

Europass Curriculum Vitae



# Personal information

#### First name(s) / Mihaela POPESCU Surname(s) Address(es) Ulmului, Nr.35, ap.8, Craiova, Romania Telephone(s) +40251 435 255 Mobile +40722 982 589 Fax +40251 435 255 E-mail mpopescu@em.ucv.ro Nationality Romanian Date of birth June 11, 1965 Gender Female Work experience Dates 1992 - present Occupation or position University teacher: held Professor (2007 - present); Associate professor (2002 - 2007); Lecturer (1997 - 2002); Assistant professor (1992 - 1997). Positions held: Director - Doctoral School in Electrical and Energy Engineering, University of Craiova, Romania (2021-); Director - Department of Electromechanics, Environment and Applied Informatics, Faculty of Electrical Engineering, University of Craiova, Romania (2011-2019); Head of Chair - Electrical Drives and Industrial Informatics, Faculty of Electromechanical, Environmental and Industrial Informatics Engineering, University of Craiova, Romania (2008-2011); Member of the Faculty Council (2008-present) Member of University Senate (2013-2020). Main activities and responsibilities Teaching, research, managerial, relationships with the economic environment Name and address of University of Craiova, A.I. Cuza, 13, Craiova, RO-200585, Dolj, Romania employer Type of business or sector Academic higher education Dates 1988 - 1992

Occupation or position held Name and address of employer Type of business or sector

Engineer

Industry

Chemical plant Isalnita, Dolj, Romania

Education and training

Dates	Sontombor 201	6										
Title of qualification	September 2016											
awarded	Certificate of Habilitation in Electrical Engineering, PhD Supervisor											
Principal subjects/occupational skills covered	Power quality, Energy efficiency; Electrical drive systems, Static converters, Power electronics, Active power filters, Resonant converters for Induction heating systems, Active DC-traction substations. Habilitation thesis: Research concerning the power quality and solutions for increasing the energy efficiency Research skills											
Name and type of organisation providing education and training	University of Craiova, Minister for Education and Research, Romania											
Level in national or international classification	ISCED 8											
Dates	1994-2001											
Title of qualification awarded	PhD in Electrical Engineering											
Principal subjects/occupational skills covered	Power quality, Energy efficiency; Electrical drives, Static converters, Electrical machines, Fundamentals of electrical engineering, PhD thesis: Energetic aspects of the driving systems with induction motors and frequency static converters											
Name and type of organisation providing education and training	University of Craiova, Romania											
Level in national or international classification	ISCED 8											
Dates	1983 - 1988											
Title of qualification awarded	Engineer, Electrical Engineering, specializing in electrical drives											
Principal subjects/occupational skills covered	Mathematical analysis, Special mathematics, Fundamentals of electrical engineering, Electrical machines, Electrical measurements, Electrical drives, Static converters, Systems theory and automatic control, Using computers Teaching and fundamental research skills											
Name and type of organisation providing education and training	University of Craiova, Faculty of Electrotechnics, Romania											
Level in national or international classification	ISCED 6											
Dates	1979 - 1983											
Title of qualification awarded	Baccalaureate degree											
Principal subjects/occupational skills covered	General skills in real type profile											
Name and type of organisation providing education and training	High School of Mathematics and Physics "Tudor Vladimirescu", TgJiu, Romania											
Level in national or international classification	ISCED 3											
Other language(s)												
Self-assessment	Unders	tanding	Speak	ing	Writing							
European level (*)	Listening	Reading	Spoken interaction	Spoken production								

French	C1	Proficient user	C1	Proficient user	B2	Independent user	C1	Proficient user	C1	Proficient user			
English	B2	Independent user	B2	Independent user	B2	Independent user	B2	Independent user	B2	Independent user			
	(*) <u>Common European Framework of Reference for Languages</u>												
Social skills and competences	Ability to work in teams, mediation, psycho-pedagogical skills, communication skills, acquired and proven in teaching, research and managerial activity												
Organisational skills and competences	Leadership (director of department and head of chair); Project management (director of 5 multiannual research projects obtained through national competition).												
Technical skills and competences	Energy efficiency, clean energy, energy systems, power quality, power conditioners, active power filters, nonsinusoidal regime, static converters, electrical drives, power & energy engineering, automatic control systems, nonlinear systems, modeling and simulation, computer aided graphics, databases - acquired through basic training, teaching and research activity.												
Computer skills and competences	Advanced knowledge in Office (Word, Excel, Access, PowerPoint), Matlab-Simulink, AutoCAD etc acquired and developed through the nature of profession.												
Additional information	proprovements of the second se												
Annexes	LIS	ST OF SCIENTI	FIC	PAPERS AND	RESEARCH	CONTRACT	-S (	EXTRACT)					
Prof. Mihaela POPESCU 3													

