DOCTORAL SCHOOL OF INFORMATION SCIENCE AND TECHNOLOGY

Regulations

Approved by DDHC:	October 6, 2025
Approved by UDHC:	November 20, 2025
Effective date:	November 21, 2025
Responsible for maintenance:	Head of the DS

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The Hungarian Accreditation Committee accredited the Doctoral School of Information Science and Technology (hereinafter DS) in 2001 as the successor of the Doctoral Program "Technical Applications of Information Technology" of the University of Pannonia (UP).

The core members of the Doctoral School of Information Science and Technology are:
- Ferenc Hartung, full professor, DSc (Head of the DS)
- György Dósa, full professor, DSc
- Katalin Hangos, full professor, DSc
- Attila Magyar, full professor, DSc
- Mihály Pituk, full professor, DSc
- Cecília Sik-Lányi, full professor, DSc
- Zsolt Tuza, scientific advisor, DSc
- László Czúni, associate professor, dr. habil., PhD
- István Vassányi, associate professor, dr. habil., PhD
- Ágnes Vathy-Fogarassy, associate professor, dr. habil., PhD

The emeritus core members of the DS are:
- Károly Bezdek, professor emeritus, DSc

The present Regulations supplement the "Doctoral Rules" (accepted by the Senate of UP on March 27, 2025) and the "Habilitation Rules" (accepted by the Senate of UP on April 24, 2025). Regulations address the questions and procedures referred to the competence of doctoral schools, considering the special situation and characteristics of IT sciences.

Address of the DS:

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             Doctoral School of Information Science and Technology
             8201 Veszprém, Pf. 158
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1. **Composition and Activity of the Disciplinary Doctoral and Habilitation Council**

   1.1. The members of the Disciplinary Doctoral and Habilitation Council of Information Science and Technology (DDHC), appointed by the University Doctoral and Habilitation Council (UDHC), are the following:

Head:	Ferenc Hartung, full professor, DSc
Internal members:	György Dósa, full professor, DSc
	Katalin Hangos, full professor, DSc
	László Czúni, associate professor, PhD
	Ágnes Vathy-Fogarassy, associate professor, PhD
External members:	Csaba Fábián, full professor, DSc
	Zoltán Kató, full professor, DSc
	Gábor Szederkényi, full professor, DSc
Secretary:	Péter Görbe, assistant professor, PhD

   A student representative delegated by the Doctoral Student Union.

   1.2. DDHC meetings are held as necessary but at least once a semester. Meetings address and decide on the issues falling within the competence of DDHC.

   1.3. Voting rights are given to the Head of the DDHC, to internal and external members.

   1.4. The quorum and the decision-making are the same as those formulated at UDHC in the Doctoral Rules of UP.

   1.5. DDHC makes its decisions by public votes in general. Members with voting rights can request a secret vote in a reasonable case.

   1.6. Meeting records are prepared during DDHC meetings, made public for the lecturers and students of the DS within five workdays after the meeting, and stored in the DS Archives.

   1.7. In a reasonable case, the Head of the DDHC can propose an electronic vote by e-mail or online. Deadlines defined in Section 1.8 hold are still to be met in such cases.

   1.8. Access for DDHC members to materials related to making decisions must be provided at least two workdays before the meeting, which can be done

electronically. Council members must be notified about the meeting's date and agenda at least five workdays before the meeting.

1.9. The DDHC decides on the following issues (see Doctoral Rules of UP Section 5(7)):

- matters related to subjects (announcing a doctoral subject, accepting its syllabus, deciding on its credit value),
- matters related to the Comprehensive Exam (the major and minor subjects and their syllabus),
- announcement of PhD topics for the Organized Program and accepting the supervisors,
- approving the working plans of PhD students in the Organized Program (the plan contains both the study plan and the research plan),
- approving working plan modifications of PhD students in the Organized Program,
- evaluating the applications for individual preparation (deciding whether the requested research topic belongs to the scope of the DS and if the minimum requirements for publication and language knowledge are met),
- evaluating the semi-annual reports of the PhD students in the Organized Program,
- approving the subjects for Comprehensive Exams for the candidate,
- appointing the members of the Comprehensive Exam and public defense committees,
- managing the financial support available for the DS,
- evaluating public defense applications, appointing the opponents and members of the public defense committee.

