

Curriculum Vitae

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|--------------------------|---------------|--|
| Name and surname: | Aleš Zamuda | |
| Born: | April 23 1982 | in Ptuj |
| School: | 1989 – 1997 | Primary school Velika Nedelja, Slovenia |
| | 1997 – 2001 | Gimnazija Ptuj, Slovenia |
| | 2001 – today | Faculty of Electrical Engineering and Computer Science, University of Maribor, Slovenia |
| Education: | 2006 | B. Sc. in computer science |
| | 2008 | M. Sc. in computer science |
| Employment: | 2006 – today | Faculty of Electrical Engineering and Computer Science, University of Maribor, Slovenia room: F-203, phone: +386 2 220 7404, e-mail: ales.zamuda@uni-mb.si |
| Title: | 2006 | teaching assistant |
| Languages: | | fluent active knowledge of English and German, some French and Croatian |
| Membership: | 2006 – today | IEEE, Computational Intelligence Society |

Aleš Zamuda was born on April 23 1982 in Ptuj, Slovenia. He visited primary school in Velika Nedelja, Slovenia, where he was acquainted with programming in Basic, Pascal, and C and also cooperated in making of school's web site. He continued his education at Gimnazija Ptuj.

Aleš Zamuda received B. Sc. degree in computer science from University of Maribor in 2006 as the first graduate of his generation, with average mark 9,13. He successfully defended his masters thesis in computer science at University of Maribor in 2008 with average mark 10. All time during secondary education and undergraduate studies he was a Zois stipendist. In 2008 he was awarded with Andrej Perlach award by University of Maribor.

He is currently a PhD candidate and affiliated with the Faculty of Electrical Engineering and Computer Science at the University of Maribor. His areas of interest include evolutionary algorithms, multicriterion optimization, artificial life, and computer animation. He is a member of the Institute of Electrical and Electronics Engineers (IEEE) and also a reviewer for the IEEE Transactions on Evolutionary Computation and other prominent scientific journals.

International Competitions

1. ECiDUE at congress IEEE CEC 2009 (Trondheim, Norway): 1st place (2nd author),
2. LSGO at congress IEEE WCCI CEC 2008 (Hong Kong, China): 6th place (1st author),

3. MOEA at congress IEEE CEC 2007 (Singapore): 3rd place (1st author), and
4. IEEE Region 8 (Europe, Africa, Middle East) Student Paper Contest at conference EURO-CON 2007 (Warsaw, Poland): 2nd place (1st author).

National Competitions and Awards

1. University of Maribor Andrej Perlach's award for research work (2008) and three faculty awards for research work (2006, 2007, 2008),
2. memorial gift of Slovene Secretary of State for Ministry of Higher Education, Science, and Technology for visible results on international competitions in computer science, at reception for students, university and faculty leaders, and public research institutions (2007),
3. victory at competition of student papers at IEEE ERK, Portorose (2006)
4. first award and golden plaque at competition for most inventive and business oriented project Eureka! mladi (2008),
5. first award in national secondary school programming (2001),
6. two titles of elementary school national champion in programming (1995, 1997),
7. in elementary school: two golden awards for chemistry (1996, 1997) and silver for mathematics (1997),
8. won 5th place at competition in using of program CorelDraw (1997),
9. national champion in text formatting with Word (1997), and
10. website construction which won 1st place at competition of all Slovenian primary and middle schools (1996).

Working Experience

1. Affiliated with the Faculty of Electrical Engineering and Computer Science at the University of Maribor as technical staff (2006 – 2009), later as teaching assistant (from 2009 on),
 - (a) member of commission for promotion of the study programmes at FERI (from 2007 on) and
 - (b) president of inventory central commission at FERI (2009),
2. member of the IEEE, IEEE Computational Intelligence Society and reviewer at IEEE TEVC, IEEE TIE, IEEE TSMC, and JIMO.
 - (a) program committee member of the IEEE CEC 2009 (Trondheim) and IEEE CEC 2007 (Singapore) and international technical committee member of IEEE WCCI CEC 2008 (Hong Kong) and
 - (b) member of Slovenian group on nature inspired algorithms and Slovenian Artificial Intelligence Society.