## LIST OF SCIENTIFIC PAPERS AND RESEARCH CONTRACTS (EXTRACT)

### **Prof. Mihaela Popescu**

#### I. LIST OF THE 10 RELEVANT PAPERS

- 1. 1. Mihaela Popescu, Alexandru Bitoleanu, Mihaita Linca and Constantin Vlad Suru, Improving Power Quality by a Four-Wire Shunt Active Power Filter: A Case Study, Energies 2021, 14, 1951. https://doi.org/10.3390/en14071951
- 2. Mihaela Popescu, A Bitoleanu, CV Suru, M Linca, GE Subtirelu, Adaptive Control of DC Voltage in Three-Phase Three-Wire Shunt Active Power Filters Systems, *Energies* 2020, vol. 13, issue 12, 3147.
- 3. Mihaela Popescu and A. Bitoleanu, A Review of the Energy Efficiency Improvement in DC Railway Systems, *Energies* 2019, 12, 1092; doi:10.3390/en12061092 (SCIE, IF: 2,676).
- 4. Mihaela Popescu, A. Bitoleanu, A. Preda, A New Design Method of an LCL Filter Applied in Active DC-Traction Substations, *IEEE Transactions on Industry Applications*, Vol. 54, Issue 4, ISSN: 0093-9994, JULY/AUGUST 2018, pp. 3497-3507, DOI: 10.1109/TIA.2018.2819968 (SCIE, IF: 2,937).
- Mihaela Popescu, A. Bitoleanu, V. Suru, A DSP-Based Implementation of the p-q theory in active power filtering under nonideal voltage conditions, *IEEE Transactions on Industrial Informatics*, ISSN 1551-3203, Vol. 9, Issue 2, May 2013, DOI: 10.1109/TII.2012.2223223, pp. 880-889 (SCIE, IF: 8,785).
- 6. Mihaela Popescu, A. Bitoleanu, V. Suru, Phase coordinate system and p-q theory based methods in active filtering implementation, *Advances in Electrical and Computer Engineering*, ISSN: 1582-7445, Vol. 13, Issue 1, 2013, DOI:10.4316/AECE.2013.01012, pp. 69-74 (SCIE, IF: 0.642).
- 7. A. Bitoleanu, Mihaela Popescu, How can the IRP p-q theory be applied for active filtering under nonsinusoidal voltage operation?, *Przegląd Elektrotechniczny*, Vol. 2011, Nr. 1, 2011, ISSN PL 0033-2097, pp. 67-71 (SCIE, IF:0,244).
- 8. Mihaela Popescu, A. Bitoleanu, V. Suru, A. Preda, System for Converting the DC Traction Substations into Active Substations, in *Proc. 9th International Symposium on Advanced Topics in Electrical Engineering* (ATEE 2015), May 7-9, 2015, Bucharest, Romania, DOI:10.1109/ATEE.2015.7133893, pp. 632-637 (SCIE).
- 9. Mihaela Popescu, A. Pătraşcu, and M. Dobriceanu, Application of Generalized Instantaneous Reactive/Non-active Power Theories in the Control of Shunt Active Power Line Conditioners: Practical Evaluation under Nonideal Voltage and Unbalanced Load, *Book Chapter: Nonlinear Dynamics of Electronic Systems, Series: Communications in Computer and Information Science*, Vol. 438, 2014, pp. 125-133, DOI 10.1007/978-3-319-08672-9 16 (SCIE).
- 10. Mihaela Popescu, A. Bitoleanu, V. Suru, Currents' Physical Components theory implementation in shunt active power filtering for unbalanced loads, in *Proc. 11th Conference-Seminar International School on Nonsinusoidal Currents and Compensation* (ISNCC), 20-21 June 2013, Zielona Gora, Poland, DOI: 10.1109/ISNCC.2013.6604447, pp.1–6 (SCIE).

#### **II. PhD Thesis and Habilitation Thesis**

- **PhD Thesis:** Energetic aspects of electrical drive systems with induction motors and indirect static converters, Domain Electrical Engineering, University of Craiova, 2001.
- **Habilitation thesis:** Research concerning the power quality and solutions for increasing the energy efficiency, Domain Electrical Engineering, 2016.

#### **III. BOOKS**

- C1. Bitoleanu Alexandru, **Popescu Mihaela**, Suru Constantin Vlad, Active power filters. Fundamentals and applications (in Romanian), Ed. Matrix, București, 2021, ISBN 978-606-25-0635-3, 354 pages.
- C2. Bitoleanu Alexandru, **Popescu Mihaela**, Static converters (in Romanian), Universitaria Craiova, 188 pages., 2017, ISBN 978-606-14-1174-0, 188 pages.

