

PUBLICATIONS LIST

(2000-present)

University Professor Cătălin Buiu, Ph.D. Eng., Ph.D. Nat.Sci.

I. PH.D. THESES

1. **C. Buiu**. "Intelligent Techniques for Autonomous Control Systems", Universitatea Politehnica din București, **1997**
2. **C. Buiu**. "Bioinformatics Techniques Applied to the Study of Structure-Function Relationship for HIV Envelope Glycoproteins", Universitatea din București, **2014**

II. BOOKS

II.1 Books published at national level.

1. Ana Pavel, C. Vasile, **C. Buiu**. *Biomatematica si bioinformatica. Concepte si aplicatii* (Biomathematics and Bioinformatics. Concepts and Applications), Editura Universitară, Bucuresti, ISBN 978-606-591-178-9, **2011**
2. **C. Buiu**, Ana Pavel, C. Vasile. *Roboti cognitivi. Aplicatii de inspiratie biologica* (Cognitive robots – biologically-inspired applications), Editura Universitara, Bucuresti, ISBN 978-973-749-443-6, **2010**
3. S. Avram, **C. Buiu**, D. Duda-Seiman, C. Duda-Seiman, D. F. Mihailescu. *Neuropsihofarmacologie* (Neuropsychopharmacology), Editura Universitara, Bucuresti, ISBN 978-973-749-793-2, **2009**
4. **C. Buiu**, A. Dumitrascu. *Modelarea proceselor biologice (Modelling of biological processes)*, Electra Press, Bucuresti, ISBN 973-7728-10-6, **2004**
5. **C. Buiu**. *Sisteme avansate pentru conducerea robotilor autonomi* (Advanced control systems for autonomous robots), Electra Press, ISBN 973-8067-91-X, Bucuresti, **2003**
6. **C. Buiu**, Narcisa Isaila. *Informatica aplicata – agenti software (Applied informatics – Software Agents)*, Politehnica Press, Bucuresti, Romania, ISBN 973-8449-09-X, **2003**
7. I Dumitrache, **C. Buiu**, O. Ghica. *Sisteme numerice pentru conducerea proceselor (Digital Control Systems)*, Electra Press, ISBN 973-8067-61-8, **2002**
8. **C. Buiu**, V. Pop. *Inginerie Cognitivă (Cognitive engineering)*, ICPE Press, Bucuresti, ISBN 973-8067-45-6, **2001**
9. **C. Buiu**, Mihaela Albu. *Agenti software inteligenti (Intelligent software agents)*, ICPE Press, Bucuresti, ISBN 973-8067-14-X, **2000**
10. I. Dumitrache, **C. Buiu**. *Algoritmi genetici. Fundamente teoretice si aplicatii în automatică (Genetic algorithms – theoretical foundations and applications)*, Mediamira Press, Cluj Napoca, Romania, ISBN 973-9358-28-4, **2000**

II.2 Book chapters at international level.

1. Andra Baltoiu, **C. Buiu**. *Representing Emotions as Dynamic Interactions of Symbols: A Case Study on Literary Texts*, [Chapter 3](#) in [Handbook of Research on Synthesizing Human Emotion in Intelligent Systems and Robotics](#) (Ed. J. Vallverdu), Advances in Computational Intelligence and Robotics (ACIR) Book Series, pp. **83-101**, IGI Global, ISBN 1466672781, doi:10.4018/978-1-4666-7278-9.ch003, **2014**
2. Speranta Avram, **C. Buiu**, Corina Duda-Seiman, F. Borcan, D. Duda-Seiman, D. Mihailescu. [Evaluation of the pharmacological descriptors related to the induction of antimicrobial activity by using QSAR and computational mutagenesis](#), in *Recent Trends on QSAR in the Pharmaceutical Perceptions* (Ed. M. Khan), Bentham Publishers, doi: 10.2174/97816080537971120101, eISBN: 978-1-60805-379-7, ISBN: 978-1-60805-4336, **2012**

II.3 – Book chapters at national level.

