / CS I or associate professor / CS II with proven expertise in the field of taught subjects.**

**The training program based on advanced university studies includes the following types of courses:**

**• CROSS-CURRICULAR COURSE:** is sustained for all doctoral students of the 1st year.

**In the period 2008-2017 the course title was: "Scientific research, communication and deontology". The subject content is public and can be found at:**

**[http://www.upt.ro/Informatii\\_cscs\\_419\\_ro.html](http://www.upt.ro/Informatii_cscs_419_ro.html).**

**Starting with 2018, the cross-curricular course is named "Ethics and academic integrity in scientific research and dissemination of results"**

**The subject content is public and can be accessed at:**

**[http://www.upt.ro/Informatii\\_etica-si-integritate-academica-in\\_cercetarea-stiintifica-si-1409\\_en.html](http://www.upt.ro/Informatii_etica-si-integritate-academica-in_cercetarea-stiintifica-si-1409_en.html)**

**The course has the following structure:**

**7 course lessons - subject tenure: Prof.univ.dr.ing. Toma Leonida Dragomir,**

**• 7 conferences - given by professors, all scientific recognized experts: Prof.univ.dr.ing. Radu Vasii, Prof.univ.dr.ing. Ștefan Preitl, Prof.univ.dr.ing. Radu Marinescu, Prof.univ.dr.ing. Ștefan**



Holban, Acad.prof.univ.dr.ing. Ion Boldea, Prof.univ.dr.ing. Romeo Susan Resiga, Acad.prof.univ.dr.ing. Dan Dubină

- 7 seminars - held by 6 professors, all scientific recognized experts: Prof.univ.dr.ing. Daniel Andreescu, Prof.univ.dr.ing. Liviu Marşavina, Prof.univ.dr.ing. Nicolae Vaszilcsin, Prof.univ.dr.ing. Ştefan Preitl, Prof.univ.dr.ing. Dinu Florea, Prof.univ.dr.ing. Dorin Lelea.
- Starting with 2020/2021, the activities related to the course "Ethics and academic integrity in scientific research and dissemination of results" are held in the frame of Virtual Campus platform of the Politehnica University Timișoara.
- MASTER degree courses, which were not previously attended by the doctoral student.
- TUTORIAL courses: in the subject of doctoral research (based on individual study program proposed and coordinated by the doctoral coordinator).

For all courses within the training program based on advanced university studies, the courses are sustained by professors or researchers who have the level of doctoral coordinator / holders of habilitation degree, professor / CS I or associate professor / CS II with proven expertise in the field of taught subjects.

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The courses of the training program based on advanced university studies and their tenures are given in Annex\_A.3.1.3.

[http://www.upt.ro/Informatii\\_etica-si-integritate-academica-in\\_cercetarea-stiintifica-si-1409\\_en.html](http://www.upt.ro/Informatii_etica-si-integritate-academica-in_cercetarea-stiintifica-si-1409_en.html)

[http://www.upt.ro/Informatii\\_cscs\\_419\\_ro.html](http://www.upt.ro/Informatii_cscs_419_ro.html).

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**All relevant informations are given in the Annexes and websites.**

Recommendations:

**The indicator is fulfilled.**

**Performance Indicator \*A.3.1.4.** The percentage of doctoral thesis advisors who concomitantly coordinate more than 8 doctoral students, but no more than 12, who are themselves studying in doctoral programs<sup>3</sup> does not exceed 20%.

Out of the total of 9 doctoral coordinators in the field of Materials Engineering, one doctoral coordinator supervise at the same time more than 8 doctoral students, but not more than 12, during their doctoral studies (3 or 4 years, depending on the doctoral field, to which are added the legally granted extension periods). Therefore, the percentage is:

$(1/9) * 100 = 11.1 \%$

**CRITERION FULFILLED  $\leq 20\%$**

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

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<sup>3</sup> 3 years for the doctoral university studies with the duration stipulated at Article 159, paragraph (3), respectively 4 years for the doctoral university studies with the duration stipulated at Article 174, paragraph (3) of the Law of national education No.1/2011 with subsequent amendments and additions, with additional extension periods approved as per Article 39, paragraph (3) of the Code of doctoral studies approved by the GD No. 681/2011 with subsequent amendments and additions.



The list of doctoral coordinators and the number of doctoral students is given in Annex\_A.3.1.4.

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**All relevant informations are given in the Annexes.**

Recommendations:

**The indicator is fulfilled.**

Standard A.3.2. The Doctoral advisors within the domain are carrying out a scientific activity visible at international level.

**Performance Indicator A.3.2.1.** At least 50% of the doctoral thesis advisors in the evaluated domain have at least 5 Web of Science- or ERIH-indexed publications in magazines of impact, or other achievements of relevant significance for that domain, including international-level contributions that indicate progress in scientific research - development - innovation for the evaluated domain. The aforementioned doctoral thesis advisors enjoy international awareness within the past five years, consisting of: membership on scientific boards of international publications and conferences; membership on boards of international professional associations; guests in conferences or expert groups working abroad, or membership on doctoral defense commissions at universities abroad or co-leading with universities abroad. For Arts and Sports and Physical Education Sciences, doctoral thesis advisors shall prove their international visibility within the past five years by their membership on the boards of professional associations, membership in organizing committees of arts events and international competitions, membership on juries or umpire teams in artistic events or international competitions.

**From the 9 doctoral coordinators from the field of Materials Engineering, 8 of them fulfilled this criterion.**

**$8/9 * 100 = 88.8 \%$**

**CRITERION FULFILLED  $\geq 50\%$**

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The international visibility, a list with 5 publications or other achievements and the member of commissions / groups abroad for the doctoral coordinator from Materials Engineering field are given in Annex\_A.3.2.1.

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**All relevant informations are given in the Annexes.**

Recommendations:

**The indicator is fulfilled.**

**Performance Indicator \*A.3.2.2.** At least 50% of the doctoral thesis advisors in a specific doctoral study domain continue to be active in their scientific field, and acquire at least 25% of the score requested by the minimal CNATDCU standards in force at the time of the evaluation, which are required and mandatory for acquiring their enabling certificate, based on their scientific results within the past five years.

**$(9/9) * 100 = 100\%$**

**CRITERION FULFILLED  $\geq 50\%$**





- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**The scores from the activity for the last 5 years (January 2016 - December 2020) are presented in a detailed manner in Annex\_A.3.2.2.**

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**All relevant informations are given in the Annexes.**

*Recommendations:*

**The indicator is fulfilled.**

## **Domain B. EDUCATIONAL EFFECTIVENESS**

### **Criterion B.1. The number, quality and diversity of candidates enrolled for the admission contest**

*Standard B.1.1. The institution organizing doctoral studies has the capacity to attract candidates from outside the higher education institution or a number of candidates exceeding the number of seats available.*

**Performance Indicator \*B.1.1.1.** *The ratio between the number of graduates of masters' programs of other higher education institutions, national or foreign, who have enrolled for the doctoral admission contest within the past five years and the number of seats funded by the state budget, put out through contest within the doctoral domain is at least 0.2 or the ratio between the number of candidates within the past five years and the number of seats funded by the state budget put out through contest within the doctoral studies domain is at least 1,2.*

**The list of candidates enrolled for doctoral studies in IOSUD - UPT, M.Sc. graduates from other higher education institutions in the country or abroad, is presented in Annex\_B.1.1.1-1.**

**The number of positions financed from the state budget in the last 5 years (2015-2019) are presented in Annex\_B.1.1.1-2.**

**The list of candidates enrolled for doctoral studies in IOSUD - UPT, in the last 5 years (2015-2019), is presented in Annex\_B.1.1.1-3.**

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**Annex\_B.1.1.1-1.**

**Annex\_B.1.1.1-2.**

**Annex\_B.1.1.1-3.**

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**All relevant informations are given in the Annexes.**

*Recommendations:*

**The indicator is fulfilled.**

**Number of the PhD students is not enough. A strategy should be developed to increase this number.**



*Standard B.1.2 Candidates admitted to doctoral studies demonstrate academic, research and professional performance.*

**Performance Indicator \*B.1.2.1.** Admission to doctoral study programs is based on selection criteria including: previous academic, research and professional performance, their interest for scientific or arts/sports research, publications in the domain and a proposal for a research subject. Interviewing the candidate is compulsory, as part of the admission procedure.

**Admission to doctoral studies in IOSUD-UPT is regulated by the Institutional Procedure regarding the organization of admission to doctoral studies in IOSUD-UPT, updated annually with legislative acts.**

According to this procedure, there is a set of selection criteria (Annex 7 of the Admission Procedure) for candidates – Annex\_B.1.2.1.

- Academic performance is quantified by grades N1-N4 in the Selection Criteria.
- The interview with the applicant – related to the quality and clarity of the research directions and intentions of study, in line with the presentation of the research topic proposal - is quantified on the basis of grade N5
- The interest for the scientific research is quantified with the grades N6 - N8
- publications in the field are quantified with the grades N9 - N10

For the admission starting with the academic year 2019/2020, the information is public at:

[http://www.upt.ro/Informatii\\_arhiva---admitere-doctorat-2019\\_1418\\_en.html](http://www.upt.ro/Informatii_arhiva---admitere-doctorat-2019_1418_en.html)

Admission to doctoral studies within IOSUD-UPT takes place on the basis of an admission interview.