C3. Popescu Mihaela, Databases (in Romanian), Universitaria Craiova, 178 pages, 2017, ISBN 978-606-14-1168-9.

- C4. Popescu Mihaela, Computer aided graphics II MATLAB 7 (in Romanian), Universitaria Craiova, 115 pages, 2012, ISBN 978-606-14-0370-7.
- C5. Popescu Mihaela, Suru Vlad, Computer aided graphics I AutoCAD (in Romanian), Universitaria Craiova, 137 pages, 2012, ISBN 978-606-14-0391-2.C5.
- C6. Bitoleanu A., **Popescu Mihaela**, *Active power filters* (in Romanian), Universitaria Craiova, 206 pages, 2010, ISBN: 978-606-14-0039-3.
- C7. Popescu Mihaela, Power electronics: semiconductor devices and static converters (in French), Universitaria

Craiova, 254 pages, 2006, ISBN: 973-742-421-2.

- C8. Popescu Mihaela, Bitoleanu A., *Energetics of electrical drive systems with induction motors and indirect static converters* (in Romanian), Mediamira Cluj-Napoca, 291 pages, 2004, ISBN: 973-9357-54-7.
- C9. Bitoleanu A., Mihai D., **Popescu Mihaela**, Constantinescu C., *Static converters and performant control structures* (in Romanian), SITECH Craiova, 286 pages, 2000, ISBN: 973-657-016-9.
- C10. Bitoleanu A., Ivanov S., Popescu Mihaela, *Static converters* (in Romanian), INFOMED Craiova, 347 pages, 1997, ISBN: 973-96940-2-0.

#### **IV. PATENTS**

- B1. Bitoleanu A., Popescu Mihaela, Metodă pentru comanda invertoarelor de tensiune cu sarcină rezonantă (Method for controlling parallel load resonant circuit inverters meant for induction heating), Patent RO129914-A2, RO-BOPI no.11/2014, p. 42, international class H05B 6/06 (2006.01), Derwent Primary Accession Number: 2016-52536D.
- B2. Popescu Mihaela, Bitoleanu A., Metodă şi sistem pentru comanda filtrelor active paralel sub tensiune nesinusoidală (Method and system for controlling parallel-active filters, under non-sinusoidal voltage), Patent 131355 A2, international class H02J 3/01 (2006.01), BOPI nr. 8/2016, p. 35, Derwent Primary Accession Number: 2016-52626G.
- B3. Bitoleanu A., Popescu Mihaela, Suru C.V., Sistem de filtrare şi regenerare pentru substații de tracțiune în curent continuu (Filtration and regeneration system for direct current traction substations), Patent 131356 A2 (51) international clas H02J 3/01 (2006.01), H02J 3/18 (2006.01), BOPI nr, 8/2016, p. 36, Derwent Primary Accession Number: 2015-20321F.
- B4. Popescu Mihaela, Bitoleanu A., Metodă de comandă optimală a motoarelor asincrone de tracțiune a locomotivelor autonome, bazată pe controlul frecvenței de alunecare (Optimal control method for asynchronous traction motors of autonomous locomotives, based on slip frequency control), BOPI no. 8/2020, p.42, Patent Number(s): RO134266-A0, Derwent Primary Accession Number: 2020-60587C.
- B5. Bitoleanu A., Popescu Mihaela, Suru C.V., Sistem de comandă optimală a motoarelor asincrone de tracțiune a locomotivelor autonome, bazat pe controlul frecvenței de alunecare (Optimal control system for asynchronous traction motors of autonomous locomotives, based on slip frequency control), BOPI nr. 6/2020, p.62, Patent Number(s): RO134412-A0, Derwent Primary Accession Number: 2020-85735A.
- B6. Bitoleanu A., Popescu Mihaela, Suru C.V., Metodă şi sistem pentru comanda adaptivă a filtrelor active de putere paralel (Method for adaptive control of active power filters arranged in parallel with load), BOPI nr. 10/2020, p. 47, Patent Number(s): RO134525-A0, Derwent Primary Accession Number: 2020-A68061.

