





PERSONAL INFORMATION

Elena BAUTU



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POSITION APPLIED FOR

Senior Researcher

WORK EXPERIENCE

October 2020 - Present

Associate Professor

Ovidius University, Constanta, Romania

- Teaching activities (courses, seminars and laboratories) in the field of Computer Science.
- Research activities in Computer Science.

Education/Research

February 2014 - October 2020

Lecturer

Ovidius University, Constanta, Romania

- Teaching activities (courses, seminars and laboratories) in the field of Computer Science.
- Research activities in Computer Science.

Education/Research

February 2007 - February 2014

Assistant Professor

Ovidius University, Constanta, Romania

- Teaching activities (courses, seminars and laboratories) in the field of Computer Science.
- Research activities in Computer Science.

Education/Research

February 2004- February 2007

Research Assistant

Ovidius University, Constanta, Romania

- Teaching activities (courses, seminars and laboratories) in the field of Computer Science.
- Research activities in Computer Science.

Education/Research

EDUCATION AND TRAINING

December 2004 - June 2010

PhD Studies in Computer Science

Alexandru Ioan Cuza University, Iasi, Romania

- Exams on: Nature Inspired Metaheuristics, Genetic Programming, Symbolic Regression, Optimal Control with Applications to Artificial Intelligence, Approaches to Solving First Kind Integral Equations, Genetic Expressions
- PhD thesis *Intelligent Techniques for Data Modeling Problems*

2003 - 2005

Master Studies in Computational Mathematics and Modern Technologies

Ovidius University, Constanta, Romania

- Mathematical Modelling, Optimisation, Quantum Computing, Software Engineering
- Master's thesis *Regularization Algorithms for First Kind Integral Equations*

2003 - 2005

Bachelor Studies in Computer Science

Alexandru Ioan Cuza University, Iasi, Romania

- Bachelor thesis *Evolutionary Interpolation - Symbolic Regression*

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
	Replace with name of language certificate. Enter level if known.				
French	B2	B2	B1	B1	B1
	Replace with name of language certificate. Enter level if known.				

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills

I can communicate effectively on topics related to my field of research and teaching.

- My research activity required the delivery of presentations on various research topics, the audience being composed of members of the academic community.
- As a teacher, I interacted with students of different ages, with different specializations, and I had the opportunity to experiment with different teaching methods.
- As a trainer, I taught specialization courses, having as audience members of the faculty of Ovidius University, Constanta.

Social skills

I can work in large teams with colleagues from different fields.

- I have participated in more than 10 research projects as a member of the implementation team. As a research member, I collaborated with the other members and successfully completed the tasks outlined

I can collaborate with people from various cultural groups

- I have participated in two Google Summer of Code projects, working with IT specialists from different countries. During my doctoral studies and beyond, I participated in numerous conferences and scientific events with international participants.
- As a researcher involved in projects, I collaborated with project members and beneficiaries from various countries and organizations.

Organisational / managerial skills

I can plan and implement small and medium complexity projects

- I was the director of a CNCSIS project won by national competition, which I carried out according to the planning and I achieved all the proposed objectives.
- I won two Google Summer of Code projects that required the design and implementation of IT solutions.
- In the Intellectual Property Rights for South Eastern Europe project, I was responsible for planning and implementing the project's e-learning platform.
- In the projects TOMIS, HAPTICMED, CARSAFE I contributed to the activities of planning, development, testing for complex software systems.

I can organize and participate in committee work for various purposes.

- I participated in the organizing committee for various scientific events, such as conferences, student competitions or summer schools, held at the Faculty of Mathematics and Computer Science, Ovidius University.

Job-related skills

I can lead teaching and tutoring activities.

- The teaching activity gave me the opportunity to interact with many talented students. I used a variety of teaching and learning techniques and learned to motivate students to get the best results.
- I coordinated student teams in various university projects

I can coordinate research and dissemination activities

- I am a co-author of scientific papers resulting from successful collaborations with other members of the academic community in various fields.

