Doktor znanosti/doktorica znanosti s področja informacijske in komunikacijske tehnologije

Selected qualifications

Name of qualification

Doktor znanosti/doktorica znanosti s področja informacijske in komunikacijske tehnologije

Translated title (no legal status)

Doctor of Philosophy in the field of information and communication technology

Type of qualification

Doktorat

Category of qualification

Izobrazba

Type of education

Doctoral education

Duration

3 years

Credits

180 credits

Admission requirements

Completed:
• a second-cycle study programme or
• a non-structured master's degree study programme totalling 300 credits, or
• a former (pre-Bologna) study programme leading to a university qualification.
Graduates of former study programmes leading to a specialisation who previously completed a first-cycle professional education programme, with completed study requirements including individual research work totalling 30 credits.
In a third-cycle doctoral study programme, study requirements totalling 60 credit are recognised for graduates of former study programmes leading to a Master's of Science or specialisation following the completion of study programmes leading to a university qualification.

ISCED field

Field
Informacijske in komunikacijske tehnologije (IKT)

ISCED subfield

subfield informacijske in komunikacijske tehnologije (ikt), podrobneje neopredeljeno

Qualification level

SQF 10
EQF 8
Third level

Learning outcomes

The qualification holder is qualified to:

(general competences)

- perform independent research work in the field of information and communication technology,
- research, select and organise information in order to synthesise solutions and anticipate their consequences,
- master research methods, procedures and processes, develop critical and self-critical assessment,
- apply acquired knowledge in practice,
- perform professional work autonomously, and perform activities responsibly and creatively,
- develop communication skills, particularly in the international environment,
- develop ethical reflection, and commitment to professional ethics and regulations, and
- cooperate and work to resolve common tasks and problems within a group and in the international environment.

(subject-specific competences)

- possess knowledge of the development of computer science and understand the concepts of computer architecture,
- possess knowledge of the construction and operation of the primary functional elements of

computer systems,
- possess knowledge of advanced computer architectures, and their characteristics and limitations in terms of possible applications in practice,
- possess knowledge of the concepts and principles of data mining and the identification of principles in databases,
- recognise various types of telecommunication networks and analyse their capacities, as the basis for introducing telecommunication services,
- understand basic physical events and processes in telecommunication systems,
- understanding the functioning of internet networks,
- understand the functioning of state-of-the-art network technologies,
- select and apply approaches and methodologies for handling and administering systems that rely on internet protocol stacks,
- identify required data and select the appropriate tools required to plan networks,
- continue research and development work relating to digital transfer and internet technologies,
- optimise software, taking into account the characteristics of a given computer architecture,
- integrate knowledge and master complexity when resolving specific problems in computer applications,
- use specific data mining techniques,
- create applications with data mining tools,
- assess and evaluate the results of data mining,
- possess knowledge of benchmarking concepts and the ability to interpret and present the benchmarking results, and
- acquire basic engineering knowledge by combining existing solutions.

Assessment and completion

Examination performance is scored as follows: 10 (excellent); 9 (very good: above-average knowledge but with some mistakes); 8 (very good: solid results); 7 (good); 6 (adequate: knowledge satisfies minimum criteria); 5–1 (inadequate). In order to pass an examination, a candidate must achieve a grade between adequate (6) and excellent (10).

Progression

Students may enrol in a higher year if by the end of the academic year they have met all enrolment requirements defined by the study programme.

Condition for obtaining certificate

- fulfilment of all compulsory and elective requirements,
- have published or have accepted for publication at least two works or patents in international scientific publications, of which at least one in a magazine, included in SCI or Web of Science, with an impact factor, and
- successful oral presentation of doctoral dissertation.

Awarding body

Jožef Stefan International Postgraduate School

URL

https://www.mps.si/splet/index.asp?lang=eng