3. B. Sc. thesis work done with honors in the Laboratory for Computer graphics and artificial intelligence entitled *Modeling and Simulation modeling tree ecosystems*, mentor full prof. dr. Nikola Guid (2006),
4. one-month practice at the Center for interdisciplinary and multidisciplinary research and studies: work on a system for e-learning Moodle in PHP (2006),
5. one-month practice in the Laboratory for Computer Graphics and Artificial Intelligence: design of a natural landscapes overgrowth simulator in C++ with Qt4 and OpenGL (2005),
6. student work in the Laboratory for heterogeneous computing systems: implementation of distributed system for RSS news processing in .NET with CSharp (2005),
7. twice for one-month practice in Ljubljana, in the company IxtlanTeam (2001, 2002),
8. one week practice at Hermes Softlab (1998), and
9. maintenance and implementation of application for accounting calculations in the company Kema (1995-1997).

Pedagogical Working Experience

1. Teaching assistant at study programme in Electrical Engineering, course Computer Science at prof. Brest (2007/2008),
2. educational activity at practical training with prof. V. Žumer and prof. J. Brest: Programming I, Computer Science, Computer Architectures, Principles of Programming Languages, Programming Paradigms, and Heterogeneous Computer Systems,
3. demonstrator at course Computer Science (2004/2005), and
4. demonstrator at project Computer Literation at Ljudska Univerza Ormož (1997-2003).

Computer Science Training Before Faculty Study

1. Seminar of programming language Java at UM FERI (1999),
2. one week summer school of computer science at SERS, Maribor (1995),
3. two week international camp of computer science in Zadar, Croatia (1997), and
4. one week summer school of programming with Sinel in Bohinj (1994).

Expert Knowledge

1. programming languages C, C++, C# (ASP.NET), Java (Eclipse, JBuilder), Delphi, PHP, Ruby,
2. web technologies HTML, CSS, XHTML, RSS, Web 2.0,
3. utilities Qt4, Win32 API, MySQL,
4. office utilities OpenOffice.Org (Writer, Calc, Presentation), Microsoft Office (Word, Excel, PowerPoint), LaTeX, programming PDF,

5. Linux, BSD, KDE, GNOME,
6. CMS: MediaWiki, Joomla, Moodle,
7. OpenGL, AI in games, evolutionary optimization algorithms, and
8. Unix (Linux and Mac OS X) administration.

International Citations in Scientific Literature

1. Citation of the paper from CEC 2007 in SCI journal: Karin Zielinski, Petra Weitkemper, Rainer Laur, Karl-Dirk Kammeyer: Optimization of Power Allocation for Interference Cancellation With Particle Swarm Optimization. IEEE Transactions on Evolutionary Computation 13(1):128-150, 2009.
2. Several citations in proceedings of international scientific conferences Congress on Computational Intelligence (CEC) (for 2009: 7 citations and 2 autocitations).

Bibliography

ARTICLES AND OTHER COMPONENT PARTS

1.01 Original scientific article

1. ZAMUDA, Aleš, BREST, Janez, BOŠKOVIĆ, Borko, ŽUMER, Viljem. Študija samoprilagajanja krmilnih parametrov pri algoritmu DEMOWSA. *Elektroteh. vestn.*, 2008, iss. 75, vol. 4, pp. 223-228.
2. BREST, Janez, ZAMUDA, Aleš, BOŠKOVIĆ, Borko, ŽUMER, Viljem. Globalna optimizacija problemov z velikim številom dimenzij. *Elektroteh. vestn.*, 2008, iss. 75, vol. 5, pp. 299-304.

