

ADMISSION PROCEEDINGS 2020/2021

TEST OF KNOWLEDGE FROM CHOSEN STUDY PROGRAM WITH RESPECT TO THE TOPIC OF DISSERTATION THESES

4-YEAR STUDY PROGRAMME IN SYSTEMS ENGINEERING AND INFORMATICS (study in English)

Outline of thesis:

A. *Topic and subject*

A brief summary of what is already known on the topic is expected. This means what new knowledge the dissertation should bring.

B. *Structure:*

1. Objective/Goal and results - it is not necessary to state the objective/goal in one sentence, but in a concise and unambiguous way.
2. Work structure
3. Applied/Used methods and methodical procedures
4. Structured list of literature

Frameworks for entrance exam:

- **Information and Knowledge Systems and Business Intelligence**

Literature

HAAG, Stephen a Maeve CUMMINGS. *Management Information Systems for the Information Age*, 8. vyd. New York: McGraw-Hill, 2010. ISBN 978-0-07-337678-3.

LUGER, George. F. *Artificial Intelligence*. Sixth Edition. Boston: Pearson Education, Inc., 2009. ISBN 978-0132090018.

POUR, Jan, MARYŠKA Miloš, STANOVSKÁ Iva a ŠEDIVÁ Zuzana. *Self Service Business Intelligence*. Praha: Grada, 2018. ISBN 978-80-271-0616-5.

- **Quantitative methods for decision making (optimization methods, statistical and econometric methods, multicriteria decision-making methods)**

Literature

AGRESTI, A. *Statistical methods for the social sciences*. Boston: Pearson, 2018. ISBN 978-0-134507-10-1.

GUJARATI, Damodar N. *Basic Econometrics*. 5th ed. Singapore: Mc Graw-Hill, 2008, 1002 s. ISBN 9780071276252.

TAHA, H. A. *Operations Research*. 10th ed. Harlow, United Kingdom: Pearson Education Limited, 2017. ISBN 9781292165561.

TRIANAPHYLLOU, E. *Multi-Criteria Decision Making Methods: A comparative study*. Kluwer: Academic Publishers, 2000. ISBN 0-7923-6607-7.

- **System management (project management, strategic management, organizational design)**

Literature

GRAEME, Martin. *Managing People and Organizations in Changing contexts*. Netherlands: Elsevier Ltd., 2006. 425 s. ISBN-13: 978-0-7506-8000-4.

Project Management Institute. *A Guide to the Project Management Body of Knowledge (PMBOK)*, 2013. ISBN 978-1935589679.