

L I S T **of scientific publications in Computer Science**

A. Ph. D. Thesis

Optimizarea unor algoritmi cu arbori de decizie în „Data Mining” (Data Mining decision trees algorithms optimization), University of Craiova, Computer Science Area, Supervisor: Professor Mircea Stelian Petrescu PhD. Eng, 2010.

B. Books

1. Laviniu Aurelian Bădulescu, et al., (2009), *Utilizarea tehnologiei informației și comunicațiilor în predarea modernă (The use of information and communication technology in modern teaching)*, Ed. Info, Craiova, ISBN: 978-973-8382-68-8.
2. Laviniu Aurelian Bădulescu (single author) (2010), *Arbori de decizie (Decision Trees)*, Ed. Sitech, Craiova, ISBN: 978-606-11-00-15-6.
3. Laviniu Aurelian Bădulescu (single author) (2010), *Criterii de divizare și metode de reducere a arborilor de decizie (Splitting criteria and pruning methods for decision trees)*, Ed. Sitech, Craiova, ISBN: 978-606-11-00-14-9.
4. Laviniu Aurelian Bădulescu, et al., (2010), *Sub semnul modernității în didactica Informaticii (Under the sign of modernity in Computer Science Didactics)*, Ed. Info, Craiova, ISBN: 978-606-8100-07-4.
5. Laviniu Aurelian Bădulescu (single author) (2010), *Experimente cu arbori de decizie (Experiments with Decision Trees)*, Ed. Sitech, Craiova, ISBN: 978-606-11-0668-4.
6. Laviniu Aurelian Bădulescu (single author) (2020). *Python. Aplicații și teste (Python. Applications and Exercises)*, Ed. Sitech, Craiova, ISBN 978-606-11-7448-5.
7. Laviniu Aurelian Bădulescu (single author) (2020). *Limbaajul Python. Un curs practic (Python programming language. A Practical Course)*, Ed. Sitech, Craiova, ISBN 978-606-11-7447-8.
8. Laviniu Aurelian Bădulescu (single author) (2020). *Proiectarea algoritmilor în limbaajul Python (Algorithms Design using Python language)*, Ed. Sitech, Craiova, ISBN: 978-606-11-7563-5.
9. Laviniu Aurelian Bădulescu (single author) (2018). *Limbaajul C prin teste grilă de programare (C language through programming quizzes)*, Ed. Universitaria, Craiova, ISBN: 606-11-6365-6.
10. Laviniu Aurelian Bădulescu (single author) (2018). *De la C la C11. Întrebări de programare în limbaajul C (From C to C11. C Language Programming Questions)*, Ed. Sitech, Craiova, ISBN: 606-11-6365-6.
11. Laviniu Aurelian Bădulescu, et al., *Inițiere în Corel DRAW (Getting started in Corel DRAW)*, Ed. Arves, Craiova, 2003, ISBN 973-85773-9-x.

B. Papers

1. Laviniu Aurelian Bădulescu (single author), *Data Mining Classification Experiments with Decision Trees Over the Forest Covertype Database*, Proc. of 21st International Conference on

