

Universitatea „Petru Maior” din Tîrgu Mureş
Facultatea de Inginerie
Departamentul de Inginerie Electrică și Calculatoare
Cadru didactic: Conf. dr. ing. Mircea Dulău
Concurs pentru ocuparea postului de profesor, poziția 4
Discipline: Ingineria sistemelor automate I
Modelare și simulare
Sisteme de conducere a proceselor continue

LISTA COMPLETĂ DE LUCRĂRI A CANDIDATULUI PENTRU OBTINEREA TITLULUI DE PROFESOR

A. Lucrări relevante (maxim 10 lucrări)

1. **Dulău M.,** Bică D., *Design of robust control for Single Machine Infinite Bus system*, Procedia Technology, 2015, Volume: 19, pp. 657-664, DOI: 10.1016/j.protcy.2015.02.093, 8th International Conference Interdisciplinarity in Engineering, INTER-ENG 2014, 9-10 October 2014, Petru Maior University of Tîrgu Mures, Romania.
<http://www.sciencedirect.com/science/article/pii/S2212017315000948>
2. **Dulău M.,** Bică D., *Simulation of speed steam turbine control system*, Procedia Technology, 2014, Reference: PROTCY1323, Volume/issue: 12, pp. 716-722, DOI information: 10.1016/j.protcy.2013.12.554, The 7th International Conference Interdisciplinarity in Engineering, INTER-ENG 2013, 10-11 October 2013, “Petru Maior” University of Tîrgu Mures, Romania.
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3. **Dulău M.,** Bică D., *Robust Control of Electro-Discharge Processing Machine*, 2014 International Conference and Exposition on Electrical and Power Engineering, EPE 2014, IEEE Xplore, DOI: 10.1109/ICEPE.2014.6969993, ISBN 978-1-4799-5849-8, 16-18 October, Iași, Romania, p. 668-672.
http://ieeexplore.ieee.org/xpl/login.jsp?tp=&arnumber=6969993&url=http%3A%2F%2Fieeexplore.ieee.org%2Fxppls%2Fabs_all.jsp%3Farnumber%3D6969993
https://apps.webofknowledge.com/full_record.do?product=UA&search_mode=GeneralSearch&qid=6&SID=R1x8paH4bCGZSGqobtv&page=1&doc=1
4. Sarchiz D., **Dulău M.,** Bucur D., Georgescu O., *Reliability Centered Maintenance Optimization of Electric Distribution Systems*, Cap. 4 în *Electrical Generation and Distribution Systems and Power Quality Disturbances*, Edited by G. R. Rey and L. M. Muneta, Published by InTech, Croatia, 2011, ISBN 978-953-307-329-3, pag. 83-112 din 304 pag.
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https://apps.webofknowledge.com/full_record.do?product=UA&search_mode=GeneralSearch&qid=1&SID=T2nzNy78ZY8XekvoxU1&page=1&doc=5

