

Criteria for obtaining the title of associated professor and criteria for obtaining the title of professor at the Faculty of Management Science and Informatics of the University of Žilina in the field of habilitation procedures and inaugural procedures applied informatics assigned to the study field of informatics

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# PART ONE Introduction

- 1. These criteria apply to applicants for the habilitation procedure and the inaugural procedure, which the Faculty of Management Science and Informatics (hereinafter referred to as "FRI") of the University of Žilina in Žilina (hereinafter referred to as "UNIZA") has the right to conduct in its accredited department of the habilitation procedure and inaugural procedure included in the research field informatics.
- 2. During the habilitation procedure and the inaugural procedure, the applicant is evaluated comprehensively, as a person in the field of educational and scientific research activity, his/her entire work, ethical qualities and organizational skills are taken into account in accordance with the law on universities, the procedure for obtaining scientific-pedagogical degrees and art-pedagogical degrees associated professor and professor, according to the standards for the habilitation procedure and the inaugural procedure of the Slovak Accreditation Agency for Higher Education and in accordance with the internal system of ensuring the quality of higher education at UNIZA.

#### **PART TWO**

### Minimum criteria and minimum requirements

- 1. The required minimum criteria cannot be replaced by fulfilling other criteria.
- 2. When evaluating the applicant, it is necessary to consider the following criteria requirements as minimum requirements.
- 3. Publication outputs of the candidate are accepted in an uncalculated number.
- 4. An applicant for the habilitation and appointment procedure working outside FRI UNIZA must demonstrate cooperation with FRI in the field of pedagogical and scientific research activities (appropriately in the forms specified in Section D of the Third Part of these criteria) for a period of at least 5 years, and at the same time must be proven by the approval of the statutory authority university, which is his workplace.

Minimum criteria and minimum requirements					
Criterion		Minimum reguirement for the habilitation procedure	Minimum reguirement for the inauguration procedure		
Α	TEACHING ACTIVITIES				
	A.1 Pedagogical practice	4 years from the award of the title "PhD."	5 years from the award of the title "doc."		
	A.2 University textbooks, scripts, teaching texts	1	<b>2</b> ¹		
	A.3 Successful management of the final theses of the 1st and 2nd level of higher education	10 <sup>2</sup>	<b>20</b> <sup>3</sup>		
	A.4 The scientific education of doctoral students ended with the defense of the dissertation	-	1		
	A.5 Scientific education of doctoral students concluded with a dissertation examination	-	1		
	A.6 Introduction, reconstruction of courses (lectures)	-	2		
	A.7 Introduction, reconstruction of courses (seminaries)	2	-		
В	B SCIENTIFIC RESEARCH AND PUBLICATION ACTIVITY				
	B.1 Scientific monographs	-	1		
	B.2 Total number of publications	20	40		
	B.2.1 From outputs of the category B.2: - Outputs in the WoS or SCOPUS scientific databases	10	20		
	B.2.2 From outputs of the category B.2: - Outputs in the WoS scientific databases	8	15		
	B.2.3 From outputs of the category B.2:  - outputs in scientific journals included in the WoS (JCR) databases with the applicant's authorship share of at least 25 percent	min 2, at least 1 with Q2 and at least 1 with Q3	min 4, at least 2 with Q2 and at least 2 with Q3		
	B.3 Research stay or internship at a foreign workplace	14	<b>2</b> <sup>5</sup>		
	B.4 Total number of citations	15	30		
	B.4.1 from citations in B.4:  - citations registered in the WoS citation database	9	25		

<sup>&</sup>lt;sup>1</sup> At least 1 university textbook <sup>2</sup> At least 5 master thesis

<sup>&</sup>lt;sup>3</sup> At least 10 master thesis

<sup>&</sup>lt;sup>4</sup> in the total duration of min. 1 month

<sup>&</sup>lt;sup>5</sup> in the total duration of min. 2 month

	B.5 H-index in WoS or Scopus citation database	Min. 3	Min. 5		
	B.6 Number of references from leading foreign experts from at least three different countries	-	3		
С	PROJECT ACTIVITY				
	C.1 Project activity – principal (responsible) investigator of research projects	-	2		
	C.2 Project activity - investigator of research projects	2	2		
D	OTHER FORMS OF RECOGNITION BY THE SCIENTIFIC AND PEDAGOGICAL COMMUNITY				
	D.1 Complementary pedagogical, scientific and other creative activities of the applicant <sup>6</sup>	5	10		