1. Ioan Dumitrache, **C. Buiu**, T.L. Dragomir. *Sisteme inteligente de conducere (Intelligent control systems)*, in *Automatica* (Ed. I. Dumitrache), Vol. II, Editura Academiei Romane, ISBN: 978-973-27-1882-7, ISBN: 978-973-27-2298-5, pp. 819-892, **2013**
2. **C. Buiu**. *Autonomy, intelligence, cognition - from cell to robot*, in *Cognitive Robots - Concepts, architectures, applications* (C. Buiu, Ed., in Romanian), pp. 11-34, Editura Universitara, Bucuresti, ISBN 978-973-749-443-6, **2008**
3. F. Cazan, C. Ionita, **C. Buiu**. *Stereoscopic cognitive vision system for a mobile robot*, in *Cognitive Robots - Concepts, architectures, applications* (C. Buiu, Ed., in Romanian), pp. 125-152, Editura Universitara, Bucuresti, ISBN 978-973-749-443-6, **2008**

III. OTHER PUBLISHED BOOKS

III.1 - Laboratory guides.

1. Ioana Miha, S. Dumitriu, N. Constantin, **C. Buiu**, M. Dragoicea. *Ingineria reglariei automate (Control Engineering, in Romanian)*, Politehnica Press, 2007
2. **C. Buiu**, V. Pop. *Inginerie cognitiva - Indrumar de laborator (Cognitive Engineering – Laboratory Guide, in Romanian)*, Editura Sapienția, Bucuresti, ISBN 973-99552-9-3, 2001
3. **C. Buiu**. *Sisteme cognitive - Indrumar de laborator (Cognitive systems – Laboratory guide, in Romanian)*, Editura Printech, Bucuresti, ISBN 973-652-232-6, 2000
4. **C. Buiu**. *Introducere in stiintele cognitive (Introduction to cognitive science, in Romanian)*, Editura Sapienția, Bucuresti, ISBN 973-98622-9-2, 2000

IV. EXTENDED, REFEREED ARTICLES

IV.1 – ISI Thomson Reuters indexed scientific journals.

