

## LISTA DE LUCRĂRI 2001-2025 (selecție)

**Profesor dr. ing. OPREA Mihaela**

**(A) Teza de doctorat**

- A1 **Oprea, M.**, *Contribuții la elaborarea unor algoritmi de recunoaștere a formelor cu aplicații la roboți industriali*, Universitatea Petrol-Gaze din Ploiesti, 1996.

**(B) Cărți**

### **B1. Cărți publicate în edituri internaționale de prestigiu**

- B1.1 **Oprea M.**, Mihalache S.F., Cărbureanu, M., Knowledge-Based Intelligent Process Control, chapter in Nakamatsu K., Kuntchev R. (Editors): *New Approaches in Intelligent Control*, **Springer**, Intelligent Systems Reference Library 107, ISBN 978-3-319-32166-0, 207-240, 2016.
- B1.2 Paraschiv N., **Oprea M.**, Carbureanu M, Olteanu M., *Computational Intelligence Techniques for Chemical Process Control*, chapter in Balas V.E., Koprinkova-Hristova P., Jain L.C. (Editors), *Innovations in Intelligent Machines-5: Computational Intelligence in Control Systems Engineering*, Book Series: Studies in Computational Intelligence, **Springer**, Volume: 561, ISBN 978-3-662-43369-0, Engineering ISSN 1860-949X, pages: 191-226, 2014. [http://link.springer.com/chapter/10.1007/978-3-662-43370-6\\_7](http://link.springer.com/chapter/10.1007/978-3-662-43370-6_7)
- B1.3 **Oprea M.**, *Agent-based modeling of an air quality monitoring and analysis system for urban regions*, chapter in: Iliadis L., Maglogiannis I., Papadopoulos H. (Editors), *Artificial Intelligence Applications and Innovations*, IFIP 381, **Springer**, pp. 371-379, 2012, ISBN 978-3-642-33408-5.
- B1.4 **Oprea M.**, Iliadis L., *An Artificial Intelligence-Based Environment Quality Analysis System*, chapter in Iliadis L., Jayne C. (Editors), *Engineering Applications of Neural Networks*, IFIP Advances in Information and Communication Technology, **Springer**, Volume 363, pp. 499-508, 2011, ISBN 978-3-642-23957-1.
- B1.5 **Oprea M.**, *Applications of multi-agent systems*, chapter in Reis, R. (Editor), *Information Technology: Selected Tutorials*, Book Series: International Federation for Information Processing, **Kluwer Academic Publisher**, Vol. 157, ISBN 1-4020-8158-8, pp. 239-270, 2004. [http://link.springer.com/chapter/10.1007/1-4020-8159-6\\_9](http://link.springer.com/chapter/10.1007/1-4020-8159-6_9)