The Council of the Doctoral School of Engineering Studies from IOSUD-UPT, establishes and displays, after the registration period, the doctoral admission commissions associated with the doctoral fields from IOSUD-UPT. The doctoral admission commission comprises the permanent members, the secretary of the commission and the chairman of the commission. The permanent members of the commission are the same for both admission sessions.

[http://www.upt.ro/img/files/2018-2019/admitere/doctorat/IOSUD-UPT-admitere-2019\\_procedura.pdf](http://www.upt.ro/img/files/2018-2019/admitere/doctorat/IOSUD-UPT-admitere-2019_procedura.pdf)

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**Selection criteria for candidates – Annex\_B.1.2.1**

**For the admission starting with the academic year 2019/2020, the information is public at:**

[http://www.upt.ro/Informatii\\_arhiva---admitere-doctorat-2019\\_1418\\_en.html](http://www.upt.ro/Informatii_arhiva---admitere-doctorat-2019_1418_en.html)

[http://www.upt.ro/img/files/2018-2019/admitere/doctorat/IOSUD-UPT-admitere-2019\\_procedura.pdf](http://www.upt.ro/img/files/2018-2019/admitere/doctorat/IOSUD-UPT-admitere-2019_procedura.pdf)

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All regulations and relevant informations are given in the Annexes and websites.**

*Recommendations:*



**The indicator is fulfilled.**

**Performance Indicator B.1.2.2.** *The expelling rate, including renouncement / dropping out of doctoral students 3, respectively 4, years after admission<sup>4</sup> does not exceed 30%.*

**Total enrolled (2015-2019): 35**

**Expelled in the first 3 years: 0**

**Abandonment rate =  $(0/35)*100=0\%$**

**CRITERION FULFILLED  $\leq 30\%$**

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**The list of doctoral students admitted and enrolled for doctoral studies in IOSUD-UPT, for the admission sessions 2015, 2016, 2017, 2018, 2019 who were expelled in the first 3 years of the doctoral program is given in Annex B.1.2.2., for the doctoral field of Materials Engineering.**

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All relevant informations are given in the Annexes.**

*Recommendations:*

**The indicator is fulfilled.**

## **Criterion B.2. The content of doctoral programs**

*Standard B.2.1. The training program based on advanced university studies is appropriate to improve doctoral students' research skills and to strengthen ethical behavior in science.*

**Performance Indicator B.2.1.1.** *The training program based on advanced academic studies includes at least 3 disciplines relevant to the scientific research training of doctoral students; at least one of these disciplines is intended to study in-depth the research methodology and/or the statistical data processing. The individual plan for the training of the doctoral student through advanced university studies, representing Annex 1 to the Contract of doctoral studies, contains three courses relevant for the scientific research training of the doctoral student. According to the UPT regulations (footnote 1 of the annex):*

**“The individual plan will include the following types of courses:**

- i) cross-curricular course, organized by the Doctoral School (SD);**
- ii) tutorial course on doctoral research topic (based on individual study program proposed and mentored, by the doctoral coordinator);**
- iii) MSc course (that was not previously attended by the doctoral student).**

**The cross-curricular course is mandatory. The other two courses can be of choice of type ii) or iii).**

**The cross-curricular course (related to all doctoral students in the first year), adopted in UPT, is a discipline related to the research methodology and deontology of the scientific researcher, a discipline that in the period 2008-2018 was entitled Scientific research, communication and**

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<sup>4</sup> 3 years for the doctoral university studies with the duration stipulated at Article 159, paragraph (3), respectively 4 years for the doctoral university studies with the duration stipulated at Article 174, paragraph (3) of the Law of national education No. 1/2011 with subsequent amendments and additions.



deontology, and starting with the year 2018 is entitled Ethics and academic integrity in scientific research and dissemination of results.

The subject content file is public and can be found at the addresses:

o [http://www.upt.ro/Informatii\\_cscs\\_419\\_ro.html](http://www.upt.ro/Informatii_cscs_419_ro.html) (2008-2017) and

o [http://www.upt.ro/Informatii\\_etica-si-integritate-academica-in-cercetarea\\_scientific-and-1409\\_en.html](http://www.upt.ro/Informatii_etica-si-integritate-academica-in-cercetarea_scientific-and-1409_en.html) (present).

• Within the course there are 7 lectures, 7 conferences (by different lecturers, all scientific recognized experts) and 7 seminars (by 6 distinct lecturers, all scientific recognized experts). This discipline (course) is intended for the in-depth study of the research methodology, being developed competencies and skills related to the research methodology.

• The second and third disciplines in the plan are chosen by the doctoral coordinator so as to contribute to the deepening of the field and the doctoral topic. In Annex\_B.2.1.1-1., individual doctoral training plans are presented for the evaluated doctoral field.

The evidence of the results, obtained for the courses from the individual training plan, is kept at the UPT Doctoral School in examination minutes, summarized in Annex 2 of the Contract of the doctoral studies (Annex\_B.2.1.1-2.).

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

The subject content file is public and can be found at the addresses:

[http://www.upt.ro/Informatii\\_cscs\\_419\\_ro.html](http://www.upt.ro/Informatii_cscs_419_ro.html) (2008-2017)

[http://www.upt.ro/Informatii\\_etica-si-integritate-academica-in-cercetarea\\_scientific-and-1409\\_en.html](http://www.upt.ro/Informatii_etica-si-integritate-academica-in-cercetarea_scientific-and-1409_en.html)

Individual doctoral training plans are given for the evaluated doctoral field In Annex\_B.2.1.1-1.

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

All regulations and relevant informations are given in the Annexes and websites.

*Recommendations:*

***The indicator is fulfilled.***

***Performance Indicator B.2.1.2.*** *At least one discipline is dedicated to Ethics and Intellectual Property in scientific research or there are well-defined topics on these subjects within a discipline taught in the doctoral program.*

Within the advanced university training program for doctoral students from IOSUD-UPT, the discipline is included, mandatory for all doctoral students

“Scientific research, communication and deontology” (2008-2017).

The subject content sheet is public and can be found at the following addresses:

[http://www.upt.ro/Informatii\\_cscs\\_419\\_en.html](http://www.upt.ro/Informatii_cscs_419_en.html)

[http://www.upt.ro/img/files/2016-2017/doctorat/cscd/170511\\_CSCD.pdf](http://www.upt.ro/img/files/2016-2017/doctorat/cscd/170511_CSCD.pdf)



Starting with the year 2018 the cross-curricular course has been entitled “Ethics and academic integrity in scientific research and dissemination of results”.

The subject content sheet is public and can be found at:

[http://www.upt.ro/img/files/2019-2020/doctorat/EIACSDR/200528\\_Fisa\\_disciplinei\\_EIACSDR-2019-2020.pdf](http://www.upt.ro/img/files/2019-2020/doctorat/EIACSDR/200528_Fisa_disciplinei_EIACSDR-2019-2020.pdf)

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**The subject content sheets related to the academic years 2018/2019 and 2019/2020 are given in Annex\_B.2.1.2.**

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All regulations and relevant informations are given in the Annexes and websites.**

*Recommendations:*

**The indicator is fulfilled.**

**Performance Indicator B.2.1.3.** *The IOSUD has mechanisms to ensure that the academic training program based on advanced university studies addresses „the learning outcomes”, specifying the knowledge, skills, responsibility and autonomy that doctoral students should acquire after completing each discipline or through the research activities<sup>5</sup>.*

**The main objective of doctoral study programs is to prepare doctoral students, through mentored doctoral research, to become independent scientific researchers, confirmed by obtaining the doctoral degree after publicly defending the doctoral thesis, meeting the minimum performance indicators established by IOSUD-UPT, or the indicators established by the CNATDCU specialized commissions if they exceed the minimum UPT indicators.**

Currently, the competencies, skills and aptitudes acquired by doctoral students through the disciplines within the advanced university training program are specified in the course sheets as follows:

- For the cross-curricular course, followed by all doctoral students, competencies and skills related to research methodology are developed (structured on projects specific to scientific research, technological development and innovation based on research-development), but also the correct attitude related to the rules of research ethics and dissemination of research results, according to the cross-curricular course file (Annex\_B.2.1.3-1.), that for the academic year 2019-2020 can be found publicly at:

[http://www.upt.ro/img/files/2019-2020/doctorat/EIACSDR/200528\\_Fisa\\_disciplinei\\_EIACSDR-2019-2020.pdf](http://www.upt.ro/img/files/2019-2020/doctorat/EIACSDR/200528_Fisa_disciplinei_EIACSDR-2019-2020.pdf)

- For the courses from MSc programs, recommended to the doctoral student by the doctoral coordinator, the competencies, skills and abilities developed, can be found in the course file, cf. Annex\_B.2.1.3-2. - Example of the MSc sheet. By completing such master's courses,

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<sup>5</sup> Or by what the graduate should know, understand and to be able to do, according to the provisions of the Methodology of 17 March 2017 regarding inscription and registration of higher education qualifications in the National Register of Qualifications in Higher Education (RNCIS) approved by the Order No.3475/2017 with subsequent amendments and additions.



complementary to the previous master's degree training, the doctoral student acquires additional professional skills related to the topic of the doctoral thesis.

