

## PERSONAL INFORMATION

Cosmin BONCHIȘ



Sex | Date of birth | Nationality

## 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 commputer science: Membrane Commputing, P systems

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(Oct 2002 – June 2003)

**DEA-Informatique Diploma**

LaBRi, University of Bordeaux 1 Science and Technology, France

- Parallel and distributed computing paradigms, graph theory

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(Oct. 2002 – June. 2004)

**MSc in Parallel and Distributed Computing**

Faculty of Mathematics and Computer Science, West University of Timisoara

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

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(Oct. 1998 – June 2002)

**BSc – Mathematics and Computer Science**

Faculty of Mathematics and Computer Science, West University of Timisoara

- Learning mathematics and informatics subjects

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## PERSONAL SKILLS

Mother tongue(s)

romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French	B2	B2	B2	B2	B2

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

- It manager, HERA, Proiect IPA, 2017-2018
- Senior researcher ATCO, 2016-2019
- Senior researcher CBIES, Proiect IPA, 2013-2014
- 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 Infomation 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

## 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.

## Selected papers published in proceedings of international conferences

Lect. Dr. Cosmin Bonchis  
Departamentul de Informatica  
Facultatea de Matematica si Informatica  
Universitatea de Vest din Timisoara

Candidez pentru poziția de membru în Consiliul Facultății de Matematică și Informatică a Universității de Vest din Timișoara pentru a contribui la creșterea calității activităților de învățământ și cercetare.

Propunerile mele includ:

- îmbunătățirea ofertelor de studii, corelarea acestora cu cerințele venite din industrie și din mediul academic,
- susținerea, participarea și organizarea de seminarii specifice pe domenii apropiate ca tematică împreună cu ceilalți colegi cu implicarea studenților
- dezvoltarea unei relații funcționale între studenți și facultate, ce să urmărească atingerea obiectivelor propuse pentru programele de studiu, responsabilizarea lor și implicarea acestora și în activități de cercetare-dezvoltare,
- îmbunătățirea conținutului materialelor predate și corelarea acestora pentru toți anii de studii

Consiliul facultății oferă cadrul în care aceste propuneri pot fi discutate pentru a se găsi soluții sustenabile.

Timișoara,  
14.11.2019

Semnatura,

## **Declaratie**

Subsemnatul Cosmin Bonchis, declar pe proprie raspundere ca pana la varsta de 9 ani, respectiv clasa a 4-a din invatamantul gimnazial, nu am fost membru si nici nu am colaborat cu Securitatea desi am avut nenumarate solicitari. Declar ca nici dupa aceasta data nu am fost membru si nici nu am colaborat cu Securitatea in cazul in care aceasta si-a continuat existenta sub alte forme.

Timisoara,  
10.10.2019

Semnatura,