1. **C. Buiu**, M.V. Putz, S. Avram. [*Learning the Relationship between the Primary Structure of HIV Envelope Glycoproteins and Neutralization Activity of Particular Antibodies by Using Artificial Neural Networks*](#), *International Journal of Molecular Sciences* (ISSN 1422-0067, IF=3.257), 17(10), doi:10.3390/ijms17101710, **2016** (WOS:000387768300085)
2. A. G. Florea, **C. Buiu**. *Development of a software simulator for P colonies. Applications in robotics*, *International Journal of Unconventional Computing*, Vol. 12, 2-3, pp. 189-205, WOS:000376156900005, **2016** (WOS:000376156900005)
3. V. Roman, **C. Buiu**. [*Automatic analysis of radio meteor events using neural networks*](#), *Earth, Moon, and Planets* (IF=0.667), 116(2):101-113, <http://dx.doi.org/10.1007/s11038-015-9473-y>, **2015** (WOS:000365206400001)
4. **C. Buiu**, S. Avram, D. Duda-Seiman, A. L. Milac, C. Duda-Seiman, L. Pacureanu, F. Borcan. [*More Effective DPP4 Inhibitors as Antidiabetics Based on Sitagliptin Applied QSAR and Clinical Methods*](#), *Current Computer-Aided Drug Design* (IF=1.942), 10(3), pp. 237-249, **2014** (Accession no. 000350338600007, [Link la webofknowledge](#))
5. S. Avram, A. Milac, M. Mernea, D. Mihailescu, M. V. Putz, **C. Buiu**. [*Structure-biological function relationship extended to mitotic arrest-deficient 2-like protein Mad2 native and mutants—new opportunity for the genetic disorders control*](#), *International Journal of Molecular Sciences* (ISSN 1422-0067; CODEN: IJMCFK; ISSN 1661-6596 for printed edition, IF=2.339), Vol. 15 (11), pp. 21381-21400, **2014** (Accession no.: 000345529200119, [Link la webofknowledge](#))
6. S. Avram, S. Shaposhnikov, **C. Buiu**, M. Mernea. [*Chondroitin sulfate proteoglycans – Structure-function relationship with implication in neural development and brain disorders*](#), *BioMed Research International* (ISSN 2314-6133, IF=2.88), Article ID 642798, 11 pages, <http://dx.doi.org/10.1155/2014/642798>, **2014** (Accession no.: 000336324300001, [Link la webofknowledge](#))
7. **C. Buiu**, C. Vasile, O. Arsene. [*Development of membrane controllers for mobile robots*](#), *Information Sciences* (ISSN 0020-0255, IF=3.893, RIS=1.29301), Vol. 187, March 2012, pp. 33-51, doi:10.1016/j.ins.2011.10.007, **2012** (Accession no.: 000300201600003, [Link la webofknowledge](#))
8. Speranta Avram, **C. Buiu**, F. Borcan, Adina Milac. [*More effective antimicrobial mastoparan derivatives, generated by 3D QSAR-Almond and computational mutagenesis*](#), *Molecular BioSystems* (ISSN 1742-206X, IF=3.35, RIS=1.54137), Vol. 8, No. 2, pp. 587-594, doi:10.1039/c1mb05297g, **2012** (Accession no.: 000298994900018, [Link la webofknowledge](#))
9. Speranta Avram, **C. Buiu**, D. Duda-Seiman, C. Duda-Seiman, F. Borcan, D. F. Mihailescu. [*Evaluation of the pharmacological descriptors related to the induction of antipressant activity and its prediction by QSAR/QRAR methods*](#), *Mini-Reviews in Medicinal Chemistry* (ISSN 1389-5575, IF=2.865, RIS=1.90955), Vol. 12, No. 6, pp. 467-476, **2012** (Accession no.: 000305730800004, [Link la webofknowledge](#))
10. Ana Pavel, **C. Buiu**. [*Using enzymatic numerical P systems for modeling mobile robot controllers*](#), Vol. 11, No.3, September 2012, pp. 387-393, doi: 10.1007/s11047-011-9286-5, (ISSN 1567-7818, IF=0.539, RIS=N/A), **2012** (Accession no.: 000308325700006, [Link la webofknowledge](#))
11. C. Vasile, **C. Buiu**. [*A software system for collaborative robotics applications and its application in particle swarm optimization implementations*](#), *Applied Soft Computing* (ISSN 1568-4946, IF=2.679, RIS=1.11183), Volume 11, Issue 8, pp. 5498-5507, December 2011, doi:10.1016/j.asoc.2011.05.009, **2011** (Accession no.: 000296539700099, [Link la webofknowledge](#))
12. **C. Buiu**, O. Arsene, Corina Cipu, Monica Patrascu. [*A software tool for modeling and simulation of numerical P systems*](#), *BioSystems* (ISSN 0303-2647, IF=1.472, RIS=0.86042), Vol. 103, Issue 3, pp. 442-447, doi: 10.1016/j.biosystems.2010.11.013, **2011** (Accession no.: 000287989200015, [Link la webofknowledge](#))
13. **C. Buiu**. [*Integrated System for Stereoscopic Cognitive Vision, Localization, Mapping, and Communication with a Mobile Robot*](#), *International Journal of Computers, Communications & Control (IJCCC)* (ISSN 1841-9836, IF = 0.694), Vol. IV, No. 2, pp. 104-113, **2009** (Accession no.: 000265485500002, [Link la webofknowledge](#))
14. **C. Buiu**. [*Design and evaluation of an innovative online motion control learning package*](#), *IEEE Transactions on Education* (ISSN 0018-9359, IF=1.221, RIS=0.57681), Vol. 52, No. 3, pp. 385-393, **2009** (Accession no.: 000268756300011, [Link la webofknowledge](#))
15. **C. Buiu**. [*Hybrid educational strategies for a laboratory course on cognitive robotics*](#), *IEEE Transactions on Education* (ISSN 0018-9359, IF=1.221, RIS=0.57681), vol. 51, no. 1, pp. 100-107, **2008** (Accession no.: 000253259300014, [Link la webofknowledge](#))
16. **C. Buiu**, I. Dumitrache, M. Zainea. [*Design and optimization of a fuzzy logic controller for a simulated autonomous robot*](#), *Control Engineering and Applied Informatics* (IF=0.371), Vol. 5, No. 3 and 4, ISSN 1454-8658, pp. 55-63, **2003**