#### V. PAPERS IN JOURNALS INDEXED IN SCIE THOMSON-REUTERS

- Ri1. Mihaela Popescu, Alexandru Bitoleanu, Mihaita Linca and Constantin Vlad Suru, Improving Power Quality by a Four-Wire Shunt Active Power Filter: A Case Study, Energies 2021, 14, 1951. https://doi.org/10.3390/en14071951
- Ri2. Mihaela Popescu, A Bitoleanu, CV Suru, M Linca, GE Subtirelu, Adaptive Control of DC Voltage in Three-Phase Three-Wire Shunt Active Power Filters Systems, Energies 2020, vol. 13, issue 12, 3147.
- Ri3. Mihaela Popescu and A. Bitoleanu, A Review of the Energy Efficiency Improvement in DC Railway Systems, Energies 2019, 12, 1092; doi:10.3390/en12061092 (SCIE, IF: 2,676).
- Ri4. Mihaela Popescu, A. Bitoleanu, A. Preda, A New Design Method of an LCL Filter Applied in Active DC-Traction Substations, IEEE Transactions on Industry Applications, Vol. 54, Issue 4, ISSN: 0093-9994, JULY/AUGUST 2018, pp. 3497-3507, DOI: 10.1109/TIA.2018.2819968, IF: 2,937.
- Ri5. Mihaela Popescu, A. Bitoleanu, V. Suru, A DSP-based implementation of the p-q theory in active power filtering under nonideal voltage conditions, IEEE Transactions on Industrial Informatics, Vol. 9, Issue 2, ISSN 1551-3203, May 2013, pp. 880-889, DOI: 10.1109/TII.2012.2223223, IF: 8.785.
- Ri6. **Mihaela Popescu**, A. Bitoleanu, V. Suru, Phase coordinate system and p-q theory based methods in active filtering implementation, Advances in Electrical and Computer Engineering, Available online: 2013-02-28, Vol.13, Issue 1, Year 2013, pp. 69-74, ISSN: 1582-7445, DOI:10.4316/AECE.2013.01012, IF: 0.642.
- Ri7.A. Bitoleanu, Mihaela Popescu, How can the IRP p-q theory be applied for active filtering under nonsinusoidal voltage operation?, Przegląd Elektrotechniczny, Vol. 2011, No. 1, 2011, ISSN PL 0033-2097, pp. 67-71, IF: 0.244.
- Ri8.A. Bitoleanu, Mihaela Popescu, D. Marin, M. Dobriceanu, LCL interface filter design for shunt active power filters, Advances in Electrical and Computer Engineering, Vol. 10 Issue 3, August 2010, ISSN: 1582-7445, pp.55-60, Digital Object Identifier: 10.4316/AECE.2010.03009, IF: 0.700.
- Ri9. A. Bitoleanu, Mihaela Popescu, M. Dobriceanu, F. Nastasoiu, Analysis of some current decomposition methods: comparison and case studies, Revue Roumaine des Sciences Techniques-Serie Electrotechnique et Energetique, Tome 55, Issue 1, Jan-Mar 2010, ISSN: 0035-4066, pp.13-22, IF: 0.057.

#### VI. PAPERS IN JOURNALS INDEXED IN OTHER DATABASES

- Ri10. Mihaela Popescu, Alexandru Bitoleanu, Mircea Dobriceanu, Configuring and performances of reversible DC-traction substations with compensation capabilities, Bulletin of the Polytechnic Institute of Iaşi, Vol. 64 (68), No. 1 2018, ISSN: 1223-8139 pp. 19-33 (Index Copernicus).
- Rill. Constantin Vlad Suru, Mihaela Popescu, Cristina Alexandra Preda, Constant frequency hysteresis

controller implementation for active filtering systems, Bulletin of the Polytechnic Institute of Iași, 2018 (Index Copernicus).

