



University POLITEHNICA of Bucharest
Faculty of Automatic Control and Computers

Splaiul Independenței nr.313, sector 6, cod 060042,
Bucharest, ROMANIA



CV Prof. dr. ing. Dumitru Popescu *Professor of the Faculty Automatics and Computers from Polytechnic University of Bucharest*



PHD advisor in the field" Systems and Computer Engineering

Director of the Research Center "Automatics, Process Control and Computers"- ACPC of Polytechnic University Bucharest

Contact: Faculty of Automatics and Computers, UPB Department of Automatics and Industrial Informatics, Spl. Independence, 313, sector 6, 060042, Bucharest, Romania



1. Personal Dates

Teaching and scientific title: Professor at the University "Politehnica" in Bucharest, Faculty of Automatics and Computers, Department of Automatics and Systems Engineering, Doctor of Automatics.

1.1. Experience and specialization: University professor since 1991, specialization in Systems Identification and Automatic Control, Industrial Automatics and Process Management, Optimization and Leadership Decisions;

1.2. Academy Studies: Graduate Polytechnic Institute Bucharest, Faculty of Electronics and Telecommunications, 1966; University of Bucharest, Faculty of Mathematics and Informatics, 1975.

1.3. PhD studies: PhD in Automatics 1978, with the title of the thesis "Optimization of Industrial Processes ", head prof. Sergiu Calin.

1.4. Academic and research experience:

01/09/1966 – 01/09/1970, Cercetator stagier, IPA Bucuresti;

01/09/1970 – 01/09/1975, Assistant, Polytechnic Institute Bucharest;

01/09/1975 – 01/03/1990, Head of Works Institute "Politehnica" Bucharest;

01/06/1991 – present, Profesor, la Universitatea "Politehnica" din Bucuresti;

01/02/1993 – present, Director of the research center ACPC- Automatics, Process and Computer Management and spin-off company Control Engineering and Energy-CE&E;

01/09/1990 – present, Head of the Management Numerical Systems Laboratory and THE CANTI research platform in UPB.

2. Didactica Activity

2.1. Current courses taught:

Industrial Process Management, Numerical Control Systems, Industrial Processes Control (year 4, Faculty of Automatics and Computers), Design of Applications for , Real Time Control (year 5 master, Faculty of Automatics and Computers) Industrial Automatics-Case Studies (year 6 master, Faculty of Automatics and Computers).



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2.2. Responsible for academic programs and visiting professor:

Responsible in TEMPUS PEC 2736/91, JEP 2736/94 programs in collaboration with INP Grenoble and IP Torino; responsible for programs in the academic network CDA, 1999-2002 with UT Tampere, INP Grenoble, IP Torino, Kahosch Gent, ESIA Annecy;

Responsibility for European program of mobilitati Socrates 1994-2017: SUPELEC, Ecole Polytechnique de Paris, INP Grenoble, IP Torino, Ecole Centrale Lille, Ecole Polytechnique de Lille, Université de Savoie, UT Tampere, University of Picardy;

Invited Professor: 1997, IP Torino (Prof. Naldi): 1999, 2000, Annecy Graduate School of Engineering, University of Savoy (Prof. L. Foulloy): 2006, 2008, Lille Central School (Prof. P. Borne), 2007, Faculty of Mathematics and Computer Science, Joules Verne University of Picardy (Prof. A. Hajjaji); ESIGELEC de Rouen (Prof. Chafouk): 2017, 2018, 2019;

Associate Professor: 2003, 2004, 2008, 2019 Ecole Polytechnique de Lille, Université de Science and Technologies de Lille;

President and member of PhD juries of examination and support theses: INP Grenoble, SUPELEC, ESIA-Savoie and Ecole Centrale de Lille (7 theses);

Co-director pentru co-ordinator teze in cotutela INP Grenoble, Polytech' Lille, Ecole Centrale de Lille, Ecole Polytechnique de Savoie, SUPELEC, Université Joules Verne de Picardie, ESUPELEC de Rouen (11 teze);

Director "European Summer School *"Advanced Control and New Information Technologies-CA'NTI"* responsible: 1994- present, Bucharest, UPB, Faculty of Automatics and Computers.