### **B2. Cărți de specialitate publicate în edituri naționale, recunoscute de CNCSIS**

- B2.1. **Oprea M.**, Cărbureanu M., *Programare orientată pe obiecte în limbajul Java – îndrumar de laborator*, Editura UPG Ploiești, **2024**.
- B2.2. **Oprea M.**, *Programare orientată pe obiecte – Exemple în limbajele C++, C# și Java*, Editura MatrixRom București, ISBN 978-606-25-0858-6, 183 pagini, **2023**. <http://www.matrixrom.ro>
- B2.3. **Oprea M.**, *Inteligență artificială – Îndrumar de proiect*, Editura MatrixRom București, ISBN 978-606-25-0765-7, 79 pagini, **2022**. <http://www.matrixrom.ro>
- B2.4. **Oprea M.**, *Programare logică și Programare funcțională – Teorie și Aplicații*, Editura MatrixRom București, ISBN 978-606-25-0550-9, 170 pagini, **2020**. <http://www.matrixrom.ro>
- B2.5. **Oprea M.**, Carbureanu M., *Programare orientată pe obiecte – îndrumar de laborator*, Editura Universității Petrol-Gaze din Ploiești, ISBN 978-973-719-728-3, 161 pagini, 2018.
- B2.6. **Oprea M.**, *Inteligenta artificiala – Elemente teoretice și aplicative*, Editura Universității Petrol-Gaze din Ploiești, ISBN 978-973-719-688-0, 149 pagini, 2017.
- B2.7. **Oprea M.**, *Programare orientata pe obiecte – Limbajul C++*, Editura Universitatii Petrol-Gaze din Ploiesti, ISBN 978-973-719-686-6, 173 pagini, 2017.
- B2.8. **Oprea M.**, Dragomir E.G., Mihalache S.F., Popescu M., *Metode si tehnici de predictie a concentratiei particulelor PM2.5 in mediul urban*, capitolul 11 din cartea: *Metode de evaluare a efectelor poluarii aerului cu particule in suspensie asupra sanatatii copiilor*, Iordache S, Dunea D. (Editori), Editura MatrixRom, Bucuresti, ISBN 978-606-25-0121-1, 42/476 pagini, 2014.
- B2.9. **Oprea M.**, *Recunoasterea formelor – indrumar de laborator*, Editura Universitatii Petrol-Gaze din Ploiesti, ISBN 978-973-719-343-8, 87 pagini, 2010.
- B2.10. **Oprea M.**, *Inteligenta artificiala – indrumar de laborator*, Editura Universitatii Petrol-Gaze din Ploiesti, ISBN 978-973-719-320-9, 107 pagini, 2009.
- B2.11. **Oprea M.**, *Agenti inteligenti – indrumar de laborator*, Editura Universitatii Petrol-Gaze din Ploiesti, ISBN 978-973-719-290-5, 131 pagini, 2009.
- B2.12. **Oprea M.**, Nichita C., Dunea D., *Aplicatii ale inteligentei artificiale in protectia mediului*, Editura Universitatii Petrol-Gaze din Ploiesti, ISBN 978-973-719-236-3, 127 pagini, 2008.
- B2.13. **Oprea M.**, Tanasescu A., *Tehnici de modelare a cunoasterii in sistemele bazate pe cunostinte*, capitolul XX (pag. 223-242) din cartea *Managementul cunoasterii in universitatea moderna*, Bodea C.-N., Andone I.I (Coordonatori), Editura ASE, Bucuresti, ISBN 978-973-594-953-2, 470 pagini, 2007.

- Oprea M.**, Tanasescu A., *Rationament bazat pe cazuri – paradigma si model al cunoasterii umane*, capitolul XXV (pag. 285-292) din cartea *Managementul cunoasterii in universitatea moderna*, Bodea C.-N., Andone I.I (Coordonatori), Editura ASE, Bucuresti, ISBN 978-973-594-953-2, 470 pagini, 2007.
- Oprea M.**, Tudor I., *Rețele de cunoastere*, capitolul XXXIII (pag. 417-432) din cartea *Managementul cunoasterii in universitatea moderna*, Bodea C.-N., Andone I.I (Coordonatori), Editura ASE, Bucuresti, ISBN 978-973-594-953-2, 470 pagini, 2007.
- Oprea M.**, Tudor I., *Rețele de cunoastere pentru cercetare-dezvoltare*, capitolul XXXIV (pag. 433-439) din cartea *Managementul cunoasterii in universitatea moderna*, Bodea C.-N., Andone I.I (Coordonatori), Editura ASE, Bucuresti, ISBN 978-973-594-953-2, 470 pagini, 2007.
- B2.13 **Oprea M.**, Nicoara S., *Inteligență artificială*, Ed. Universității Petrol-Gaze din Ploiești, 2005, ISBN 973-719-073-4, 191 pagini.
- B2.14 Oprea M., *Programare orientata pe obiecte*, manual pentru IDD-IFR, Editura Universitatii din Ploiesti, 2004, ISBN 973-7965-69-8, 185 pagini.
- B2.15 Oprea M., *Programare orientata pe obiecte – Exemple in limbajul C++*, Ed. MATRIX ROM, Bucuresti, 2003, ISBN 973-685-527-9, 201 pagini.
- B2.16 Oprea M., *Sisteme bazate pe cunoștințe – ghid teoretic si practic*, Ed. MATRIX ROM, București, 2002, ISBN 973-685-484-1, 127 pagini.

