

CURRICULUM VITAE

I. Personal data

Family Name: MITRANA

First name: VICTOR

Date of birth: 1958, June 26

Email: mitrana@fmi.unibuc.ro

II. Current professional situation

Position: Full Professor

Institution: Faculty of Mathematics and Computer Science, University of Bucharest

III. Career history

- 2002 – present *Full Professor*, University of Bucharest, Faculty of Mathematics and Computer Science, Romania
- 10/2008 – 09/2009 *Visiting Professor*, Polytechnic University of Valencia, Spain.
- 2003 -- 2008 *Ramon y Cajal Researcher*, Rovira i Virgili University, Tarragona, Spain.
- 2002 – 2003 *Full Professor*, University of Bucharest, Faculty of Mathematics and Computer Science, Romania
- 1999 -- 2002 *Associate Professor*, University of Bucharest, Faculty of Mathematics and Computer Sciences, Romania.
- 1994 - -1999 *Senior Lecturer*, University of Bucharest, Faculty of Mathematics and Computer Sciences, Romania.
- 1991 -- 1994 *Assistant Professor*, University of Bucharest, Faculty of Mathematics and Computer Sciences, Romania.
- 1990 – 1991 *Teacher of Computer Science*, Tudor Vianu National College of Computer Science, Bucharest, Romania.
- 1986 – 1990 *Teacher of Mathematics*, School Nr. 165, Bucharest, Romania.

IV. Academic degrees

- 1986 -- Diploma in Mathematics and Computer Science, University of Bucharest, Romania.
Thesis' title: Strict Deterministic Grammars.
Supervisor: Prof. Dr. Adrian Atanasiu
- 1993 - PhD in Mathematics, University of Bucharest, Romania.
Thesis' title: Distributed Grammar Systems.
Supervisor: Acad. Gheorghe Păun

V. Scientific activity

- Author of two mathematical books in Romanian.
- Author of one monograph in English.
- Co-editor of five books at Kluwer Academic, Taylor and Francis, and Springer-Verlag (3).
- Author or co-author of more than 200 research papers published in refereed international journals, proceedings of scientific conferences, edited books.
 - 155 papers in **ISI Web of Science**
 - 140 papers indexed in **MathSciNet**
 - 156 papers indexed in **Zentralblatt Math**
 - 166 papers indexed in **DBLP**

- unique author for 31 papers
- 71 co-authors

VI. Research projects

- **NATO PST.CLG. 976912 Project** (Funded by the EU Commission), 2001—2003. **Member.**
- **MolCoNet – A thematic network on molecular computing**, IST-2001-32008 (Funded under FP5-IST Program of the European Commission), 2001-2004. **Member**
- **Computación en red con procesadores evolutivos TIC2003-09319-C03-01** (Funded by the Spanish Ministry of Science and Innovation), 2003--2006. **Team leader.**
- **Spanish NET on DNA Based Molecular Computing and Cellular Computing with Membranes TIC2002-1068-E** (Funded by the Spanish Ministry of Science and Innovation), 2002--2004. **Member.**
- **Red Temática en Computacion Biomolecular y Biocelular. TIN2008-04487-E/TIN.** (Funded by the Spanish Ministry of Education and Science), 2008-2011. **Member.**
- **Renovación y Nuevas Actividades de la Red Temática en Computación Biomolecular y Biocelular. TIN2011-15874-E.** (Funded by the Spanish Ministry of Education and Science), 2012-2014. **Member.**
- **GlobalComp 11052/2007 - Models, semantics, logics and technologies for global computing** (Funded by the Romanian Ministry of Education and Research), 2007-2009. **Member.**
- **CellSim 11052/2007 – Cell Simulation With Membrane Systems** (Funded by the Romanian Ministry of Education and Research), 2007-2009. **Member.**
- **SELF 136/2008 - Integrated system for editing the educational contents** (Funded by the Romanian Ministry of Education and Research), 2008-2011. **Team leader.**
- **SEFIN 12127/2008 - Interdisciplinary study on the role of intelligent automatic systems in the learning efficiency** (Funded by the Romanian Ministry of Education and Research), 2008-2011. **Coordinator.**
- **Networks of bio-inspired processors: hardware implementations TIN2011-28260-C03-03** (Funded by the Spanish Ministry of Education and Science), 2012-2013. **Team leader.**
- **Dinamizacion de la red tematica española en computacion biomolecular y biocelular TIN2015-71562-REDT.** (Funded by the Spanish Ministry of Education and Science), 2015-2017. **Member.**