17. Ioan Dumitrache, **C. Buiu**. [Genetic learning of fuzzy controllers](#), *Mathematics and Computers in Simulation* (IF = 0.856, RIS=0.91536), Elsevier Science, ISSN 0378-4754, Vol. 49, Nr. 1-2, pp. 13-26, **1999** (Accession no.: 000081500900002, [Link la webofknowledge](#))

IV.2 – Other scientific journals.

1. S. Avram, A. Milac, **C. Buiu**, L.-C. Borcan. [Advanced QSAR and Computational Mutagenesis Applied to Mitotic Checkpoint Protein hMad1 Mutants with Implication in Genetic Disorders](#), *New Frontiers in Chemistry* (ISSN 2393-2171), 23(1):61-72, **2014**
2. O. Arsene, **C. Buiu**, Nirvana Popescu. [SNUPS – A Simulator for Numerical Membrane Computing](#), *International Journal of Innovative Computing, Information and Control* (ISSN 1349-4198), Volume 7, Number 6, June 2011, pp. 3509-3522, **2011** (EI Compendex, Scopus, Inspec, [Google Scholar](#))
3. **C. Buiu**, Nirvana Popescu. [Aesthetic Emotions in Human-Robot Interaction. Implications on Interaction Design of Robotic Artists](#), *International Journal of Innovative Computing, Information and Control* (ISSN 1349-4198), Volume 7, Number 3, March 2011, pp. 1097-1108, **2011** (EI Compendex, Scopus, Inspec, [Google Scholar](#))
4. Ana Pavel, **C. Buiu**. [Development of an embedded artificial vision system for an autonomous robot](#), *International Journal of Innovative Computing, Computing Information and Control* (ISSN 1349-4198), Volume 7, Number 2, February 2011, pp. 745-762, **2011** (EI Compendex, Scopus, Inspec, [Google Scholar](#))
5. Ana Lucia Pais, Andreea Moga, **C. Buiu**. [An integrated framework for emotion recognition and expression using robot artists](#), *ICIC Express Letters, Part B: Applications*, Vol. 1, No. 2, Dec. 2010, pp. 169-174, ISSN 2185-2766, **2010** ([Google Scholar](#))
6. Ana Lucia Pais, Andreea Moga, **C. Buiu**. [Emotions and robot artists: state-of-the-art and research challenges](#), *BMIF – Mathematics, Informatics, Physics Series*, Vol. LXII, No. 1, pp. 26-40, ISSN 1224-4899, **2010** ([Google Scholar](#))
7. Speranta Avram, **C. Buiu**, D. Duda-Seiman, Corina Duda-Seiman, D. F. Mihailescu. [3D-QSAR design of new escitalopram derivatives for the treatment of major depressive disorders](#), *Scientia Pharmaceutica*, Vol. 78, Issue 2, pp. 233-248, doi:10.3797/scipharm.0912-22, **2010** ([PubMed](#))
8. **C. Buiu**, A. Dumitrascu. **A conversational interface for voice control of autonomous robots**, *Periodica Politehnica, Transactions on Automatic Control and Computer Science*, ISSN 1224-600X, Vol.49 (63), No. 4, pp. 87-90, ISSN 1224-600X, **2004**
9. **C. Buiu**, I. Dumitrache, F. Mihai. **Advanced technologies to serve robotics education**, *Periodica Politehnica, Transactions on Automatic Control and Computer Science*, ISSN 1224-600X, Vol. 47 (61), pp. 48-51, **2002**
10. **C. Buiu**. **A review of theories on intelligence**, *U.P.B. Scientific Bulletin, Series C*, ISSN 1220-3033, Vol. 6, No. 1, pp. 33-40, **2001** (Scopus, Elsevier, Inspec, Ulrich's International Periodicals, metadex, Engineering Village, Cambridge Scientific Abstracts)
11. **C. Buiu**, Mihaela Albu, I. Dumitrache, D. Gillet. **Advanced technologies for remote experimentation**, *U.P.B. Scientific Bulletin, Series C*, ISSN 1220-3033, Vol. 62, No. 1, pp. 73-82, **2000** (Scopus, Elsevier, Inspec, Ulrich's International Periodicals, metadex, Engineering Village, Cambridge Scientific Abstracts)
12. **C. Buiu**. [Artificial Intelligence in Education – State of the Art and Perspectives](#), *ZIFF Papiere*, No. 111, Zentrales Institut fuer Fernstudienforschung, FernUniversitaet – Gesamthochschule – Hagen, ISSN 1435-9340, pp. 1-105, **1999** ([GoogleScholar](#))
13. Ioan Dumitrache, G. Calcev, **C. Buiu**, Raluca Constantinescu. **A Survey on Tuning Techniques in Fuzzy Logic Control**, *U.P.B. Scientific Bulletin, Electrical Engineering Series*, ISSN 1220-3033, Vol. 54, No. 1-2, pp. 193-198, **1992** (Scopus, Elsevier, Inspec, Ulrich's International Periodicals, metadex, Engineering Village, Cambridge Scientific Abstracts)