- After completing the tutorial courses, the doctoral student deepens topics specific to the doctoral topic, indicated by the doctoral coordinator, the examination being made by the doctoral coordinator along with the advising committee members.
- The completion of the courses from the training program based on advanced university studies or doctoral research activities aims at acquiring the competencies and abilities related to level 8 of qualifications, according to the National Qualifications Framework (CNC). Consequently, IOSUD-UPT applies a procedure for verifying the fulfillment of the exigencies of the doctoral university studies (Annex\_B.2.1.3.).

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**Annex\_B.2.1.3-1.**

**Annex\_B.2.1.3-2.**

**Annex\_B.2.1.3.**

<http://www.upt.ro/img/files/2019->

[2020/doctorat/EIACSDR/200528 Fisa disciplinei EIACSDR-2019-2020.pdf](http://www.upt.ro/img/files/2019-2020/doctorat/EIACSDR/200528_Fisa_disciplinei_EIACSDR-2019-2020.pdf)

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All relevant informations are given in the Annexes.**

*Recommendations:*

***The indicator is fulfilled.***

**Performance Indicator B.2.1.4.** *All along the duration of the doctoral training, doctoral students in the domain receive counselling/guidance from functional guidance commissions, which is reflected in written guidance and feedback or regular meeting.*

**After the enrollment of the doctoral student following the admission session for doctoral studies in IOSUD-UPT, the doctoral coordinator proposes the composition of the advising commission, which is approved by the Director of the Doctoral School.**

- The advising commission includes specialists in the field and subject of the doctoral thesis, who assist and guide the doctoral student on specific aspects of the doctoral research program.
- The advising Commission members participates in all public meetings where the doctoral student presents the doctoral research project, respectively the research reports, on the dates established in the summary sheet of the research program.

The advising Commission notifies the doctoral student's presentation of the activities provided in the summary sheet of the scientific research program and mentions whether the activity is identical to the one provided in it, expressing its point of view on the importance and level of activity performed (footnote 4 of the minutes for evaluation of the activities of the scientific research program).



- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**The documents related to proposal for the advising commission members and minutes supporting the doctoral research project and research reports of the doctoral students in the field of Materials Engineering are given in Annex\_B.2.1.4.**

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**All relevant informations are given in the Annexes.**

*Recommendations:*

**The indicator is fulfilled.**

**Performance Indicator B.2.1.5.** For a doctoral study domain, the ratio between the number of doctoral students and the number of teaching staff/researchers providing doctoral guidance must not exceed 3:1.

**Nr. doctoral students (PhD): 34**

**Nr. professors in advising commissions (CD): 30**

**Ratio Drd/CD:**

**1.13**

→**CRITERION FULFILLED  $\leq 3: 1$**

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**The doctoral students existing at the time of the evaluation and the composition of the advising commissions are given for the field of Materials Engineering in Annex\_B.2.1.5.**

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**All relevant informations are given in the Annexes.**

*Recommendations:*

**The indicator is fulfilled.**

### **Criterion B.3. The results of doctoral studies and procedures for their evaluation.**

*Standard B.3.1. Doctoral students capitalize on the research through presentations at scientific conferences, scientific publications, technological transfer, patents, products and service orders.*

**Performance Indicator B.3.1.1.** For the evaluated domain, the evaluation commission will be provided with at least one paper or some other relevant contribution per doctoral student who has obtained a doctor's title within the past 5 years. From this list, the members of the evaluation commission shall randomly select 5 such papers / relevant contributions per doctoral study domain for review. At least 3 selected papers must contain significant original contributions in the respective domain.

**The doctoral field Materials Engineering:**

• **Number of doctoral students who obtained the doctoral degree in the period 2016-2020: 15**

1. I. Mitelea, C. Ghera, I. Bordeasu, and C. Craciunescu, " Assessment of Cavitation Erosion of Gas- Nitrided Cr-Ni-Mo Steels " Journal of Tribology-Transactions of the Asthma, vol 140, Nov 2018, WOS : 000447197700007



<https://asmedigitalcollection.asme.org/tribology/article-abstract/140/6/061601/383849/Assessment-of-Cavitation-Erosion-of-Gas-Nitrided?redirectedFrom=fulltext>

2. N. Kazamer, P. Valean, DT Pascal, R. Muntean, G. Marginean, and VA Serban, " Development, optimization, and characterization of NiCrBSi-TiB<sub>2</sub> flame- sprayed vacuum fused coatings " Surface & Coatings Technology, vol 406, Jan 25 2021, WOS: 000604750600052.

[https://www.sciencedirect.com/science/article/pii/S0257897220314171?dgcid=rss\\_sd\\_all](https://www.sciencedirect.com/science/article/pii/S0257897220314171?dgcid=rss_sd_all)

3. P. Svera, AV Racu, C. Mosoarca, D. Ursu, PA Linul, R. Baies, et al., " Influence of precursor crystallinity on photocatalytic activity of PdS / CdS-ZnS " Journal of Optoelectronics and Advanced Materials, vol. 18, pp. 1027-1032, Nov-Dec 2016, WOS: 000391777700014.

<https://joam.inoe.ro/articles/influence-of-precursor-crystallinity-on-photocatalytic-activity-of-pdscds-zns/fulltext>

4. GO Tirian, CA Gheorghiu, T. Heput, and R. Rob, "Fuzzy control strategy for secondary cooling of continuous steel casting" Innovative Ideas in Science 2016, vol. 200, 2017, WOS: 000419288800046.

<https://iopscience.iop.org/article/10.1088/1757-899X/200/1/012046>

5. P. Vlazan, C. Irina-Moisescu, I. Miron, P. Sfirloaga, and I. Grozescu, "Structural characterization of ZnO nanoparticles synthesized by co-precipitation and sol-gel method " Optoelectronics and Advanced Materials -Rapid Communications, vol. 9, pp. 1139- 1142, Sep -Oct 2015, WOS: 000364600500012.

<https://oam-rc.inoe.ro/articles/structural-characterization-of-zno-nanoparticles-synthesized-by-co-precipitation-and-sol-gel-method/fulltext>

**All selected articles were published in high impact factor journals. It should be said that all articles will make significant contributions to the relevant literature.**

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**The list of relevant papers prepared by doctoral students who obtained the doctoral degree in the period 2016-2020 are given in Annex\_B.3.1.1.**

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All relevant informations are given in the Annexes.**

*Recommendations:*

***The indicator is fulfilled.***

**Performance Indicator \*B.3.1.2.** *The ratio between the number of presentations of doctoral students who completed their doctoral studies within the evaluated period (past 5 years), including posters, exhibitions made at prestigious international events (organized in the country or abroad) and the number of doctoral students who have completed their doctoral studies within the evaluated period (past 5 years) is at least 1.*

**The doctoral field Materials Engineering**

• **Number of doctoral students who obtained the doctoral degree in the period 2016-2020: 15**

• **Number of articles presented at conferences: 33**

**Each doctoral student has at least one paper presented at prestigious international events, the details can be found in Annex\_B.3.1.2. - List of students who obtained the title of doctor in the period 2016-2020 and the number of participations in conferences – field of Materials Engineering**





33/15 = 2.2

**CRITERION FULFILLED  $\geq$  1**

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**Each doctoral student has at least one paper presented at prestigious international events, the details are given in Annex\_B.3.1.2.**

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All relevant informations are given in the Annexes.**

*Recommendations:*

**The indicator is fulfilled.**

*Standard B.3.2. The Doctoral School engages a significant number of external scientific specialists in the commissions for public defense of doctoral theses in the analyzed domain.*

**Performance Indicator \*B.3.2.1.** *The number of doctoral theses allocated to one specialist coming from a higher education institution, other than the evaluated IOSUD should not exceed two (2) in a year for the theses coordinated by the same doctoral thesis advisor.*

**For the field of Materials Engineering, in the period 2016-2020, THERE WERE NO cases in which the same expert was part of more than two doctoral commissions for the public defense of theses coordinated by the same doctoral coordinator in the same year, as follows:**

- **2016: NO thesis defended.**
- **2017: 4 theses defended. No scientific supervisor has coordinated more than two doctoral theses.**
- **2018: 5 theses defended. Prof. Dr. Eng. Teodor Heput, as doctoral supervisor had four theses defended. None of the UPT external references received for evaluation more than 2 doctoral theses.**
- **2019: 6 theses defended. None of the UPT external references not received for evaluation 2 doctoral theses coordinated by the same doctoral supervisor.**
- **2020: NO thesis defended.**

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**List of students who defended their doctoral theses in the period 2016-2020 and the commissions of scientific experts - the field of Materials Engineering are given in Annex\_B.3.2.1.**