1.10.   The documents and certificates prescribed by the Doctoral Rules necessary for the DDHC's decisions must be submitted to the DDHC's secretary via e-mail (di@mik.uni-pannon.hu) at least seven workdays before the meeting. A request form addressed to the Head of the DDHC must also be attached. The only exceptions are documents to be submitted in printed form, see Section 2.5.

1.11.   The DS maintains an online, digital archive to store all documents related to its activity and PhD students' matters.

2. Conditions for Obtaining a Doctoral Degree and the Doctoral Procedure

2.1. The Doctoral Rules of UP regulate the general conditions for obtaining a doctoral degree and the procedures. The DS regulates the minimum requirements for publication and language knowledge, the organization of the home defense and the preparation of the co-author declarations, considering the specific characteristics of IT.

2.2. The minimum publication requirement for obtaining a doctoral degree is **having two scientific papers published in international peer-reviewed journals with SCI impact factors**. These publications must be certified by presenting their reprints or the acceptance letters and manuscripts copies. Articles published must be registered in the Hungarian Scientific Bibliography (MTMT). In the case of publications published in 2026 or after, publications published in journals rated "0" in the year of publication in the "List of Journal that engage in objectionable practices " (Norwegian list) on the MTMT website cannot be counted towards the fulfillment of the minimum publication requirement.

2.3. Meeting the minimum publication requirement is verified by the DDHC when the PhD dissertation is submitted. If publication requirements are not met, the PhD dissertation may not be admitted to defense.

2.4. The minimum language knowledge requirement is English level B2, certified by a Hungarian state-administered language certificate of type C (combined) - or any equivalent accredited language exam.

2.5. The candidate initiates the Doctoral Procedure for obtaining a PhD degree by submitting the necessary application form to the DDHC. The required attachments of the application, according to Section 13 of the Doctoral Rules of UP, are:

a) in paper form:

- two identical printed and bound copies of the doctoral dissertation (its length without the appendix not exceeding 100 pages),
- five Hungarian and five English copies of the theses booklet (abstract), in case of a non-Hungarian student only in English,

- an official copy of each language exam certificate not already submitted during the DS enrolment process. The University's Directorate of Academic Affairs can also verify the original certificate.

b) in electronic (pdf) form:

- the doctoral dissertation,
- the theses booklet (abstract) in both Hungarian and English as separate files, in case of a non-Hungarian student only in English,
- the record and list of participants at the home defense,
- a Curriculum Vitae written in third person, maximum one page long,
- the list of publications related to the topic of the dissertation along with their reprints or the acceptance letters,
- a signed statement of non-foreign co-authors without a degree in IT or mathematics, in which they agree that the results presented in the joint publication may be part of the doctoral dissertation. PhD students co-authors also have to declare to what extent the results used are the contributions of the given candidate,
- a signed statement of the candidate declaring that the dissertation is of their own work and that the references are unambiguous and complete,
- a signed statement of the supervisor declaring that the dissertation meets scientific standards,
- the scanned proof of payment for the procedure fee,
- a signed application for admission to the defense.

2.6. The home defense of the doctoral dissertation takes place at the candidate's research center or a committee meeting of the Hungarian Academy of Sciences. Records are taken at the home defense, including all participants' names, workplaces, and scientific degrees. The head of the candidate's research center or that of the academic committee appoints two reviewers (opponents) with scientific degrees in the home defense. The opponents' written reviews are a required attachment to the records. At least two core members of the DS or two members of the DDHC must be present at the home defense.

2.7. All lecturers and students of the DS are invited to the home defense and final defense.

2.8. The Doctoral Rules of UP regulate the public defense process. The DDHC is responsible for appointing the two opponents and the reviewing committee. The public defense can be expected to take place five months after submitting the thesis.