### (C) Articole (selecție)

#### C.1 Articole publicate în reviste cotate ISI

- C1.1. **Oprea M.**, A general framework and guidelines for benchmarking computational intelligence algorithms applied to forecasting problems derived from an application domain-oriented survey, *Applied Soft Computing Journal*, Vol. 89, 106103, April **2020**, **FI: 4.873**. <https://doi.org/10.1016/j.asoc.2020.106103> **Q1**
- C1.2. **Oprea M.**, A knowledge modelling framework for intelligent environmental decision support systems and its application to some environmental problems, *Environmental Modelling & Software*, vol. 110, issue 12 (no 12), pp. 72-94, December **2018**, ISSN: 1364-8152, Special issue on Environmental Data Science Applications to Air quality and Water cycle, Indicatori scientometrici: **SRI = 2.399**, **FI = 4,177**, <https://doi.org/10.1016/j.envsoft.2018.09.001> (**Q1**).
- C1.3. **Oprea M.**, ABVE-Frame: An agent-based virtual enterprise development framework, *AI Communications*, Vol. 30, Nr. 2, Pag: 117-140, 2017, **FI: 0,461**.
- C1.4. **Oprea M.**, Dunea D., Liu H.-Y., Development of a knowledge based system for analyzing particulate matter air pollution effects on human health, *Environmental Engineering and Management Journal*, Vol. 16, Nr. 3, Pag: 669-676, 2017, **FI: 1,334**.
- C1.5. **Oprea M.**, Mihalache S., Popescu M., Computational intelligence-based PM2.5 air pollution forecasting, *International Journal of Computers Communications & Control (IJCCC)*, Vol. 12, Nr. 3, Pag: 365-380, 2017, **FI: 1,29**.
- C1.6. **Oprea M.**, Olteanu M., Ianache R., An urban air pollution early warning system based on PM2.5 prediction applied in Ploiesti city, *Revista de Chimie*, Vol. 68, Nr. 4, Pag: 858-863, 2017, **FI: 1,412**.
- C1.7. Popescu M., Mihalache S., **Oprea M.**, Air pollutants and meteorological parameters influence on PM2.5 forecasting and performance assessment of the developed artificial intelligence-based forecasting model, *Revista de Chimie*, Vol. 68, Nr. 4, Pag: 864-868, 2017, **FI: 1,412**.
- C1.8. **Oprea M.**, Dragomir E.G., Popescu M., Mihalache S.F., Particulate Matter Air Pollutants Forecasting Using Inductive Learning Approach, *Revista de Chimie*, Vol. 67, Nr. 10, Pag: 2075-2081, 2016, **FI: 1,412**.
- C1.9. **Oprea M.**, Buruiana V., Matei A., A Microcontroller-based Intelligent System for Real-time Flood Alerting, *International Journal of Computers, Communications & Control (IJCCC)*, Vol. 5, No. 5, pp. 205-213, 2010. (factor impact 0,694)
- C1.10. **Oprea M.**, Dunea D., SBC-Mediu: A Multi-expert System for Environmental Diagnosis, *Environmental Engineering and Management Journal (EEMJ)*, Vol. 9, No. 2, pp. 205-213, 2010. (factor impact 1,258)
- C1.11. Oprea M., MAS\_UP-UCT: A multi-agent system for university course timetable scheduling, *International Journal of Computers, Communications & Control (IJCCC)*, Vol. 2, No. 1, pp. 94-102, 2007.
- C1.12. Oprea M., Ontology Mapping in Open Multi-Agent Systems, *Studies in Informatics and Control (SIC)*, Vol. 16, No. 2, 2007. (factor impact 0,605) [http://sic.ici.ro/sic2007\\_2/art05.html](http://sic.ici.ro/sic2007_2/art05.html)
- C1.13. Oprea M., A case study of knowledge modelling in an air pollution control decision support system, *AI Communications*, Vol. 18, No. 4, pp. 293-303, 2005.
- C1.14. **Oprea M.**, Sanchez-Marre M., Wotawa F., Binding environmental sciences and artificial intelligence, *AI Communications*, Vol. 18, No.4, pp. 243-245, 2005.
- C1.15. Oprea M., Coordination in an Agent-Based Virtual Enterprise, *Studies in Informatics and Control (SIC)*, Vol. 12, No. 3, 2003. [http://sic.ici.ro/sic2003\\_3/art5.pdf](http://sic.ici.ro/sic2003_3/art5.pdf) (factor impact 0,605)
- C1.16. Oprea M., An Adaptive Negotiation Model for Agent-Based Electronic Commerce, *Studies in Informatics and Control (SIC)*, Vol. 11, No. 3, pp. 271-279, 2002. [http://www.sic.ici.ro/sic2002\\_3/art5.pdf](http://www.sic.ici.ro/sic2002_3/art5.pdf)