5. **Dulău M.**, Oltean S., *Modelarea și simularea sistemelor. Aplicații Matlab, Simulink, Spice*, Editura Universității "Petru Maior" din Tg.Mureș, 2011, ISBN 978-973-7794-99-4, 192 pag.
6. **Dulău M.**, Oltean S.E., Duka A.V, Gligor A., *Behavioural Study of a Thermal Process Control Under Uncertainties*, Proceedings of 2010 IEEE International Conference on Automation, Quality and Testing, Robotics, AQTR 2010 THETA 17th edition, IEEE Catalog Number CFP10AQT-PRT, ISBN 978-1-4244-6722-8, Tome I, Cluj-Napoca, pag. 198-201.
<http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=5520890>
7. Oltean S.E., **Dulău M.**, Puskas R., *Position Control of Robotino Mobile Robot Using Fuzzy Logic*, Proceedings of 2010 IEEE International Conference on Automation, Quality and Testing, Robotics, AQTR 2010 THETA 17th edition, IEEE Catalog Number CFP10AQT-PRT, ISBN 978-1-4244-6722-8, Tome I, Cluj-Napoca, pag. 366-371.
http://ieeexplore.ieee.org/xpl/login.jsp?tp=&arnumber=5520855&url=http%3A%2F%2Fieeexplore.ieee.org%2Fexpls%2Fabs_all.jsp%3Farnumber%3D5520855
<http://www.computer.org/csdl/proceedings/aqtr/2010/6724/01/05520855.pdf>
8. **Dulău M.**, Oltean S., Șoaita D., Duka A., *Advance Movement Modelling and Simulation of the Electrodischarge Equipment*, Revista Control Engineering and Applied Informatics (CEAI), Published by The Romanian Society of Control Engineering and Technical Informatics, Vol. 11, Nr. 4, ISSN 1454-8658, pag. 63-67, 2009, Bucharest.
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9. Oltean S., David L., **Dulău M.**, *Considerations and perspectives in electron beam processing*, Revue Roumaine des Sciences Techniques, Serie Electrotechnique et Energetique, Tome 52, No.1, ISSN 0035-4066, Academie Roumaine, Janvier-Mars 2007, pag. 43-50, Bucharest.
<http://revue.elth.pub.ro/index.php?action=details&id=33>
https://apps.webofknowledge.com/full_record.do?product=UA&search_mode=GeneralSearch&qid=6&SID=T2nzNy78ZY8XekvoxU1&page=1&doc=7
10. Oltean S., Abrudean M., **Dulău M.**, *Remote monitor and control application for thermal processes using TCP/IP*, Proceedings of International Conference on Automation, Quality and Testing, Robotics, AQTR 2006, IEEE Catalog Number 06EX1370, ISBN 1-4244-0360-X, Tome I, Cluj-Napoca, pag. 209-213.
<http://ieeexplore.ieee.org/xpl/abstractKeywords.jsp?arnumber=4022849>
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B. Teza de doctorat

Universitatea Tehnică din Cluj Napoca

Titlul tezei: Contribuții la optimizarea procesării cu fascicul de electroni

Conducător științific: Prof univ. dr. ing. Mircea CHINDRIȘ

Data susținerii: 29 septembrie 2003

Titlul științific: doctor în domeniul Inginerie electrică

http://old.utcluj.ro/educatie/doctorat/doctorat_Mircea_Chindris.php

C. Brevete de invenție

1. **Dulău M.**, Oltean S., Duka A., *Procedeu de tratament termic de suprafață cu fascicul de electroni (Process for surface thermal treatment of rolled FeSi sheets with electron beam)*, OSIM, An de referință 2014, Nr. 129232.
https://apps.webofknowledge.com/full_record.do?colName=DIIDW&recordID=2014D83728&page=1&qid=6&log_event=yes&viewType=fullRecord&SID=T2nzNy78ZY8XekvoxU1&product=UA&doc=3&search_mode=GeneralSearch
2. **Dulău M.**, Oltean S., *Procedeu de sudare cu fascicul de electroni (Process of welding with Electron Beam, has two pieces at prescribed depth, by means of electron beam in two stages)*, OSIM, An de referință 2014, Nr. 129219.
https://apps.webofknowledge.com/full_record.do?colName=DIIDW&recordID=2014D83765&page=1&qid=6&log_event=yes&viewType=fullRecord&SID=T2nzNy78ZY8XekvoxU1&product=UA&doc=4&search_mode=GeneralSearch

D. Cărți și capitole de cărți

D1. Cărți

1. **Dulău M.**, Gligor A., *Introducere în Ingineria sistemelor automate*, "Petru Maior" University Press, Colecția „Didactică”, 2015, ISBN 978-606-581-159-1, 218 pag.
2. **Dulău M.**, Morar A., *Sisteme de conducere a proceselor continue*, Editura Universității "Petru Maior" din Tîrgu-Mureș, Colecția „Didactică”, 2013, ISBN 978-606-581-085-3, 184 pag.
3. **Dulău M.**, Oltean S., *Modelarea și simularea sistemelor. Aplicații Matlab, Simulink, Spice*, Editura Universității "Petru Maior" din Tg.Mureș, 2011, ISBN 978-973-7794-99-4, 192 pag.
4. **Dulău M.**, *Controlul procesării cu fascicul de electroni. Modelare. Simulare. Aplicații*, Editura Universității "Petru Maior" din Tg.Mureș, 2005, ISBN 973-7794-24-9, 134 pag.
5. **Dulău M.**, *Automatica proceselor continue. Procese termice și chimice*, Editura Universității "Petru Maior" din Tg.Mureș, 2004, ISBN 973-7794-11-7, 178 pag.
6. Modrea A., Albu E., Bică D., Marian L., Tripon A., **Dulău M.**, Oltean S., ș.a. (13 autori), *Formarea - la timpul prezent pentru viitor*, POSDRU/19/1.3/G/26336, Editura Universității "Petru Maior" din Tîrgu-Mureș, Colecția „Didactică”, Format electronic (CD), 2012, ISBN 978-606-581-063-1, 459 pag.