3. PhD Students in the Organized Program (enrolled after September 1, 2016)

3.1. Those who have obtained a master's degree can be admitted to the doctoral program with a degree and professional qualification, as well as in doctoral training English general language and professional language knowledge is required for participation. The appropriate level of language knowledge can be certified with any of the following documents:

- a state-recognized, at least intermediate level (corresponding to level B2 of the European Reference Framework), complex type language exam or an equivalent document,

- international language certificate listed in Appendix 2 of the Doctoral Rules of UP,

- advanced level English language graduation exam taken during the two-level graduation system with a score of at least 45%, or an intermediate level of English language graduation exam with a result of at least 80%,

- language exam organized by the higher education institution,

- official certificate of at least one year of employment spent at a foreign workplace or at a multinational company in an English-speaking working environment,

- an international publication in English of at least 5 pages, published as an author/co-author, published within 5 years prior to the date of application.

3.2. PhD students must earn 240 credits during a total of 8 semesters, as stated in Section 8 of the Doctoral Rules of UP. The Program is divided into two stages: the study-research stage (semesters no. 1-4) and the research-dissertation stage (semesters 5-8).

3.3. Credits for doctoral subjects completed in other doctoral schools (both Hungarian and foreign) can be accounted into the coursework credits. The DDHC approves the completion based on the supervisor's support and the candidate's DDHC-approved study plan. Subjects on the DS's recommended subjects list are approved automatically.

3.4. The completion of all the doctoral program requirements (receiving the "absolutorium") is verified by the Directorate of Academic Affairs of UP based on the Education System's data.

3.5. A PhD student can request the approval of the subjects selected for the Comprehensive Exam and the appointment of the Comprehensive Exam Committee from the DDHC once the required number of credits are earned. The request is to be sent to di@mik.uni-pannon.hu.

3.6. The semi-annual reports of PhD students are mandatory subjects in the Doctoral Program. They consist of a mandatory written part and an oral presentation in English. The supervisor's written approval of the report is also required. It must be signed by both the student and the supervisor and submitted as a pdf to di@mik.uni-pannon.hu.

3.7. The semi-annual reports' oral part is held as a public mini-conference, where all the lecturers and students of the DS are invited. The Head of the DS Head may release the obligation of the oral report in case of the student staying abroad or having an illness.

3.8. The semi-annual report is reviewed by a committee appointed by the Head of the DS. Their written review is sent to the student, the supervisor(s), and the DDHC members. Failure to complete the report, either by the lack of cooperation or by the committee's rejective decision, results in the student losing their state-funded scholarship (meaning they can continue only in a self-founded status).

3.9. With the consent of the DDHC, the research activity required for doctoral training can also be carried out at an external research site. Consent cannot be refused in the case of an external supervisor. Study and reporting activities must also be carried out by doctoral students who have received such consent within the framework and according to the regulations of the DS.

3.10. The doctoral training of the students who started their studies before September 1, 2016 is detailed in section 3 of the Regulations of the DS in force on September 1, 2023.

4. Comprehensive Exam

4.1. Completing the Comprehensive Exam is a requirement for starting the research-dissertation stage of the Doctoral Program.

4.2. The requirement for taking the Comprehensive Exam is earning at least 95 credits in the first four semesters, including at least 30 credits from publications and 48 credits from coursework, along with completing the semi-annual reports in the first three semesters, and the "Visiting the Comprehensive Exam" subject.

4.3. The Comprehensive Exam is public, and it is taken in front of a committee. The Committee includes at least 3 members, one-third of the members are not employed by the institute. The chairman of the committee is a full professor or a professor emeritus or a researcher, instructor having a Doctor of Science title. All members of the committee have a scientific degree. The supervisor is allowed to be present as an observer at the non-public discussion of the committee. The supervisor sends the assessment of the student to the chairman of the committee electronically at least one week prior the exam.

