
Nicolaie POPESCU-BODORIN – Curriculum Vitae¹ (print version, en)

- **Name :** Nicolaie
- **Surname :** POPESCU-BODORIN
- **Date and place of birth :** 29 Jan 1974, Rm-Sarat (Buzau), ROMANIA
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Nicolaie Popescu-Bodorin, O. P. 19, C. P. 77, Bucharest 3, ROMANIA



Current position

- Teaching Assistant, Department of Mathematics and Computer Science, Spiru Haret University, Bucharest, Romania;
- PhD Candidate, Digital Signal/Image Processing (Expected June 2010), Department of Mathematics and Computer Science, University of Pitesti, Arges, Romania;

Teaching - Current Courses - Department of Mathematics and Computer Science, Spiru Haret University

- **Computational Logic Seminar/Laboratory**
- **Artificial Intelligence Seminar/Laboratory**

Education

- from 2007 - PhD Candidate, Digital Signal/Image Processing; University of Pitesti; Faculty of Mathematics and Computer Science;
- 2003 - M. Sc. in Applied Mathematics, University Politehnica of Bucharest
- 2001 - B. Sc. in Mathematics and Mechanics, University of Bucharest

Affiliations

1. member of *Association for Computing Machinery* (since 2009)
2. member of *American Mathematical Society* (since 2009)
3. member of *IEEE Computational Intelligence Society GOLD Sub-Committee* (since 2009)
4. member of *IEEE Computational Intelligence Society* (since 2009)
5. member of *IEEE Control Systems Society* (since 2007)
6. member of *IEEE Signal Processing Society* (since 2007)
7. member of the *Institute of Electrical and Electronics Engineers* (since 2007)

¹ Last update: December 20, 2009.

Professional experience

- 2004-today: Teaching Assistant, Mathematics and Computer Science Department, Spiru Haret University of Bucharest
- 2007 Erasmus Coordinator, Spiru Haret University of Bucharest, Community Programmes Bureau
- 2003-2004: Physics Teacher, 94 Elementary School, Bucharest
- 2002-2003: Research Assistant, University Politehnica of Bucharest, Faculty of Electrical Engineering, FP5/IST 34058/CODESTAR Project
- 2002-2003: Software developer, S. C. Romanian Tourism SRL
- 2001-2002: Web programmer, Webincome Romania SRL
- 2000-2001: DataBase Consultant, University of Bucharest

Professional Interests

- Artificial Intelligence, Neural Networks, Optimization Algorithms;
- Computational Logic, Logic Programming, Semantic Web;
- Iris Biometric Systems & Technologies;
- Signal Processing, Image Processing, Image Compression;
- Dynamical Systems, Reduced Order Models, Control Theory;
- Computer Viruses & NTFS Security;
- Computer Programming Algorithms;
- Topology, Mathematical Analysis, Numerical Analysis;

Publications

1. 2009: Nicolaie Popescu-Bodorin, *Exploring New Directions in Iris Recognition*, Symbolic and Numeric Algorithms for Scientific Computing, Conference Publishing Services of IEEE Computer Society, in pres, December 2009.
2. 2009: Nicolaie Popescu-Bodorin, **'Fragile Bits' vs. Multi-Enrollment - A Case Study of Iris Recognition on Bath University Iris Database**, ROMAI Journal, Nr.5, vol. 2/2009, ISSN: 1841-5512 (print) / 2065-7714 (online), in press, December 2009.
3. 2009: Nicolaie Popescu-Bodorin, *Gabor Analytic Iris Texture Binary Encoder*, Proceedings of the 4th Annual South East European Doctoral Student Conference, vol. 1, pp. 505-513, ISBN 978-960-9416-00-9, 978-960-9416-02-3, ISSN 1791-3578, South-East European Research Centre (SEERC), July 2009.
4. 2009: Nicolaie Popescu-Bodorin, *Circular Fuzzy Iris Segmentation*, Proceedings of the 4th Annual South East European Doctoral Student Conference, vol. 1, pp. 471-479, ISBN 978-960-9416-00-9, 978-960-9416-02-3, ISSN 1791-3578, South-East European Research Centre (SEERC), July 2009.
5. 2009: Nicolaie Popescu-Bodorin, *Fast Fuzzy Iris Segmentation*, Proceedings of the 5th International Conference "Dynamical Systems and Applications", Ovidius University Annals Series: Civil Engineering, Volume I, Special Issue 11, June 2009, pp. 383-394, ISSN 1584-5990
6. 2009: Luminita State, Iuliana Paraschiv-Munteanu, Nicolaie Popescu-Bodorin, *Blood corpuscles classification schemes for automated diagnosis of hepatitis using ISODATA algorithm and Run Length Encoding*, Scientific Bulletin, No. 15/2009, University of Pitesti, ISSN 1453-116x.

