Europass Curriculum Vitae

Personal information

First name(s) / Surname(s)	**Anton DUCA**
Address(es)	Office EC 206, Splaiul Independenţei 313, BUCUREŞTI- sector 6, 060042, România
Telephone(s)	Mobile: +40765310543
E-mail	anton.duca@upb.ro
Nationality	Romanian
Date of birth	18.08.1975
Gender	Male

Work experience

Dates	Present / 2007 – 2017/ 1998 – 2007
Occupation or position held	PhD Associate Professor / PhD Lecturer / Teaching assistant
Main activities and responsibilities	Teaching and research activities in the Faculty of Electrical Engineering, Department of Electrical Engineering, Applied Informatics specialization
Name and address of employer	Politehnica University of Bucuresti, Faculty of Electrical Engineering, Department of Electrical Engineering. Address: Splaiul Independentei nr. 313, Bucharest, Romania. Website: http://www.upb.ro
Type of business or sector	Teaching courses, seminars, student's guidance and diploma projects management. Teaching disciplines: Object Oriented Programming, Web Programming, Parallel and Distributed Processing, Software Development Techniques, Fundamentals of electrical engineering, Numerical methods.

Research activity in the frame of European and national projects. Main projects:

- [Project LEADER] EchoMEMS – bilateral project Romania-Belgium (Politehnica University – University of Liege / Leuven); UEFISCDI – grant nr. 98BM/2017, years 2017-2018; Topic: *Evolutionary computation and HPC for automatic optimization and design of MEMS*;
- [Project LEADER] "QPSO algorithms and GPGPU techniques for electromagnetic optimization problems", Program "Grant of excellence". UPB – GEX. Years 2016-2017. Project ID: 254. Coordinator: POLITEHNICA University of Bucharest.
- INCO-COPERNICUS MANODET; contract nr. ERBIC15CT969703, beneficiary European Commission; years 1998-2000; Topic: *Nondestructive testing of materials using a new measurement principle (inverse and direct problems)*;Countries 7 (Romania, Hungary, Italy, France, Great Britain, Czech Republic, Austria);
- ASTEMO – bilateral project Romania-Turkey (Politehnica University – Ankara University); ANCS – grant nr. 605/2013, and TUBITAK – grant nr. 112E168; years 2013-2014; Topic: *Advanced optimization techniques for electromagnetic problems*;
- INNOVATION – bilateral project Romania-Slovacia (Politehnica University of Bucharest – University of Zilina); ANCS – grant nr. 654/2013, and SK-RO-0011-12.; years 2013-2014; Topic: *Optimization techniques for NDET inverse problem*;
- ToMeMS –national project (partners Politehnica University, IMT Bucharest); PN-II-PT-PCCA-2011-3, ANCS, CNDI– UEFISCDI, grant no. 5/2012; years 2013-2016; Topic: *Tools and Methodologies for the Multiphysics Modelling and Simulation of RF MEMS Switches.*

Two times chairman at International Joint Conference on Computational Intelligence (IJCCI 2015 and 2016), section Evolutionary Computation.

Dates	2001 – 2004
Occupation or position held	Software developer / consultant.
Main activities and responsibilities	Design and implementation of software products/applications.
Name and address of employer	Travtech Inc. Website: www.travtech.com
Type of business or sector	Software development. Most significant achievements: ▪ Galileo Interconnection Module – Java / COM bridge. ▪ Galileo Booking Engine – web services based JavaEE framework for online transactions ▪ Travech Content Management – Microsoft.NET web application

Education and training

Dates	1999-2006
Title of qualification awarded	PhD in Electrical Engineering
Principal subjects/occupational skills covered	Advanced processing techniques and processing software (parallel and distributed systems, multiagent systems, GPGPU) Artificial intelligence (NN, FS, GA, PSO, BFS). Numerical methods and optimization techniques. Nondestructive electromagnetic testing using eddy currents.
Name and type of organisation providing education and training	Politehnica University of Bucharest, Faculty of Electrical Engineering PhD thesis title: Inverse Electromagnetic Problems
Level in national or international classification	PhD in Electrical Engineering

Dates	1998-2003
Title of qualification awarded	Engineer in Computer Science, Software development specialization
Principal subjects/occupational skills covered	Object Oriented Programming, Web Programming, Databases, Parallel and Distributed Processing, Software Development Techniques, etc
Name and type of organisation providing education and training	Politehnica University of Bucuresti, Faculty of Automatic Control and Computers, Department of Computer Science.
Level in national or international classification	Engineer in Computer Science, Software development specialization. The average mark for the years of study 9 of 10. License and diploma project 10 of 10

Dates	1998-1999
Title of qualification awarded	MSc in Electrical Engineering, specialization Design of Microsystems
Principal subjects/occupational skills covered	Signal processing, VLSI Circuits, Verilog Programming, etc.
Name and type of organisation providing education and training	Politehnica University of Bucuresti, Faculty of Electrical Engineering, Department of Electrical Engineering.
Level in national or international classification	MSc in Electrical Engineering, specialization Design of Microsystems. The average mark for the years of study 9.2 of 10. License and diploma project 10 of 10