1.08 Published scientific conference contribution

3. ZAMUDA, Aleš, STRNAD, Damjan. Interaktivni modelirnik realističnih animiranih dreves. In: ZAJC, Baldomir (ur.). *Zbornik trinajste mednarodne elektrotehniške in računalniške konference ERK 2004, 27. - 29. september 2004, Portorož, Slovenija*. Ljubljana: IEEE Region 8, Slovenska sekcija IEEE, [2004?], zv. B, pp. 11-14.
4. ZAMUDA, Aleš, BREST, Janez, GUID, Nikola, ŽUMER, Viljem. Construction of virtual trees within ecosystems with ecomod tool. In: International Conference on Advances in the Internet, Processing, Systems and Interdisciplinary Research, Bled, November 30-December 3, 2006. *Proceedings of the VIPSI-2006 Slovenia : Multidisciplinary, Interdisciplinary, Transdisciplinary: M+I+T++*, Bled Slovenia, November 30-December 3, 2006. Belgrade: IPSI, 2006, [5] f.
5. ZAMUDA, Aleš, BREST, Janez, BOŠKOVIĆ, Borko, ŽUMER, Viljem. Differential evolution for multiobjective optimization with self adaptation. In: *CEC 2007 : 2007 Congress on Evolutionary Computation : 25-28 September 2007, Singapore*. Piscataway: Institute of Electrical and Electronics Engineers, 2007, pp. 3617-3624.
6. ZAMUDA, Aleš, BREST, Janez, GUID, Nikola, ŽUMER, Viljem. Modelling, simulation and visualisation of forest ecosystems. In: *Region 8 Eurocon 2007 : proceedings*. Piscataway, NJ: IEEE Service Center, [2007], pp. 2600-2606.
7. BOŠKOVIĆ, Borko, BREST, Janez, ZAMUDA, Aleš, ŽUMER, Viljem. Uглаševanje šahovskega programa BBChess z uporabo algoritma diferencialne evolucije. In: ZAJC, Baldomir (ur.), TROST, Andrej (ur.). *Zbornik šestnajste mednarodne Elektrotehniške in računalniške konference ERK 2007, 24. - 26. september 2007, Portorož, Slovenija*, (Zbornik ... Elektrotehniške in računalniške konference ERK ...). Ljubljana: IEEE Region 8, Slovenska sekcija IEEE, 2007, zv. B, pp. 73-76.
8. BREST, Janez, ZAMUDA, Aleš, BOŠKOVIĆ, Borko, ŽUMER, Viljem. Večkriterijska optimizacija: primerjava algoritmov v MOJDE in DEMO. In: ZAJC, Baldomir (ur.), TROST, Andrej (ur.). *Zbornik šestnajste mednarodne Elektrotehniške in računalniške konference ERK 2007, 24. - 26. september 2007, Portorož, Slovenija*, (Zbornik ... Elektrotehniške in računalniške konference ERK ...). Ljubljana: IEEE Region 8, Slovenska sekcija IEEE, 2007, zv. B, pp. 85-88.

