

## DOCTORAL ADMISSION September 2024 session

**Doctoral field:** Electronics Engineering, Telecommunications and Information Technology  
**PhD supervisor:** Prof.Dr. Doru URSUTIU (Corresponding member of AOSR)

### THEMES (THEMES) FOR THE COMPETITION

#### THEME 1: Technologies and Monitoring Systems in Biomedical Engineering

##### Content / Main aspects addressed

1. IoT systems and IIoT (biomedical and industrial)
2. Intelligent monitoring systems (reconfigurable)
3. Communication systems (tendencies, development, applications)
4. Autonomous power systems (energy harvesting)

##### Recommended bibliography:

1. Chamunorwa, T; Ursutiu, D; Modran, HA., Electronic Educational Laboratory Platform for Students, 18th Annual International Conference of the International-Association-of-Online-Engineering (IAOE) and the Global-Online-Laboratory-Consortium (GOLC) on Remote Engineering and Virtual Instrumentation (REV) - Online Engineering and Society 4.0, 2022 | ONLINE ENGINEERING AND SOCIETY 4.0 298, pp.311-322
2. Ravariu C., E. Manea, Babarada F., Ursutiu D., Mihaiescu D., Smith AM, "Organic Compounds on Integrated Nanostructured Materials for Biomedical Applications" Proceedings of the 15th International Conference on Remote Engineering and Virtual Instrumentation ISSN: 23.67337 million isbn: 978-3-319-95678-7, Publishing Year: 2018
3. Neagu, A., Ursutiu, D., Samoila C., Jingles, V - "INTERNET of Things AND ONLINE ENGINEERING", Editors: Auer, Michael E., Zutin, Danilo G. (eds.) Lecture Notes in Networks and Systems, vol 22. Springer, modularity Applied to SMART HOME pp. 1062 (pp.56 -67) ISBN 978-3-319-64352-6 Online [https://doi.org/10.1007/978-3-319-64352-6\\_6](https://doi.org/10.1007/978-3-319-64352-6_6) DOI Print ISBN 978-3-319-64351-9 © Springer International Publishing AG Published: 2017
4. D. Ursutiu and other New trends on monitoring and diagnosis for health sciences, Chapter: "Preliminary results related to the effects melotherapy BioRadio and analysis Using the LabVIEW analyses" p.95-113 Ed. LAP LAMBERT Academic Publishing, 2015, ISBN: 978 -3-659-77699-1

Notes / Prerequisites / Obs.: NO
X Doctorate in science (part-time only) <input type="checkbox"/> Professional doctorate in the fields of Music and Science of sport and physical education (with frequency or low frequency)
X with funding from the state budget X with tax or with financing from sources other than the state budget

<b>TOPIC 2: Contributions to the development of "Smart Homes"</b>
<b>Content / Main aspects addressed</b> <ol style="list-style-type: none"> <li>1. Systems and sensors</li> <li>2. Reconfigurable and adaptable hard and soft components</li> <li>3. Modern communication systems</li> <li>4. Autonomous power supply</li> </ol>
<b>Recommended bibliography:</b> <ol style="list-style-type: none"> <li>1. Chamunorwa, T; Modran, HA; Ursutiu.D, Hedesiu, H., Reconfigurable Wireless Sensor Node Remote Laboratory Platform with Cloud Connectivity, , Oct 2021, SENSORS 21 (19)</li> <li>2. Palades, C; Lepadatu, AM; Bearish. D; Samoila, C., Nanocrystallized Ge-Rich SiGe-HfO2 Highly Photosensitive in Short-Wave Infrared, Nov 2021 MATERIALS 14 (22)</li> <li>3. Ursutiu, D., Samoila C., Jinga, V., Alto, F - "The Future of Reconfigurable hardware-software" in ICL-2016 Conference 21-23 Sept.2016 - Belfast North Ireland Published in "Advances in Intelligent Systems and Computing" - Springer ISSN: 2194-5357, Editors: Michael E. Auer, David Guralnick, James Uhomobhi Book Title "Interactive Collaborative Learning" eBook ISBN 978-3-319-50337-0, Softcover ISBN 978-3-319-50336 - 3 Series Volume 544</li> <li>4. Ursutiu D. Neagu A. Samoila C., LabSocket-E "and myRIO in LabVIEW Real-Time / Embedded Systems Student Teaching and Training", Proceedings of the 15th International Conference on Remote Engineering and Virtual Instrumentation ISSN: 23.67337 million isbn: 978- 3 -319-95677-0 Year of appearance: 2018</li> <li>5. Neagu, A., Ursutiu, D., Samoila C., Jingles, V - "INTERNET of Things AND ONLINE ENGINEERING " Editors: Auer, Michael E., Zutin, Danilo G. (eds.) Lecture Notes in Networks and Systems, vol 22. Springer, modularity Applied to SMART HOME ChamNumber of Pages pp. 1062 (pp.56 -67) ISBN 978-3-319-64352-6 Online <a href="https://doi.org/10.1007/978-3-319-64352-6_6">https://doi.org/10.1007/978-3-319-64352-6_6</a> DOI Print ISBN 978-3-319-64351-9 © Springer International Publishing AG Published: 2017</li> </ol>
<b>Notes / Prerequisites / Obs.:</b> <i>will adapt/complete/eliminate, as appropriate</i>
X 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)

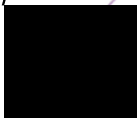
X with funding from the state budget

X with tax or with financing from sources other than the state budget

**PhD supervisor,**

Prof. Dr. Phys. URSUTIU Doru

Semnătură



**Coordinator of the doctoral field,**

Prof. Dr. Mihai Ivanovici

Semnătură