VII. International recognition

- Total citations / without self-citations (**Web of Science**): 808/592
 - Citing articles / citing articles without self-citations (**Web of Science**): 373/299
 - Average citations per article (**Web of Science**): 5.21
 - H index (**Web of Science**): 16
 - Total citations (**Google Scholar**): 2339
 - H index (**Google Scholar**): 28
 - Total citations (**Scopus**): 1039
 - Citing articles (**Scopus**): 419
 - H index (**Scopus**): 18
- Repeated lectures at universities from Germany (Magdeburg, Frankfurt, Hamburg), Finland (Turku), Japan (Kyoto, Tokyo), Italy (Rome, Pisa, Milano), Spain (Tarragona, Madrid, Valencia, Seville), Hungary (Budapest, Szeged), Belgium (Gent, Brussels), Czech Republic (Prague, Opava), Holland (Leiden), Austria (Vienna), Turkey (Istanbul).
 - Professor of the International PhD School in Formal Languages and Automata, Tarragona, Spain, 2003-2008.
 - Courses in the PhD programs of foreign universities:

- Formal Language-Based Approaches in Biology (15 hours) in the PhD program of the Polytechnic University of Madrid, 2003.
- Bio-operations in Molecular Computing (15 hours) in the PhD program of the University of Seville, 2005.
- Networks of Cell-Like Processors:Computational Power, Complexity and Simulation Aspects (10h) in the PhD program of the Polytechnic University of Madrid, 2006.
- On the Computational Power of Some Operations Inspired from the Genome Evolution (15 hours) in the PhD program of the Polytechnic University of Madrid, 2007.
- Bio-operations and combinatorial algorithms (15 hours) in the PhD program of the Polytechnic University of Madrid, 2009.
- Hairpin lengthening and related languages, University Milano-Bicocca, 2012.

VIII. Awards, acknowledgements

- "**Gheorghe Lazar**" Prize of the Romanian Academy of Sciences, 1997, for my results on grammatical models inspired by the genome evolution.
- **I3 accreditation** (open competition) granted by the Spanish Agency of Evaluation of Scientific Activity based on an international evaluation
- Accredited as "**Catedratico de universidad**" by the ANECA, Madrid , Spain.

IX. Scientific positions and research stays in internationally recognized research centres (at least two months)

- Alexander von Humboldt Fellow (open worldwide competition), Magdeburg (June 1995-December 1996), Hamburg (September-October 1999), Magdeburg (April-June 2008, March-May 2011), Potsdam (March-May 2014, May-July 2017).
- Visiting Researcher at the University of Turku, Finland (October-December 1996).
- Visiting Researcher at the Academy of Finland (June-July 1998).
- Fellow of the Spanish Ministry of Education and Science (open worldwide competition) (january 1999- december 2000).
- Visiting Professor at the University of Pisa 2001-2002 (open worldwide competition) (declined).
- Visiting Professor University ``La Sapienza'', Rome, Italy, (2001, 2008, 2011, 2014).
- PIV Fellow of the Catalan Government (open worldwide competition), Spain (january-december 2001, march-october 2010).
- Ramon y Cajal Researcher (open worldwide competition), Spanish Government (february 2003-january 2008), Rovira i Virgili University, Tarragona, Spain.
- Visiting Researcher at the European Center of Excellence at the Hungarian Academy of Sciences, Computer and Automation Research Institute (september-october 2003).
- Visiting Professor at the Polytechnic University of Valencia (october 2008-september 2009).
- Visiting Researcher of the Japan Society for Promotion of Science Fellow, Kyoto Sangyo University, Japan (august-september 2008).
- Visiting Researcher of the Abo Akademi, Turku, Finland (September-November 2009).

X. Foreign visits (most important)

- University of Turku, Finland (1993, 1996, 1998).
- Åbo Akademi, Turku, Finland (2009, 2011).
- Rovira i Virgili University, Spain, (1997, 2010).
- Technical University of Wien, Wien, Austria (1998).
- University of Opava, Czech Republic, (1998).
- Leiden University, Leiden, The Netherlands (1999).
- University of Kyoto, Japan (2000).

- University of Metz, Metz, France (2004).
- Polytechnic University of Madrid, Spain (2004, 2007, 2010, 2011).
- University "La Sapienza", Rome, Italy, (2001, 2008, 2010, 2011).
- University of Szeged, Hungary (2004).
- Hungarian Academy of Sciences, Computer and Automation Research Institute (2000, 2002, 2004).
- Charles University of Prague, Prague, Czech Republic (2009).
- Waseda University, Tokyo, Japan (2010).
- University of Kiel, Germany, 2014.
- University of Potsdam, Germany, 2014.