7. Albu E., Modrea A., Silvaş A., Marian L., **Dulău M.**, ş.a. (12 autori), *Formarea - la timpul prezent pentru viitor. Ghid de bune practici*, POSDRU/19/1.3/G/26336, Editura Universităţii "Petru Maior" din Tîrgu-Mureş, Colecţia „Didactica”, Format electronic (CD), 2012, ISBN 978-606-581-062-4, 173 pag.
8. Modrea A., **Dulău M.**, Strnad G., Tero M., Grif H., *Specialişti viitorului pentru educaţie şi formare*, POSDRU/19/1.3/G/36996, Editura Universităţii "Petru Maior" din Tîrgu-Mureş, Colecţia „Didactica”, Format electronic (CD), 2012, ISBN 978-606-581-064-8, 390 pag.
9. Gligor A., **Dulău M.**, *Sisteme informatice în societatea informaţională*, Editura Napoca Star Cluj – Napoca, 2005, ISBN 973-647-357-0, 130 pag.

D2. Capitole de cărţi

1. Sarchiz D., **Dulău M.**, Bucur D., Georgescu O., *Reliability Centered Maintenance Optimization of Electric Distribution Systems*, Cap. 4 în *Electrical Generation and Distribution Systems and Power Quality Disturbances*, Edited by Gregorio Romero Rey and Luisa Martinez Muneta, Published by InTech, Croatia, 2011, ISBN 978-953-307-329-3, pag. 83-112 din 304 pag.
<http://cdn.intechopen.com/pdfs-wm/23860.pdf>

D3. Manuale didactice, îndrumătoare de laborator/aplicaţii

1. **Dulău M.**, Oltean S., *Modelare şi simulare*, Curs Lito, Universitatea "Petru Maior" Tg.Mureş, 2008, 130 pag.
2. **Dulău M.**, Şoaita D., *Electrotehнологii – partea a II - a*, Curs Lito, Universitatea "Petru Maior", Tg.Mureş, 2007, 65 pag.
3. **Dulău M.**, Oltean S., *Electrotehнологii – partea I*, Curs Lito, Universitatea "Petru Maior", Tg.Mureş, 2005, 101 pag.
4. **Dulău M.**, Chindriş M., *Automatizarea proceselor termice şi chimice*, Curs Lito, Universitatea "Petru Maior", Tg.Mureş, 2002, 138 pag.
5. Abrudean M., **Dulău M.**, *Sisteme cu control distribuit*, Curs Lito, Universitatea "Petru Maior" Tg.Mureş, 1998, 145 pag.
6. **Dulău M.**, *Ingineria sistemelor automate II*, Lucrări de laborator, Universitatea "Petru Maior" din Tîrgu-Mureş, 2013, 76 pag.
7. **Dulău M.**, Rusu M., Gligor A., *Ingineria sistemelor automate I*, Lucrări de laborator, Universitatea "Petru Maior" din Tîrgu-Mureş, 2012, 86 pag.
8. **Dulău M.**, Jovrea T., Oltean S., Duka A., *Sisteme de conducere a proceselor continue*, Îndrumar de laborator, Universitatea "Petru Maior" Tg.Mureş, 2009, 127 pag.
9. **Dulău M.**, Grif H., *Sisteme expert. Aplicaţii în Turbo Prolog*, Îndrumar de laborator, Universitatea "Petru Maior" Tg.Mureş, 2006, 88 pag.
10. Dumitriu A., Morar A., **Dulău M.**, Geampană E., *Mecatronică*, Îndrumar de laborator, Universitatea "Petru Maior" Tg.Mureş, 2003, 116 pag.
11. **Dulău M.**, Oltean S., *Modelare şi simulare*, Lucrări de laborator, Universitatea "Petru Maior" Tg.Mureş, 2003, 115 pag.
12. **Dulău M.**, Geampană E., *CAD şi Automatică*, Lucrări de laborator, Universitatea "Petru Maior", Tg.Mureş, 2002, 80 pag.