9. ZAMUDA, Aleš, BREST, Janez, BOŠKOVIĆ, Borko, ŽUMER, Viljem. Večkriterijska optimizacija: eksperimentalni rezultati algoritmov MOJDE in DEMO. In: ZAJC, Baldomir (ur.), TROST, Andrej (ur.). *Zbornik šestnajste mednarodne Elektrotehniške in računalniške konference ERK 2007, 24. - 26. september 2007, Portorož, Slovenija*, (Zbornik ... Elektrotehniške in računalniške konference ERK ...). Ljubljana: IEEE Region 8, Slovenska sekcija IEEE, 2007, zv. B, pp. 89-92.
10. BREST, Janez, ZAMUDA, Aleš, BOŠKOVIĆ, Borko, GREINER, Sašo, SEPESY MAUČEC, Mirjam, ŽUMER, Viljem. Self-adaptive differential evolution with SQP local search. In: FILIPIČ, Bogdan (ur.), ŠILC, Jurij (ur.). *Bioinspired optimization methods and their applications : proceedings of the Third International Conference on Bioinspired Optimization Methods and their Applications, BIOMA 2008, 13-14 October 2008, Ljubljana, Slovenia*. Ljubljana: Jožef Stefan Institute, 2008, pp. 59-69.
11. BREST, Janez, ZAMUDA, Aleš, BOŠKOVIĆ, Borko, SEPESY MAUČEC, Mirjam, ŽUMER, Viljem. High-dimensional real-parameter optimization using self-adaptive differential evolution algorithm with population size reduction. In: IEEE World Congress on Computational Intelligence, Hong Kong, June 1-6, 2008. *WCCI 2008 Proceedings*. [S. l.]: IEEE, 2008, pp. 2032-2039.
12. ZAMUDA, Aleš, BREST, Janez, BOŠKOVIĆ, Borko, ŽUMER, Viljem. Large scale global optimization using differential evolution with self-adaptation and cooperative co-evolution. In: IEEE World Congress on Computational Intelligence, Hong Kong, June 1-6, 2008. *WCCI 2008 Proceedings*. [S. l.]: IEEE, 2008, pp. 3719-3726.
13. ZAMUDA, Aleš, BREST, Janez, BOŠKOVIĆ, Borko, ŽUMER, Viljem. Diferencialna evolucija za večkriterijsko optimizacijo s samoprilagajanjem in z lokalnim preiskovanjem SQP. In: ZAJC, Baldomir (ur.), TROST, Andrej (ur.). *Zbornik sedemnajste mednarodne Elektrotehniške in računalniške konference ERK 2008, 29. september - 1. oktober 2008, Portorož, Slovenija*, (Zbornik ... Elektrotehniške in računalniške konference ERK ...). Ljubljana: IEEE Region 8, Slovenska sekcija IEEE, 2008, zv. B, pp. 103-106.
14. BOŠKOVIĆ, Borko, BREST, Janez, ZAMUDA, Aleš, ŽUMER, Viljem. Ratingiranje pri uglaševanju šahovskega programa z algoritmom diferencialne evolucije. In: ZAJC, Baldomir (ur.), TROST, Andrej (ur.). *Zbornik sedemnajste mednarodne Elektrotehniške in računalniške konference ERK 2008, 29. september - 1. oktober 2008, Portorož, Slovenija*, (Zbornik ... Elektrotehniške in računalniške konference ERK ...). Ljubljana: IEEE Region 8, Slovenska sekcija IEEE, 2008, zv. B, pp. 123-126.
15. ZAMUDA, Aleš, BREST, Janez, BOŠKOVIĆ, Borko, ŽUMER, Viljem. Differential evolution with self-adaptation and local search for constrained multiobjective optimization. In: *2009 IEEE Congress on Evolutionary Computation, IEEE CEC 2009, 18th to 21st May 2009, Trondheim, Norway : programme & abstracts*. Piscataway: IEEE, 2009, pp. 195-202.
16. BREST, Janez, ZAMUDA, Aleš, BOŠKOVIĆ, Borko, SEPESY MAUČEC, Mirjam, ŽUMER, Viljem. Dynamic optimization using self-adaptive differential evolution. In: *2009 IEEE Congress on Evolutionary Computation, IEEE CEC 2009, 18th to 21st May 2009, Trondheim, Norway : programme & abstracts*. Piscataway: IEEE, 2009, pp. 415-422.

1.12 Published scientific conference contribution abstract

17. ZAMUDA, Aleš, GUID, Nikola. Modeliranje, simulacija in upodabljanje gozdov. In: ZAJC, Baldomir (ur.), TROST, Andrej (ur.). *Zbornik petnajste mednarodne Elektrotehniške in računalniške konference ERK 2006, 25. - 27. september 2006, Portorož, Slovenija*, (Zbornik ... Elektrotehniške in računalniške konference ERK ...). Ljubljana: IEEE Region 8, Slovenska sekcija IEEE, 2006, zv. B, pp. 391-392.
18. ZAMUDA, Aleš. Testne funkcije in metrike za večkriterijsko optimizacijo. In: FILIPIČ, Bogdan (ur.), MERNIK, Marjan (ur.), PAPA, Gregor (ur.). *Zbornik povzetkov delavnic "Algoritmi po vzorcih iz narave" v študijskem letu 2006/2007 : Ljubljana, september 2007*. Ljubljana: Institut "Jožef Stefan", 2007, pp. 13.
19. ZAMUDA, Aleš. Večkriterijska optimizacija: eksperimentalni rezultati algoritmov MOjDE in DEMO. In: FILIPIČ, Bogdan (ur.), MERNIK, Marjan (ur.), PAPA, Gregor (ur.). *Zbornik povzetkov delavnic "Algoritmi po vzorcih iz narave" v študijskem letu 2006/2007 : Ljubljana, september 2007*. Ljubljana: Institut "Jožef Stefan", 2007, pp. 28.
20. ZAMUDA, Aleš. Interaktivno gojenje ekosistemov z operatorji evolucije. In: FILIPIČ, Bogdan (ur.), MERNIK, Marjan (ur.), PAPA, Gregor (ur.). *Zbornik povzetkov delavnic "Algoritmi po vzorcih iz narave" v študijskem letu 2007/2008 : Ljubljana, september 2008*. Ljubljana: Institut "Jožef Stefan", 2008, pp. 11.
21. ZAMUDA, Aleš. Diferencialna evolucija z večkriterijsko optimizacijo s samoprilagajanjem in z lokalnim preiskovanjem SQP. In: FILIPIČ, Bogdan (ur.), MERNIK, Marjan (ur.), PAPA, Gregor (ur.). *Zbornik povzetkov delavnic "Algoritmi po vzorcih iz narave" v študijskem letu 2007/2008 : Ljubljana, september 2008*. Ljubljana: Institut "Jožef Stefan", 2008, pp. 22.