Computer skills Use of evolutionary computing techniques and other methods of Artificial Intelligence
 Statistical analysis and modeling of data
 Design, implementation, administration of relational databases (experience with Oracle, PostgreSQL, MySQL)
 Programming languages: C/C++, Java, Python, Prolog, R
 Web technologies: HTML, XML, CSS, JavaScript, AJAX
 Administration and use of e-learning platforms: Moodle
 Operating Systems: Windows, Linux (Debian / Ubuntu)
 Editing tools (Latex, Beamer)
 Microsoft Office (Word, Excel, PowerPoint) and Libre Office (Writer, Calc, Impress) package

Other skills

Driving licence Category
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ADDITIONAL INFORMATION

- Awards and honours**
- Inclusion in the volume *One Hundred Romanian Authors in Theoretical Computer Science (Romanian Civilization)*, S.Cojocaru, G.Păun and D.Vaida, Eds. Bucharest: The Publ. House of the Romanian Academy, 2018, 304 p. <http://www.c3.icvl.eu/2018/rom-csc>
 - Invited Speaker at the event “*Every girl everywhere*”, organized by Smart Everything Everywhere (SEE), https://www.everygirl.ro/caravana_everygirl_navodari
 - The prize „*Profesor Bologna*” 2018, offered by ANOSR, <https://profitari.ro/editia-2018/>
 - Excellence Award for teaching quality awarded by the Faculty of Mathematics and Computer Science, Ovidius University (2006, 2007, 2008, 2010), <https://math.univ-ovidius.ro/default.aspx?cat=Calitate&subcat=Premii>
 - Award for Excellence in Research by the Faculty of Mathematics and Computer Science, Ovidius University, 2010
 - CNCSIS Awards within the PN II project Awarding research results for published articles.

- Scholarships**
- Visiting researcher at the Biointelligence Laboratory, Seoul National University, Korea, September 2008, <https://bi.snu.ac.kr/People/alumni.html>
 - Google Summer of Code Scholarship 2009, for the BRL-CAD organization, mentor Chris Yapp, BRL-CAD, <https://www.google-melange.com/archive/gsoc/2009/orgs/bricad/projects/ebautu.html>
 - Google Summer of Code Scholarship 2008, Center for the Study of Complex Systems, University of Michigan, Mentor Professor Rick Riolo, Improving I-SPOC, <https://developers.google.com/open-source/gsoc/2008>
 - Microsoft Research Scholarship for participation in the Doctoral Intensive Summer School on Meta-Heuristics in Optimization and Intelligent Data Analysis 2006, 2008
 - DAAD Scholarship for the 5th SimLab Course on Parallel Numerical Simulations Belgrade, Serbia, October 1-7, 2006, organized by the Technische Universitaet Muenchen and the Faculty of Mechanical Engineering, University of Belgrade
 - DAAD Scholarship for Simulation Technology Summer School organized by the Institute of Parallel and Distributed Systems at the University of Stuttgart, in collaboration with the University of Erlangen-Nuremberg and DAAD, September 9-19, 2004
 - Merit scholarship offered by the Faculty of Informatics, Alexandru Ioan Cuza University, Iași for outstanding results between 2000-2003
 - Second prize in the first year, Third prize in the second year, First prize (with a general grade average of 10/10) in the third and fourth years at the Faculty of Informatics, Alexandru Ioan Cuza University, Iași

Research projects
(selection)