4.4. The Comprehensive Exam consists of two parts: theoretical part – the theoretical knowledge of the student is measured, thesis part – the scientific progress of the student is measured.

4.5. The student takes exams in two subjects in the theoretical part:

- one in a major subject, whose list can be found in the doctoral school's training program titled "Educational part of the PhD part" and on the homepage of the DS, and
- one in a minor subject, which can be chosen from the list of the subjects in the DS, or in the field of informatics announced by any accredited doctoral

school in IT. The minor subject cannot be chosen from the subject group of the selected major subject.

4.6. The candidate participating in the organized training must have successfully completed at least three courses from the major subject of the Comprehensive Exam.

4.7. In the second part of the Comprehensive Exam the examinee has to present his/her knowledge about the literature, the research results, the research plan for the second stage of the doctoral training and the schedule of preparing the thesis and publishing the results have to be presented. The lecture touches upon the significances of the scientific results, upon its innovative content, upon its research technology motivation if relevant and its practical applicability of the results. The examinee has to submit the summary of his/her results and the publications to the committee electronically at least one week prior the exam.

4.8. The members of the examination committee evaluate the theoretical and the thesis part separately. The Comprehensive Exam is successful if the majority of the committee members evaluate both parts successful. In case of an unsuccessful exam the examinee can repeat the exam once more in the current exam period.

4.9. A record has to be prepared about the Comprehensive Exam. The result of the exam has to be announced on the day of the oral exam.

4.10. The result of the Comprehensive Exam cannot be included in the final ranking of the doctoral degree, but it is a prerequisite of entering the second phase of the training.

5. Individual Preparation

5.1. The application for individual preparation must be submitted to the DDHC, following the requirements listed in Section 9 of the Doctoral Rules of UP. The application must also be sent in electronic form (as a pdf) to di@mik.uni-pannon.hu. The DDHC examines whether the research topic is in the scope of the DS and if the minimum publication and language knowledge requirements are met. If not, the application is not supported.

5.2. The publication activity in the five-year-long period preceding the application must meet the minimum publication requirements. Time spent on parental leave in Hungary (GYES and GYED) does not count toward the five-year limit. At the applicant's request, DDHC may also consider publications published in the last 10 years when checking the minimum publication requirement.

5.3. Enrolment for individual preparation requires the approval of the UDHC and the support of the DDHC. The approval allows the Comprehensive Exam to be taken, which must be completed within six months after enrolment.

5.4. The enrolled student starts the research-dissertation stage of the Doctoral Program and will receive a student status upon completing the Comprehensive Exam.

5.5. The dissertation's submission is regulated in Section 13 of the Doctoral Rules of UP and Section 2.5 of this current regulation.

5.6. Publications relevant to the research topic from the five-year-long period prior to the application can contribute towards the 120 publication credits required for the research-dissertation stage. The DDHC verifies these publications, which must be registered in the Hungarian Scientific Bibliography (MTMT).

6. Supervisors and Consultants

6.1. Supervisors in the DS and Consultants of PhD students doing individual preparation must have a scientific degree, be able to oversee scientific research, and have sufficient publication activity.

6.2. The DDHC verifies the suitability of PhD student Supervisors in the Organized Program when the doctoral topic is announced. Consultants are reviewed as part of the verification procedure of applications for individual preparation enrolments.

6.3. The minimum publication requirement for Supervisors and Consultants is having two research papers published for each PhD student. These papers must be published in international peer-reviewed journals

matching the scientific scope of the DS, within a five-year-long period prior to the appointment is made.

7. DS members

7.1. The members of the DS are the Core Members and Emeritus Core Members.

7.2. The list of DS members may change as necessary, based on the Core Members Committee's recommendation. The Head of DDHC requests necessary appointments and discharges from the UDHC. Core membership is automatically terminated if one of its legal conditions is not met.

7.3. The Core Members Committee has a quorum if more than 50% of the members are present. The Core Members Committee makes its decisions by a simple majority.

