

## Lect.univ. dr. Furdu Iulian Marius

### 1. Teza de doctorat

Optimizing Ordered Binary Decision Diagrams, Promoter: prof. dr. mat. Octav Brudaru (Optimizarea diagramelor de decizie binare ordonate), Universitatea Tehnică "Gh. Asachi", Iași, 2010.

### 2. Cărți și capitole în cărți

1. Nechita, E., Crișan, C., **Furdu, I.**, Îndrumar de laborator, (in RO) C, C++, Universitatea din Bacău, 2005.
2. Crișan, C., Nechita, E., Pătruț, B., **Furdu, I.**, Tehnologia informației, Ed. EduSoft, Bacău, ISBN 973-87655-6-0, 2005.
3. Todoroi, D., Micușă, D., Nechita E., Crișan G.C., **Furdu I.**, Birotica, Ed. EduSoft, Bacău, ISBN 973-87714-5-5, 2006.
4. Pătruț, B., **Furdu, I.**, Grafică 3D, animație și jocuri, EduSoft, Bacău, ISBN 973-87496-2-X, 2005.
5. Talmaciu, M., **Furdu, I.**, Algoritmi și structuri de date, Ed. Alma Mater, Bacău, ISBN 978-973-1833-71, 2008.
6. „Ordered Binary Decision Diagrams”: in "Modern Paradigms in Computer Science and Applied Mathematics", A Handbook for PhD Students and Researchers, (Eds. B., Patrut, G.,C., Crișan), Akademische Verlagsgemeinschaft München-AVM Imprint der Martin Meidenbauer Verlagsbuchhandlung GmbH & Co. KG, München, Germany, ISBN 978-3-86306-757-1) p.217-269, 2011, <http://www.amazon.de/Paradigms-Computer-Science-Applied-Mathematics/dp/images/3863067576>
7. **Furdu I.**, Patrut B., ICT Applications and Solutions in Healthcare: Present and Perspectives, IGI Global Publishing, Hershey, Pennsylvania, ISBN 9781466639904, p. 559-576, 2013, <http://www.igi-global.com/chapter/ict-applications-solutions-healthcare/78043>.
8. **Furdu, I.**, Pătruț B., Towards ICT Revolution in Healthcare: Present and Perspectives for Electronic Healthcare Record Systems, Advanced Intelligent Computational Technologies and Decision Support Systems, Studies in Computational Intelligence, ISBN 978-3-319-00466-2, vol. 486, p. 65-70, Editors Barna Iantovics, Roumen Kountchev, 2014, [http://link.springer.com/chapter/10.1007%2F978-3-319-00467-9\\_6](http://link.springer.com/chapter/10.1007%2F978-3-319-00467-9_6).

### 3. Articole/studii in extenso, publicate în reviste din fluxul științific internațional principal

1. Verduyssen N., Tomozei C., **Furdu I.**, Varlan S., Amancei C., Collaborative Recommender System Development with Ubiquitous Computing Capability for Risk Awareness, Studies in Informatics and Control, Vol.24(1), p.91-100, 2015, ISSN 1220-1776 (ISI 2013 Impact factor 0,605), [http://sic.ici.ro/?page\\_id=618](http://sic.ici.ro/?page_id=618)
2. Vârlan S., **Furdu I.**, Ontology in knowledge management, International Business Information Management Association Conference, Viena, 27-28 June, ISBN 978-0-9860419-0-7, Proceedings of the 21st IBIMA, p. 1518-1524, 2013, (ISI Proc), <http://www.ibima.org/AT2013/papers/simn.html>
3. **Furdu I.**, Vârlan S., Is It Science Going Social Media? A Case Study of the Eastern Romanian Universities, International Conference SMART 2013 Social Media in Academia: Research and Teaching, Vol. 1, Nr.1, p.137-143, 2014, ISSN 978-88-7587-686-9 (ISI Proc), [http://www.medimond.com/proceedings/moreinfo/20130607\\_index.pdf](http://www.medimond.com/proceedings/moreinfo/20130607_index.pdf)