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All relevant informations are given in the Annexes.**

*Recommendations:*

**The indicator is fulfilled.**

**Performance Indicator \*B.3.2.2.** *The ratio between the doctoral theses allocated to one scientific specialist coming from a higher education institution, other than the institution where the defense on the doctoral thesis is organized, and the number of doctoral theses presented in the same doctoral study domain in the doctoral school should not exceed 0.3, considering the past five years. Only those doctoral*



*study domains in which minimum ten doctoral theses have been presented within the past five years should be analyzed.*

**The referent loan VIDA-SIMITI (Technical University of Cluj Napoca) was assigned 9 doctoral theses.**

**All other external references have been allocated at most 3 doctoral theses.**

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**For the field of Materials Engineering, in the period 2016-2020, 15 doctoral theses were defended (Annex\_B.3.2.2.).**

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All relevant informations are given in the Annexes.**

*Recommendations:*

**The indicator is fulfilled.**

## **Domain C. QUALITY MANAGEMENT**

### **Criterion C.1. Existence and periodic implementation of the internal quality assurance system**

*Standard C.1.1. There are an institutional framework and procedures in place and relevant internal quality assurance policies, applied for monitoring the internal quality assurance.*

**Performance Indicator C.1.1.1.** *The Doctoral school in the respective university study domain shall demonstrate the continuous development of the evaluation process and its internal quality assurance following a procedure developed and applied at the level of the IOSUD, the following assessed criteria being mandatory:*

*(a) the scientific work of Doctoral advisors;*

**In UPT, the teaching and research staff periodically present the results of the research activity to the management of the department / faculty / university. The results are presented in documents standardized at the national level, centralized at department and university level and uploaded on the IT platform of Ministry of Education (ME). The results are considered for the process of allocating funding by ME and verified / validated by CNFIS.**

**In addition to these reports, there are also internal reports in UPT that are used in the process of allocating funding to departments (eg. internal reports made on the electronic platform COGITO, models electronic evaluation grids used for evaluation of the teaching and research results to obtain the degree of merit).**

**These results are discussed, analyzed by the Board of Directors and departments, and presented and validated in the Annual Report of the Rector of UPT and in other institutional documents, such as, for example, Research Report.**

**The reports are used to monitor and evaluate the results and performances of teaching and research activities, both in terms of meeting the minimum standards developed / approved based on art. 303 para. (4) of LEN 1/2011, acc. HS no. 135 / 17.04.2014 as well as the fulfillment of OMENCŞ no. 6129/2016, regarding the approval of the minimum**

necessary and obligatory standards for granting the didactic titles in higher education, of the professional degrees of research-development, of the quality of doctoral coordinator and of the habilitation degree.

(b) *the infrastructure and logistics necessary to carry out the research activity;*

"UPT's strategic development plan for the period 2016-2020" considered the continuation of activities and the development of mechanisms to support research excellence in the university. In order to achieve these goals, the constant development of UPT's research infrastructure at the level of international standards, is necessary. UPT's research activity is mainly carried out in the frame of 25 UPT research centers. Their research infrastructure is highlighted on the ERRIS platform, at the following link:

<https://eeris.eu/ERIO-2000-000R-0036>

Among the most important research infrastructures in UPT we can emphasize the Research Institute for Renewable Energies - ICER. It was funded by the POSCCE operational program, priority axis 2 "Competitiveness through Research, Technological Development and Innovation", in a period 2009–2014. The total value of the project was 66 882 357 lei. 18 new research laboratories were created and 5 were modernized, 120 equipments were purchased, 12 of them with a value of over 100,000 EUR. Many of the existing high-performance equipment at ICER are unique within the Timisoara University Center. These are used for research grants in interdisciplinary fields proceeding in UPT: Complex projects, PED, Bridge, H2020, cross-border projects, etc.

Another research center of UPT with a remarkable infrastructure is the Research Center for Materials Mechanics and Structural Safety (CEMSIG), established in 1999. The research areas emphasis on cold formed metal structures and the performance of metal and composite structures under seismic actions, fire and other natural and human hazards, as well as on high-performance materials for metal structures located in seismic regions. Through a POSCCE-contract ACTEX, CEMSIG benefited from research infrastructure worth 21 000 000 lei.

The development of UPT's research infrastructure is achieved through research and development contracts carried out in the university, obtained through national and international competitions, but also through UPT's internal research grants, organized in recent years and financed from UPT's own revenues and oriented to young researchers.

(c) *the procedures and subsequent rules based on which doctoral studies are organized;*

Continuous updating of regulations, procedures, and working instructions in accordance with national legislation, but also with the evolution of the requirements of doctoral students or doctoral coordinators.

The procedure for admission to doctoral studies is updated periodically, in accordance with the modifications of national legislation.

The contract for doctoral studies is updated annually.

d) *the scientific activity of doctoral students;*

According to the internal regulations of IOSUD - UPT, the minimum criterion for defending the doctoral thesis is the publication of 2 scientific papers indexed in the WOS database. This aspect is regulated in the Contract for doctoral studies, by art. 16.



Also, the scientific activity of doctoral students is monitored by the advising commissions during the doctoral study.

At the same time, within IOSUD-UPT, during the reporting period, the program to support doctoral students for the publication of papers in WOS indexed journals as well as the participation at conferences with WOS indexed procedures, was carried out.

*e) the training program based on advanced academic studies of doctoral students;*

The courses of the training program based on advanced university studies related to the doctoral field are sustained by professors or researchers who have the quality of doctoral coordinator / professor / CS I or associate professor / CS II with proven expertise in the field of taught subjects.

The training program based on advanced university studies includes the following types of courses:

**CROSS-CURRICULAR COURSE:** is sustained for all doctoral students of the 1st year.

In the period 2008-2017 the course title was: "Scientific research, communication and deontology". The subject content is public and can be found at:

[http://www.upt.ro/Informatii\\_cscs\\_419\\_ro.html](http://www.upt.ro/Informatii_cscs_419_ro.html).

Starting with 2018, the cross-curricular course is named "Ethics and academic integrity in scientific research and dissemination of results"

The subject content is public and can be accessed at:

[http://www.upt.ro/Informatii\\_etica-si-integritate-academica-in\\_cercetarea-stiintifica-si-1409\\_en.html](http://www.upt.ro/Informatii_etica-si-integritate-academica-in_cercetarea-stiintifica-si-1409_en.html)

The course has the following structure:

- 7 course lessons - subject tenure: Prof.univ.dr.ing. Toma Leonida Dragomir,
- 7 conferences - given by professors, all scientific recognized experts: Prof.univ.dr.ing. Radu VasIU, Prof.univ.dr.ing. Ștefan Preitl, Prof.univ.dr.ing. Radu Marinescu, Prof.univ.dr.ing. Ștefan Holban, Acad.prof.univ.dr.ing. Ion Boldea, Prof.univ.dr.ing. Romeo Susan Resiga, Acad.prof.univ.dr.ing. Dan Dubină

- 7 seminars - held by 6 professors, all scientific recognized experts: Prof.univ.dr.ing. Daniel Andreescu, Prof.univ.dr.ing. Liviu Marșavina, Prof.univ.dr.ing. Nicolae Vaszilcsin, Prof.univ.dr.ing. Ștefan Preitl, Prof.univ.dr.ing. Dinu Florea, Prof.univ.dr.ing. Dorin Lelea.

- Starting with 2020/2021, the activities related to the course "Ethics and academic integrity in scientific research and dissemination of results" are held in the frame of Virtual Campus platform of the Politehnica University Timișoara.

- MASTER degree courses, which were not previously attended by the doctoral student.

- TUTORIAL courses: in the subject of doctoral research (based on individual study program proposed and coordinated by the doctoral coordinator).

For all courses within the training program based on advanced university studies, the courses are sustained by professors or researchers who have the level of doctoral coordinator / holders of habilitation degree, professor / CS I or associate professor / CS II with proven expertise in the field of taught subjects.



In Annex\_A.3.1.3., the courses of the training program based on advanced university studies and their tenures are exemplified (which constitute Annex 1 to the doctoral study contract for each doctoral student).