7.4. DS members have the right to announce doctoral subjects for PhD students in the Organized Program and to be supervisors or consultants of PhD students without further examination.

7.5. DS members are invited to the public defenses organized by the DS and to the oral part of the PhD students' semi-annual reports.

7.6. The instructors of the DS are the instructors responsible for the subjects of the training program. If in the given semester the announced subject is not taught by the responsible instructor, then with the consent of the responsible instructor, the head of DS appoints the instructor of the subject from among researchers with at least a PhD degree.

7.7. If necessary, but at least once a year, the head of the DS convenes a forum to which he/she invites the members, supervisors and instructors of the DS. At the forum, the head of the DS informs the participants about the current affairs of the DS, and at the same time he/she can ask the opinions of the participants.

8. Habilitation

8.1. The habilitation procedure and its requirements are given in the University's Habilitation Regulations. The DS regulates the minimum professional, publication and mentoring requirements with regards to the characteristics of the fields of IT.

8.2. Accepted disciplines for habilitation

The DDHC accepts habilitation requests that fit the DS's research fields. These fields are listed on the homepage of the DS:
- Artificial intelligence
- Digital reality
- Discrete mathematics and optimization
- Dynamic systems and control
- Image and signal processing
- Medical and health informatics

The DDHC decides in accepting requests related to other research topics. The habilitation request must precisely define the exact research field(s).

8.3. The University's Habilitation Regulations define the minimal publication requirements for the fields of IT as 50% of what is necessary for receiving a DSc degree. These requirements are interpreted as that given by the Section of Engineering Sciences of the Hungarian Academy of Sciences, which defines the expected quality and quantity publications and of the references (Q and I values).

The proof of meeting these requirements must be provided in the application by using the Tud-O-Méter software used by the Section of Engineering Sciences, available at

http://www.hit.bme.hu/~ghorvath/tudometer/mtoscoring.

Publications must be registered in the Hungarian Scientific Bibliography (MTMT).

8.4. A further publication requirement is that the candidate must have five publications in international peer-reviewed journals or high-level international conference proceedings within the research field defined in the application. The publications must be from the five-year-long period

prior to the application. (This requirement meets that of the Hungarian Accreditation Committee for being a core member).

8.5. The minimal mentoring requirement is that the candidate is currently a supervisor or has at least one PhD student who graduated in the fields of IT (either as a supervisor or a co-supervisor).

8.6. In addition to the annexes required by the University's Habilitation Regulations, the data sheet provided in Annex 1 of these regulations must also be attached to the application of the habilitation. The minimum requirement for habilitation is to achieve at least 120 points in the point system of the table. The data sheet must be completed in an Excel file that can be downloaded from the doctoral school's website. The supporting data used to complete the data sheet must also be provided in the application. The application must also include any professional activities that may not be included among the activities asked about in the data sheet (e.g. journal editorial board or reviewer duties, PhD, MTA Doctoral degree reviewer, committee member, reviewer of applications, author of patents, software, etc.).

8.7. The habilitation request and its appendices must be submitted to the Directorate of Academic Affairs, as given by the University's Habilitation Regulations, and in electronic form to the secretary of the DS at di@mik.uni-pannon.hu.

8.8. All the separate documents must be merged into one pdf file with a table of contents in electronic submissions. The detailed results of the Tud-O-Méter software for calculating the Q and I values (as given in Section 8.4) must also be provided.

8.9. The public lecture is to be held in Hungarian (English is allowed in justified cases, with the prior permission of the DDHC), and the colloquium is in English. The habilitation theses are to be submitted both in Hungarian and English. The reviews are prepared in English.

List of Abbreviations

DS	Doctoral School of Information Science and Technology
UP	University of Pannonia
MTMT	Hungarian Scientific Bibliography - Magyar Tudományos Művek Tára
UDHC	University Doctoral and Habilitation Council
DDHC	Disciplinary Doctoral and Habilitation Council of Information Science and Technology
IT	information technology

Effective date: November 21, 2025, for degree procedures with immediate effect.