4. Vârlan S., **Furdu I.**, International Conference SMART 2013 Social Media in Academia: Research and Teaching, Semantic Web in Social Media, Vol. 1, Nr.1, p. 85-93, 2014, ISSN 978-88-7587-686-9 (ISI Proc), [http://www.medimond.com/proceedings/moreinfo/20130607\\_index.pdf](http://www.medimond.com/proceedings/moreinfo/20130607_index.pdf)
5. **Furdu I.**, Tomozei C., Pandele I., Improving Management of Risks and Natural Disasters by Regional GIS Distributed Application, Environmental Engineering and Management Journal, ISSN: 1582-9596, vol.12, nr.1, p.11-16, 2013, <http://omicron.ch.tuiasi.ro/EEMJ/issues/vol12/vol12no1.htm> (ISI 2014 Impact factor 1,258).
6. Brudaru, O., Ebdndt, R., **Furdu, I.**, Optimizing Variable Ordering of BDDs with Double Hybridized Embryonic Genetic Algorithm, 2010 12th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, Timișoara, September 23-26, pag.167-173, ISBN: 978-0-7695-4324-6, (ISI Proc) <http://www.computer.org/portal/web/csdl/doi/10.1109/SYNASC.2010.33>
7. Pătruț, B., **Furdu, I.**, Pătruț, M., Bivalent Verbs and Their Pragmatic Particularities, 13th International Conference on Applications of Natural Language to Information Systems, London, UK, 24-27.05.2008, Lecture Notes in Computer Science, Springer Berlin, ISSN 0302-9743 (Print) 1611-3349 (Online), Vol. 5039/2008, p.327-328, 2008 (ISI Proc.), [http://link.springer.com/chapter/10.1007/978-3-540-69858-6\\_33](http://link.springer.com/chapter/10.1007/978-3-540-69858-6_33)

#### 4. Publicații in extenso, apărute în lucrări ale principalelor conferințe internaționale de specialitate;

8. **Furdu I.**, Vârlan S., L'internet des objects et son impact dans le Cloud Computing: présent et perspectives, Proceedings of Francophone Multidisciplinary Colloquium on Materials, Environment and Electronics, ISSN L 2343-9092, 2015.
9. Vârlan S., **Furdu I.**, Using Internet of Things to Improve Patient Awareness in Drug Administration, Proceedings of Francophone Multidisciplinary Colloquium on Materials, Environment and Electronics, ISSN L 2343-9092, 2015.
10. **Furdu, I.**, Reduced OBDDs Optimization Techniques Using Embryonic Genetic Algorithms, Proceedings of the 9th Intl Conf. on Industrial Power Engineering, Vol. I Nr.1, p.93-99, ISSN 2069-9905, 2014, <http://ciei.ub.ro/2014/2014-2/proceedings-2014/reduced-obdds-optimization-techniques-using-embryonic-genetic-algorithms>
11. **Furdu I.**, Using Lower Bounds in BDD Optimization, Proceedings of Francophone Multidisciplinary Colloquium on Materials, Environment and Electronics, ISSN L 2343-9092, 2013, <http://plumee2013.ub.ro/using-lower-bounds-in-bdd-optimization/>
12. Puiu G., Popa S., **Furdu I.**, The Study of the Experimental Adjustment Criteria for the Regulators Functioning, Proceedings of francophone multidisciplinary colloquium on materials, environment and electronics, ISSN L 2343-9092, 2013, <http://plumee2013.ub.ro/2013-2/scientific-studies-5/>
13. Brudaru O., Rotaru C., **Furdu I.**, Static Segregative Genetic Algorithm for Optimizing Variable Ordering of ROBDDs, 2011 13th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, Tmisoara, September 26-29, ISBN: 978-0-7695-4630-8, p.222-229, 2011, <http://www.computer.org/csdl/proceedings/synasc/2011/4630/00/4630a222-abs.html>,
14. **Furdu, I.**, Brudaru, O., New hybrid genetic algorithm with adaptive operators and variability target for optimizing variable order in OBDD, Scientific Studies and Research. Series Mathematics and Informatics. Proceedings of "Gheorghe Vranceanu" International Conference on Mathematics and Informatics ICMI 2, vol. 19/2009 nr. 2, 2009, ISSN 2067 – 3566.