1. Genetic Programming for optimization problems în Artificial Intelligence Grant CNCSIS TD-199/2007 (Project manager)
2. HapticMed – Haptic Interfaces in Medical Applications, Contract Nr. 128/2.06.2010, Cod SMIS 12271, ID proiect 567, <http://hapticmed.cerva.ro/> (2010 - 2013)
3. SIMPA - Integrated E-Health Vital Parameter Monitoring Solution for Patients with Chronic Conditions (Soluție Integrată E-Health De Monitorizare A Parametrilor Vitali La Pacienții Cu Afecțiuni Cronice), PNCDI Programul 4 “Parteneriate in domeniile prioritare”, cod proiect 3382, contract 11-070/2007, 2007-2010
4. NatCOMP - New natural computing models for complexity and complex problems solving (Noi modele de calcul natural in studiul complexitatii si in rezolvarea problemelor complexe), Proiect in cadrul PNCDI Programul 4 “Parteneriate in domeniile prioritare”, cod proiect 2120, contract 11-028/2007, 2007-2010
5. TOMIS - Using virtual reality in 3D multimodal reconstruction of historical sites (Utilizarea realității virtuale în reconstituirea multimodală 3D a siturilor istorice), Proiect in cadrul PNCDI Programul 4 “Parteneriate in domeniile prioritare”, contract 11-041/2007, 2007-2010, <http://tomis.cerva.ro/>
6. Mathematical modeling in diffusion processes (Modelare matematică în procese de difuzie), CEEX-05-D11-25/05.10.2005, http://www.csm.ro/home/CEEX_grants/D11_25_05/ceex_D11_25_romana.htm
7. Computer system based on high performance computational methods for simulating complex phenomena of nanofluid flow through porous, multiphase, chemical reactions (Sistem informatic bazat pe metode de calcul de înaltă performanță pentru simularea fenomenelor complexe de curgere a nanofluidelor prin medii poroase, multifazice, cu reacții chimice). PNCDI INFOSOC No. 131/20.08.2004
8. Random processes and their statistics in software and actuarial reliability (Procese aleatoare și statistica lor în fiabilitatea softului și actuarial), Grant Academia Romana (GAR 2005) nr. 12 din 27.07.05
9. Intellectual Property Rights for South East Europe, a part of Transnational Cooperation Operational Programme South East Europe 2007-2013 , Programme cofounded by the European Union, <http://www.iprforsee.eu>
10. Complex Project PN-III-P1-1.2-PCCDI-2017-0917, “Hybrid Light Visible Communication Platform and Augmented Reality for the Development of Intelligent Systems for Active Assistance and Safety of Vehicles”, contract no. 21 PCCDI / 2018.

Online scientific profiles

Web of Science: <https://app.webofknowledge.com/author/record/2560369>
 Scopus: <https://www.scopus.com/authid/detail.uri?authorId=15924724200>
 Google Scholar: <https://scholar.google.ro/citations?user=oOuLEXAAAAAJ>
 ORCID: <https://orcid.org/0000-0002-2803-2616>
 Publons: <https://publons.com/researcher/3367230/elena-bautu>
 ResearchGate: https://www.researchgate.net/profile/Elena_Bautu
 Academia.Edu: <https://univ-ovidius.academia.edu/ebautu>

Academic duties

Reviewer for conferences (SYNASC, ROCHI)
 Reviewer for ISI journals (Pattern Recognition Letters, Neurocomputing, Neural Computing and Applications, Computers and Geosciences, Applied Sciences, Sustainability, Entropy, etc.)

Publications
(selected)

- [1] Popovici, Norina, Elena Condrea, Elena Bautu, Ionela Florea Munteanu, and Corina Aurora Marin Barbu. "A PERSPECTIVE ON THE ECONOMIC ECOSYSTEM OF CONSTANTA COUNTY." Transformations in Business & Economics 20 (2021).
- [2] Bran, Emanuela, Elena Bautu, Dragos Florin Sburlan, Crenguta Madalina Puchianu, and Dorin Mircea Popovici. "Ubiquitous Computing: Driving in the Intelligent Environment." Mathematics 9, no. 21 (2021): 2649.
- [3] Băutu, Elena, and Andrei Băutu. "Developments on PlagZap, the fast and free textual plagiarism detection solution for universities." Logic Journal of the IGPL 29, no. 6 (2021): 963-973. (2020 IF: 0.609)
- [4] Barbulescu, Alina, Andrei Băutu, and Elena Băutu. (2020) “Optimizing Inverse Distance Weighting with Particle Swarm Optimization (Optimizarea Inverse Distance Weighting cu Particle Swarm Optimization).” Applied Sciences 10, no. 6: 2054. ISSN: 2076-3417, <https://www.mdpi.com/2076-3417/10/6/2054>, Web of Science: http://apps.webofknowledge.com/full_record.do?product=WOS&qid=1&SID=C1GMi6hAlKGu4ueGmvN (2020 IF: 2.217)
- [5] Elena Băutu, Alina Bărbulescu. (2013) “Forecasting meteorological time series using soft computing methods: an empirical study (Predictii ale seriilor de timp meteorologice folosind tehnici de soft computing: studiu de caz”, Appl. Math. Inf. Sci. 7, No. 4, 1297-1306, ISSN: 2325-0399 <http://www.naturalspublishing.com/Article.asp?ArtCID=3132> (2013 IF: 1.232)