3. Scientific Experience

3.1 Areas:

Systems Engineering, Applied Control and Informatics, Assisted Design of Numeric Control Systems, Adaptive and Robust Control, Mathematical Programming, Optimization, Real-Time Leadership Applications;

Experience gained through activities developed in the Research Center *"Automatics, Process Management and Computers- ACPC"* and through collaboration with other centers and laboratories abroad, from recognized universities: LAMMI from université de Savoie, LAG from INP Grenoble, LEE from the Catholic University of Ghent, LAI in Turin, LAGIS from Lille and LS2 SUPELEC in Paris.

3.2. Important publications:



University books and textbooks: 22 (8 published in recognized publishing houses abroad); articles published or supported at scientific conferences : 214; scientific research contracts: 48 (responsible for 36); patents: 2.

3.3 Significant research activities and experience in project management (European coordinated or in partnership).

TEMPUS PEC 2736/91, in colaborare cu INP Grenoble si IP Torino; TEMPUS JEP 2736/94, in colaborare cu INP Grenoble si IP Torino;

PAI-Brancus bilateral project, Lille-UPB Central School, (2000-2002), (resp. FR-M. Staroswieki, Lille Central School, resp. RO-D. Popescu);

PAI-Brancus bilateral project, Virtual Laboratory and Remote Control, Ecole Politech d'Annecy-UPB (2003-2005) resp. FR- J.Lottin, resp. RO- D. Popescu);

ECONET, Advanced Automatic Research Network, Lille-UPB Central School, (2005-2007), (2007-2010) (resp. FR-P. Borne, resp. RO-D. Popescu);

Proiect European ERRIC – FP7 (resp. WP6 D. Popescu), REPOT-2010-1, nr. 264207, 2010-2014, contractor UPB;

CDA Socrates project, Joint Program for Advanced Academic Studies (2000-2002);

Socrates Erasmus European Academic Program in parteneriat cu UT Tampere, INP Grenoble, IP Torino, Univ. Katholic Gent, ESIA Annecy (resp. prof. D. Popescu);

ARCUS, Grayshim Project in Automatics and Transport (2007-2010) (dsp. FR-JM, Richard, resp. RO-D. Popescu)

EUREKA IKF RO project, Information Knowledge Fusion (2001-2003);

CEC-WYS-FP6, Central European Center for Young Scientists, (2004-2006);

EU-NCIT-FP6, National Center for Information Technology leading to EU IST excellence (2005-2008)

4. National and International Recognition

Member of the Society of Automatics and Technical Informatics-SRAIT;

Membru al Comitetelor Tehnice IFAC: TC/APC 1993-1999, TC/PC 2000-2003, TC/CPC -6.1 (Chemical Process Control) 2003-prezent, TC/BIOC-8.4 (Biosystems-Biotechnologies) 2009-prezent;

Member of the European Automatic Control Council, *European Automatic Control Council-EUCA*, 2008-2014;



Editor at *John Wiley-London* and *Hermes-Lavoisier-Paris*, for the series of works "Advanced Control and Applied Informatics".

Member of the IPC at over 20 International Conferences: Member of the Program Committee, CSCS International Conference, Bucharest 2005, 2007, 2009, 2011, 2013, Member of the Program Committee, IFAC Conference, Large Scale Systems, Bucharest, 2001; member of the Program Committee, IMACS World Congress, Paris, 2005; Member of the Programme Committee, CIFA 2006, Bordeaux, 2006; member of the Programme Committee, CESA 2006, Peking, 2008; member of the Program Committee, IFAC Conference, LSS, Gdansk, 2007; member of the Program Committee IFAC Conference, MCPL, Sibiu, 2007; member of the Program Committee, International Conference, SOFA-Seged, 2007, Gyula, 2009; member of the IPC/IFAC Conference, MCPL, Cambria, 2010; member of CPI/ MED 2010; member of the IPC/ICSCS Conference, Lille, 2012, 2013; member of the IPC/ICCSTC, Sinaia, 2010-2019;

