



DOCTORAL ADMISSION September 2024 session

PhD Field: Engineering and Management

PhD supervisor: Prof. Dr. Eng., PhD Marketing Angela Repanovici

THEMES (THEMES) FOR THE COMPETITION

TOPIC 1 : *Integration innovative technologies advance in the the design process and 3D printing*

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

Recommended bibliography:

Campbell, I., Bourell, D., & Gibson, I. (2012). Additive manufacturing: rapid prototyping comes of age. *Rapid Prototyping Journal*, 18(4), 255-258. <https://doi.org/10.1108/13552541211231563>

Ciocoiu, CN, & Pantelimon, GF (2018). practice manufacturing technologies additive in the development durable . *Magazine Romanian Engineering Civil* , 9(1), 45-52.

Gibson, I., Rosen, DW, & Stucker, B. (2015). *Additive Manufacturing Technologies: 3D Printing, Rapid Prototyping, and Direct Digital Manufacturing* (2nd ed.). Springer.

Ispas, C., & Ciocârlie , H. (2016). The design computer assisted and 3D printing in Industry aeronautics . *Aeronautical magazine and Astronautics* , 11(2), 87-93.

Sandu, AV, Georgescu, A., & Stanciu, EM (2017). Implementation of 3D printing technologies in the industrial sector in Romania. *AGIR Bulletin* , 3, 123-128.

Thompson, MK, Moroni, G., Vaneker , T., Fadel, G., Campbell, RI, Gibson, I., ... & Martina, F. (2016). Design for Additive Manufacturing: Trends, opportunities, considerations, and constraints. *CIRP Annals*, 65(2), 737-760. <https://doi.org/10.1016/j.cirp.2016.05.004>

Wohlers, TT, & Caffrey, T. (2014). *Wohlers Report 2014: Additive Manufacturing and 3D Printing State of the Industry Annual Worldwide Progress Report*. Wohlers Associates.

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

Doctorate in science (part-time only)

Professional doctorate in the fields of Music and Science of sport and physical education (with frequency or low frequency)

with funding from the state budget

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

TOPIC 2: *Advantages of Artificial Intelligence for Robotic Applications in the Medical Field*

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

Recommended bibliography:

Basu K, Sinha R, Ong A, Basu T. Artificial Intelligence: How is It Changing Medical Sciences and Its Future ? *Indian J Dermatol* . 2020 Sep-Oct;65(5):365-370. doi: 10.4103/ijd.IJD_421_20. PMID: 33165420; PMCID: PMC7640807

<p>Nuo Xu, Dawei Yang, Kinji Arikawa , Chunxue Bai, Application of artificial intelligence in modern medicine, <i>Clinical eHealth</i> , Volume 6, 2023, Pages 130-137, ISSN 2588-9141, https://doi.org/10.1016/j.ceh.2023.09.001. (https://www.sciencedirect.com/science/article/pii/S2588914123000229) Krishnan , S., Kesavan , R., Surendiran , B., & Mahalakshmi , GS (Eds .). (2021). <i>Handbook of Artificial Intelligence in Biomedical Engineering</i>(1st ed.). Apple Academic Press. https://doi.org/10.1201/9781003045564</p>
<p>Notes / Prerequisites / Obs.: <i>will be adapted/completed/eliminated, as appropriate</i></p>
<p><input checked="" type="checkbox"/> Doctorate in science (part-time only) <input type="checkbox"/> Professional Doctorate - in the fields of Music and Sports Science and Physical Education (with frequency or low frequency)</p>
<p><input checked="" type="checkbox"/> with funding from the state budget <input type="checkbox"/> with a fee or with financing from sources other than the state budget</p>

<p>TOPIC 3: <i>Studies and research on hearing improvement systems</i></p>
<p>Content / Main aspects addressed - <i>will be adapted/completed/eliminated, as appropriate</i></p>
<p>Recommended bibliography: Ataman T, Otology, Technical Publishing House, Bucharest; 2002 Ataman T, Otological Surgery, Medical Sciences Publishing House , Bucharest; 2007 Boron W., Medical Physiology , Philadelphia, 2009 Loré JM. An Atlas of Head & Neck Surgery . 4th edition , Elsevier Saunders , 2005 Olariu V., Rosca Ileana, Baritz Mihaela, Barbu Daniela, Radu Gh., Biomechanics. Basics Biomecanicii, MACARIE Publishing House, Târgoviste , 1998 Passamonti SM, Di Berardino F, Bucciarelli P, et al. Risk factors for idiopathic suddenly sensorineural hearing loss and their association with clinics outcome . Thromb Res . 2015</p>
<p>Notes / Prerequisites / Obs.: <i>will be adapted/completed/eliminated, as appropriate</i></p>
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Doctoral supervisor,

Coordinator of the doctoral field,

Prof. Dr. Eng., PhD Marketing Angela Repanovici

Prof. Dr. Eng. Gavrilă Calefariu