Annex 1: Aspects of the evaluation of teaching, research and academic public activities

Applicant name:	
Minimum score required to support habilitation:	**120**
Applicant's total score	**0**

	Value	Score
I. Higher education activity (total number of points that can be awarded) 100		
1a.1. Educational experience		
Number of contact hours in the ten years preceding the application		
From the above lecture		
1a.2. Managing students' academic and scientific work		
Diploma work, thesis. Number of TDK (Scientific Students' Associations) topic management		
Total score (1a.1.+1a.2.)		0
1a.3. Holding a lecture, practice, seminar in a foreign language organized at graduate and/or postgraduate level, or at any of the relevant training levels of the Bologna system.		
Number of contact hours up to the date of application submission (including foreign guest teacher invitations).		
Total score (1a.3.)		0
1b. Educational development activities, effectiveness		
Subject responsibility – mandatory subject, pcs.		
Subject responsibility – optional subject, pcs		
Meritful participation in the development of a subject, pcs		
notes, textbooks, educational aids or digital teaching materials of at least 100 pages (first or sole or at least 50% author), pcs		
Total score (1b.1.+1b.2.)		0
I. Higher education activities in total		**0**

II. Scientific activity (total number of points that can be awarded) 100

2a.1. Outstanding scientific and research work (achievements achieved up to the time of submission of the application)

Do you have a DSc title? (yes/no)	
Fulfillment of HAS requirements: Q value	
Fulfillment of HAS requirements: I value	
Total score (2a.1.)	**0**

2a.2. Management of the scientific work of young lecturers, participation as supervisor in doctoral training

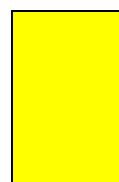|	
PhD students with a degree, number (co-supervisor 0.5 people)	
Current doctoral students or candidates, number (co-supervisors 0.5 people)	

2a.3. Research school creation activities

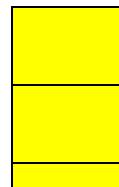|	
Research school creation activities (e.g.: leader and/or founder of a research group), pcs	

2a.4. Professional public activity

Professional public activity (e.g.: head or member of a university professional committee, external member of a committee of another university, member of a professional body outside the university, member of the university senate, faculty council, chair or member of a university professional committee), pcs	
Total score (2a.2.+2a.3.+2a.4.)	**0**

2b.1. Research organization experience and effectiveness

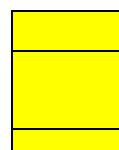|	
Topic leadership of an awarded national or international research/development/innovation tender, pcs	
Meritorious participation in the implementation of national or international research/development/innovation projects, pcs	
Institutional project management, pcs	
Total score (2b.1.)	**0**

2b.2. Domestic and international recognition

President of a national or international scientific organization, pcs	
Board member of a national or international scientific organization, conference chairman, pcs	
Co-chair, section organizer chair, invited plenary speaker, pcs	
Total score (2b.2.)	**0**

II. Scientific activity in total — **0**

<u>Filling instructions:</u>

- 1a.1: A minimum of 100 hours of lectures is required. •
- 1a.2: In the case of a foreign applicant, talent management activities with students instead of TDK topic guidance.
- 1a.3: In the case of a foreign applicant, the number of contact hours held in a "foreign language" for the applicant, or educational activities carried out outside the applicant's country.
- 1b.1: In the case of a foreign applicant, the assignment as a subject supervisor can be replaced by other program, course or project manager or program, course or educational project organizer activities.
- 2a.1: The data must be determined using the methodology of the Hungarian Academy of Sciences' Informatics Scientific Committee, using http://www.hit.bme.hu/~ghorvath/tudometer/mtoscoring (the Tud-O-Méter software). The minimum requirement for habilitation is to meet at least 50% of the HAS's expectations for the Q and I indicators. Holders of the HAS DSc title receive a maximum of 50 points for point 2a.1.
- 2a.2: In the case of co-supervision, one supervisor is counted as 0.5 persons.