



ADMISSION TO DOCTORAL STUDIES

Session September 2026

Field of doctoral studies: Industrial Engineering

Doctoral supervisor: Prof. eng. Cristin – Olimpiu MORARIU, PhD

TOPICS FOR THE ADMISSION TO DOCTORAL STUDIES

TOPIC 1: <i>Researches on the reliability of the industrial products</i>
Contents / Main aspects to be considered: <i>Analysis of defect types and failure mechanisms, predictive reliability, reliability tests and statistical processing of experimental results</i>
Recommended bibliography: <ol style="list-style-type: none">1. Martinescu, I., Popescu, I., Fiabilitate, Editura Gryphon, Braşov, 1995.2. Zaharia, S.M., Morariu, C.O., FIABILITATE. Îndrumar de laborator, Editura RISOPRINT, Cluj-Napoca, 2017, ISBN 978-973-53-2134-5.3. Popescu, I., ş.a, Fiabilitate. Bazele teoretice, Univ. Transilvania din Braşov, 1993.4. Kececioglu D.B., Reliability & Life Testing Handbook vol. 1, PTR Prentice-Hall, Inc. Englewood Cliffs, New Jersey, 2002.5. Kececioglu, D.B., Reliability & Life Testing Handbook vol. 2, PTR Prentice-Hall, Inc. Englewood Cliffs, New Jersey, 2002.
Prerequisites / Remarks: <i>Bachelor's / master's studies in industrial engineering or in related fields</i>
<input checked="" type="checkbox"/> Scientific Doctorate
<input checked="" type="checkbox"/> Professional Doctorate
<input checked="" type="checkbox"/> without tuition fee (state budget funded)
<input checked="" type="checkbox"/> with tuition fee or with funding from other sources than the state budget

TOPIC 2: <i>Research on improving manufacturing processes using quality tools</i>
Contents / Main aspects to be considered - <i>Use of quality tools, design of experiments, risk management, continuous improvement</i>
Recommended bibliography: <ol style="list-style-type: none">1. Morariu, C.O., The quality management system, Transilvania University Publishing House, Braşov, 2006, ISBN 973-635-738-4 and ISBN 973-635-738-12. Filip, N., Morariu, C.O., Popescu, I., Engineering and quality management, Transilvania University Publishing House, Braşov, 2004, ISBN 973-635-271-4

3. Zaharia, S.M., Morariu, C.O., Elements of applied probability in risk analysis. Theory and applications, RISOPRINT Publishing House, Cluj-Napoca, 2017, ISBN 978-973-53-2117-8
4. Jong S. Lim, Quality Management in Engineering - A Scientific and Systematic Approach, Taylor & Francis, 2020
5. Hinsch, M., ISO 9001:2015 for Everyday Operations_ All Facts – Short, Concise and Understandable, Springer Vieweg, 2019.
6. Morariu, C.O., Applied probability and statistics, 1st volume, Transilvania University Publishing House Braşov, 2010, ISBN 978-973-598-816-6 (gen.) and ISBN 978-973-598-817-3 (vol. I)
7. Morariu, C.O., Applied statistics (CD), Transilvania University Publishing House, Braşov, 2014, ISBN 978-606-19-0397-9
8. Montgomery, D.C., Runger, C.G, Applied Statistics and Probability for Engineers, 6th Edition, John Wiley & Sons, Inc., 2014, ISBN-13 978-1118-53971-2.
9. Montgomery, D.C., Design and Analysis of Experiments, 8th Edition, John Wiley & Sons, Inc., 2013, ISBN 978-1118-14692-7.

Prerequisites / Remarks: *Bachelor's / master's studies in industrial engineering or in related fields*

Scientific Doctorate

Professional Doctorate

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Doctoral supervisor,

Prof. eng, Cristin – Olimpiu MORARIU, PhD

Coordinator of the field of doctoral studies,

Prof. eng, Gheorghe OANCEA, PhD