ADMISSION TO DOCTORAL STUDIES Session September 2026

Field of doctoral studies: Civil Engineeing and Installations

Doctoral supervisor: Prof. Dr. Hab. Alina Bărbulescu

TOPICS FOR THE ADMISSION TO DOCTORAL STUDIES

TOPIC 1: **Application of Remote Sensing and Machine Learning for Evaluating Land Use and Climate Change Impact on Hydrological Processes**
Contents / Main aspects to be considered - *GIS/Remote Sensing/Water Resources Management*
Recommended bibliography: • John R. Jensen, *Remote Sensing of the Environment: An Earth Resource Perspective* 2/e, Pearson Education, 2009. • Bhaskar Ramachandran, Christopher O. Justice, Michael J. Adams, *Land Remote Sensing and Global Environmental Change*, *NASA's Earth Observing System and the Science of ASTER and Modis*, Springer-Verlag New Yok Inc., 2010. • Aulien Geeron, Hands on Machine Learning with Scikit - Learn Keras, and TensorFlow: Concepts, Tools, and Techniques to Build Intelligent Systems 2nd Edition. https://shashwatwork.github.io/assets/files/ml_ebook.pdf
Prerequisites / Remarks: *Knowledge on mathematical and spatial statistics, GIS, Remote Sensing*
X Scientific Doctorate ☐ Professional Doctorate
X without tuition fee (state budget funded) ☐ with tuition fee or with funding from other sources than the state budget

Doctoral supervisor,

Prof. Dr. Hab. Alina Bărbulescu,

Signature

Coordinator of the field of doctoral studies,

Prof. Dr. HAB. Eng. Camen Elna Maftei

Signature