- System Theory, Control and Computing (ICSTCC) 2017, pp. 236 – 241, IEEE Conferences, DOI: 10.1109/ICSTCC.2017.8107040, Sinaia, Romania. [ISI Proceedings] [IEEExplore]
2. Laviniu Aurelian Bădulescu (single author), *An information entropy based splitting criterion better for the Data Mining Decision Tree algorithms*, Proc. of 22nd International Conference on System Theory, Control and Computing (ICSTCC) 2018, pp. 535 – 540, IEEE Conferences, DOI: 10.1109/ICSTCC.2018.8540743, Sinaia, Romania. [ISI Proceedings] [IEEExplore]
 3. Laviniu Aurelian Bădulescu (single author), *Experiments for a better Gini index splitting criterion for Data Mining Decision Trees algorithms*, Oct. 2020, 2020 24th International Conference on System Theory, Control and Computing (ICSTCC), pp. 208-212, IEEE Editor, DOI: 10.1109/ICSTCC50638.2020.9259691 [ISI Proceedings] [IEEExplore]
 4. Laviniu Aurelian Bădulescu (single author), *A Chi-Square Based Splitting Criterion Better for the Decision Tree Algorithms*, oct. 2021, 2021 25th International Conference on System Theory, Control and Computing (ICSTCC), pp. 530-534, IEEE Editor, DOI: 10.1109/ICSTCC52150.2021.9607285 [ISI Proceedings] [IEEExplore]
 5. Bogdan Popa; Cosmin Ionete; Alexandra Elisabeta Lorincz; **Laviniiu Aurelian Bădulescu**, *Possibilities for fast generation of fractal images and various fields of applicability*, 23rd International Carpathian Control Conference (ICCC), May 2022, pp. 82-87, IEEE Editor, doi: 10.1109/ICCC54292.2022.9805946 [ISI Proceedings] [IEEExplore]
 6. Laviniu Aurelian Bădulescu (single author), *Attribute Selection Measure in Decision Tree Growing*, in „Proceedings of the International Symposium on Systems Theory, Automation, Robotics, Computers, Informatics, Electronics and Instrumentation - SINTES 13”, Vol. 2, Computer Science and Engineering Electronics and Instrumentation, Ed. Universitaria, Craiova, ISBN 978-973-742-839-4, 978-973-742-841-7, 2007, pp. 7-12.
 7. Laviniu Aurelian Bădulescu, Tîmplaru, R., *Decision Trees – A New Paradigm in the Educational Research*, in „Proceedings of the 6th International Conference RoEduNet”, Craiova, 23-24.11.2007, University of Craiova, Ed. Sitech, ISBN 978-973-746-581-8, 2007, pp. 162-166. [ISI Indexed]
 8. Laviniu Aurelian Bădulescu, Țarcă, N., *Knowledge Discovery with Decision Rules derived from Decision Trees*, in „Annals of the Oradea University. Fascicle of Management and Technological Engineering”, Publishing House of Oradea University, Vol. VI (XVI), ISSN 1583 – 0691, 2007, pp. 2311-2317. [CNCSIS B+]
 9. Laviniu Aurelian Bădulescu, Nicola, A., *Data Mining Decision Trees in Economy*, in „Annals of the Oradea University, Economic Science”, tom XVI, Vol. I, Statistics and Economic Informatics, ISSN – 1582 – 5450, 2007, pp. 723-727. [CNCSIS B+]
 10. Laviniu Aurelian Bădulescu (single author), *Data Mining Algorithms Based On Decision Trees*, in „Annals of the Oradea University. Fascicle of Management and Technological Engineering”, Publishing House of Oradea University, Vol. V (XV), ISSN 1583 – 0691, 2006, pp. 1621-1628. [CNCSIS B]
 11. Laviniu Aurelian Bădulescu (single author), *The choice of the best attribute selection measure in Decision Tree induction*, in „Annals of University of Craiova, Mathematics and Computer Science Series”, vol. 34 (1), Ed. Universitaria, Craiova, ISSN 123-6934, 2007, pp. 88-93. [CNCSIS B]
 12. Laviniu Aurelian Bădulescu (single author), *Data Mining Decision Trees Algorithms Optimization*, in „Annals of the University of Craiova, Series Automation, Computers, Electronics and Mechatronics”, Vol. 4 (31), No. 3, Ed. Universitaria, Craiova, ISSN 1841-0626, 2007, pp. 3-8. [CNCSIS B]