7. 2009: Luminita State, Iuliana Paraschiv-Munteanu, Nicolaie Popescu-Bodorin, **Blood corpuscles classification schemes for automated diagnosis of hepatitis** , Scientific Bulletin, No. 14/2008, pp. 209-224, University of Pitesti, ISSN 1453-116x.
8. 2008: Nicolaie Popescu-Bodorin, **Fast K-Means Image Quantization Algorithm and Its Application to Iris Segmentation** , Scientific Bulletin, No. 14/2008, pp. 159-176, University of Pitesti, ISSN 1453-116x.
9. 2008: Nicolaie Popescu-Bodorin, **Lossless DCT-Based Compression for Single-Component Continuous-Tone Still Images**, Scientific Bulletin, No. 13/2007, pp. 131-138, University of Pitesti, ISSN 1453-116x.
10. 2008: Nicolaie Popescu-Bodorin, Luminita State, **Optimal Luminance-Chrominance Downsampling through Fast K-Means Quantization** , Proceedings of the 3rd Annual South East European Doctoral Student Conference, vol. 2, pp. 111-125, ISBN 978-960-89629-7-2, ISSN 1791-3578, South-East European Research Centre (SEERC, www. serc. org), June 2008.
11. 2008: Nicolaie Popescu-Bodorin, **Bit Reversal through Direct Fourier Permutation Method and Vectorial Digit Reversal Generalization** , ROMAI Journal, vol. 4, no. 1/2008, pp. 27-46, Romanian Society of Applied and Industrial Mathematics 2008.
12. 2007: Nicolaie Popescu-Bodorin, **Efficient (Implicit) Bit Reversal Ordering through Direct Fourier Permutation Method**, Scientific Bulletin, No. 12/2006, pp. 133-154, University of Pitesti, ISSN 1453-116x.
13. 2003: Constantin Vârsan, Nicolaie Popescu-Bodorin, **Stochastic Hamiltonians Associated with Stochastic Differential Equations and Non-Smooth Final Value**, Institute of Mathematics of the Romanian Academy (IMAR), Mathematical Reports, vol. 5, no. 4, 2003.
14. 2003: Nicolaie Popescu-Bodorin, **Implicit moments matching through Krylov subspaces projections methods. Lanczos methods** , Scientific Bulletin, Series A: Applied Mathematics and Physics, ISSN 1223-7027, vol. 64, issue no. 3, pp. 31-42, University "Politehnica" of Bucharest, 2002.
15. 2002: Nicolaie Popescu-Bodorin, **Implicit moments matching through Krylov subspaces projections methods. Arnoldi methods** , Scientific Bulletin, Series A: Applied Mathematics and Physics, ISSN 1223-7027, vol. 64, issue no. 2, pp. 35-44, University "Politehnica" of Bucharest, 2002.

Courses

1. 2004: Zenovic Gherasim, Maria Andronie, Nicolaie Popescu-Bodorin, **Informatica manageriala**, Spiru Haret University, Editura Fundatiei România de Măine, Bucharest, 256 p., 2004.

Conference articles

1. 2009: Nicolaie Popescu-Bodorin, **A Fuzzy View on k-Means Based Signal Quantization with Application in Iris Segmentation (short ppt overview here)** , 17th Telecommunications Forum - TELFOR 2009 (IEEE Conference #15805), IEEE Serbia & Montenegro COM Chapter and Section, University in Belgrade, Telecommunications Society - Belgrade, Telekom Srbija ad, PTT Communications "SRBIJA", 24-26 November 2009, Belgrade, SERBIA;
2. 2009: Nicolaie Popescu-Bodorin, **Exploring New Directions in Iris Recognition (short overview here)** , 11th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC 2009), Department of Computer Science (West University -