## PART THREE A TEACHING ACTIVITIES

- 1. The minimum requirement for fulfilling the pedagogical practice criterion for the habilitation procedure is to carry out teaching activities at a university for a period of at least three years, and at the same time four years after obtaining a third-level university education, in the subjects of the field of study to which the field of habilitation and the inaugural procedure belongs. It mainly involves conducting lectures from selected chapters, conducting seminars and exercises, or corresponding forms of teaching.
- 2. The minimum requirement for fulfilling the pedagogical experience criterion for the inaugural procedure is to carry out pedagogical activities at a university for a period of at least five years after obtaining the title of docent, in the subjects of the field of study to which the field of habilitation and the inaugural procedure belongs. For the performance of teaching activities, only the time during which the applicant was employed with the university is taken into account, at least for shorter working hours in the range of at least half of the established weekly working hours (including abroad), while conducting lectures or seminars, or exercises and led doctoral students.
- 3. A university textbook is considered a publication that presents a systematic, interpretative overview of knowledge from a certain scientific discipline or from social practice. Before publication, it is assessed by at least two experts whose names are listed in the publication. If the reviewers are not listed in the publication or the publication is not registered in CREPČ, the author proves the review process. A university textbook has a scope of at least 3 AH, relevant publisher information and an assigned ISBN. In order to meet this criterion, the applicant must have an author's share in the textbook of at least 3 AH.
- 4. Publications containing methodical materials, instructions for exercises, etc. are considered to be scripts and teaching texts. intended for college. Before publication, it is assessed by at least two experts whose names are listed in the publication. If the reviewers are not listed in the publication or the publication is not registered in CREPČ, the author proves the review process. The publication has a scope of at least 3 AH.

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<sup>&</sup>lt;sup>6</sup> the number of areas listed in part D of the document, which must be completed by the applicant

relevant publisher data and an assigned ISBN. In order to fulfill this criterion, the applicant must have an author's share in scripts or teaching texts of at least 3 AH.

#### B Scientific research and publication activity

- 1. A scientific monograph is considered to be an original monothematic work of a scientific-discovery nature, in which the author uses, critically reviews and synthesizes known knowledge on the given topic, enriches it with new original knowledge that is the result of the author's own scientific work, and presents conclusions. Before publication, it is reviewed by a scientific editor and at least two experts whose names are mentioned in it. If the reviewers are not listed in the publication or the publication is not registered in CREPČ, the author proves the review process. The monograph has a scope of at least 3 AH, a print run of at least 100 copies, relevant publisher information and an assigned ISBN. To meet this criterion, the applicant must have an author's share in the monograph of at least 3 AH. In the case of an author's share of at least 1 AH, the applicant will list the monograph in part D, as a chapter in the monograph.
- Original scientific works in domestic and foreign scientific journals are considered to be articles or studies that publish the original (original) results of the author's or author's team's own work, published in scientific journals. They have an ISSN, or other standard number.
- 3. Original scientific works in domestic and foreign scientific journals are considered to be articles, studies or articles that contain the original results of the author's or author's team's own work, published in scientific (non-conference) journals. Before publication, they are reviewed by at least two experts whose names appear in the publications. If the reviewers are not listed in the publication or the publication is not registered in CREPČ, the author proves the review process. They have relevant publisher data, assigned ISBN, etc.
- 4. Contributions from a scientific conference, which were published as a full text in a conference proceedings or a journal, or in a supplemental issue of a journal, are considered original scientific works in the proceedings of domestic and foreign scientific conferences. Before publication, they are reviewed by at least two experts whose names appear in the publications. If the reviewers are not listed in the publication or the publication is not registered in CREPČ, the author proves the review process. They have relevant publisher data, an assigned ISBN, or ISSN.
- 5. Chapters in a monograph are considered to be original scientific works in the monograph, where the authors are mentioned in the content or in the title of the chapter. Before publication, they are reviewed by at least two experts whose names appear in the publications. If the reviewers are not listed in the publication or the publication is not registered in CREPČ, the author proves the review process. A chapter in a monograph has a scope of at least 1 AH, a print run of at least 100 copies, relevant publisher data, assigned ISBN, etc.
- 6. It is not possible for an applicant to accept more than five scientific papers published in one source as part of scientific research and publication activities, with the exception of sources registered in international databases (this also applies to periodically recurring issues or volumes of magazines and anthologies).
- 7. The applicant shall provide a list and confirmation of the duration of completed research stays or internships at foreign workplaces, focused on scientific research activities in the field of computer science research.