IV.3- Conference Proceedings Citation Index indexed Conferences

1. C. Cipu, S. Bibic, **C. Buiu**. [A bioinspired mathematical model for a robotic swarm to discriminate between self and nonself robots](#), 9th International Conference on System Theory, Control and Computing, Cheile Gradistei-Fundata, Romania, Oct. 14-16, pp. 279-284, doi: [10.1109/ICSTCC.2015.7321306](#), **2015** (WOS:000382384100047)
2. V. Roman, **C. Buiu**. [Automatic detection of meteors in spectrograms using artificial neural networks](#), 10th Jubilee IEEE International Symposium on Applied Computational Intelligence and Informatics, Timisoara, May 21-23, pp. 131-134, doi: [10.1109/SACI.2015.7208185](#), **2015** (WOS:000382384100047)
3. V. Roman, **C. Buiu**. [A self-organizing map-based approach to automatic meteor detection in radio spectrograms](#), *Proceedings of the 7th International Conference on Electronics, Computers, and Artificial Intelligence ECAI 2015*, Bucharest, pp. 75-78, doi: [10.1109/ECAL.2015.7301164](#), June **2015**, WOS:000370971100029
4. Irina O. Petre, **C. Buiu**. [An integrated gene expression analysis approach](#), *Proceedings of the IEEE E-Health and Bioengineering Conference (EHB)*, Iasi, Romania, pp. 1-4, doi: [10.1109/EHB.2015.7391442](#), **2015** (WOS:000380397900095)
5. **C. Buiu**, M. Gânsari. [Designing Robotic Avatars in Second Life - A Tool to Complement Robotics Education](#), *2014 IEEE Global Engineering Education Conference (EDUCON)*, Istanbul, April 3-4, **2014** (acc. No.: WOS:000343764100171, [link la webofknowledge.com](#))
6. **C. Buiu**, A. Buga, A. M. Coman. [Teaching Robotics and Virtual Reality in a Synergistic Approach](#), *Proceedings of the 7th*