XI. Scientific expert positions

- Associate editor of the *Journal of Computational and Applied Mathematics* (Springer).
- Member of the editorial board of the *Journal of Universal Computer Science* (Springer).
- Member of the editorial board of the *Journal of Automata, Languages and Combinatorics* (University of Giessen, Germany).
- Member of the editorial board of the *Annals of the University of Bucharest* (Publishing House of the Bucharest University).
- Member of the editorial board of the *International Journal of Applied Mathematics and Engineering Sciences (Serial Publications)*
- Member of the editorial board of the *ISRN Computational Mathematics* (Hindawi Publishing Corporation)
- Member in the program committee of more than 30 international academic conferences in Europe, USA and Japan (ICWLC, ECAL, SOFSEM, DLT, DCFS, CIAA, IWINAC, LATA, CiE, AFL, etc.) . PC chair for three of these conferences.
- Referee and/or member in the international committee of several doctoral and habilitation dissertations in India (2) and Europe: Spain (7), Germany (3), France(2).

XII. Scientific positions of trust and administration

- President of the Computer Science Commission of CNATDCU (2010-2011).
- Member of the Computer Science Commission of CNATDCU (2006-2010, 2012-2015)
- Vice-president of the Computer Science Commission of CNATDCU (2016-present).
- Scientific expert of the Executive Unit for Financing Higher Education and Scientific Research, Ministry of Education and Research from Romania (2006-2011).
- Director of the research center MOCALC (Models of Computation, Algorithms and Cryptography), University of Bucharest (2007-present).
- Director of the Doctoral School of Computer Science, University of Bucharest (2011-present)
- Member of the Senate of the University of Bucharest (2004-2008, 2012-2016)

XIII. Supervised doctoral thesis

- Peter Leupold: *Languages Generated by Iterated*, Rovira i Virgili University, Tarragona, Spain, 2006. (Sobresaliente Cum Laude por Unanimidad)
- Florin Manea: *Networks of Bio-Processors*, University of Bucharest, Romania, 2007. (Summa Cum Laude)
- Remco Loos: *Finite Models of Splicing and their Complexity*, Rovira i Virgili University, Tarragona, Spain, 2008. (Sobresaliente Cum Laude por Unanimidad)
- Armand-Mihai Ionescu: *Membrane Computing: Traces, Neural Inspired Models, Controls*, Rovira i Virgili University, Tarragona, Spain, 2008. (Sobresaliente Cum Laude por Unanimidad)
- Cristina Bibire-Târnuță: *Language Learning with Correction Queries*, Rovira i Virgili University, Tarragona, Spain, 2009. (Sobresaliente Cum Laude por Unanimidad)

- Maria Adela Grando: *Contributions of Formal Language Theory and Grammar Systems Theory to the Formal Study of Dialogues*, Rovira i Virgili University, Tarragona, Spain, 2009. (Cum Laude por Unanimidad)
- Traian Virgil Serbanuta: *On Parikh Matrices and Ambiguity*, University of Bucharest, 2010. (Magna Cum Laude)
- Daniel Claudiu Voinescu: *Combinatorial Aspects in Formal Language Theory*, University of Bucharest, 2010. (Magna Cum Laude)
- Marius Dumitran: *Algorithmical Aspects of Some Bio-Inspired Operations*, University of Bucharest, Romania 2015. (Excellent)
- Adrian Horia Dediu: *Learning Automata With Help*, Rovira i Virgili University, Tarragona, Spain 2015. (Sobresaliente Cum Laude por Unanimidad)
- Stefan Popescu: *Massively Parallel Computing Models Inspired from Biology*, University of Bucharest, Romania 2015. (Very Good)

XIV. Supervised master and diploma thesis

More than 100 master and diploma thesis supervised at the University of Bucharest.

XV. Main research fields (and topics)

- theory of computation (formal language theory, computability, classic and unconventional models of computation, computational and descriptive complexity, parallel and distributed computing)
- Bio-inspired computing (DNA recombination, theoretical models and experiments, splicing systems, solving problems with DNA-based algorithms, computational models based on bio-operations, language-theoretical models of the genome evolution, structural linguistics of nucleic acids, membrane computing, computing with tissues, networks of bio-inspired processors)
- combinatorics on words (finite and infinite sequences, data structures and algorithms on words, DNA sequence analysis, subword complexity)
- natural language processing (parsing, mathematical developments and applications, pattern interpretation, tree-controlled grammar)