- [6] Alina Bărbulescu and Elena Băutu. (2012) "A hybrid approach for modeling financial time series (O abordare hibridă pentru modelarea seriilor de timp financiare)", International Arab Journal of Information Technology, vol. 9, no.4, ISSN: 1683-3198 <http://www.ccis2k.org/iajit/PDF/vol.9,no.4/2806-5.pdf> (2012 IF: 0.390)
- [7] Constantin Cranganu and Elena Băutu. (2010) "Using gene expression programming to estimate sonic log distributions based on the natural gamma ray and deep resistivity logs: A case study from the Anadarko Basin, Oklahoma (Utilizarea programării cu expresii genetice pentru a estima distribuțiile de jurnal sonic bazate pe raza gamma naturală și jurnalele de rezistivitate profundă: Un studiu de caz din Bazinul Anadarko, Oklahoma)", Journal of Petroleum Science and Engineering, February 2010, Volume 70, Issue 3-4, p.243-255, (2010), ISSN: 0920-4105, <http://dx.doi.org/10.1016/j.petrol.2009.11.017>. (2010 IF: 0.761)
- [8] Alina Bărbulescu and Elena Băutu. (2010) "Mathematical models of climate evolution in Dobrudja (Modele matematice pentru evoluția climatului în Dobrogea)", Theoretical and Applied Climatology, Volume 100, Issue 1-2, p.29-44, ISSN: 1434-4483, <http://dx.doi.org/10.1007/s00704-009-0160-7> (2010 IF: 1.684)
- [9] Andrei Băutu, Elena Băutu, "Energy Minimization of Point Charges on a Sphere with Particle Swarms (Minimizarea energetică a sarcinilor punctuale pe o sferă cu algoritmi cu roiuri de particule)", Romanian Journal of Physics, Volume 54, Issue 1-2, (2009), www.nipne.ro/rjp/2009_54_1-2/0029_0037.pdf (2009 IF: 0.279)
- [10] Elena Băutu, Elena Pelican, "Numerical Solution For Fredholm First Kind Integral Equations Occurring In Synthesis of Electromagnetic Fields (Soluție numerică pentru ecuațiile integrale de speta I de tip Fredholm care apar în sinteza câmpurilor electromagnetice)", Romanian Journal of Physics, Volume 52, Issue 3-4, Bucharest, Romania, p.245-256, (2007), ISSN: 1221-146X, online: www.nipne.ro/rjp/2007_52_3-4/0245_0257.pdf
- [11] Elena Băutu, Andrei Băutu, "Quantum Circuit Design By Means Of Genetic Programming (Sinteza circuitelor cuantice cu programare genetică)", Romanian Journal of Physics, Volume 52, Issue 5-7, Bucharest, Romania, p.697-704, (2007), ISSN: 1221-146X, online www.nipne.ro/rjp/2007_52_5-7/0697_0705.pdf
- [12] Andrei Băutu, Elena Băutu, "Searching Ground States Of Ising Spin Glasses With Particle Swarms (Cautarea stărilor stabile în sticle de rotație Ising folosind algoritmul PSO)", Romanian Journal of Physics, Volume 52, Issue 3-4, Bucharest, Romania, p.337-342, (2007), ISSN: 1221-146X, online www.nipne.ro/rjp/2007_52_3-4/0337_0343.pdf