- IEEE International Conference on e-Learning in Industrial Electronics*, Vienna, November 12-13, pp. 71-75, **2013** (acc. No.: WOS:000331086700010, [link la webofknowledge.com](#))
7. D. Dichiu, Ana Lucia Păiș, Sunita Andreea Moga, **C. Buiu**. *A Cognitive System for Detecting Emotions in Literary Texts and Transposing them into Drawings*, Proc. of the 2010 IEEE International Conference on Systems, Man and Cybernetics (SMC 2010), IEEE Catalog Number CFP10SMC-CDR, ISBN 978-1-4244-6587-3, ISSN 1062-922X, Istanbul, October 10-13, pp. 1958-1965, **2010** (acc. No.: WOS:000295015301039, [link la webofknowledge.com](#))
 8. **C. Buiu**, I. Dumitrache, F. Mihai, D. Gillet. *Experiments in Remote Collective Robotics. New Pedagogical Scenarios*, In L. Cantoni & C. McLoughlin (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2004*, pp. 3836-3841, Chesapeake, VA: AACE, **2004** (acc. No.: WOS:000229602304113, [link la webofknowledge.com](#))
 9. Mihaela Albu, F. Mihai, **C. Buiu**, D. Gillet. *Enhancing the Internet-based control in teaching laboratories using software agents*, *Preprints of IBCE 2001*, Workshop on Internet based control education, pp. 47-52, 12-14 December, Madrid, **2001** (acc. No.: WOS:000179113800009, [link la webofknowledge.com](#))
 10. **C. Buiu**, I. Dumitrache. *Advanced technologies for intelligent control research and teaching*, *Proceedings of the 2000 IEEE International Symposium on Intelligent Control*, Conference Proceeding: 02/2000; DOI: 10.1109/ISIC.2000.882954, ISBN: 0-7803-6491-0 (acc. No. WOS:000179113800009, [link la webofknowledge.com](#))

IV.4 Other international conferences.

1. V. Roman, **C. Buiu**. *Automatic detection of meteors using artificial neural networks*, *Proceedings of the International Meteor Conference*, Giron, France, Sept. 18-21, **2014**
2. **C. Buiu**, A.B. Pavel, C. Vasile, I. Dumitrache. *Perspectives of using membrane computing in the control of mobile robots*, *Proceedings of Extended Abstracts Presented at The International Conference Beyond AI: Interdisciplinary Aspects of Artificial Intelligence*, Pilsen, Czech Republic, December 8-9, 2011, pp. 21-26, **2011**
3. C. Vasile, A.B. Pavel, **C. Buiu**. *Integrating human swarm interaction in a distributed robotic control system*, *Proceedings of the 7th IEEE Conference on Automation Science and Engineering (IEEE CASE 2011)*, Trieste, 24-27 August, doi: [10.1109/CASE.2011.6042493](#), ISSN 2161-8070, **2011** ([IEEEExplore](#))
4. C. Vasile, A.B. Pavel, **C. Buiu**. *Chidori – a bio-inspired cognitive architecture for collective robotics applications*, *Preprints of IFAC Workshop on Intelligent Control Systems*, Sinaia, Romania, September 29 – October 1, pp. 52-57, ISBN 978-3-902661-89-0, **2010**
5. A.B. Pavel, O. Arsene, **C. Buiu**. *Enzymatic Numerical P Systems – a New Class of Membrane Computing Systems*, *The IEEE Fifth International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA 2010)*, ISBN 978-1-424464-37-1, Liverpool Hope University, Liverpool, United Kingdom, September 8 - 10, pp. 1331-1336, DOI: [10.1109/BICTA.2010.5645071](#), **2010** ([IEEEExplore](#))
6. **C. Buiu**. *Towards integrated biologically inspired cognitive architectures*, keynote talk, *Proc. of the Int. Conf. on Electronics, Computers, and AI - ECAI' 09*, Vol. I, pp. 2-8, Pitesti, Romania, July 3-5, **2009**
7. **C. Buiu**. *An integrated Internet-based package for teaching motion control: Content and testing results*, *17th IFAC World Congress*, July 6-11, Seoul, South Korea, **2008**
8. **C. Buiu**, N. Moanta. *Application of Web services for designing a remote laboratory for motion control of mobile robots*, *Proc. of ED-MEDIA 2008*, pp. 1706-1715, Chesapeake, VA: AACE, World Conference on Educational Multimedia, Hypermedia and Telecommunications, Vienna, June 30 – July 4, **2008**
9. **C. Buiu** et al. *GENESIS. A Framework for Global Engineering of Embedded Systems*, *SEESE Workshop at ICSE 2008*, 30th International Conference on Software Engineering, Leipzig, Germany, May 10-18, **2008**
10. Ana Pavel, C. Vasile, **C. Buiu**. *Cognitive Vision System for an Ecological Mobile Robot*, *Proceedings of SINTES 13, The International Symposium on System Theory, Automation, Robotics, Computers, Informatics, Electronics and Instrumentation*, 18-20 October, Craiova, Romania, pp. 267-272, **2007**
11. **C. Buiu**, F. Cazan, R. Ciurlea. *Developing of a Service Robot to Recognize and Sort Waste*, *Proceedings of the 16th International Conference on Control Systems and Computer Science*, Bucharest, May 22-26, pp. 298-303, **2007**
12. O. Buiu, **C. Buiu**. *A software tool for genetic optimization of multilayer mirrors*, *Preprints of the 6th International Conference on Scientific Computing in Electrical Engineering*, p. 132, Sept 17-22, Sinaia, Romania, **2006**
13. **C. Buiu**, N. Moanta. *Using multiple online robots for teaching cognitive robotics*, *50th Anniversary Summit of Artificial Intelligence*, Monte Verita, July 9-15, Switzerland, **2006**
14. **C. Buiu**, N. Moanta. *KC#: An Internet Mobile Robot Control Application*, *7th IFAC Symposium on Advances in Control Education*, 21– 23 June, Madrid, **2006**
15. **C. Buiu**, I. Dumitrache, A. Dumitrascu. *A Conversational Man-Robot Interface to Assist Robotics Education*, *16th IFAC World Congress*, Prague, 3-8 July, **2005**
16. **C. Buiu**, M. Zainea, M. Popescu. *Evolutionary computing. From Natural Evolution to Intelligent Machines*, *Advanced Technologies in Power Systems: Facts and A.I.*, University "Politehnica" of Bucharest, 26 May - 6 June 2003, Socrates-Erasmus IP 50545-IC-1-2000-1-RO-ERASMUS-IP-1, pp. 405-426, **2003**
17. **C. Buiu**, I. Dumitrache, M. Zainea. *Design and optimization of a fuzzy logic controller for a simulated autonomous robot*, *Proceedings of the 14th International Conference on Control Systems and Computer Science* (I. Dumitrache and C. Buiu, editors), Vol. I, pp. 24-31, **2003**
18. **C. Buiu**. *Genetic algorithms applications*, invited paper, *Advanced Technologies in Power Systems: Facts and A.I.*,