**C.2 Articole în reviste indexate în alte baze de date internaționale de referință pentru domeniu, care fac un proces de selecție a revistelor pe baza unor criterii de performanță**

- C2.1. Marica E., **Oprea M.**, An Arduino-based intelligent system for drinking water quality analysis, *Journal of Electrical Engineering, Electronics, Control and Computer Science – JEEECCS*, Volume 11, 2025.
- C2.2. Stan C., **Oprea M.**, Stan A.C., Case Study Of Predictive Maintenance Using Data Analysis For A Flexible Manufacturing Line, *Journal of Electrical Engineering, Electronics, Control and Computer Science – JEEECCS*, Volume 9, Issue 31, pages 43-48, 2023.
- C2.3. S. T. Groza, **M. Oprea**, Development of a faster shortest path search algorithm based on A\* strategy integrated in an e-learning virtual environment, *Journal of Electrical Engineering, Electronics, Control and Computer Science*, vol. 5, nr. 16, 2019, pag. 17-22.
- C2.4. B. G. Bucur, **M. Oprea**, Development of a prototype remote controlled multifunctional mobile robot for applications in hazardous environments, *Journal of Electrical Engineering, Electronics, Control and Computer Science*, vol. 5, nr. 16, 2019, pag. 11-16.
- C2.5. Oprea M., ABVE-Construct: An agent-based virtual enterprise model for civil engineering, *Scalable Computing: Practice and Experience (SCPE)*, Vol. 15, No. 3, pp. 231-249, 2014. DOI 10.12694/scpe.v15i3.987 <http://www.scpe.org/index.php/scpe/article/view/1018>
- C2.6. Dragomir E.G., **Oprea M.**, *Forecasting Knowledge Extraction by Computational Intelligence Techniques*, Buletinul Institutului Politehnic din Iasi, Automatic Control and Computer Science Section, Tome LX (LXIV), Fasc. 3, pp. 73-84, 2014.
- C2.7. Oprea M., AQ-MAS: A multiagent system for air quality monitoring in urban regions, *Engineering Intelligent Systems*, Vol. 21, No. 2/3, 2013.
- C2.8. Oprea M., A General Framework for Educational Ontologies Development, *International Journal of Computer Science Research and Application (IJCSRA)*, Vol. 3, No. 2, pp. 12-22, 2013.
- C2.9. Oprea M., INTELEnvQ-Air: An intelligent system for air quality analysis in urban regions, *International Journal of Artificial Intelligence (IJAI)*, Vol. 9, No. A12, 2012.
- C2.10. Oprea M., Carbureanu M., Dragomir E., AirQMAS: A Collaborative Multi-agent System for Air Quality Analysis, *Annals of the University of Craiova, Automation, Computers, Electronics and Mechatronics series*, Vol. 9(37), No. 1, 2012.
- C2.11. Oprea M., An agent-based knowledge management system for university research activity monitoring, *Informatica Economica*, Vol. 16, No. 3, pp. 136-147, 2012.
- C2.12. Oprea M., A university knowledge management tool for academic research evaluation, *Informatica Economica*, Vol. 15, No. 3, pp. 58-71, 2011.
- C2.13. Oprea M., Matei A., The neural network-based forecasting in environmental systems, *WSEAS Transactions on Systems and Control*, Vol. 5, No. 12, pp. 893-901, 2010.
- C2.14. Dunea D., Oprea M., Fuzzy-APA: Employing Fuzzy and Neural Network Techniques in Data Analysis of Industrial Wastewaters Monitoring, *WSEAS Transactions on Environment and Development*, Vol. 6, No. 8, pp. 581-590, 2010.
- C2.15. Oprea M., Modelling a Virtual Enterprise as a Multi-Agent System, *International Journal of Modelling & Simulation*, ACTA Press, Vol. 28, No. 4, 2008
- C2.16. Oprea M., Modelling an Environmental Protection System as a Knowledge-Based System, *International Journal of Modelling & Simulation*, ACTA Press, Vol. 24, No. 1, 2004.