*f) social and academic services (including for participation at different events, publishing papers etc.) and counselling made available to doctoral students.*

Within IOSUD-UPT, the Career Counseling and Guidance Center operates as a structure of the Politehnica University Timișoara (UPT) with the mission to offer the best possible information, professional orientation and social integration of students:

<https://www.cicoc.upt.ro/>

<https://www.facebook.com/CCOC.UPT>

Also, within the cross-curricular course of “Ethics and academic integrity in scientific research and dissemination of results”, lectures and seminars are organized in order to advise the doctoral students in participation at scientific events and the publication of articles in specialized journals:

[http://www.upt.ro/img/files/20202021/doctorat/EIACSDR/210421\\_Fisa\\_disciplinei\\_EIACSDR-2020-2021.pdf](http://www.upt.ro/img/files/20202021/doctorat/EIACSDR/210421_Fisa_disciplinei_EIACSDR-2020-2021.pdf)

At the same time IOSUD-UPT financially supports the participation of doctoral students in scientific events and publication of scientific papers in WOS indexed journals:

[http://www.upt.ro/international/Mobilitati-Si-Cooperari-Internationale\\_Programul-de-finantare-ISI\\_27\\_en.html](http://www.upt.ro/international/Mobilitati-Si-Cooperari-Internationale_Programul-de-finantare-ISI_27_en.html)

In 2018 within IOSUD-UPT, a scholarship program was developed for doctoral students participating in prestigious international conferences organized by UPT:

[http://www.upt.ro/international/Mobilitati-Si-Cooperari-Internationale\\_Burse-pentru-doctoranzi-care-participate-in-conferences-organized-by-UPT\\_126\\_en.html](http://www.upt.ro/international/Mobilitati-Si-Cooperari-Internationale_Burse-pentru-doctoranzi-care-participate-in-conferences-organized-by-UPT_126_en.html)

*- description of the facts, the findings from the assessed institution’s documents and the evaluation visit itself*

**Annex\_C.1.1.1-a. and other websites and documents given in the upper part were used.**

*- analysis of the facts, the findings from the assessed institution’s documents and the evaluation visit itself*

**All relevant informations are given in the Annexes and websites.**

*Recommendations:*

**The indicator is fulfilled.**



**Performance Indicator \*C.1.1.2.** Mechanisms are implemented during the stage of the doctoral study program to enable feedback from doctoral students allowing to identify their needs, as well as their overall level of satisfaction with the doctoral study program in order to ensure continuous improvement of the academic and administrative processes. Following the analysis of the results, there is evidence that an action plan was drafted and implemented.

During the doctoral studies, doctoral students are periodically interviewed about the level of satisfaction regarding the advanced university training program (Annex\_C.1.1.2-1.) and the scientific research program (Annex\_C.1.1.2-2.).

Following the processing of questionnaires and the analysis of the answers offered by doctoral students, a set of measures is established to improve the general level of satisfaction with doctoral studies (Annex\_C.1.1.2-4.).

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**Annex\_C.1.1.2-1.**

**Annex\_C.1.1.2-2.**

A set of anonymous questionnaires from doctoral students is given in the Annex\_C.1.1.2-3.

**Annex\_C.1.1.2-4.**

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**All relevant informations are given in the Annexes.**

*Recommendations:*

**The indicator is fulfilled.**

## **Criterion C.2. Transparency of information and accessibility of learning resources**

*Standard C.2.1. Information of interest to doctoral students, future candidates and public interest information is available for electronic format consultation.*

**Performance Indicator C.2.1.1.** The IOSUD publishes on the website of the organizing institution, in compliance with the general regulations on data protection, information such as:

**The Doctoral School of Engineering Studies within IOSUD-UPT presented on the UPT website, in the section related to doctoral studies,**

[http://www.upt.ro/Informatii\\_studii-universitare-de-doctorat\\_266\\_ro.html](http://www.upt.ro/Informatii_studii-universitare-de-doctorat_266_ro.html)

updated information on

(a) the Doctoral School regulation;

**The regulation of the doctoral school is part of the "Institutional Regulation for the Organization of the Doctoral Studies at the Politehnica University Timișoara",**

[http://www.upt.ro/administrare/dgac1/file/2011-2012/regulamente/Anexa\\_10\\_CartaUPT\\_Regulament\\_doctorat.pdf](http://www.upt.ro/administrare/dgac1/file/2011-2012/regulamente/Anexa_10_CartaUPT_Regulament_doctorat.pdf)

Considering that in IOSUD-UPT there is only one doctoral school that manages all doctoral fields, our option was a single document that includes the regulations for the organization of doctoral studies.

(b) *the admission regulation;*

The procedure is updated annually, in order to bring it in line with the legislative changes at the national level, respectively with the number and distribution of doctoral positions by doctoral fields:

[http://www.upt.ro/img/files/2019-2020 / admission / doctorate / HS 156 11-06-2020- IOSUD-UPT-admission-2020 PROCEDURA anexe.pdf](http://www.upt.ro/img/files/2019-2020/admission/doctorate/HS_156_11-06-2020-IOSUD-UPT-admission-2020_PROCEDURA_anexe.pdf)

The procedures regarding the organization of the admission to doctoral studies in IOSUD-UPT for the period 2015 - 2019 can be found publicly at the addresses:

• 2019: [http://www.upt.ro/img/files/2018-2019/admitere/doctorat/IOSUD-UPT-admitere-2019\\_proctutura.pdf](http://www.upt.ro/img/files/2018-2019/admitere/doctorat/IOSUD-UPT-admitere-2019_proctutura.pdf)

• 2018: [http://www.upt.ro/img/files/2017-2018 / admission / doctorate / IOSUD-UPT-admission-2018 PROCEDURA ANEXE.pdf](http://www.upt.ro/img/files/2017-2018/admission/doctorate/IOSUD-UPT-admission-2018_PROCEDURA_ANEXE.pdf)

• 2017: [http://www.upt.ro/Informatii admitere-2017---doctorat 620 ro.html](http://www.upt.ro/Informatii_admitere-2017---doctorat_620_ro.html)

• 2016: [http://www.upt.ro/Informatii admitere -2016 --- doctorat 843 ro.html](http://www.upt.ro/Informatii_admitere-2016---doctorat_843_ro.html)

• 2015: [http://www.upt.ro/Informatii admitere-2015---doctorat 401 ro.html](http://www.upt.ro/Informatii_admitere-2015---doctorat_401_ro.html)

(c) *the doctoral studies contract;*

The doctoral study contracts can be found publicly at the addresses:

Year 2019/2020:

• scholarship:

[http://www.upt.ro/img/files/20192020/doctorat/Contract Studii Doctorale bursa 2019 .pdf](http://www.upt.ro/img/files/20192020/doctorat/Contract_Studii_Doctorale_bursa_2019.pdf)

• scholarship based on UPT own income:

[http:// www .upt.ro / img / files / 2019-2020 / PhD / Contract\\_Studii\\_Doctorale\\_bursa\\_venituri\\_proprii\\_2019.pdf](http://www.upt.ro/img/files/2019-2020/PhD/Contract_Studii_Doctorale_bursa_venituri_proprii_2019.pdf)

scholarship UPT+: [http://www.upt.ro/img/files/2019-2020/doctorat/Contract\\_Studii\\_Doctorale\\_bursa\\_UPT\\_si\\_venituri\\_proprii\\_2019.pdf](http://www.upt.ro/img/files/2019-2020/doctorat/Contract_Studii_Doctorale_bursa_UPT_si_venituri_proprii_2019.pdf)

• without scholarship: [http://www.upt.ro/img/files/2019-2020/doctorat/Contract\\_Studii\\_Doctorale\\_fara\\_bursa\\_2019.pdf](http://www.upt.ro/img/files/2019-2020/doctorat/Contract_Studii_Doctorale_fara_bursa_2019.pdf)

• fee: [http://www.upt.ro/img/files/2019-2020/doctorat/Contract\\_Studii\\_Doctorale\\_taxa\\_frecventa\\_reduca\\_2019.pdf](http://www.upt.ro/img/files/2019-2020/doctorat/Contract_Studii_Doctorale_taxa_frecventa_reduca_2019.pdf)

Year 2018/2019:

• scholarship: [http://www.upt.ro/img/files/2018-2019/doctorat/docdrd/Contract\\_Studii\\_Doctorale\\_bursa\\_2018.pdf](http://www.upt.ro/img/files/2018-2019/doctorat/docdrd/Contract_Studii_Doctorale_bursa_2018.pdf)

• scholarship based on UPT own income: [http://www.upt.ro/img/files/2018-2019 /doctorat/docdrd/Contract\\_Studii\\_Doctorale\\_bursa%20venituri%20proprii\\_2018.pdf](http://www.upt.ro/img/files/2018-2019/doctorat/docdrd/Contract_Studii_Doctorale_bursa%20venituri%20proprii_2018.pdf)

• No scholarship: [http://www.upt.ro/img/files/2018-2019/doctorat/docdrd/Contract\\_Studii\\_Doctorale\\_fara%20bursa\\_2018.pdf](http://www.upt.ro/img/files/2018-2019/doctorat/docdrd/Contract_Studii_Doctorale_fara%20bursa_2018.pdf)

• fee: [http://www.upt.ro/img/files/2018-2019/doctorat/docdrd/Contract\\_Studii\\_Doctorale\\_taxa\\_frecventa%20reduca\\_2018.pdf](http://www.upt.ro/img/files/2018-2019/doctorat/docdrd/Contract_Studii_Doctorale_taxa_frecventa%20reduca_2018.pdf)

Year 2017/2018:

• Scholarship: [http://www.upt.ro /img/files/2017-2018/doctorat/docdrd/Contract\\_Studii\\_Doctorale\\_bursa\\_2017.pdf](http://www.upt.ro/img/files/2017-2018/doctorat/docdrd/Contract_Studii_Doctorale_bursa_2017.pdf)

- without scholarship: [http://www.upt.ro/img/files/2017-2018/doctorat/docdrd/Contract\\_Studii\\_Doctorale\\_fara%20bursa\\_2017.pdf](http://www.upt.ro/img/files/2017-2018/doctorat/docdrd/Contract_Studii_Doctorale_fara%20bursa_2017.pdf)
- fee: [http://www.upt.ro/img/files/2017-2018/doctorat/docdrd/Contract\\_Studii\\_Doctorale\\_taxa\\_2017.pdf](http://www.upt.ro/img/files/2017-2018/doctorat/docdrd/Contract_Studii_Doctorale_taxa_2017.pdf)

Year 2016/2017 and year 2015/2016: contracts can be accessed at:

[http://www.upt.ro/Informatii\\_documentele-doctoranzilor-inmatriculati-in-periodo-2005-201\\_289\\_en.html](http://www.upt.ro/Informatii_documentele-doctoranzilor-inmatriculati-in-periodo-2005-201_289_en.html)

Their format is word password protected file, so that doctoral students had the opportunity to fill in only the fields with personal data, without being able to make the changes on the framework of the contract.