Chairman al Conferintelor internationale sau Sesiunilor invitate: IFAC Conference, System Structure and Control, SSC' 97, Bucharest, 24-27 October, 1997; chairman la Conferinta Internationala Francofona in Automatica-CIFA 2008 International Conference, UPB – Faculty of Automatic Control and Computer Engineering, 3-5 September 2008; chairman la International Workshop on Logistics, IFAC- ACCA Santiago de Chile, 24-27 December, 2008; chairman la IFAC World Congress Milano, September, 2011; chairman la ICSCS Conference, Lille, 2012, 2013; co-chairman of the CSCS International Conference, Bucharest 2005, 2007, 2009, 2011, 2018, 2019. Chairmen al conferintei IFAC- Advanced Control and Diagnosis- ACD 2017 Bucuresti, 2019 Bologna.

5. Other titles, awards and recognitions

Coordinator of doctoral thesis in the field of *Automatics, Systems Engineering* of 1993 (32 theses supported, 11 of which in cotute); coordinator of the master program *Advanced Control for Applications in TR*; founder and director of the European Summer School, *Advanced Control and New Informatics Technologies* 1994-2018; Associate Professor at the National Technical Institute from Grenoble – INPG, ENSIEG – LAG, 1997, Ecole Polytechnique de Lille, Ecole Centrale de Lille, 2000-2006; member of the European Automatic Control Council, *European Automatic Control Council-EUCA*, 2008-2014;

Traian Vuia Award for Automatics of the Romanian Academy, for the group of works "*Identification and optimization of systems*", in 1998;

Stefan Odobreja Award of the Romanian Academy of Scientists for his work "*Optimization in Engineering Sciences- Exact Methods*", publishing house John Wiley, in 2013;

Gheorghe Cartianu Prize of the Romanian Academy, for his work, *Wavelets: Theory and Applications*, Romanian Academy Publishing House, Bucharest, 2013;

Hanri Coanda Prize of the Romanian Academy and the National Lodge and the Romanian Academy for contributions in the field- Applied Sciences, Bucharest, in 2015;



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ASTR **Vasile Cartianu** Award for the work "Optimization in Ingieur Sciences"*Methodes Euristics, Stochastiques and Support Decisions*, Hermes-Lavoisier Publishing House, Paris, in 2017.

Martin Bercovici Award of the Romanian Academy of Scientists for his work, "*Optimization in Engineering Sciences- Exact Methods*", by John Wiley, in 2019.

Member of the Council of the Faculty of Automatics and Computers of UPB, 2000-2012, dean of the Faculty of Automatics and Computers of UPB, 2004-2012; Member of the UPB Senate, 2004-2012; Member of the CNATDCU committee, 2012-present;

ASTR **Vasile Cartianu** Award for the work "Optimization in Ingieur Sciences"*Methodes Euristics, Stochastiques and Support Decisions*, Hermes-Lavoisier Publishing House, Paris, in 2017.

Martin Bercovici Award of the Romanian Academy of Scientists for his work, "*Optimization in Engineering Sciences- Exact Methods*", by John Wiley, in 2019.

Member of the Council of the Faculty of Automatics and Computers of UPB, 2000-2012, dean of the Faculty of Automatics and Computers of UPB, 2004-2012; Member of the UPB Senate, 2004-2012; Member of the CNATDCU committee, 2012-present;

Doctor Honoris Causa at the University of Oil and Gas in Ploiesti, 2019; Corresponding member of the Romanian Academy of Technical Sciences-ASTR, since 2013; Corresponding member of the Romanian Academy of Scientists since 2014.

Author of important publications in the field of Automatics and Applied Informatics:

1. Dumitrache, Sylviane Gentil, **D. Popescu**, I.Tabus, D. Stefanoiu, "*Digital Command and Artificial Intelilgence in Automatics*," Editura Tehnica, Bucurescti, 1997;
2. J. M. Dion, **D. Popescu**, "Optimal Order-Optimization of Systems", Editura Diderot, Paris, 1998;
3. Genevieve Daphin Tanguy, **D. Popescu**, L. Foulloy, *Modelization, Identification and Control of Systems*, Editura Academiei Romane, 2006;
4. **D. Popescu**, A. Benrejeb, P. Borne '*AutomaticAdvance and Computer Apliquee*',Editura Academiei Romane, 2010;
5. P. Borne, **D. Popescu**, F. Filip, D. Stefanoiu, *Ingenieur-Exact Methods Science Optimization*, Editura Hermes-Lavoisier Paris, ISBN 978-2-7462-3927-2, 2013;
6. P. Borne, **D. Popescu**, F. Filip, D. Stefanoiu, *Optimization Techniques for Engineering- Exact Methods*, John Wiley Publishing House, London, , ISBN: 978-1-84821-432-3, 2013;