**C.3 Articole publicate în reviste naționale de categoriile B+ și B, în cotarea CNCSIS**

- C3.1. Dunea D., Iordache S., **Oprea M.**, Savu T., Pohoata A., Lungu E., A relational database structure linking air pollution levels with children's respiratory illnesses, *Bulletin USAMV series Agriculture*, 11, 2014, vol. 71, no 2, 205-213.
- C3.2. Oprea M., On the Use of Data Mining Techniques in Knowledge Based Systems, *Economy Informatics*, Vol. VI, No. 1, pp. 21-24, 2006.
- C3.3. Oprea M., COM\_ELECTRON: An Agent-Based Electronic Commerce System, *Economy Informatics*, Vol. V, No. 1, pp. 62-66, 2005.
- C3.4. Oprea M., Negotiation Techniques Applied in Multi-Agent Systems, *Annals in Mathematics and Informatics of Timisoara University*, Vol. XLI, fasc. 1, 2003.
- C3.5. Oprea M., The agent-based virtual enterprise, *Economy Informatics*, Vol. III, No. 1, pp. 21-25, 2003.
- C3.6. Oprea M., The Architecture of a Shopping Agent, *Economy Informatics*, Vol. II, No. 1, pp. 63-68, 2002.
- C3.7. Oprea M., Knowledge Acquisition by Inductive Learning, *Economy Informatics*, Vol. I, No. 1, pp. 70-74, 2001.

