

Program description:

The PhD Program in Computer Engineering is designed to pursue research in the areas of infocommunications, algorithms, data security, data bases, and software technologies. There are at least 20-30 research topics announced by the doctoral school for international students every year. This list is available only to applicants qualifying for the oral part of the entrance exam. Accepted applicants are assigned a supervisor, who guide their research work all through the 8 semesters and beyond.

There are doctoral subjects providing the disciplinary background of research, including cutting-edge mathematics in the domain of stochastic processes, functional analysis and linear algebra, also networking and algorithms. Altogether 30 credits of such electives should be completed. The majority of the credits, however, should be collected from research work and the related activities.

The curriculum comprises 2 *phases*:

- 1) In the training and research phase, students should take all the required doctoral subjects, while actively working on their research and publications. They should contribute to teaching BSc and MSc students as well.
At least 120 credits should be obtained by the end of the 4th semester.
- 2) In the research and dissertation phase, students should continue and finish their research, produce further publications, and start working on their dissertation.
Another min. 120 credits should be obtained, having altogether min. 240 credits by the end of the 8th semester.

Milestones of the program:

- 1) Complex Review Exam:
 - Should be taken at the end of the 4th semester, as an entry to the second phase.
 - Aim: to give an account of the knowledge gained from the taught subjects, and of the results already achieved and to be achieved during the research work.
- 2) Submission of the dissertation for public defence:
 - AFTER earning all the 240 credits set in the curriculum, completing the dissertation and passing the in-house defence, and having all the publications required for the degree appeared; *BUT*
 - WITHIN 3 years after the complex review exam.

In order to earn the degree, the dissertation should be successfully defended in a public defence.

The student status ceases at the end of the 8th semester, independently of when the dissertation is submitted and defended!

Entry requirements:

- 1) Completed MASTER'S studies with an overall result of min. 70%. This should be proven by the DEGREE* awarded AND the TRANSCRIPT of all corresponding records.
Applicants still doing the MSc should upload, IN ADDITION to the transcript, an official certificate of the EXPECTED date of graduation.
- 2) Appropriate knowledge of ENGLISH, proven by *EITHER*
 - a) a recent certificate of an internationally recognised, INTERNATIONAL language EXAM of overall B2 level, covering ALL the 4 basic SKILLS (reading, listening, writing, speaking), as detailed below**;

OR

 - b) an official medium-of-INSTRUCTION certificate of the MASTER'S studies (only if the FULL programme is given in English)***.
- 3) Sufficient background KNOWLEDGE in the field, proven at an online TEST during the admission procedure.
- 4) Sufficient knowledge related to the selected RESEARCH topic, proven at an oral INTERVIEW via Skype during the admission procedure.

* **NO** PROVISIONAL degree certificate is accepted!

** **ONLY** the following language exams and results are accepted:

- IELTS min. 5.5
- TOEFL IBT min. 80
- Cambridge FCE min. 162
- Pearson PTE min. 51

Exams of LOCAL language schools or educational institutions or NATIONAL organisations are **NOT** accepted as proof of English proficiency!

LATER uploading of the language exam certificate is accepted **ONLY IF** at the application, it is substituted by a DECLARATION of the planned exam!

*** The medium-of-instruction certificate **CANNOT** be uploaded later!

Admission procedure:

Selection process:

all applicants should write an online test → pre-evaluation of the submitted documents → qualifying applicants should choose 1 to 3 research topics from the offered list → evaluation of the test results and the submitted documents by the selected supervisor(s) → applicants meeting the criteria should have an entrance interview on Skype → statement of commitment or refusal by the interviewing supervisor(s) → decision by the doctoral school

Selection criteria:

→ appropriacy and quality of the below DOCUMENTS (**ALL** are required!):

- **MSc** transcript and (if already awarded) degree: min. 70% overall result required
- **language** certificate: should be uploaded on time and should be appropriate*
- **research** plan / MSc thesis abstract (the latter one preferred)
- **motivation** letter
- **recommendation** letters (reference from current or earlier teachers / employers)

→ PERFORMANCE at the entrance exam (written and oral):

- oral language skills (the interview is in English)
- motivation, attitude
- technical preparedness in the selected research field

→ the number of VACANCIES for the topic, and the overall capacity of the supervisor

* *Accepted language certificates:*

a) medium-of-INSTRUCTION certificate of the MASTER'S studies done FULLY in English → **only IF** uploaded AT THE APPLICATION;

OR

b) *EITHER* of the below exam certificates → **only IF** the CERTIFICATE itself, OR a substitute DECLARATION is uploaded AT THE APPLICATION:

- IELTS overall band score min. 5.5
- TOEFL IBT min. 80
- Cambridge FCE min. 162
- Pearson PTE min. 51

NO certificates of LOCAL or NATIONAL language exams are accepted!

Contact:

Ms. Fanni SZONDY, international coordinator

phd-info@vik.bme.hu