13. **Dulău M.**, David L., Șoaita D., ș.a., *Electrotehnologii*, Lucrări de laborator, Universitatea "Petru Maior" Tg.Mureș, 2001, 94 pag.
14. Zărnescu H., **Dulău M.**, Gligor A., Morar P., *Ingineria reglării automate*, Vol. I., Îndrumător de laborator, Universitatea "Petru Maior", Tg.Mureș, 1998, 97 pag.

E. Articole în extenso, publicate în reviste din fluxul științific internațional principal

1. **Dulău M.**, Oltean S., Șoaita D., Duka A., *Advance Movement Modelling and Simulation of the Electrodischarge Equipment*, Revista Control Engineering and Applied Informatics (CEAI), Published by The Romanian Society of Control Engineering and Technical Informatics, Vol. 11, Nr. 4, ISSN 1454-8658, pag. 63-67, 2009, Bucharest.
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2. Oltean S., David L., **Dulău M.**, *Considerations and perspectives in electron beam processing*, Revue Roumaine des Sciences Techniques, Serie Electrotechnique et Energetique, Tome 52, No.1, ISSN 0035-4066, Academie Roumaine, Janvier-Mars 2007, pag. 43-50, Bucharest.
<http://revue.elth.pub.ro/index.php?action=details&id=33>
3. **Dulău M.**, *Estimation of the Processing Parameters in Electron Beam Thermal Treatments*, Journal of Electrical and Electronics Engineering, Vol.7, Nr.1, May 2014, University of Oradea Publisher, p. 43-46, ISSN: 1844-6035.
<http://electroinf.uoradea.ro/images/articles/CERCETARE/Reviste/IEEE/IEEE V7 N1 MAY 2014/Dulau may2014.pdf>
4. Bondici C., **Dulău M.**, *Application of Modern SCADA in Power System Operation*, Journal of Computer Science and Control Systems, Vol.7, Nr.1, May 2014, University of Oradea Publisher, p. 25-28, ISSN: 1844-6043.
<http://search.proquest.com/openview/53eda6b43f8cc99e5f3b39317e3fd5c7/1?pq-origsite=gscholar>
5. **Dulău M.**, Bica D., *Modelling and Simulation of the Behaviour of the Hydraulic Turbine*, Scientific Bulletin of the „Petru Maior” University of Tirgu-Mures, Vol. 11 (XXVIII), No. 1, 2014; p. 31-35.
http://scientificbulletin.upm.ro/papers/2014-1/05_Dulau_Bica.pdf
6. **Dulău M.**, Grif H., Oltean S., Rezi A., *Control structures for flow process*, Scientific Bulletin of the „Petru Maior” University of Tg.Mureș, Vol. 8 (XXV) – New Series, Nr. 2, Published by Editura Universității "Petru Maior" Tg.Mureș, ISSN 1841-9267, pag. 24-27, 2011.
<http://scientificbulletin.upm.ro/papers/2011-2/Cover%202011-2.pdf>
<https://doaj.org/toc/2285-438X/8%20%28XXV%29>
7. Grif H., **Dulău M.**, *Halogen Automatic Daylight Control System Based on CMAC Controller with Triangular Basis Functions*, Scientific Bulletin of the „Petru Maior” University of Tg.Mureș, Vol. 8 (XXV), Nr. 1, ISSN 1841-9267, pag. 17-23, Tg.Mureș, 2011.
<http://scientificbulletin.upm.ro/papers/2011-1/Cover%202011-1.pdf>
<http://www.jourlib.org/paper/2701490#.VWS6ZNLtmko>
8. Oltean S., **Dulău M.**, *The simulation of the electron beam spot control*, Scientific Bulletin of the „Petru Maior” University of Tg.Mureș, Vol. 8 (XXV) – New Series, Nr. 2,