- (d) *the study completion regulation including the procedure for the public presentation of the thesis;*

The regulation for completion of the doctoral studies is detailed in “Procedure for completion the doctoral studies and public defense of doctoral theses in UPT”,

[http://www.upt.ro/img/files/2018-2019/doctorat/HCA\\_nr71\\_06-2018\\_Instructiune\\_de\\_lucru\\_sustinere\\_publica.pdf](http://www.upt.ro/img/files/2018-2019/doctorat/HCA_nr71_06-2018_Instructiune_de_lucru_sustinere_publica.pdf)

The procedure for public defense of the doctoral thesis and the set up the doctoral file, used since 2016, is available at

[http://www.upt.ro/img/files/2015-2016/doctorat/Procurtura\\_scepere\\_te.pdf](http://www.upt.ro/img/files/2015-2016/doctorat/Procurtura_scepere_te.pdf)

The procedure for completion the doctoral studies and public defense of the thesis HCA 5 / 15.01.2019 is publicly available at:

[http://upt.ro/img/files/2019-2020/doctorat/HCA\\_5\\_din\\_2019\\_Instructiune\\_de\\_lucru\\_sustinere\\_teze\\_doctorat.pdf](http://upt.ro/img/files/2019-2020/doctorat/HCA_5_din_2019_Instructiune_de_lucru_sustinere_teze_doctorat.pdf)

In the current epidemiological context, for the online defense of doctoral theses, the “Procedure for online defense of doctoral theses in UPT is established for academic year 2019-2020” (HS no.111 / 14.05.2020),

publicly available at:

[http://www.upt.ro/img/files/hs/2020/14.05.2020/HS\\_111\\_14.05.2020\\_Procurtura-sustinere-online-teze-doctorat.pdf](http://www.upt.ro/img/files/hs/2020/14.05.2020/HS_111_14.05.2020_Procurtura-sustinere-online-teze-doctorat.pdf)

Through HS 231 / 17.09.2020 the validity of the Procedure for the online defense of doctoral theses in UPT for the academic year 2020-2021 has been extended.

publicly available at:

[http://upt.ro/img/files/2019-2020/doctorat/HS\\_231\\_17-09-2020\\_Prelungire\\_valabilitate\\_proced\\_sustinere\\_online\\_teze\\_doctorat.pdf](http://upt.ro/img/files/2019-2020/doctorat/HS_231_17-09-2020_Prelungire_valabilitate_proced_sustinere_online_teze_doctorat.pdf)

- (e) *the content of training program based on advanced academic studies;*

The information regarding the cross-curricular discipline, mandatory for all doctoral students, based on the advanced university training (first year of the doctoral studies program) is available at:

- academic year 2017-2018:

[http://www.upt.ro/Informatii\\_cscs\\_419\\_ro.html](http://www.upt.ro/Informatii_cscs_419_ro.html),

- academic year 2018-2019:

[http://www.upt.ro/Informatii\\_eiacsdr\\_1075\\_ro.html](http://www.upt.ro/Informatii_eiacsdr_1075_ro.html),

- academic year 2019-2020:

[http://www.upt.ro/Informatii\\_eiacsdr-2019-2020\\_1682\\_ro.html](http://www.upt.ro/Informatii_eiacsdr-2019-2020_1682_ro.html).

The doctoral study program is customized for each doctoral student, at the proposal of the doctoral coordinator, regarding the master and / or tutorial courses from within



the year of advanced university training, respectively from the doctoral research program.

- (f) *the academic and scientific profile, thematic areas/research themes of the Doctoral advisors within the domain, as well as their institutional contact data;*

The offer of doctoral coordinators is updated annually and used in the admission process for doctoral studies:

- Admission 2019: [http://www.upt.ro/img/files/2018-2019/admitere/doctorat/Oferta\\_conducatori\\_de\\_doctorat\\_2019.pdf](http://www.upt.ro/img/files/2018-2019/admitere/doctorat/Oferta_conducatori_de_doctorat_2019.pdf)
- Admission 2018: [http://www.upt.ro/img/files/2017-2018/admitere/doctorat/Oferte\\_conducatori\\_doctorat-2018.pdf](http://www.upt.ro/img/files/2017-2018/admitere/doctorat/Oferte_conducatori_doctorat-2018.pdf)
- Admission 2017: [http://www.upt.ro/img/files/2016-2017/admitere/doctorat/oferte/Oferte\\_conducatori\\_doctorat-2017.pdf](http://www.upt.ro/img/files/2016-2017/admitere/doctorat/oferte/Oferte_conducatori_doctorat-2017.pdf)
- Admission 2016: [http://www.upt.ro/img/files/2015-2016/admission/doctorat/oferte/Oferte\\_conducatori\\_doctorat-2016\\_ses\\_II.pdf](http://www.upt.ro/img/files/2015-2016/admission/doctorat/oferte/Oferte_conducatori_doctorat-2016_ses_II.pdf)
- Admission 2015: [http://www.upt.ro/img/files/2014-2015 / admission / PhD / Oferte\\_ale\\_cond\\_de\\_doctorat\\_IOSUD\\_UPT\\_s1.pdf](http://www.upt.ro/img/files/2014-2015/admission/PhD/Oferte_ale_cond_de_doctorat_IOSUD_UPT_s1.pdf)

contact details of the doctoral supervisors can be found at:

[http://upt.ro/img/files/carte-telefon/Carte\\_de\\_telefon\\_Angajati\\_2020.pdf](http://upt.ro/img/files/carte-telefon/Carte_de_telefon_Angajati_2020.pdf)  
and

[http://www.upt.ro/img/files/2020-2021/doctorat/OMEN\\_conducator\\_doctorat\\_pe\\_domenii\\_2021.pdf](http://www.upt.ro/img/files/2020-2021/doctorat/OMEN_conducator_doctorat_pe_domenii_2021.pdf)

- (g) *the list of doctoral students within the domain with necessary information (year of registration; advisor);*

The list of doctoral students in the field can be found in the publicly available admission orders:

- for the year 2019-2020: [http://www.upt.ro/img/files/2019-2020/doctorat/Lista\\_drd\\_inmatriculati\\_2019-2020\\_ordin\\_11474.pdf](http://www.upt.ro/img/files/2019-2020/doctorat/Lista_drd_inmatriculati_2019-2020_ordin_11474.pdf)

and:

[http://www.upt.ro/img/files/2019-2020/doctorat/Lista\\_drd\\_inmatriculati\\_2019-2020\\_ordin\\_12410.pdf](http://www.upt.ro/img/files/2019-2020/doctorat/Lista_drd_inmatriculati_2019-2020_ordin_12410.pdf)

for the year 2018-2019: [http://www.upt.ro/img/files/2018-2019/doctorat/Lista\\_dr\\_inmatr\\_2018-2019\\_sesiune\\_sept\\_ordin\\_120.pdf](http://www.upt.ro/img/files/2018-2019/doctorat/Lista_dr_inmatr_2018-2019_sesiune_sept_ordin_120.pdf)

- for the year 2017-2018: [http://upt.ro/img/files/2017-2018/doctorat/Lista\\_dr\\_inmatr\\_2017-2018\\_sesiune\\_sept\\_ordin\\_12866.pdf](http://upt.ro/img/files/2017-2018/doctorat/Lista_dr_inmatr_2017-2018_sesiune_sept_ordin_12866.pdf)

and:

[http://upt.ro/img/files/2017-2018/doctorat/Lista\\_dr\\_inmatr\\_2017-2018\\_sesiune\\_oct\\_ordin\\_13940.pdf](http://upt.ro/img/files/2017-2018/doctorat/Lista_dr_inmatr_2017-2018_sesiune_oct_ordin_13940.pdf)

- for the year 2016-2017: [http://www.upt.ro/img/files/2016-2017/doctorat/docdrd/Doctoranzi\\_inmatriculati\\_2016-2017\\_Ordin\\_rector.pdf](http://www.upt.ro/img/files/2016-2017/doctorat/docdrd/Doctoranzi_inmatriculati_2016-2017_Ordin_rector.pdf)

- for the year 2015-2016: [http://www.upt.ro/img/files/2015-2016/doctorat/Candidati\\_inmatriculati\\_2015-2016.pdf](http://www.upt.ro/img/files/2015-2016/doctorat/Candidati_inmatriculati_2015-2016.pdf)

- (h) *information on the standards for developing the doctoral thesis;*

The doctoral theses elaborated in IOSUD-UPT are published at the Politehnica Publishing House as the book, detailed at the following address:

[http://www.upt.ro/img/files/2014-2015/doctorat/editare\\_teza/Instruțiuni\\_pentru\\_redactarea\\_tezelor\\_de\\_doctorat\\_Ed\\_Politehnica.pdf](http://www.upt.ro/img/files/2014-2015/doctorat/editare_teza/Instruțiuni_pentru_redactarea_tezelor_de_doctorat_Ed_Politehnica.pdf)

Moreover, the templates for the thesis preparation are available considering:

- Initial part (Romanian, English)
- Thesis chapter
- Details on editing the equations

that can be found at:

[http://www.upt.ro/Informatii\\_documentele-doctoranzilor-inmatriculati-incepand-cu-anul-201\\_286\\_en.html](http://www.upt.ro/Informatii_documentele-doctoranzilor-inmatriculati-incepand-cu-anul-201_286_en.html).