7. D. Stefanoiu, P. Borne, **D. Popescu**, F. Filip, *Optimization in Engineering Science-Euristic Methods, Stochastics, and Decision Support*, Editura Hermes-Lavoisier, Paris, ISBN 978-2-7462-3927-2, 2014;
8. D. Stefanoiu, P. Borne, **D. Popescu**, F. Filip, *Optimization Technique for Engineering-Methaeuristics, Stochastic Methods and Decision Support*, John Wiley, London, ISBN 978-1-84821-498-9, 2014;
9. **D. Popescu**, D. Stefanoiu, P. Borne, *Process Control Design, for Industrial Processes* Publishing House. John Wiley, London, 2017, ISBN 978-1-78630-014-0;
10. **D. Popescu**, D. Stefanoiu, P. Borne, *Conception de la Commande pour les Applications Industrielles*. Editura Hermes-Lavoisier Paris, 2017, ISBN 978-1-78405-293-5.
11. F. Filip, **D. Popescu**, M. Mateescu, Optimal decisions for complex systems, *Mathematics and Computers in Simulation Journal*, 2008, Vol. 76 (5-6), pages, 422-492, ISSN, 0378-4754, WOS: 000252665700010 (Q1.)
12. Abdelaziz Nakrachi, Said Hayat, **D. Popescu**, *An energy concept for macroscopic traffic flow modelling*, *European Transport Research Review Journal*, 2012, Vol.4, pages 57-66, Springer (Q1).
13. Gliga, H. Chafouk, **D. Popescu**, C. Lupu, Estimate the Process Noise of Nonlinear System, in *Mechanical Systems and Signal Processing-MSSP*, 2019, JER: 4.47 (Q1)
14. D. Popescu, C. Dimon, P. Borne, A. Mone, *Advanced Control for Hydrogen Pyrolysis Installations*, **Energies Journal** **2020**, 13(12), 3270; <https://doi.org/10.3390/en13123270>, **Energies**, EISSN 1996-1073, 2020, (Q1)
15. F. Hamidi, M. Jerbi, D. Popescu, *Chaotic Particle Swarm Optimization for Enlarging the Domain of Attraction of Polynomial Nonlinear Systems*, **Electronics Journal** **2020**, 9(10), 1704; <https://doi.org/10.3390/electronics9101704> EISSN 2079-9292, (Q1).
16. M. Jerbi, D. Popescu, F. Hamidi, S. Olteanu, *Model Based Optimization Algorithm for Maximum Power Point Tracking in Photovoltaic Panels*, **Energies Journal** **2020**, 13(18), 4798; <https://doi.org/10.3390/en13184798>. (Q1).
17. A. Mone, S. Diop, **D. Popescu**, *Multi Model Control - MMC approach for nonlinear combustion regime of Diesel Engines*, Springer 2021.
18. M. Jerbi, **D. Popescu** and all. A Chaotic Krill Herd Optimization Algorithm for Global Numerical Estimation of the Attraction Domain for Nonlinear Systems *Mathematics-Automatic Control and Soft Computing Engineering Journal*, ISBN 2227-7390, 2021.



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19. L. Gliga, **D. Popescu**, H. Chafouk, Fault Detection using State Estimation and Machine Current Signature Analysis , U.P.B. Sci. Bull., Series C, Vol. 83, ISSN 2286-3540, 2021.
20. L. Gliga, **D. Popescu**, H. Chafouk, "A Survey of Wireless Communication Technologies for an IoT-connected Wind Farm., Wireless Personal Communications Elsevier Journal, 2021.

Bucharest, June, 2022

Professor Dumitru Popescu

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