- 8. A citation is a designation of a source a cited document, while a complete record of it is an item in the list of bibliographic references. An abbreviated record of the cited document can also be used, which is usually placed on the page below the line. A citation identifies the publication from which an idea was taken or paraphrased. A citation must contain sufficient information to identify the cited document.
- 9. Hirsch's index (H-index) is an index used to qualify the applicant's scientific and research performance. This is a quantitative assessment of the quality of published scientific articles. The Hirsh index of an individual is determined by the number of citations of his individual scientific works. H-index is a number where H indicates the number of publications that have been cited at least H times.
- 10. In the inaugural procedure, in order to demonstrate the international recognition of the criteria for obtaining the title of professor, it is necessary to submit written references from leading foreign experts from at least three different countries outside the Slovak Republic, while the endorsements will confirm that the applicant meets the requirements for working as a professor in an international context.

### C Project activities

- 1. Research grant projects allocated by a grant agency at the national level (APVV, VEGA, VA, etc.) or projects at the international level (H2020, etc.) are considered project activities, where the applicant is the main (responsible) researcher of the project. It is not possible to recognize projects at the university level as project activities at this point.
- 2. Research grant projects allocated by the grant agency at the national level (APVV, VEGA, VA, etc.), projects at the international level (H2020, etc.) are considered project activities where the applicant is the project solver. Projects at the university level (projects to support UNIZA young researchers or projects to support UNIZA researchers) can be recognized as project activities at this point.

### D Other forms of recognition by the scientific and pedagogical community

The applicant will submit other pedagogical, scientific and other creative activities of the applicant documenting recognition by the scientific-pedagogical community in the following areas:

- 1. Solution of projects in the educational field.
- 2. Membership in national and international scientific commissions, committees, councils, etc.
- 3. Membership in working groups of bodies for ensuring the internal quality system of higher education and in accreditation agencies.
- 4. Membership in commissions of grant agencies, or assessment of grant projects, international projects.
- 5. Membership in the editorial boards of domestic and foreign scientific journals.
- 6. Membership in commissions for awarding scientific and scientific-pedagogical ranks.
- 7. Membership in union commissions for the 3rd level of higher education.
- 8. Guaranteeing scientific conferences.
- 9. Membership in scientific or conference organizing committees.
- 10. Requested scientific lectures, posters.
- 11. Reviews of theses PhD., doc., DrSc.
- 12. Reviews of books, textbooks, scripts, articles.
- 13. Participation in the creation and assessment of standards.
- 14. Feedback given in unpublished works (research papers, dissertations, etc.).

- 15. Guaranteeing the study program.
- 16. Preparation of the curriculum of the new study program.
- 17. Developing the curriculum, or introduction of a new subject.
- 18. Authorship, or co-authorship of internal teaching aids, software.
- 19. Construction of teaching and professional laboratories.
- 20. Award by a significant institution in Slovakia or abroad, foreign university, practice.
- 21. Granted patent, invention or industrial design.
- 22. Creation of an engineering work or methodology of international importance with direct use in practice; international standards, norms, methodological guidelines in the given field of research.
- 23. Significant project and expertise activity for practice.
- 24. Realized unique engineering works and projects.
- 25. New implemented materials, programs, systems, methodologies and technologies
- 26. Other forms of recognition.

## PART FOUR Conclusion

- 1. Fulfillment of individual criteria is a starting, but not sufficient, condition for awarding a scientific-pedagogical title.
- 2. Applicants for the habilitation procedure and the inaugural procedure are assessed by committees, opponents and the scientific council, while proceeding in accordance with the internal system of ensuring the quality of higher education at UNIZA in the field of obtaining scientific-pedagogical degrees and art-pedagogical degrees docent and professor at the University of Žilina in Žilina and internal guidelines of FRI UNIZA.
- 3. The criteria approved by the Scientific Council of the University of Žilina in Žilina on April 20, 2022 are cancelled.
- 4. These criteria were discussed by the Scientific Council of the FRI on March 17, 2022 and approved by the Scientific Council of the University of Žilina in Žilina on May 5, 2022.

doc. Ing. Emil Kršák, PhD., v. r. dean of FRI UNIZA

prof. Ing. Jozef Jandačka, PhD., v. r. rector