Dates	1998-1999
Title of qualification awarded	Engineer in Electrical Engineering, specialization Electric Drives
Principal subjects/occupational skills covered	Electric drives, electric machines, vector control, PLCs, etc.
Name and type of organisation providing education and training	Politehnica University of Bucuresti, Faculty of Electrical Engineering, Department of Electrical Engineering.
Level in national or international classification	Engineer in Electrical Engineering, specialization Motion Electric Control (Electric Drives). The average mark for the years of study 9.8 of 10. License and diploma project 10 of 10

Personal skills and competences

Mother tongue(s)	**Romanian**

Other language(s)

English

Self-assessment

European level (*)

English Language

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1		C1		C2		C2		C1	

(*) Common European Framework of Reference for Languages

Social skills and competences

Ability to work with the students in courses, seminars, laboratories and diploma projects.
Ability to communicate with colleagues from Faculty of Electrical Engineering, Computer Science.
Ability to work in research teams involved in national and international projects.
Ability to make scientific papers presented at major national and international conferences, and published in prestigious international journals.

Organisational skills and competences

Leading diploma projects, guiding students.

Technical skills and competences

Computer skills and competences

Operating systems: Linux, Windows
Mathematics: Matlab, Scilab
Parallel and distributed computing: GPGPU – CUDA, Java Agents - Aglets
Programming: Java (Threads, Networking, RMI, etc), C (Linux), C++
Web programming: J2EE (EJB, JSP/JSTL/Servlets, Hibernate, XML – Tomcat, Wildfly), DOTNET (C#, ASP.NET, .NET Remoting, Web services, XML)
Databases: SQL, PLSQL (SQL Server, Oracle)

Driving licence

Romania. Category B, year 1997.

Additional information

Relevant papers

A. Duca, L. Duca, G. Ciuprina, D. Ioan, Neighborhood Strategies for QPSO Algorithms to Solve Benchmark Electromagnetic Problems. IJCCI (ECTA) 2016, pp. 148-155.

A. Duca, L. Duca, G. Ciuprina, D Ioan, capitolul "SPSO parallelization strategies for electromagnetic applications", chapter 4 in Studies in Computational Intelligence, ed. Springer, SCI vol. 669, pp. 75-95, 2016.

T. Altinoz, A.E. Yilmaz, **A. Duca**, G. Ciuprina, Incorporating the Avoidance Behavior to the Standard Particle Swarm Optimization, in Advances in Electrical and Computer Engineering, 2014.

A. Duca, L. Duca, G Ciuprina, A.E. Yilmaz, T. Altinoz, PSO Algorithms and GPGPU Technique for Electromagnetic Problems, in the International Workshop on Optimization and Inverse Problems in Electromagnetism (OIPE 2014), Delft, The Netherlands, 2014. (Published in the International Journal of Applied Electromagnetics and Mechanics in December 2016)

A. Duca, M. Rebican, L. Duca, L. Janousek, T. Altinoz, Advanced PSO Algorithms and Local Search Strategies for NDT-ECT Inverse Problems, in the International Symposium on Fundamentals of Electrical Engineering (ISFEE 2014), Bucharest, Romania, 2014.

A. Duca, M. Rebican, L. Janousek, M. Smetana, T. Strapacova, PSO Based Techniques for NDT-ECT Inverse Problems, in Electromagnetic Nondestructive Evaluation (XVII), vol. 39, pp. 323 - 330. Capova, K., Udpa, L., Janousek, L., and Rao, B.P.C. (Eds.), IOS Press, Amsterdam, 2014. (Presented at ENDE 2013, Bratislava, Slovakia)

D. Badea, **A. Duca**, *T100 – A Content Management System for PHP Web Applications Development,* in *Computer Science and Control Systems* (CSCS), pp. 767 – 772. Bucharest, 2011.

A. Duca, FMG Tomescu, *A Distributed Hybrid Optimization System for NDET Inverse Problems*, in *The Proceedings of the International Symposium of Nonlinear Theory and its Applications* (NOLTA), pp. 1059 – 1062. Bologna, Italy, 2006.

D. Ioan, M. Rebican, **A. Duca**, *Use of Evolutionary Agents to Solve ENDE Inverse Problems*, in *Electromagnetic Nondestructive Evaluation* (V), vol. 21, pp. 59 – 66. J. Pavo, G. Vertesy, T. Takagi and S. S. Udpa (Eds.), IOS Press, Amsterdam, 2001. (Presented at ENDE 2000, Budapest, Hungary)

A. Duca, D. Ioan, *A Hybrid Transform–Neural Network Approach for the Inverse Problem in NDET*, in *Non–Linear Electromagnetic Systems*, vol. 18, pp. 269 – 272. P. Di Barba and A. Savini (Eds.), IOS Press, Amsterdam, 2000. . (Presented at ISEM 1999, Pavia, Italy)

D. Ioan, **A. Duca**, *Use of MTANN Systems to Solve Inverse ENDE Problems*, in *Electromagnetic Nondestructive Evaluation* (IV), vol. 17, pp. 159 – 166. S. S. Udpa, T. Takagi, J. Pavo and R. Albanese (Eds.), IOS Press, Amsterdam, 2000. (Presented at ENDE 1999, Iowa, USA)