- Ri12. A. Bitoleanu, **Mihaela Popescu**, V. Suru, Designing a filtering and regeneration system testing stand and experimental evaluation, Bulletin of the Polytechnic Institute of Iaşi, 2018 (Index Copernicus).
- Ri13. Mihaela Popescu, A. Bitoleanu, C. V. Suru, Mircea Dobriceanu, DC-Traction Substation with Improved Power Quality and Regeneration Capability, Annals of the University of Craiova, Electrical Engineering series, No. 41, 2017, ISSN 1842-4805, pp. 22 – 28.
- Ri14. A. Bitoleanu, **Mihaela Popescu**, C. V. Suru, Testing a Filtering and Regeneration System on a Recuperative Stand, Annals of the University of Craiova, Electrical Engineering series, No. 41, 2017, ISSN 1842-4805, pp. 14 21 (Index Copernicus).
- Ri15. Mihaela Popescu, Alexandru Bitoleanu, Mircea Dobriceanu, On the implementation of FBD-theory concepts in the control of active DC-traction substations, Annals of the University of Craiova, Electrical Engineering series, No. 40, 2016, ISSN 1842-4805, 39 – 45 (Index Copernicus).
- Ri16. Alexandru Bitoleanu, Mihaela Popescu, Dinu Roxan Doboşeriu, Power Control and Energetic Performances of an Induction Heating System Destined for Drying of Current Transformers, Annals of the University of Craiova, Electrical Engineering series, No. 40, 2016, ISSN 1842-4805, 54 – 59 (Index Copernicus).
- Ri17. Dinu Roxan Doboşeriu, Alexandru Bitoleanu, Mihaela Popescu, Energetic Analysis of the Drying Process of Current Transformers from 110 kV Ciungetu Power Station, Annals of the University of Craiova, Electrical Engineering series, No. 40, 2016, ISSN 1842-4805, 74 – 79 (Index Copernicus).
- Ri18. Alexandru Bitoleanu, Mihaela Popescu, Active filtering and regeneration system dedicated to DC active traction substations, The 18th National Conference on Electrical Drives (CNAE 2016), 13-14 octombrie 2016, Cluj- Napoca, Acta Electrotehnica, Ed. Mediamira, Cluj-Napoca, vol.57, nr.3-4, pp. 444-457(EBSCO).
- Ri19. Vlad Suru, Mihaela Popescu, Alexandra Preda, Using the CPC theory for a filtering and energy recovery systemused in urban traction DC substations, Acta Electrotehnica, Ed. Mediamira, Cluj-Napoca, vol.57, nr.3-4, pp. 484- 489 (EBSCO).
- Ri20. D. Doboşeriu, Mihaela Popescu, Alexandru Bitoleanu, Modeling and Performances of an Induction Heating System with Resonant Voltage Inverter for Drying of Current Transformers from Ciungetu Power Station, Acta Electrotehnica, Ed. Mediamira, Cluj-Napoca, vol.57, nr. 3-4, pp. 459-464 (EBSCO).
- Ri21. Mihaela Popescu, A. Bitoleanu, Alexandra Preda, Performance of an Active DC-Traction Substation with 12- Pulse Parallel Rectifier and Indirect Current Control, Annals of the University of Craiova, Electrical Engineering series, No. 39, 2015; ISSN 1842-4805, pp. 73-79 (Index Copernicus).
- Ri22. V. Suru, Mihaela Popescu, I. Deaconu, Study of Indirect Current Control methods for Urban Traction Active DC Substations, Annals of the University of Craiova, Electrical Engineering series, No. 39, 2015; ISSN 1842-4805, pp.157-163 (Index Copernicus).
- Ri23. Mihaela Popescu, A. Bitoleanu, Simulink Library for Reference Current Generation in Active DC Traction Substations. World Academy of Science, Engineering and Technology, International Science Index 104, International Journal of Electrical, Computer, Energetic, Electronic and Communication Engineering (2015), Vol. 9, No. 8, pp. 578 – 585 (Scholar Google, International Science Index).
- Ri24. **Mihaela Popescu**, A. Bitoleanu, and Alexandra Pătrașcu, Power Control Assessment in Induction Heating Systems with Voltage Source Inverter and Resonant L-LC Load, Annals of the University of Craiova, Electrical Engineering series, No. 38, ISSN: 1842-4805, 2014, pp.70-77 (Index Copernicus).
- Ri25. A. Bitoleanu, Mihaela Popescu, V. Suru, Experimental Evaluation of Induction Heating Systems with Phase-Shift Voltage Resonant Inverter, Annals of the University of Craiova, Electrical Engineering series, No. 38, ISSN: 1842-4805, 2014, pp. 50-55 (Index Copernicus).
- Ri26. Mihaela Popescu, M. Dobriceanu, G. Oprea, Improving Compensation Performance in Three-Phase Active Power Line Conditioners by DC-Voltage Control, Annals of the University "Eftimie Murgu" Reşiţa, Fascicle of Engineering, Year XXI, No. 3, 2014, ISSN 1453-7397, pp. 167-176 (DOAJ, EBSCO, Index Copernicus).
- Ri27. A. Bitoleanu, Mihaela Popescu, V. Suru, High Performance Shunt Active Power Filter: Design Consideration and Experimental Evaluation, Annals of the University "Effimie Murgu" Reşiţa, Fascicle of Engineering, Year XXI, No. 3, 2014, ISSN 1453-7397, pp. 153-166 (DOAJ, EBSCO, Index Copernicus).
- Ri28. Mihaela Popescu, A. Bitoleanu, Power Control System Design in Induction Heating with Resonant Voltage Inverter, Journal of Automation and Control Engineering, Vol. 2, No. 2, June 2014, ISSN: 2301-3702, DOI: 10.12720/joace, pp. 195-198 (Scholar Google, CrossRef)
- Ri29. A. Bitoleanu, Mihaela Popescu, The p-q theory and Compensating Current Calculation for Shunt Active Power Filters: Theoretical Aspects and Practical Implementation, Przegląd Elektrotechniczny, No. 6, 2013, ISSN PL 0033-2097, pp. 11-16 (SCOPUS, Scholar Google).
- Ri30. Mihaela Popescu, A. Bitoleanu, E. Subțirelu, Design and Performance of the Voltage Control Loop in Induction Heating Systems with L-LC resonant inverters, Annals of the University of Craiova, Electrical Engineering series, No. 37, ISSN: 1842-4805, 2013, pp.39-43 (Index Copernicus)..
- Ri31. V. Suru, Mihaela Popescu, A. Pătrașcu, Using dSPACE in the Shunt Static Compensators Control, Annals of the
- Ri32. University of Craiova, Electrical Engineering series, No. 37, ISSN: 1842-4805, 2013, pp.94-99 (Index
- Copernicus, Scholar Google).
- Ri33. Mihaela Popescu, A. Bitoleanu, and A. Pătrașcu, MATLAB/SIMULINK Library for Compensating