University "Politehnica" of Bucharest, 26 May - 7 June 2002, Socrates-Erasmus IP 50545-IC-1-2000-1-RO-ERASMUS-IP-1, pp. 350-375, **2002**

19. **C. Buiu**. *Hybrid Educational Strategy by using Wireless Communications*, MOST Conference, Technology for Mobile Society, ISBN 83-87091-42-1, Warsaw, pp. 25-28, **2002**
20. **C. Buiu**, I. Dumitrache, F. Mihai. *Complex behaviors of teleoperated robots*, 14th IFAC World Congress, Barcelona, Volume no. 15, Part I, **2002**
21. **C. Buiu**. *A distributed laboratory for automatic control and robotics education*, Proceedings of the IEEE-TTTC AQTR 2002 (THETA 13) International Conference, Vol II, pp. 1-6, May 23-25, Cluj-Napoca, Romania, **2002**
22. **C. Buiu**, Mihaela Albu. *Modelling Complex Behaviors for Autonomous Robots*, Proceedings of the 13th International Conference on Control Systems and Computer Science, CSCS13 Bucharest, pp. 105-108, **2001**
23. **C. Buiu**, I. Dumitrache. *One Actor, Different Scenarios: Intelligent Control of Autonomous Robots*, Proceedings of the Second and Third Intelligent Control Systems Workshop, Bucharest 2000-2001, pp. 93-97, **2001**
24. **C. Buiu**, I. Dumitrache. *Advanced solutions for remote experimentation in automatic control*, Proceedings of the Second and Third Intelligent Control Systems Workshop, Bucharest 2000-2001, pp. 163-166, **2001**
25. **C. Buiu**, Mihaela Albu, I. Dumitrache, D. Gillet. *Remote Automatic Control via Internet*, Proceedings of the 13th International Conference on Control Systems and Computer Science, CSCS13 Bucharest, pp. 214-219, **2001**
26. Mihaela Albu, **C. Buiu**. *Remote experimentation in electrical engineering*, Symposium on Advanced Topics in Electrical Engineering, ATEE 2000, "POLITEHNICA" University of Bucharest, Electrical Engineering Faculty, pp. 1-4, 7-8 Decembrie 2000, București, România, **2000**
27. Mihaela Albu, **C. Buiu**, P. Postolache, R. Napoli. *Laborator virtual dedicat studentilor din domeniul energetic* (Virtual laboratory for power engineering education, in Romanian), Simpozion dedicat a 50 de Ani de Învățământ Energetic în Universitatea Politehnica din București, Vol. I, pp. 7-10, **2000**
28. **C. Buiu**, I. Dumitrache. *Tehnici avansate de conducere a proceselor din centralele termo-electrice* (Advanced control techniques for power plants, in Romanian), Simpozion dedicat a 50 de Ani de Învățământ Energetic în Universitatea Politehnica din București, Vol. II, pp. 233-238, **2000**