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9. Strnad G., **Dulău M.**, Bică D., Andone D., *Evaluation of training needs for "Petru Maior" University staff involved in engineering field*, Scientific Bulletin of the „Petru Maior” University of Tg.Mureș, Vol. 8 (XXV) – New Series, Nr. 2, Published by Editura Universității "Petru Maior" Tg.Mureș, ISSN 1841-9267, pag. 230-234, 2011.
<http://connection.ebscohost.com/c/articles/76597987/evaluation-training-needs-for-petru-maior-university-staff-involved-engineering-field>
10. **Dulău M.**, *Robust Control Analysis of a Chemical Process*, Revista Acta Electrotehnica, Academy of Technical Sciences of Romania, Technical University of Cluj-Napoca, Volume 50, Number 1, Mediamira Science Publisher, ISSN 1841-3323, pag. 67-72, 2009.
http://ie.utcluj.ro/files/acta/2009/Number1/Paper11_Dulau.pdf
11. Duka A., Abrudean M., **Dulău M.**, *Positioning system based on electromagnetic levitation using fuzzy learning control*, Revista Control Engineering and Applied Informatics (CEAI, nivel B+), Published by The Romanian Society of Control Engineering and Technical Informatics, Vol. 10, Nr. 3, ISSN 1454-8658, pag. 60-69, May 2008, București.
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12. Duka V., Oltean S., **Dulău M.**, *Model reference adaptive vs. Learning control for the inverted pendulum. A comparative case study*, Revista Control Engineering and Applied Informatics (CEAI, nivel B+), Published by The Romanian Society of Control Engineering and Technical Informatics, Vol. 9, Nr. 3-4, ISSN 1454-8658, pag. 67-75, December 2007, București.
<http://www.ceai.srait.ro/index.php?journal=ceai&page=article&op=view&path%5B%5D=65&path%5B%5D=25>
13. **Dulău M.**, Morar A., David L., *The Study of the Thermal Surface Modification by Electron Beam*, Revista Acta Electrotehnica, Academy of Technical Sciences of Romania, Technical University of Cluj-Napoca, Volume 46, Number 1, ISSN 1224-2497, pag. 13-17, Mediamira Science Publisher, Cluj-Napoca, 2005.
http://ie.utcluj.ro/files/acta/2005/Number1/Paper02_Dulau.pdf
14. **Dulău M.**, Morar A., David L., *Electron Beam Equipment for Welding Technology*, Revista Acta Electrotehnica, Academy of Technical Sciences of Romania, Technical University of Cluj-Napoca, Volume 46, Number 2, Mediamira Science Publisher, Cluj-Napoca, 2005, ISSN 1224-2497, pag. 59-65.
http://ie.utcluj.ro/files/acta/2005/Number2/Paper02_Morar.pdf

F. Publicații în extenso, apărute în lucrări ale principalelor conferințe internaționale de specialitate

1. **Dulău M.**, Bică D., *Design of robust control for Single Machine Infinite Bus system*, Procedia Technology, 2015, Volume: 19, pp. 657-664, DOI: 10.1016/j.protcy.2015.02.093, 8th International Conference Interdisciplinarity in