In addition, the Politehnica University Timișoara ensures, from its own revenues, the publication of 25 copies of each doctoral thesis, in addition to the two copies that are sent to the Central Library of UPT, respectively to the National Library of Romania.

- (i) *links to the doctoral theses' summaries to be publicly presented and the date, time, place where they will be presented; this information will be communicated at least twenty days before the presentation.*

According to the procedure for public defense of doctoral theses in IOSUD-UPT, on the UPT website, doctoral studies section, announcements on public defense are posted, in Romanian and English (for each doctoral thesis), for example:

- [http://www.upt.ro/Informatii\\_anunturi---sustineri-publice-ale-tezelor-de-doctorat-in-iosu\\_293\\_ro.html](http://www.upt.ro/Informatii_anunturi---sustineri-publice-ale-tezelor-de-doctorat-in-iosu_293_ro.html)

- [http://www.upt.ro/Informatii\\_anunturi---sustineri-publice-ale-tezelor-de-doctorat-in-iosu\\_293\\_en.html](http://www.upt.ro/Informatii_anunturi---sustineri-publice-ale-tezelor-de-doctorat-in-iosu_293_en.html)

- The theses defended in 2020, with the details regarding the date, time, place where they were defended, the summary of the thesis, the public defense commission can be found at: [http://www.upt.ro/Informatii\\_teze-de-doctorat-sustinute-in-2020\\_1421\\_ro.html](http://www.upt.ro/Informatii_teze-de-doctorat-sustinute-in-2020_1421_ro.html)

- The theses defended in 2019, with the details regarding the date, time, place where they were defended, the summary of the thesis, the public defense commission can be found at: [http://www.upt.ro/Informatii\\_teze-de-doctorat-sustinute-in-2019\\_1164\\_ro.html](http://www.upt.ro/Informatii_teze-de-doctorat-sustinute-in-2019_1164_ro.html)

The theses defended in 2018, with the details regarding the date, time, place where they were defended, the thesis summary, the public defense commission can be found at: [http://www.upt.ro/Informatii\\_teze-de-doctorat-sustinute-in-2018\\_939\\_ro.html](http://www.upt.ro/Informatii_teze-de-doctorat-sustinute-in-2018_939_ro.html)

- The theses defended in 2017, with details on the date, time, place where they were defended, the thesis summary, the public defense commission can be found at: [http://www.upt.ro/Informatii\\_teze-de-doctorat-sustinute-in-2017\\_834\\_ro.html](http://www.upt.ro/Informatii_teze-de-doctorat-sustinute-in-2017_834_ro.html)

- The theses defended in 2016, with details on date, time, the place where they were defended, the summary of the thesis, the public defense commission can be found at: [http://www.upt.ro/Informatii\\_teze-de-doctorat-sustinute-in-2016-\\_771\\_ro.html](http://www.upt.ro/Informatii_teze-de-doctorat-sustinute-in-2016-_771_ro.html) and [http://www.upt.ro/img/files/2015-2016/doctorat/teze/Teze\\_de\\_doctorat\\_sustinute\\_in\\_2016.pdf](http://www.upt.ro/img/files/2015-2016/doctorat/teze/Teze_de_doctorat_sustinute_in_2016.pdf)

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**Annexes and websites given in the upper is used.**

- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All relevant informations are given in the Annexes and websites.**



*Recommendations:*

**The indicator is fulfilled.**

*Standard C.2.2. The IOSUD/The Doctoral School provides doctoral students with access to the resources needed for conducting doctoral studies.*

**Performance Indicator C.2.2.1.** *All doctoral students have free access to one platform providing academic databases relevant to the doctoral studies domain of their thesis.*

**All PhD students have free access, from any computer with IP on the UPT campus, to the electronic resources and databases of the UPT Central Library.**

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**The Library databases can be accessed at:**

**<https://library.upt.ro/baze-de-date/>**

**or**

**• Directly from the PRIMO search system module, by selecting Primo, Central Index and**

**Subscribed Databases**

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All relevant informations are given in the documents.**

*Recommendations:*

**The indicator is fulfilled.**

**Performance Indicator C.2.2.2.** *Each doctoral student shall have access, upon request, to an electronic system for verifying the degree of similarity with other existing scientific or artistic works.*

**IOSUD-UPT has purchased the computer program iThenticate (<http://www.ithenticate.com/>) used to analyze the degree of similarity of the content of doctoral theses with other documents.**

**In the final phase of the doctoral thesis, the Doctoral School, through the person specifically designated for similarity analysis, generates a similarity report with the iThenticate computer program. The similarity report is sent to the doctoral coordinator of the thesis.**

**Such similarity reports can be generated, at the request of the doctoral student or doctoral coordinator, in different phases of elaboration of the doctoral thesis, or of the scientific papers associated with the doctoral research program.**

**For the specific doctoral thesis, the doctoral coordinator elaborates a similarity report, associated by the report generated by the iThenticate as an annex.**

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**<http://www.ithenticate.com/>**

**Using the computer program for doctoral students in the field of Materials Engineering is given in Annex\_C.2.2.2.**

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All relevant informations are given in the Annexes and websites.**



*Recommendations:*

***The indicator is fulfilled.***

**Performance Indicator C.2.2.3.** *All doctoral students have access to scientific research laboratories or other facilities depending on the specific domain/domains within the Doctoral School, according to internal order procedures.*

The doctoral studies contract, settled between IOSUD-UPT and each enrolled doctoral student, explicitly stipulates the obligations assumed by IOSUD-UPT regarding the access of doctoral students to the research infrastructure / facilities, as follows:

- **Art.6.B.3** - to ensure the access of the doctoral student to the education and research infrastructure within the doctoral studies (Annex\_C.2.2.3. - Doctoral studies contract).
- Depending on the specifics of the research laboratory, the doctoral student is trained in order to strictly follow the rules of labor protection and fire prevention and extinguishing.

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**Annex\_C.2.2.3.**

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All relevant informations are given in the Annexes.**

*Recommendations:*

***The indicator is fulfilled.***

### **Criterion C.3. Internationalization**

*Standard C.3.1. There is a strategy in place and it is applied to enhance the internationalization of doctoral studies.*

**Performance Indicator \*C.3.1.1.** *IOSUD, for every evaluated domain, has concluded mobility agreements with universities abroad, with research institutes, with companies working in the field of study, aimed at the mobility of doctoral students and academic staff (e.g., ERASMUS agreements for the doctoral studies). At least 35% of the doctoral students have completed a training course abroad or other mobility forms such as attending international scientific conferences. IOSUD drafts and applies policies and measures aiming at increasing the number of doctoral students participating at mobility periods abroad, up to at least 20%, which is the target at the level of the European Higher Education Area.*

**Number of PhD students, existing at the time of evaluation from those enrolled between 2015-2019 : 31**

**Doctors number between 2016-2020 : 15**

**Number of PhD students who performed mobilities**

**ISI: 23**

**Other mobilities: 8**

**Erasmus: 3**

**Ratio (%) students who performed mobility / existing students and Doctors number : 73.91**

**CRITERION FULFILLED  $\geq$  35%**



- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

In Annex\_C.3.1.1-1. the ERASMUS mobility agreements between UPT and foreign universities are presented.

