

PERSONAL INFORMATION

Cosmin BONCHIȘ

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Sex M | Date of birth 31/03/1980 | Nationality romanian

WORK EXPERIENCE

(Jan 2010 – present)

Lecturer, Assistant researcher

Faculty of Mathematics and Computer Science, West University of Timisoara

- Theoretical computer science research. Teaching: Programming C language, Data Structures, Information Theory

Business or sector academic

(Dec 2004 – present)

Researcher

Research Institute e-Austria Timisoara

- Theoretical computer science research: Information Theory, Optimisation Algorithms, Membrane computing

Business or sector reasearch in computer science

(Oct 2003 – Oct 2009)

Assistant professor, Lecturer

„Vasile Goldis” Western University of Arad

- Teaching: Programming C language, Formal Languages, Web programming

Business or sector academic

EDUCATION AND TRAINING

(Nov 2004– May 2009)

PhD - Computer Science

Faculty of Mathematics and Computer Science, West University of Timisoara

- Theoretical computer science: Membrane Computing, P systems

(Oct 2002 – June 2003)

DEA-Informatique Diploma

LaBRi, University of Bordeaux 1 Science and Technology, France

- Parallel and distributed computing paradigms, graph theory

(Oct. 2002 – June. 2004)

MSc in Parallel and Distributed Computing

Faculty of Mathematics and Computer Science, West University of Timisoara

- Theory in computer science, parallel and distributed computing, numerical methods

(Oct. 1998 – June 2002)

BSc – Mathematics and Computer Science

Faculty of Mathematics and Computer Science, West University of Timisoara

- Learning mathematics and informatics subjects

PERSONAL SKILLS

Mother tongue(s)

romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	B2
French	B2	B2	B2	B2	B1

Communication skills

- Good communication skills gained through my teaching experience

Organisational / managerial skills

- Managerial experience in national research projects
- International conference local committee organizer (SYNASC conference: 2011-present)

Job-related skills

- Programming Languages: C, C++, Python, Java, JavaScript
- Frameworks: CodeBlocks, Matlab
- Operating Systems: Linux
- Databases: MySQL

Projects

- Senior researcher FraDys – PN-II-RU-TE-2014-4 2015-2017; I am responsible with numerical simulation for fractional order dynamical system implementations and numerical simulation team coordination
- Senior researcher STRUCTCOMB, Structure and computational difficulty in combinatorial optimization: an interdisciplinary approach, CNCS IDEI Grant 2012-2016; I am responsible for combining techniques from submodularity and information theory in combinatorial optimization problems.
- ITMOP (team leader)- CNCSIS PD-575, 2010-2012,
- AITMC (team leader) Arithmetic and Information Theory in Membrane Computing - CNCSIS TD-24, 2007-2008,
- Senior researcher and manager responsible of CBIES - Improving the capability of the Romanian and Serbian authorities of reacting in emergency situations, Romania-Republic of Serbia, IPA Cross-Border Cooperation Programme Priority axis no. 2, Measure no. 2.3, 2013-2014
- Senior researcher - SPRERS, Strengthening the Participation of Romania at European R&D in Software Services, FP7-CSA, 2010-2011,
- Junior researcher - ForMol, Computational formalism inspired by Molecular Biology, Ro-CEEX Project, 2005-2008,
- Junior researcher - PROWEST, Promotion of the research activity in computer science in West Romania, 2005-2007,
- Junior researcher - MedioGrid, - Parallel and Distributed on Grid of Geographical and Environment Data, RO-CEEX Project, 2005-2008
- Junior researcher - GridMOSI - Virtual Organization in Grid Technology for Modelling, Simulation and High Performance Optimization, RO-CEEX Project, 2005-2008

ADDITIONAL INFORMATION

Publications

Articles in ISI journals

- C. Bonchis, G. Istrate. Improved Approximation Algorithms for Low-Density Instances of the Minimum Entropy Set Cover Problem. *Information Processing Letters*, 114(7), p. 360–365, 2014. (IF = 0.479)
- C. Bonchis, C. Izbasa, G. Ciobanu. Information theory over multisets, *Computing and Informatics*, Vol. 27, no. 3+ (2008), p. 441-451. (IF = 0.349)
- C. Bonchis, C. Izbasa, G. Ciobanu. Compositional asynchronous membrane systems, *Progress in Natural Science* vol.17(4), 411-416, 2007.(IF = 0.508)

Selected papers published in ISI proceedings

- Gabriel Istrate, Cosmin Bonchis, Heapability, Interactive Particle Systems, Partial Orders: Results and Open Problems, *Descriptive Complexity of Formal Systems, Lecture Notes in Computer Science 9777*, pp. 18-28. Springer Verlag, 2016.
- G. Istrate, C. Bonchiş, L.P. Dinu, The Minimum Entropy Submodular Set Cover Problem, *Language and Automata Theory and Applications*, Vol 9618 *Lecture Notes in Computer Science*, p 295-306, 2016.
- Gabriel Istrate, Cosmin Bonchis, Partition into heapable sequences, heap tableaux and a multiset extension of Hammersley's process. *Proceedings of the 26th Annual Symposium on Combinatorial Pattern Matching, Lecture Notes in Computer Science 9133*, pp. 261-271. Springer Verlag, 2015.
- C. Bonchis, C. Izbasa, G. Ghergu, G. Ciobanu. Data compression on multisets. Submultiset-free codes, *Synasc08: 10th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing*. Timisoara, Romania, IEEE Computer Society, 152-157, 2008.
- C. Bonchis, G. Ciobanu, C. Izbasa, Number Encodings and Arithmetics over Multisets, *Proceedings of Synasc06: 8th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing*. Timisoara, Romania, IEEE Computer Society, 354-361, 2006.
- C. Bonchis, G.Ciobanu, C. Izbasa. Encodings and Arithmetic Operations in Membrane Computing, In *Theory and Applications of Models of Computation (J-Y. Cai, S.B. Cooper, A. Li, eds.) LNCS vol.3959*, Springer, 621-630, 2006.
- C. Bonchis, G.Ciobanu, C. Izbasa, D. Petcu. A Web-based P systems simulator and its parallelization. In C.Calude et al. (Eds.): *Unconventional Computing, LNCS vol.3699*, Springer, 58-69, 2005.