Current Calculation in Three-Phase Shunt Active Filtering Systems, Bulletin AGIR No. 4/2012, pp. 246-250, ISSN-L 1224-7928 (Index Copernicus, Scholar Google).

- Ri34. A. Pătrașcu, **Mihaela Popescu**, and V. Suru, The Conservative Power Theory and the Active Filtering, Bulletin AGIR No. 4/2012, pp. 179-182, ISSN-L 1224-7928 (Index Copernicus, Scholar Google).
- Ri35. Mihaela Popescu, A. Bitoleanu, and V. Suru, P-Q Theory and Total Active Filtering Compensation under Distorted Supply Voltages, Bulletin AGIR No. 3/2012, pp. 367-372, ISSN-L 1224-7928 (Index Copernicus, Scholar Google).
- Ri36. A. Pătrașcu, **Mihaela Popescu**, and V. Suru, Current Decomposition Based on the P-Q Theory Concepts, Bulletin AGIR No. 3/2012, pp. 373-378, ISSN-L 1224-7928 (Index Copernicus, Scholar Google).
- Ri37. Mihaela Popescu and A. Bitoleanu, Three-Phase Active Filtering System under Nonsinusoidal Voltage Conditions, Bulletin AGIR No. 4/2011, Oct.-Dec., pp. 115-120, ISSN-L 1224-7928 (Index Copernicus, Scholar Google).
- Ri38. A. Bitoleanu, Mihaela Popescu, and V. Suru, P-Q Theory and Apparent Power Calculation for Active Filtering, Bulletin AGIR No. 4/2011, Oct.-Dec., pp. 107-114, ISSN-L 1224-7928, Online: ISSN 2247-3548 (Index Copernicus, Scholar Google).
- Ri39. V. Suru, A. Bitoleanu, Mihaela Popescu, and M. Linca, Optimal Control Design of DC Circuit of a Shunt Active Power Filter, Bulletin AGIR No. 4/2011, Oct.-Dec., pp. 121-128, ISSN-L 1224-7928, Online: ISSN 2247-3548 (Index Copernicus, Scholar Google)
- Ri40. Mihaela Popescu, A. Bitoleanu, and V. Suru, Time-Domain Based Active Compensation Strategies Under Nonsinusoidal Conditions in Three-Phase Three-Wire Systems, Annals of the University of Craiova, Electrical Engineering series, No. 35, ISSN 1842-4805, 2011, pp.19-24 (Index Copernicus).
- Ri41. A. Pătraşcu and Mihaela Popescu, Comparative Active Current Calculation by P-Q And CPC Theories, Annals of the University of Craiova, Electrical Engineering series, No. 35, ISSN 1842-4805, 2011, pp.25-30 (Index Copernicus, Scholar Google).
- Ri42. Mihaela Popescu, A. Bitoleanu, and D. Marin, On the DC-Capacitance and Control of Voltage Across the Compensating Capacitor in Three-phase Shunt Active Power Filters, Annals of the University of Craiova, Electrical Engineering series, No. 34, Vol.II, ISSN 1842-4805, 2010, pp.53-58 (Index Copernicus, Scholar Google).
- Ri43. A. Bitoleanu, Mihaela Popescu and V. Suru, Some Aspects of P-Q Theory for Active Filtering Applications, Annals of the University of Craiova, Electrical Engineering series, No. 34, Vol.II, ISSN 1842-4805, 2010, pp.30- 35 (Index Copernicus).
- Ri44. Mihaela Popescu, A. Bitoleanu, Control Loops Design and Harmonic Distortion Minimization in Active Filtering-based Compensation Power Systems, International Review on Modelling and Simulations (I.RE.MO.S.), Vol. 3, No. 4, August 2010, ISSN 1974-9821, pp. 581-589 (SCOPUS).
- Ri45. Mihaela Popescu, A. Bitoleanu, M. Dobriceanu, On the AC-Side Interface Filter in Three-Phase Shunt Active Power Filter Systems, World Academy of Science, Engineering and Technology Journal, Vol. 46, 2010, pISSN 2010-376X, pp.987-992 (SCOPUS, Scholar Google)
- Ri46. Mihaela Popescu, A. Bitoleanu, M. Dobriceanu, V. Suru, Optimum Control Strategy of Three-Phase Shunt Active Filter System, World Academy of Science Engineering and Technology Journal, Issue 58, October 2009, pISSN 2010-376X, pp.441-446 (SCOPUS, CiteSeer, Scholar Google).
- Ri47. Mihaela Popescu, A. Bitoleanu, M. Dobriceanu, Compensation-Based Current Decomposition, Proceedings of World Academy of Science: Engineering & Technolog; Feb. 2009, Vol. 49, p598-603 (EBSCO, CiteSeerX, Scholar Google).
- Ri48. **Mihaela Popescu**, A. Bitoleanu, M. Dobriceanu, M. Linca, Cascade Control System of Three Phase Shunt Active Filters, Annals of the University of Craiova, Electrical Engineering series, No. 33, 2009, pp.80-84 (Scholar Google).
- Ri49. M. Dobriceanu, A. Bitoleanu, Mihaela Popescu, E. Subtirelu, O.D. Dobriceanu, Acquisition, Command and Data Transfer System for Medium Voltage Electrical Stations, Annals of the University of Craiova, Electrical Engineering series, No. 33, 2009, pp. 72-76 (Scholar Google).
- Ri50. A. Bitoleanu, Mihaela Popescu, M. Dobriceanu, Akagi's P-Q Theory and Active Filtering under Non-Sinusoidal Voltage, Annals of the University of Craiova, Electrical Engineering series, No. 33, 2009, pp. 16-22 (Scholar Google).
- Ri51. Mihaela Popescu, A. Bitoleanu, M. Dobriceanu, Harmonic Current Reduction in Railway Systems, WSEAS Transactions on Systems, Issue 7, Volume 7, July 2008, ISSN 1109–2777, pp. 689-698 (SCOPUS, ACM, Scholar Google).
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#### IX. RESEARCH CONTRACTS