• The ERASMUS mobility agreements between UPT and foreign universities can be found publicly at:

[http://www.upt.ro/international/Mobilitati-Si-Cooperari-Internationale\\_Acorduri-bilaterale-Erasmus+\\_8\\_en.html](http://www.upt.ro/international/Mobilitati-Si-Cooperari-Internationale_Acorduri-bilaterale-Erasmus+_8_en.html)

• The framework agreements between UPT and national or foreign universities can be found publicly at:

[http://www.upt.ro/international/Mobilitati-Si-Cooperari-Internationale\\_Acorduri-cadru-de-cooperare-cu-universitati-din-tara-si-strainatate\\_31\\_ro.html](http://www.upt.ro/international/Mobilitati-Si-Cooperari-Internationale_Acorduri-cadru-de-cooperare-cu-universitati-din-tara-si-strainatate_31_ro.html)

• Cooperation agreements with enterprises, associations and research centers can be found publicly at:

[http://www.upt.ro/international/Mobilitati-Si-Cooperari-Internationale\\_Acorduri-de-cooperare-cu-intreprinderi,-asociatii-si-centre-de-cercetare\\_65\\_ro.html](http://www.upt.ro/international/Mobilitati-Si-Cooperari-Internationale_Acorduri-de-cooperare-cu-intreprinderi,-asociatii-si-centre-de-cercetare_65_ro.html)

IOSUD-UPT has the constant concerns for increasing the degree of internationalization of students, implemented through the Strategic Plan for the internationalization of the higher education (2015-2020 and 2021-2028 respectively):

[http://www.upt.ro/img/file/Proceduri/Strategy% 20for% 20Inter nationlisation\\_UPT\\_2021\\_2028.pdf](http://www.upt.ro/img/file/Proceduri/Strategy%20for%20Internationalisation_UPT_2021_2028.pdf)

[http://www.upt.ro/img/file/Proceduri/Strategy\\_for\\_internationalisation\\_UPT\\_2015\\_2020.p df](http://www.upt.ro/img/file/Proceduri/Strategy_for_internationalisation_UPT_2015_2020.pdf)

The list of the doctoral students who have completed mobility internships for the field of Materials Engineering is presented in Annex\_C.3.1.1.

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

**All relevant informations are given in the Annexes and websites.**

*Recommendations:*

**The indicator is fulfilled.**

**Performance Indicator C.3.1.2.** In the evaluated doctoral study domain, support is granted, including financial support, to the organization of doctoral studies in international co-tutelage or invitation of leading experts to deliver courses/lectures for doctoral students.

Between January 2016 and December 2020, one thesis was co-supervised with foreign experts in the field of Materials Engineering. At the level of IOSUD UPT, 2 international co-supervised theses were defended during this period. Currently in IOSUD - UPT there are 3 doctoral students whose thesis are co-supervised with foreign experts.

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The data are presented in detail in Annex\_C.3.1.2-1. - The minutes of public defense of the doctoral theses co-supervised with foreign experts and the list of doctoral students from IOSUD-UPT whose theses are co-supervised with foreign experts.



- **Annex\_C.3.1.2-2.** - presents the list of guests - senior experts who have given courses / lectures for doctoral students.

- **Annex\_C.3.1.2-3.** - presents the list of the experts who gave courses / lectures for doctoral students as the outcome of mobility, through the program P1: Development of the national system of research - development Subprogram 1.1 - Human resources "Mobility projects for young researchers from diaspora".

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All relevant informations are given in the Annexes.**

*Recommendations:*

**The indicator is fulfilled.**

**Performance Indicator C.3.1.3.** *The internationalization of activities carried out during the doctoral studies is supported by IOSUD through concrete measures (e.g., by participating in educational fairs to attract international doctoral students; by including international experts in guidance committees or doctoral committees etc.).*

**The internationalization of activities is supported by:** short-term mobility abroad for doctoral students, participation of doctoral students in summer schools, conferences and other events abroad (Annex\_C.3.1.1.); inviting leading experts who have given courses and lectures for doctoral students in UPT (Annex\_C.3.1.2-2. and Annex\_C.3.1.2-3.); informing the public and stakeholders regarding the doctoral field by posting on the Study in Romania platforms (Annex\_C.3.1.3-2.); increasing the degree of international visibility of doctoral coordinators and implicitly of the Doctoral School through relevant publications in the field (Annex\_A.3.2.1.), members of the scientific committees of international publications and conferences, members of the boards of international professional associations; invited to conferences or groups of experts held abroad, members of commissions for the defense of doctoral theses at top foreign universities (Annex\_A.3.2.1.).

**For the internationalization of the activities within the doctoral school, IOSUD - UPT participated in various promotion missions, at educational fairs to attract international doctoral students, preparing collaboration agreements with prestigious universities.**

*- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**Annex\_C.3.1.1.**

**Annex\_C.3.1.2-2.**

**Annex\_C.3.1.2-3**

**Annex\_C.3.1.3-2.**

*- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

**All relevant informations are given in the Annexes and websites.**

*Recommendations:*

**The indicator is fulfilled.**

#### IV. SWOT Analysis

<p><b><u>Strengths :</u></b></p> <ul style="list-style-type: none"> <li>- very well prepared human resource;</li> <li>- generous economic resources obtained through contracts by doctoral supervisors;</li> <li>- adequate endowment of research laboratories;</li> <li>- exceptional scientific production.</li> </ul>	<p><b><u>Points weak:</u></b></p> <ul style="list-style-type: none"> <li>- low number of candidates for admission;</li> <li>- few master's degree candidates in other universities;</li> <li>- the composition of the doctoral thesis review commissions is not diversified.</li> </ul>
<p><b><u>Opportunities:</u></b></p> <ul style="list-style-type: none"> <li>- attractive field for the labor market;</li> <li>- developed economic environment at regional level, interested in cooperation with UPT;</li> <li>- intense international scientific collaborations.</li> </ul>	<p><b><u>Threats:</u></b></p> <ul style="list-style-type: none"> <li>- reducing the number of bachelor's and master's degree graduates in the field of Materials Engineering in the coming years;</li> <li>- European competition, very attractive for the younger generation.</li> <li>- reducing the number of PhD supervisors.</li> </ul>

#### V. Overview of judgments awarded and of the recommendations

No.	Type of indicator (*, C)	Performance indicator	Judgment	Recommendations

*The recommendations contained in the report shall be resumed in the indicators' analysis. Other general recommendations may be made that do not fit within a particular indicator.*

**VERY IMPORTANT!!!** – *Each identified weakness must be correlated with at least one recommendation to improve the situation!*



## VI. Conclusions and general recommendations

*Self assessment report has been prepared in detailed and provides the opportunity to answer all possible questions. As a part of evaluation process, online meetings were done with the panel members, PhD students, academic staff, ethics and quality commission and employers of the doctoral graduates. All meetings were very productive. All the questions asked were answered and the suggestions were received very positively.*

*My observations and recommendations during the evaluation of self study report and meeting with different shareholder of the material science doctoral program of the UPT are listed below:*

- 1. Based on the information given in the meetings and shared documents, it was understood that the laboratories of the doctoral school are very well equipped and suitable for scientific researches.*
- 2. Materials Engineering Department is quite active in research and have strong collaboration with the industry and the research centers.*
- 3. Ethical issues aiming to control all unexpected situation probable as well.*
- 4. PhD students were mentioned that there is a strong relationship between the students and the advisors. The advisors always guide the students not only the research but also in every field. They also stated that they have good relationship with the doctoral schools. Since many of them have a PhD while working at the company, they get the support from their company and they don't need to doctoral school.*
- 5. PhD students stated that they paid the expenses from their own budget when they participate the conferences. They said they took the conference expenses after they returned. However, they pointed out that reimbursement process has complex procedures and takes a long time.*
- 6. It is observed that many of the graduates from PhD level are being allocated with very prestigious organizations in Romania. Besides, some of them are research assistant at the Romania and some other countries.*
- 7. Most of the PhD graduates mentioned that they had an experience abroad during their PhD studies. They also stated that they had good relationship with their thesis supervisors as well.*
- 8. During the evaluation process, there were meetings with the representatives from the steel, automotive and polymer industry. They mentioned a program developed between the university and the industry which is very good related to the PhD studies.*
- 9. It seems like specific budget allocated for the research related with each doctoral study is enough. Doctoral School subsidizes conference attendance and fees for article publications. It was mentioned that there is an award mechanism. They divided the publications into 3 groups. The amount of support varies according to the article quality. As an observation, this mechanism is unique to UPT which can be recommended to establish similar mechanism to other universities.*
- 10. Although the award mechanism seems good, it would be very useful to introduce an another award mechanism to promote the researchers to publish article. For this purpose, both PhD students and thesis advisors should be encouraged by an award mechanism. This mechanism is based on the offering some amount of money to thesis advisors and students according to*





*their publishing number end of each year. This award can be offered by two ways: national scientific research council and UPT research funds.*

- 11. Another important issue, number of the PhD students is not enough. A strategy should be developed to increase this number.*
- 12. From the meetings with representative with the research centers, it was seen that these centers have a quality above the standards. They supported the departments during their research activities.*
- 13. During the meetings with the quality commission, it was mentioned that there is an imbalance between the number of newly enrolled students and the number of graduates. It was stated that this situation resulted from the fact that some students could not finish their thesis on time because of their marriage and other family status. These situations also result in preventing the students from going abroad during their doctoral studies.*
- 14. As a final point, for all performance indicators are awarded the grade FULFILLED;*

*Regards,*

*Prof. Dr. Gultekin Goller*