15. **Furdu, I.**, Pătruț, B., Genetic Algorithm in Ordered Binary Decision Optimization, Proceedings of the International Conference on Mathematics and Informatics ICMI45, Studii și Cercetări Științifice. Seria Matematică, Supplement, nr. 16, p.437-444, 2006, ISSN 1224-2519, <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.127.3944>

## 5. Alte lucrări și contribuții științifice

16. Puiu P.G., **Furdu I.**, Asynchronous Motor Speed Control by Pro View Open Source Software within a SCADA Interface, Scientific Studies and Research. Series Mathematics and Informatics, ISSN 2067-3566, vol. 24, nr.1, p. 105-112, 2014, <http://pubs.ub.ro/?pg=revues&rev=ssrsmi&num=20140124&vol=24&aid=4067>
17. **Furdu I.**, Puiu G., New Aspects in Optimization of BDDS: Mixed Techniques Based on Populations of Solutions and Lower Bound, Scientific Studies and Research. Series Mathematics and Informatics, ISSN 2067-3566, vol. 23, nr.1, p. 29-38, 2013, <http://pubs.ub.ro/?pg=revues&rev=ssrsmi&num=201323&vol=23&aid=3821>,
18. Tomozei C., Vârlan S., **Furdu I.**, A Semantic Service Composition Model for Health GIS Applications Development, Scientific Studies and Research. Series Mathematics and Informatics, ISSN 2067-3566, vol. 23, nr.1, p. 195-202, 2013, <http://pubs.ub.ro/?pg=revues&rev=ssrsmi&num=201323&vol=23&aid=3839>,
19. Puiu G., **Furdu I.**, Reliable Open Source System for Automatic Release of Reserves Using SCADA Interface, Scientific Studies and Research. Series Mathematics and Informatics, ISSN 2067-3566, vol. 23, nr.1, p.161-168, 2013, <http://pubs.ub.ro/?pg=revues&rev=ssrsmi&num=201323&vol=23&aid=3835>,
20. **Furdu I.**, Ardeleanu R., Rolul jocului didactic matematic in obtinerea performantei scolare, Conferinta nationala de didactica Alba Iulia 2013, 5-7 august 2013, Atelierul 4- Matematica.
21. Brudaru, O., **Furdu, I.**, Monogrid Cellular Genetic Algorithm for OBDD's Optimization, Bulletin of the Polytechnic Institute of Iași. Automatic Control and Computer Science, p. 29-43, Bulletin of the Polytechnic Institute of Iassy, Tom. LVII (LXI), Fasc. 2, 2011, <http://www.cm.tuiasi.ro/docs/mate%202011%20%20eng.pdf>
22. Brudaru, O., **Furdu, I.**, Ebendt, R., Embryonic Genetic Algorithm with Random Generational Growing Strategy for Optimizing Variable Ordering of BDDs, Scientific Studies and Research. Series Mathematics and Informatics, 2010, vol. 20, nr. 1, ISSN 2067-3566, <http://pubs.ub.ro/?pg=revues&rev=ssrsmi&num=201001&vol=20>
23. Pătruț, B., **Furdu, I.**, A System for Learning Financial Accounting Bases, BRAIN. Broad Research in Artificial Intelligence and Neuroscience, Vol. 1, p.61- 64, 2010, Issue 1, ISSN 2067- 3957, <http://www.edusoft.ro/brain11/20-73-1-PB.pdf>
24. **Furdu, I.**, An Analysis of Hyperheuristics for OBDD's Optimization, Proc. of the UK Computational Intelligence Workshop, London, UK, 2007.
25. **Furdu, I.**, An Analysis of Heuristics for OBDD's Optimization, VIII ETAI Conference, Ohrid, Macedonia, 11-5, 2007, 978-998-9217-53-X.
26. **Furdu, I.**, Ordered Binary Decision Diagrams: emerging heuristics, The 9th International Symposium on Automatic Control and Computer Science, Iași, 2007, ISSN 1843- 665- X.
27. **Furdu, I.**, VLSI implementation of binary decision diagrams: optimization techniques, Workshop on Scientific and Educational Grid Application, Iași, 2007, ISSN 1843- 665- X.
28. **Furdu, I.**, Socaciu, T., Genetic Algorithm for Variable Ordering of OBDD's, National Conference on Mathematics and Informatics, CNMI45, Bacău, Studii și Cercetări Științifice. Seria Matematică, nr. 17 Supplement, 67-78, 2007, ISSN 1224-2519.