## Grants obtained through national competition, as a director

- Pn1. Knowledge Transfer Partnership, Competition POC 2015, "Partnerships for knowledge transfer, technological and applied research for innovative solutions of intelligent systems to increase energy efficiency" (in Romanian), Project ID P 140 196, budget: 7.131.448 lei, 2016-2021, director prof. Mihaela Popescu.
- Pn2. Applied Research Collaborative Project, PNCDI Programme PNCDI Partnerships in priority areas: "Multifunctional static system of filtering and regeneration for active DC traction stations" (in Romanian), Partner INDA SRL Craiova, No. 42/2014, budget: 805.000 lei, 30 months (2014-2016), director prof. Mihaela Popescu.
- Pn3. Project in Sectorial Operational Programme Increasing Economic Competitiveness (POS CCE), Operation 2.1.1 Research projects in partnership between universities/research-development institutes and enterprises, "Induction heating system with high energetic efficiency" (in Romanian), Beneficiary SC INDAELTRAC SRL, No.258/28.12.2011, budget: 832.830 lei, 2 years (2012-2013), director prof. **Mihaela Popescu**.
- Pn4. Grant CNCSIS type A: "Theoretical and applicative research on the nonsinusoidal regime and active filtering" (in Romanian), No.27 GR / 11.05.2007, code CNCSIS 617, budget:173 000 lei, 2 years (2007-2008), director prof. Mihaela Popescu.
- Pn5. Grant CNCSIS type A: "Power quality in electrical drive systems with asynchronous motors and frequency static converters" (in Romanian), No. 33062/2004, code CNCSIS 278, budget: 49 000 RON, 3 years (2004-2007), director Prof. **Mihaela Popescu**.

### Grants/Projects obtained through international competition, as a team member

Pi1. Project PC6: DRESS - "Distributed and Redundant Electromechanical Nose Gear Steering System", AST5-CT2006-030841, budget: 66.000 Euro, 2006-2009.Pi2. Project SOCRATES-MINERVA: ELearning Tools for Electrical Engineering - 109789-CP-1-2003-1-BE- MINERVA-M (proiect European), budget: 30.000 EUR, SOCRATES-MINERVA, 2003-2005. Partners: Universite Catholique de Louvain, Louvain-la-Neuve, Belgia, Ecole des Hautes Etudes Industrielles (HEI), Lille, Franta, Instituto Superior Tecnico - Universidade Tecnica de Lisboa (IST), Lisbona, Portugalia, Universitatea din Craiova (UCV), Romania.