- Timisoara, Romania) & Research Institute for Symbolic Computation (Johannes Kepler University - Linz, Austria), 26-29 September 2009, Timisoara, ROMANIA;
3. 2009: Nicolaie Popescu-Bodorin, *Searching for 'Fragile Bits' in Iris Codes Generated with Gabor Analytic Iris Texture Binary Encoder* , 17th Conference on Applied and Industrial Mathematics (CAIM 2009), Romanian Society of Applied and Industrial Mathematics (ROMAI), 17-20 September 2009, Constantza, ROMANIA;
 4. 2009: Nicolaie Popescu-Bodorin, *Gabor Analytic Iris Texture Binary Encoder* , 4th Annual South-East European Doctoral Student Conference (DSC 2009), South-East European Research Centre (SEERC), 6-7 July 2009, Thessaloniki, GREECE.
 5. 2009: Nicolaie Popescu-Bodorin, *Circular Fuzzy Iris Segmentation* , 4th Annual South-East European Doctoral Student Conference (DSC 2009), South-East European Research Centre (SEERC), 6-7 July 2009, Thessaloniki, GREECE.
 6. 2009: Nicolaie Popescu-Bodorin, *Fast Fuzzy Iris Segmentation* , 5th International Conference on Dynamical Systems and Applications (ICDSA 2009), 15-18 June 2009, Constantza, ROMANIA.
 7. 2009: Nicolaie Popescu-Bodorin, Iuliana Paraschiv-Munteanu, *Blood corpuscles classification schemes for automated diagnosis of hepatitis using RLE and ISODATA algorithm* , Doctoral Student Workshop in Computer Science (DSWCS 2009), 22-23 June 2009, Mathematics & Computer Science Department, University of Pitesti, ROMANIA;
 8. 2008: Nicolaie Popescu-Bodorin, *Fast K-Means Image Quantization Algorithm and Its Application to Iris Segmentation* , 16th Conference on Applied and Industrial Mathematics (CAIM 2008), Romanian Society of Applied and Industrial Mathematics (ROMAI), 9-12 October 2008, Oradea, ROMANIA.
 9. 2008: Nicolaie Popescu-Bodorin, *Lossless DCT-based Image Compression* , 16th Conference on Applied and Industrial Mathematics (CAIM 2008), Romanian Society of Applied and Industrial Mathematics (ROMAI), 9-12 October 2008, Oradea, ROMANIA.
 10. 2008: Nicolaie Popescu-Bodorin, Luminita State, *Optimal Luminance-Chrominance Downsampling through Fast K-Means Quantization* , 3rd Annual South-East European Doctoral Student Conference (DSC 2008), South-East European Research Centre (SEERC), 26-27 June 2008, Thessaloniki, GREECE.
 11. 2007: Nicolaie Popescu-Bodorin, *Bit Reversal through Direct Fourier Permutation Method and Vectorial Digit Reversal Generalization* , 15th Conference on Applied and Industrial Mathematics , (CAIM 2007), Romanian Society of Applied and Industrial Mathematics (ROMAI), October 2007;
 12. 2003: Nicolaie Popescu-Bodorin, *Order Reduction for Large Linear Time-Invariant State-Space Models. Narrowband Approximations Obtained through Lanczos-Type Methods (Reducerea ordinului sistemelor dinamice liniare de dimensiuni mari. Aproximatii pe banda îngusta obtinute prin metode de tip Lanczos)* , Annual Scientific Session of the Mathematics Department, University "Politehnica" of Bucharest, Coord. Prof. PhD. Valeriu Prepelita, June 2003;
 13. 2002: Nicolaie Popescu-Bodorin, *Local Padé Approximations for LTI-SS Models through Krylov Subspace Methods (Aproximari Padé locale pentru sisteme dinamice de tip descriptor, prin algoritmi bazati pe proiectii pe subspatii Krylov)* , Annual Scientific Session of the Mathematics Department, University "Politehnica" of Bucharest, Coord. Prof. PhD. Valeriu Prepelita, June 2002;

Intellectual property

- 2005-2008: 10 RNPC records as software coauthor (RNPC stands for Romanian National Registry for Computer Programs).

Professional Contests

- 2009-2010: **Noisy Iris Challenge Evaluation - Part II : Iris Signatures Encoding and Matching**. The contest is organized by **SOCIA Lab** (Soft Computing and Image Analysis Lab, Soft Computer And Image Analysis Group, University of Beira Interior, Portugal), between **October 2009** and **June 2010**. Work in progress.

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