13. Laviniu Aurelian Bădulescu (single author), *Pruning Methods and Splitting Criteria for Optimal Decision Trees Algorithms*, in „Annals of the University of Craiova Series: Automation, Computers, Electronics and Mechatronics”, Vol. 13 (40), No. 1, Ed. Universitaria, Craiova, ISSN 1841-0626, 2016, pp. 15-19.
14. Laviniu Aurelian Bădulescu (single author), *Classification Error Rates In Decision Tree Execution*, in „Proceedings of the International Symposium on Systems Theory, Automation, Robotics, Computers, Informatics, Electronics and Instrumentation - SINTES 13”, Vol. 2, Computer Science and Engineering Electronics and Instrumentation, Ed. Universitaria Craiova, ISBN 978-973-742-839-4, 978-973-742-841-7, 2007, pp. 1-6.
15. Laviniu Aurelian Bădulescu (single author), *Knowledge discovery operations with decision trees*, in „Else Software”, No. 27, Ed. Sitech, Craiova, ISSN 1221-4469, 2007, pp. 56-91. [CNCSIS D]
16. Laviniu Aurelian Bădulescu (single author), *Optimizing Performances in Knowledge Discovery Using Decision Trees Algorithms*, in „Georgian Electronic Scientific Journals, Computer Sciences and Telecommunications”, Georgia, No. 3 (20), ISSN 1512-1232, 2009, pp. 16-35.
17. Laviniu Aurelian Bădulescu, Căuş, V., A., *Measures for Attribute Selection in Decision Tree Induction*, in „Proceedings of International Conference on Fundamental Sciences” (ICFS 2007), Applied Mathematics and Computer Science Section, Nov. 9-10, 2007, Băile-Felix, Oradea, Romania, Ed. Universităţii din Oradea, ISBN 978-973-759-367-2, 2007, pp. 76-81.
18. Laviniu Aurelian Bădulescu (single author), *Arborii de decizie o provocare pentru clasificarea şi luarea deciziilor în economie (Decision Trees a challenge for classification and decision-making in Economics)*, in „Analele Universităţii din Oradea, Ştiinţe Economice”, tom XV, ISSN-1582-5450, 2006, pp. 1165-1168. [CNCSIS C]
19. Laviniu Aurelian Bădulescu (single author), *Analiza statistică a datelor economice prin algoritmi data mining de arbori de decizie (Statistical analysis of economic data through Decision Tree Data Mining algorithms)*, in „Analele Universităţii din Oradea, Ştiinţe Economice”, tom XV, ISSN – 1582 – 5450, 2006, pp. 1169-1171. [CNCSIS C]
20. Laviniu Aurelian Bădulescu (single author), *Arborele de decizie model predictiv in Data Mining (The decision tree predictive model in Data Mining)*, in „Electrotehnică, Electronică, Automatică”, Vol. 53, No 4, Oct.-Dec., ICPE, Ed. Electra, ISSN 1582-5175, 2005, pp. 31-34. [CNCSIS D]
21. Laviniu Aurelian Bădulescu, Pîrîu, E., *Arborii de decizie – o soluţie modernă pentru cercetarea în astronomie (Decision Trees – a modern solution for Astronomy research)*, in „Celebration of cosmos and life”, national symposium dedicated to the international year of astronomy, University of Craiova, Ed. Universitaria, Craiova, ISBN 978-606-510-615-4, 2009, pp. 3-8.
22. Laviniu Aurelian Bădulescu (single author), *Using Decision Tree to Build Predictive Models in Adult Education*, in „European Learning Objects, Methodological Guide in Adult Education - Grundtvig Learning Partnership”, Ed. Info, ISBN 978-973-8382-98-5, 2010, pp. 20.
23. Laviniu Aurelian Bădulescu (single author), *Arborele sau polimorfiile interdisciplinare ale unei paradigme divine (The Tree or interdisciplinary polymorphisms of a divine paradigm)*, „Ştiinţa şi teologia – componente complementare ale educaţiei” (Science and Theology - complementary components of education) – national symposium, University of Craiova, Center for Dialogue between Sciences and Theology Bulletin, ISBN 973-742-171-X, 2005, pp. 184-189.