V. RESEARCH CONTRACTS (Pn – national, Pi - international).

- Pn1. "*Bioinspired techniques for robotic swarms security*", **Director de proiect C. Buiu**, PCE, UEFISCDI, 2013-2016, 1.150.000 RON
- Pn2. "*Audio-video station for automatic detection of meteors*", **Responsabil UPB C. Buiu**, PCCA, UEFISCDI, 2013-2016, 300.000 RON
- Pn3. „*Development of biologically inspired integrated cognitive architectures*”, **Director de proiect C. Buiu**, PCE, UEFISCDI, 2008-2011, 457.000 RON
- Pn4. "*Development of an autonomous platform that is controlled by using a 3D virtual space generated using stereoscopic vision-3DRoboVis*", **Responsabil UPB C. Buiu**, Parteneriate, UEFISCDI, 2006-2008, 430.000 RON
- Pn5. „*E-learning system for life-long learning in automatic control*”, **Director de proiect C. Buiu**, Grant CNCSIS, 2004-2005
- Pn6. „*Intelligent control systems for a team of autonomous robots*”, **Director de proiect C. Buiu**, Grant CNCSIS, 2002-2003
- Pn7. „*Advanced educational technologies for higher education*”, **Director de proiect C. Buiu**, Grant CNCSIS și Banca Mondială, 2002, 25.000 USD
- Pn8. "*Advanced geno-fuzzy controllers*", **Director de proiect C. Buiu**, Grant CNCSIS, 2000-2001
- Pn9. „*Centre for artificial intelligence in engineering education*”, **Director de proiect C. Buiu**, Grant Ministerul Cercetării, 1997-1999, 300.000.000 ROL
- Pi1. "*Cognitive robotics: from laboratory to media*", **Director de proiect C. Buiu**, euCognition (The European Network for the Advancement of Artificial Cognitive Systems), grant NA 094-1, 4000 EUR
- Pi2. "*AutoTech – Automation Technicians Vocational Training Repository*", **Responsabil UPB C. Buiu**, grant N/04/B/PP 165.011, **European Commission, Leonardo da Vinci Programme**,
- Pi3. "*WebLab Remote Experimentation*", **Director de proiect C. Buiu**, grant companie Quanser Consulting Inc., Canada, 2002-2003, 17.000 USD
- Pi4. „*Advanced educational technologies for higher education*”, **Responsabil UPB C. Buiu**, grant 7RUPJ062223, Swiss National Science Foundation, 2000-2003, 40.000 CHF
- Pi5. "*Implicit coordination in distributed systems*", **Responsabil UPB C. Buiu**, grant 7RUPJ048334, Swiss National Science Foundation, 1996-1998, 40.000 CHF