

DOCTORAL ADMISSION September 2024 session

PhD Field: Engineering and Management

PhD supervisor: Prof. Dr. Eng., Dan Săvescu

THEMES (THEMES) FOR THE COMPETITION

TOPIC 1: Studies and research regarding the development and implementation of innovative management systems through the integration of high-performance medical devices and the development of specific procedures in health projects

Content / Main aspects addressed - will be adapted/completed/eliminated, as appropriate

Recommended bibliography:

Ting, S.L., Kwok, S.K., Tsang, A.H.C. et al. Critical Elements and Lessons Learnt from the Implementation of an RFID-enabled Healthcare Management System in a Medical Organization. J Med Syst 35, 657–669 (2011). https://doi.org/10.1007/s10916-009-9403-5

Van Der Togt, R., Van Lieshout, E. J., Hensbroek, R., Beinat, E., Binnekade, J. M., and Bakker, P. J. M., Electromagnetic interference from radio frequency identification inducing potentially hazardous incidents in critical care medical equipment. JAMA. 299 (24)2884–2890, 2008.

Inoue, S., Sonoda, A., Oka, K., Fujisaki, S., Emergency healthcare support: RFID-based massive injured people management. Proceedings of the fourth International Workshop on Ubiquitous Computing for Pervasive Healthcare Applications, Irvine, CA., 2006.

Shirley, D. (2011). Project Management for Healthcare (2nd ed.). CRC Press. https://doi.org/10.1201/9781003018148

Archibald, Russell D., Managing High-Technology Programs and Projects, 2nd edition, John Wiley & Sons, Hoboken, NJ, 1992, p. 24.

Martin, V. (2002). Managing Projects in Health and Social Care (1st ed.). Routledge. https://doi.org/10.4324/9780203995228

Notes / Prerequisites / Obs.: will be adapted/completed/eliminated, as appropriate

- X □Doctorate in science (part-time only)
- $\square \operatorname{Professional}$ doctorate in the fields of Music and Science of sport and physical education

(with frequency or low frequency)

- X \square with funding from the state budget
- \square with a fee or with financing from sources other than the state budget

TOPIC 2: Data Management in the Field of Rehabilitation for Individuals with Sensory and Motor Impairments (Dysfunctions)

Content / Main aspects addressed - will be adapted/completed/eliminated, as appropriate

Recommended bibliography:

- 1. Loquet, G., Narne, V., Piechowiak, T., Wolff, A., Houmøller, S. S., Hougaard, D. D., Schmidt, J. H., & Hammershøi, D. (2019). Better Hearing Rehabilitation (BEAR) Study in Denmark: Introducing the Centralized Clinical Database.. Poster session presented at 14th Congress of the European Federation of Audiology Societies (EFAS), Lisbon, Portugal.
- 2. T. Tsuji, T. Kaneko and S. Sakaino, "Motion Matching in Rehabilitation Databases With Force and Position Information," in IEEE Transactions on Industrial Electronics, vol. 63, no. 3, pp. 1935-1942, March 2016, doi: 10.1109/TIE.2015.2508927
- 3. Jennifer Campos, Robert Ramkhalawansingh, M. Kathleen Pichora-Fuller, Hearing, self-motion perception, mobility, and aging, Hearing Research, Volume 369, 2018, Pages 42-55, ISSN 0378-5955, https://doi.org/10.1016/j.heares.2018.03.025.
- 4. W. Takano, K. Yamane, and Y. Nakamura, "Capture database through symbolization, recognition and generation of motion patterns," in Proc. IEEE Int. Conf. Robot. Autom., 2007, pp. 3092-3097, doi: 10.1109/ROBOT.2007.363942.
- 5. Yamaguchi K, Nakanishi Y, Tangcharoensathien V, Kono M, Nishioka Y, Noda T, Imamura T, Akahane M. Rehabilitation services and related health databases, Japan. Bull World Health Organ. 2022 Nov 1;100(11):699-708. doi: 10.2471/BLT.22.288174.

Notes / Prerequisites / Obs.: will be adapted/completed/eliminated, as appropriate

X □Doctorate in science (part-time only)

 $\square \operatorname{Professional}$ Doctorate - in the fields of Music and Sports Science and Physical Education

(with frequency or low frequency)

X \square with funding from the state budget

 \square with a fee or with financing from sources other than the state budget

Doctoral supervisor,

Coordinator of the doctoral field,

Prof. Dr. Eng. Dan Săvescu

Prof. Dr. Eng. Gavrilă Calefariu