1.16 Independent scientific component part or a chapter in a monograph

22. BREST, Janez, ZAMUDA, Aleš, BOŠKOVIĆ, Borko, GREINER, Sašo, ŽUMER, Viljem. An analysis of the control parameters' adaptation in DE. In: *Advances in differential evolution*, (Studies in computational intelligence, Vol. 143). Berlin; Heidelberg: Springer, 2008, pp. 89-110.
23. BOŠKOVIĆ, Borko, GREINER, Sašo, BREST, Janez, ZAMUDA, Aleš, ŽUMER, Viljem. An adaptive differential evolution algorithm with opposition-based mechanisms, applied to the tuning of a chess program. V: *Advances in differential evolution*, (Studies in computational intelligence, Vol. 143). Berlin; Heidelberg: Springer, 2008, pp. 287-298.

MONOGRAPHS AND OTHER COMPLETED WORKS

2.09 Master's thesis

24. ZAMUDA, Aleš. *Samoprilagajanje krmilnih parametrov pri algoritmu diferencialne evolucije za večkriterijsko optimizacijo : magistrsko delo*. Maribor: [A. Zamuda], 2008. XVI, 112 pp., graf. prikazi, tabele. <http://dkum.uni-mb.si/Dokument.php?id=6502>.

2.11 Undergraduate thesis

25. ZAMUDA, Aleš. *Modeliranje, simulacija in upodabljanje drevesnih ekosistemov : diplomska naloga univerzitetnega študijskega programa*, (Fakulteta za elektrotehniko, računalništvo in informatiko, Diplomski dela univerzitetnega študija). Maribor: [A. Zamuda], 2006. 98 f., ilupp.

2.21 Software

26. ZAMUDA, Aleš, STRNAD, Damjan, BREST, Janez, BOŠKOVIĆ, Borko. *Drevo*. [s. l.: s. n., 2007]. 1 CD ROM. <http://labraj.uni-mb.si/~ales/codes/drevo.zip>.

27. BOŠKOVIĆ, Borko, BREST, Janez, ZAMUDA, Aleš. *Šahovski program BBChess 1.1*. Maribor: [s. n., 2007]. 1 CD ROM. http://labraj.uni-mb.si/images/6/6e/BBChess1.1_src.tar.bz.

28. ZAMUDA, Aleš, BREST, Janez. *FastFractal "DoubleDip" C++2Java Interface*. Maribor: [s. n., 2008]. 1 CD ROM. <http://www.cs.bham.ac.uk/research/projects/ecb/data/150/cec08-f7-cpp-with-sources-1.0RC1.zip>, <http://nical.ustc.edu.cn/conferences/cec2008/lsgo/LSGO.CEC08.Benchmark.zip>.

PERFORMED WORKS (EVENTS)

3.25 Other performed works

29. BOŠKOVIĆ, Borko, GREINER, Sašo, ZAMUDA, Aleš. *Tečaj Linux : tečaj za Dravske elektrarne Maribor (DEM) in Holding slovenskih elektrarn (HSE), Maribor, 4.-12. junij 2009*. Maribor: Fakulteta za elektrotehniko, računalništvo in informatiko, Laboratorij za računalniške arhitekture in jezike, 2009.

SECONDARY AUTHORSHIP

Referee

30. *IEEE transactions on evolutionary computation*. Zamuda, Aleš (referee 2007, 2008, 2009). [Print ed.]. New York: Institute of Electrical and Electronics Engineers, 1997-. ISSN 1089-778X.

31. *IEEE transactions on industrial electronics*. Zamuda, Aleš (referee 2009). [Print ed.]. New York: Institute of Electrical and Electronics Engineers, 1982-. ISSN 0278-0046.

32. *Journal of industrial and management optimization*. Zamuda, Aleš (referee 2008). Springfield, Mo.: American Institute of Mathematical Sciences, 2005-. ISSN 1547-5816.

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