24. Laviniu Aurelian Bădulescu (single author), *Lista – un concept interdisciplinar cu model divin (The List – an interdisciplinary concept with a divine model)*, „Știința și teologia – componente complementare ale educației” (Science and Theology - complementary components of education) – national symposium, University of Craiova, Center for Dialogue between Sciences and Theology Bulletin, ISBN 973-742-171-X, 2005, pp. 38-43.
25. Laviniu Aurelian Bădulescu, Ciocoiu, F., *Bitul un concept interdisciplinar cu model divin (Bit an interdisciplinary concept with a divine model)*, „Știința și teologia – componente complementare ale educației” (Science and Theology - complementary components of education) – national symposium, University of Craiova, Center for Dialogue between Sciences and Theology, Ed. Universitaria, ISBN 973-742-566-9, Craiova, 2006, pp. 38-39.
26. Laviniu Aurelian Bădulescu, Ciocoiu, F., *Arborii între știință și teologie (Trees between science and theology)*, „Știința și teologia – componente complementare ale educației” (Science and Theology - complementary components of education) – national symposium, University of Craiova, Center for Dialogue between Sciences and Theology, Ed. Universitaria, ISBN 973-742-566-9, Craiova, 2006, pp. 40-43.
27. Laviniu Aurelian Bădulescu, Popa, J., *Decision Trees vs. Decision Rules in Knowledge Discovery Process*, in „Interferențe tehnico-științifice”, No. 3, edited under the aegis UNESCO and ”High Voltages Engineering, Environment & Life” association, Ed. Sitech, ISSN 184-1636, Craiova, 2008, pp. 7-10.
28. Laviniu Aurelian Bădulescu, Popa, J., *Decision Trees Algorithms and Knowledge Discovery*, in „Interferențe tehnico-științifice”, No. 4, edited under the aegis UNESCO and ”High Voltages Engineering, Environment & Life” association, Ed. Sitech, ISSN 1842-1636, Craiova, 2009.
29. Laviniu Aurelian Bădulescu, Popa J., *Performanțe ale unor algoritmi cu arbori de decizie (Some decision trees algorithms performances)*, in „Interferențe tehnico-științifice”, No. 2, edited under the aegis UNESCO and ”High Voltages Engineering, Environment & Life” association, Ed. Sitech, ISSN 1841-8813, Craiova, 2007, pp. 44-46.
30. Laviniu Aurelian Bădulescu (single author), *Clasificări cu arbori de decizie în ecologie (Classifications with decision trees in Ecology)*, in „Eco științe”, No. 1, Ed. Arves, ISSN 2066-4265, Craiova, 2009.
31. Laviniu Aurelian Bădulescu (single author), *Evaluarea performanțelor pe baza modelului arborelui de decizie (Performance evaluation based on the decision tree model)*, in „Deceniul tehnologiei avansate în educație”, No. 1 (1), ISSN 2065-87-37, București, 2009.
32. Laviniu Aurelian Bădulescu (single author), *Explorarea bazelor de date folosind arbori de decizie (Database exploration using Decision Trees)*, in „Softnews”, No. 3, ISSN 2066-8295, 2010, pp. 12-15.
33. Laviniu Aurelian Bădulescu (single author), *Data Mining*, in „Cyber”, No. 2-3, ISSN 1841-3870, 2006.
34. Laviniu Aurelian Bădulescu (single author), *Arborele de la început la sfârșit (The tree from beginning to end)*, in „Cyber”, No. 1, ISSN 1841-3870, 2005.
35. Laviniu Aurelian Bădulescu, Tîmplaru, R., Preda, D., *Optimizarea performanțelor la executarea arborilor de decizie (Performance optimization when executing decision trees)*, in Vol. „Tendințe în dezvoltarea aplicațiilor ciberneticii”, 24-25 nov. 2006, „Ștefan Odobleja” Cyber Academy, Ed. University of Oradea, ISSN-1582-6791.

36. Laviniu Aurelian Bădulescu (single author), *Utilizarea arborilor de decizie în cercetarea educațională (The use of decision trees in educational research)*, in „Education et réussite, Echanges et méthodes innovatrices dans le domaine de l'éducation”, Ed. Reprograph, Craiova, ISBN 978-973-671-195-4, 2009, pp. 125-129.
37. Laviniu Aurelian Bădulescu, Podeanu, L., *Arborele TV și aplicabilitatea lui în biologie (The TV Tree and its applicability in Biology)*, in „Genesis”, No. 14, ISBN 973-7878-18-3, pp. 61-63, Ed. Waldpress Timișoara, 2007, Biology National Conference, 4th edition, Timișoara, Nov. 23-25, 2007.
38. Laviniu Aurelian Bădulescu (single author), *Arbori și abordări interdisciplinare în universul eminescian (Trees and interdisciplinary approaches in the Eminescian universe)*, in Vol. ISBN 973-671-81-5, Craiova, 2006. „Mihai Eminescu – mit și simbol” symposium, Craiova, Ian 15, 2006.
39. Laviniu Aurelian Bădulescu (single author), *Interdisciplinaritate prin concepte esențiale: Lista (Interdisciplinarity through essential concepts: List)*, în ”Tribuna Învățământului”, Iun. 2004.
40. Laviniu Aurelian Bădulescu (single author), *Interdisciplinaritate prin concepte esențiale: Arbori (Interdisciplinarity through essential concepts: Trees)*, in ”Tribuna Învățământului”, Iun. 2003.
41. Laviniu Aurelian Bădulescu (single author), *Istoria dispozitivelor mecanice de calcul (History of mechanical computing devices)*, in ”Gazeta de Informatică: GInfo”, Mar. 2002.
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