**C.4 Articole publicate în reviste de specialitate recunoscute, altele decât B și B+,**

- C4.1. Nica (Stan) C., Oprea M., Stan A. C., PREDICTIVE MAINTENANCE OF A FLEXIBLE PRODUCTION LINE IMPLEMENTED IN MATLAB, *Romanian Journal of Petroleum & Gas Technology*, VOL. IV (LXXV) • No. 2/2023. DOI: 10.51865/JPGT.2023.xy.xy
- C4.2. Oprea M., Metodologii pentru dezvoltarea sistemelor bazate pe agenți inteligenți, *Revista Română de Informatică și Automatică (RRIA)*, Vol. 20, No. 1, 2010.
- C4.3. Oprea M., Aldea N., Sistem robot educational de navigare, *Revista Română de Informatică și Automatică (RRIA)*, Vol. 15, No. 3, 2005.
- C4.4. Oprea M., Schiopu D., Knowledge Representation on a Semantic Web Server, *Buletinul Universitatii Petrol-Gaze din Ploiesti, seria Matematica, Informatica, Fizica*, Vol. LVII, No. 2, 2005.
- C4.5. Oprea M., Consideratii privind dezvoltarea ontologiei unui sistem inteligent, *Revista Română de Informatică și Automatică (RRIA)*, Vol. 14, No. 3, 2004.
- C4.6. Oprea M., Strategii de adaptare in sisteme multi-agent, *Revista Română de Informatică și Automatică (RRIA)*, Vol. 13, No. 3, 2003.
- C4.7. Oprea M., Arhitectura unui sistem de recunoastere a caracterelor scrise de mana, *Revista Română de Informatică și Automatică (RRIA)*, Vol. 13, No. 1, 2003.
- C4.8. Oprea M., Pana L., Tudor I., Applications of a Handwritten Character Recognition System, *Buletinul Universitatii Petrol-Gaze din Ploiesti*, Vol. LV, No. 2, 2003.
- C4.9. Oprea M., Pana L., Tudor I., CharReco : A Handwritten Character Recognition System, *Buletinul Universitatii Petrol-Gaze din Ploiesti*, Vol. LV, No. 1, 2003.
- C4.10. Oprea M., Modelarea incertitudinii intr-un sistem expert, *Revista Română de Informatică și Automatică (RRIA)*, Vol. 12, No. 3, 2002.
- C4.11. Oprea M., Recunoasterea caracterelor scrise de mana, *Revista Română de Informatică și Automatică (RRIA)*, Vol. 12, No. 4, 2002.
- C4.12. Oprea M., Monitoring Expert System for Optimal Control, *Buletinul Universitatii Petrol-Gaze din Ploiesti*, Vol. LIV, No. 2, 2002.
- C4.13. Andrei M., **Oprea M.**, Sistem expert pentru autoacordarea optima a buclilor de reglare automate, *Revista Română de Informatică și Automatică (RRIA)*, Vol. 12, No. 2, 2002.
- C4.14. **Oprea M.**, Nicoara S., Ionita L., Lambrescu I., Pana L., Tudor I., Sistem de recunoastere a caracterelor scrise de mana, *Buletinul Universitatii Petrol-Gaze din Ploiesti*, Vol. LIV, No. 2, 2002.
- C4.15. Oprea M., Inductive Learning Applied to Knowledge Acquisition for an Expert System, *Buletinul Universitatii Petrol-Gaze din Ploiesti*, Vol. LIV, No. 2, 2002.
- C4.16. Oprea M., Generarea automata a regulilor prin invatare inductiva - studiu comparativ, *Revista Română de Informatică și Automatică (RRIA)*, Vol. 11, No. 3, 2001.
- C4.17. Oprea M., Invatarea inductiva a regulilor, *Informatica Economica*, Vol. V, Nr. 1(17), 2001.
- C4.18. Oprea M., An Artificial Neural Network Based Stereo Vision System, *Buletinul Universitatii Petrol-Gaze din Ploiesti*, Vol. LIII, No. 1, 2001.
- C4.19. Oprea M., Relational Learning System, *Studii si Cercetari Stiintifice seria Matematica, Universitatea din Bacau*, ISSN:1224-2519, Vol. 21, No. 1, 2001. <http://pubs.ub.ro/scssm/>

**(D) Lucrări/studii publicate (prezentate) la manifestări științifice internaționale sau naționale cu comitet de program – cu volum indexat BD WOS – ISI Proceedings, Scopus, ACM etc.**

