



ADMISSION TO DOCTORAL STUDIES

Session September 2022

Field of doctoral studies:

Electronic engineering, telecommunications, and information technology

Doctoral supervisor: Prof.Dr. Doru URSUTIU (Corresponding Member of AOSR)

TOPICS FOR THE ADMISSION TO DOCTORAL STUDIES

TOPIC 1: *New technologies and systems – in health monitoring*

Content / Main aspects to be considered

- 1. IoT systems (industrial and medical)**
- 2. Smart watches (built-in measuring systems)**
- 3. Communication systems (trends and development)**
- 4. Autonomous energy harvesting systems**

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 ChamNumber of Pages pp. 1062 (pp.56 -67) ISBN 978-3-319-64352-6 Online 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
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 analyzes" p.95-113 Ed. LAP LAMBERT Academic Publishing, 2015, ISBN: 978 -3-659-77699-1

Prerequisites / Remarks: *to be adapted/ completed/ deleted*

TOPIC 2: *suggested title*

Content / Main aspects to be considered - *to be adapted/ completed/ deleted*

1. Complex hard systems - soft reconfigurable
 - Smart sensors
 - Reconfigurable instrumentation systems
 - New measurement and control systems in the cloud
2. IoT systems
 - Universal communication platforms
 - Hard and soft components
 - Interoperability and security
3. Autonomous energy harvesting systems

Recommended bibliography:

1. Chamunorwa, T; Modran, HA; (...); Ursutiu.D, Hedesiu, H., **Reconfigurable Wireless Sensor Node Remote Laboratory Platform with Cloud Connectivity**, , Oct 2021, **SENSORS 21 (19)**
2. 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 Uhomoibhi Book Title "Interactive Collaborative Learning" eBook ISBN 978-3-319-50337-0, Softcover ISBN 978-3-319-50336- 3 Series Volume 544
3. 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 An appearance: 2018
4. 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 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
Kuchirka, Y; Vytvytska, L; Ursutiu, D; Samoila C - "AN ONLINE COURSE FOR STUDYING LABORATORY AND AUTOMATIC CONTROL SYSTEMS" ONLINE INTERNATIONAL JOURNAL OF ENGINEERING, Volume 12, Issue 1, Pages: 24-27 DOI: 10.3991 / ijoe.v12i01.5106, Published 2016 ISSN : 1868-1646, e-ISSN: 1861-2121 WOS: 000375386100004, IF = 0.1

Prerequisites / Remarks: *to be adapted/ completed/ deleted*

Doctoral supervisor,

Prof. Dr. Doru URSUTIU

Signature



Coordinator of the field of doctoral studies,

Prof. Dr. Mihai IVANOVICI

Signature