- Engineering, INTER-ENG 2014, 9-10 October 2014, "Petru Maior" University of Tirgu Mures, Romania.
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2. **Dulău M.**, Oltean S., Gligor A., *Conventional control vs. robust control on heat-exchangers*, Procedia Technology, 2015, Volume: 19, pp. 534-540, DOI: 10.1016/j.protcy.2015.02.076, 8th International Conference Interdisciplinarity in Engineering, INTER-ENG 2014, 9-10 October 2014, "Petru Maior" University of Tirgu Mures, Romania.
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 3. Oltean S., **Dulău M.**, *Design and simulation of fuzzy logic based temperature control for a plasma nitriding process*, Procedia Technology, 2015, Volume: 19, pp. 569-575, DOI: 10.1016/j.protcy.2015.02.081, 8th International Conference Interdisciplinarity in Engineering, INTER-ENG 2014, 10-11 October 2014, "Petru Maior" University of Tirgu Mures, Romania.
<http://www.sciencedirect.com/science/article/pii/S2212017315000821>
 4. **Dulău M.**, Bică D., *Simulation of speed steam turbine control system*, Procedia Technology, 2014, Reference: PROTCY1323, Volume/issue: 12, pp. 716-722, DOI information: 10.1016/j.protcy.2013.12.554, The 7th International Conference Interdisciplinarity in Engineering, INTER-ENG 2013, 10-11 October 2013, "Petru Maior" University of Tirgu Mures, Romania.
<http://www.sciencedirect.com/science/article/pii/S2212017313007391>
 5. **Dulău M.**, Bică D., *Mathematical modelling and simulation of the behaviour of the steam turbine*, Procedia Technology, 2014, Reference: PROTCY1324, Volume/issue: 12, pp. 723-729, DOI information: 10.1016/j.protcy.2013.12.555, The 7th International Conference Interdisciplinarity in Engineering, INTER-ENG 2013, 10-11 October 2013, "Petru Maior" University of Tirgu Mures, Romania.
<http://www.sciencedirect.com/science/article/pii/S2212017313007408>
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 6. **Dulău M.**, Bică D., *Robust Control of Electro-Discharge Processing Machine*, 2014 International Conference and Exposition on Electrical and Power Engineering, EPE 2014, IEEE Xplore, DOI: 10.1109/ICEPE.2014.6969993, ISBN 978-1-4799-5849-8, 16-18 October, Iași, Romania, pp. 668-672.
<http://ieeexplore.ieee.org/xpl/abstractKeywords.jsp?arnumber=6969993>
 7. Muji M, Bică D., **Dulău M.**, *Domain Specific Languages in Power Systems Engineering*, 2014 International Conference and Exposition on Electrical and Power Engineering, EPE 2014, IEEE Xplore, DOI: 10.1109/ICEPE.2014.6970070, ISBN 978-1-4799-5849-8, 16-18 October, Iași, Romania, pp. 1055-1059.
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https://apps.webofknowledge.com/full_record.do?product=UA&search_mode=GeneralSearch&qid=6&SID=R1x8paH4bCGZSGqobtv&page=1&doc=2
 8. **Dulău M.**, Oltean S., Duka A., *Control Strategies For Level Processes*, Proceedings of the 6th Edition of the Interdisciplinarity in Engineering International Conference "Petru Maior" University of Tirgu Mures, (Inter-eng 2012), "Petru Maior" University

- Publishing House, ISSN 2285-0945, ISSN-L 2285-0945, pag. 226-229, 4-5 oct. 2012, Romania.
<http://inter-eng.upm.ro/2012/files/proceedings/papers/paper47.pdf>
9. Oltean S., **Dulău M.**, Duka A., *Modeling And Simulation Of Static Var Compensator Fuzzy Control For Power System Enhancement*, Proceedings of the 6th Edition of the Interdisciplinarity in Engineering International Conference "Petru Maior" University of Tîrgu Mureş, (Inter-eng 2012), "Petru Maior" University Publishing House, ISSN 2285-0945, ISSN-L 2285-0945, pag. 214-219, 4-5 oct. 2012, Romania.
<http://inter-eng.upm.ro/2012/files/proceedings/papers/paper45.pdf>
 10. Duka A., **Dulău M.**, Oltean S., *Robust Control Of A Heat Exchanger Using A Smith Predictor*, Proceedings of the 6th Edition of the Interdisciplinarity in Engineering International Conference "Petru Maior" University of Tîrgu Mureş, (Inter-eng 2012), "Petru Maior" University Publishing House, ISSN 2285-0945, ISSN-L 2285-0945, pag. 240-244, 4-5 oct. 2012, Romania.
<http://inter-eng.upm.ro/2012/files/proceedings/papers/paper50.pdf>
 11. **Dulău M.**, Gligor A., Grif H., *Modelling, Simulation and Robust Analysis of the Temperature Process Control*, Proceedings of the 6th Edition of the Interdisciplinarity in Engineering International Conference "Petru Maior" University of Tîrgu Mureş, (Inter-eng 2012), "Petru Maior" University Publishing House, ISSN 2285-0945, ISSN-L 2285-0945, pag. 312-316, 4-5 oct. 2012, Romania.
<http://inter-eng.upm.ro/2012/files/proceedings/papers/paper63.pdf>
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G. Alte lucrări și contribuții științifice

G1. Publicații în reviste și volume ale altor manifestări științifice

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G2. Îndeplinirea standardelor anuale ale UPM referitoare la activitatea de cercetare științifică (în ultimii 5 ani)

Anul	Punctaj pentru conferențiar	Punctaj pentru profesor	Punctaj realizat
2010	49	80	133
2011	49	80	706
2012	13	15	53,9
2013	60	75	76,8
2014	60	75	93,4

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