#### Grants/ projects obtained through national competition. as a team member

- Pn6. Knowledge Transfer Partnership, Competition POC 2015, "Research and transfer of knowledge in the field of software technologies and tools for informatisation of industrial processes" (in Romanian), Project ID 40\_416, budget 5.549.356 lei, 2016-2021, director prof. Dan Popescu.
- Pn7. Partnership in priority areas PNCDI: "Active filters of third generation" (in Romanian), No. 21-010/14.09.2007, budget: 1.055.915 lei, 3 partners, 3 ani, 3 years (2007-2010), director prof. Alexandru Bitoleanu, Project manager prof. Mihaela Popescu.
- Pn8. Project CDI Pole of competitiveness "Automotive Sud-Vest Oltenia", "Industrial research and experimental development vehicles powered by brushless electric motors fed by lithium-ion batteries for passenger transport-Gentle Electric" (in Romanian), P09004/1137/31.03.2014, code SMIS 50140, 2 years (2014-2015), budget: 899.999 lei, director prof. Sorin Enache.
- Pn9. Project POS CCE Development of business support structures of national and international interest Competitiveness poles "Research to implement an advanced maintenance system for the automotive industry in order to enhance competitiveness" (in Romanian), P09 002/1139/31.03.2014, 2 years (2014-2015), budget: 732760 lei, director prof. Lucian Mandache.
- Pn10. Partnership in priority areas PNCDI: "Optimizing the operation of electric hydrogenerators by modernizing the excitation systems in order to increase the energy efficiency and their competitiveness" (in Romanian), No. 21-

040/14.09.2007, budget: 209 000 lei, 3 years (2007-2010), director prof. Alexandru Bitoleanu.

- Pn11. Project CNCSIS IDEI: "Distributed system based on artificial intelligence techniques to monitor the power quality, supervision and control of a transformer station" (in Romanian), No.628/23.12.2008, budget: 572.085 lei, 1 year, director prof. Mircea Dobriceanu.
- Pn12. Partnership in priority areas PNCDI: "System for monitoring, protection and remote control in wireless technology for low voltage electric motors" (in Romanian), No. 22112/1/06.10.2008, budget: 539.000 lei, 3 years (2008-2010), director prof. Mircea Dobriceanu.
- Pn13. Project CEEX: "Research on control systems and evaluation of emissions in transport" (in Romanian), No. 245/11.10.2005, budget: 43.120 RON, 3 years (2006-2008), director prof. Mircea Dobriceanu.
- Pn14. Project CALIST: "Test bench for DC electrical drives according to EU requirements" (in Romanian), MEC funding, No. 4203/29.07.2003, Partner ICMET Craiova, budget: 120 mil ROL, 2 years, director prof. Mircea Dobriceanu.
- Pn15. Grant CNCSIS: "Electrical drive systems with induction motors and DSP for modernizing the urban electric traction" (in Romanian), No.35254/2001, budget:154.900 lei, 3 ani, director prof. Alexandru Bitoleanu.
- Pn16. Grant CNCSIS: "High energetic performances rectifiers for electrical drive systems" (in Romanian), No. 23/20/1998, budget:35.000 lei, 1 year, director prof. Alexandru Bitoleanu.
- Pn17. Grant CNCSIS: "Soft switching static converters for electrical drive systems" (in Romanian), No. 3006/ 14C/ C10/1995, budget: 8012000 lei, 3 years, director prof. Alexandru Bitoleanu.
- Pn18. Project MIS: "Electrical drive systems with DC motors and soft switching choppers" (in Romanian), No. 3006/ 14C/ C10/1994, 1 year, director prof. Alexandru Bitoleanu.
- Pn19. Project MIS: "Electric AC servodrive systems of high performance" (in Romanian), 19c/20/1993, 1 year, director conf. Gheorghe Popescu.

#### Research/consultancy contracts, as a team member (selection)

- Pn20. Contract with businesses: "Study on the using the active power filters for improving the power quality" (in Romanian), 19/20.04.2004, 50.000 lei, Beneficiary SC SMART SA Craiova, 1 year, director prof.dr.ing. A. Bitoleanu.
- Pn21. Contract with businesses: "Experimental measurements and data processing for mapping the noise in Craiova" (in Romanian), No. 1314/121.03.2007, Beneficiary SC ENVIRO SRL Buc., 50.000 lei, 1 year, director prof. A. Bitoleanu.