29. Todoroi, D., Todoroi, Z., Nechita, E., Crișan, G. C., Chicu, O., **Furdu, I.**, Computer Aided Education System SuperTest. Present and Prospective, Informatica Economică, București, Vol. 11, nr. 4, 2007, p. 22-25, ISSN 1582-7941, <http://revistaie.ase.ro/content/42/todoroi.pdf>
30. Pătruț, B., **Furdu, I.**, The transfer of articles references emergencies between the nodes of a hyper-enciclopedia, Studii și Cercetări Științifice, seria Matematica, nr.17, Supplement, p.163-172, 2007, ISSN 1224-2519,
31. **Furdu, I.**, Asupra optimizării diagramelor de decizie ordonate, Proc. of Int'l Symposium of young researchers, vol. X, p. 72-76, Chișinău, 2005.
32. Pătruț, B., **Furdu, I.**, The Bivalent Verbs and Cognitive Pragmatics Problems, Studii și cercetări științifice, seria: Matematica, Studii și Cercetări Științifice, seria Matematica, nr. 14, p.107-116, 2004, Bacău, ISSN 1224-2519.
33. Masa rotundă cu tema "Fluxul informațional într-un spital de urgență" comunicarea cu tema „TIC și activitatea medicală”, Spitalul Municipal Moinești, Infomed Moinești, anul V, nr.19, p.4, august 2013, <http://www.spitalmoinesti.ro/files/infomed/19-infomed-august2013.pdf>

## 6. Contracte cercetare

1. Academic grid for complex applications – 74 CEEEX-II 03/31.07.2006, Competition-based 3-years contract with Ministry of Education, Romania, budget: 430000 EUR (1500000 ron), Executive Unit for Financing Higher Education, Research and Development and Innovation, Ministry of National Education, ROMANIA, 2006-2008 (membru).
2. Research contract nr. 1317/2006, between University of Bacău and S.C. AEROSTAR S.A., „Testarea bibliotecilor matematice utilizate in S.C. Aerostar” (Testing mathematical libraries used by S.C. Aerostar, membru).
3. POSDRU Nr. 55585 – „Dezvoltarea managementului calității academice la nivel de sistem, bazat pe proiectarea și implementarea unui sistem informatic pentru gestionarea experienței și accesarea informației în contextul promovării universității inovative” (Developing academic quality management at the system level, based on the design and implementation of a system for managing the experience and of accessing the information in the context of promoting innovative university, asistent proiect), <http://im.upg-ploiesti.ro/moodle/login/index.php>.
4. Bacău and Lugano – Teaching Informatics for a Sustainable Society BLISS, Project co-financed by a grant from Switzerland through the Swiss Contribution to the enlarged European Union, 2013 – 2016, (membru), [bliss.ub.ro](http://bliss.ub.ro).
5. UNESCO – UniTwin Complex Systems Digital Campus
6. IN2RURAL, Innovative practices in renewable energies to improve rural employability (Practici inovative în domeniul energiilor regenerabile pentru creșterea angajării în mediul rural), program Erasmus+, Key Action 2, Cooperare pentru inovare și schimb de bune practici, coordonat de Universitatea Jaume I din Spania. (membru), [in2rural.ub.ro](http://in2rural.ub.ro).