- D.1. **Oprea M.**, Knowledge Modelling for Teaching and Learning Artificial Intelligence by Using Educational Robots, *Proceedings of ICVL 2024*, 397-406. <https://doi.org/10.58503/icvl-v19y202433>
- D.2. Stan C., **Oprea M.**, On the development of educational resources for smart industrial manufacturing teaching and learning, *Proceedings of ICVL 2023*, Bucharest, October 2023, pag. 57-66. <https://doi.org/10.58503/icvl-v18y202304>. WOS
- D.3. Stan C., **Oprea M.**, Virtual learning simulator of a flexible manufacturing line using Petri NET toolbox, *Proc. of ICVL 2022*, vol. 17, pp. 101 – 108, 2022. <https://doi.org/10.58503/icvl-v17y202208>
- D.4. Stan A., **Oprea M.**, Applied learning of artificial intelligence techniques by using the Gazebo simulator and Turtlebot3 multi-robot system, *Proc. of ICVL 2022*, vol. 17, pp. 117-126, 2022. <https://doi.org/10.58503/icvl-v17y202210>
- D.5. Nica C., **Oprea M.**, Stan A. C., On the development of a mobile TurtleBot3 Burger multi-robot system for manufacturing environment monitorization. In A. Noor et al. (eds.) *Proc. Of Emerging Trends and Technologies on Intelligent Systems (ETTIS), Advances in Intelligent Systems and Computing*, 1371, pp. 323-336, 2022, Springer. <https://doi.org/10.1007/978-981-16-3097-2-27>.
- D.6. **Oprea M.**, Artificial intelligence based approaches for higher education applications, *Proc. of ICVL 2021*, p. 15-22.
- D.7. **Oprea M.**, Burlan B., Dinu I. G., Case studies of some educational applications in Computer Science Domain, *Proc. of ICVL 2021*, p. 177-184.

- D.8. **Oprea M.**, An Educational Ontology for Formal Languages and Compilers, The 15th International Conference on Virtual Learning ICVL 2020, pag. 54-60, ISSN 1844 - 8933.
- D.9. **Oprea M.**, A Vartan, P. Vatamanu, Some Educational Applications of Artificial Intelligence to Real World Problem Solving, The 15th International Conference on Virtual Learning ICVL 2020, pag. 61-66, ISSN 1844 - 8933.
- D.10. Stan A. C., **Oprea M.**, A. Moise, C. Popescu, Environmental SCADA system using mobile robots, International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM, 2020, 2020-August (4.1), pp. 407–414. BDI: SCOPUS.
- D.11. Stan A. C., **Oprea M.**, A Case Study of Multi-Robot Systems Coordination using PSO simulated in Webots, *The 11th Int. Conf. Electronics, Computers and Artificial Intelligence*, 27 June - 29 June **2019**, Pitești, Romania. IEEE Xplore, DOI:10.1109/ECAI46879.2019.9042144
- D.12. **Oprea M.**, Onto-DeclarProg: An educational ontology for declarative programming, *Proceedings of the 14th ICVL 2019*, pag. 37-43, Bucuresti, Oct 25-26, **2019**, ISSN 1844-8933 – ISI Proceedings. <http://www.icvl.eu>
- D.13. **Oprea M.**, On the development of a student evaluation model, *Proceedings of the 14th ICVL 2019*, pag. 44-48, Bucuresti, Oct 25-26, **2019**, ISSN 1844-8933 – ISI Proceedings. FI: **0.25** <http://www.icvl.eu>
- D.14. **Oprea M.**, A. Ilă, Ș. Neagu, C. Zaman, On the development of educational applications of artificial intelligence, *Proceedings of the 14th ICVL 2019*, pag. 49-55, Bucuresti, Oct 25-26, **2019**, ISSN 1844-8933 – ISI Proceedings. FI: **0.25** <http://www.icvl.eu>
- D.15. **Oprea M.**, An OWL prototype educational ontology for functional programming, *Proceedings of ICVL 2018*, Alba Iulia, Oct 2018, p. 51-56.
- D.16. **Oprea M.**, Groza S. T., Bucur G. B., A model for teaching university courses by integrating modern technologies and its application to the artificial intelligence course, *Proceedings of ICVL 2018*, Alba Iulia, Oct 2018, p. 57-62.
- D.17. Oprea M., Agent-based modelling of multi-robot systems, *The 8th Int. Conf. on Advanced Concepts in Mechanical Engineering*, IOP Publishing, IOP Conf. Series: Materials Science and Engineering, 444 (2018), 052026, doi: 10.1088/1757-899X/444/5/052026, Iasi, Romania.
- D.18. **Oprea M.**, M. Popescu, S. Mihalache, E. Dragomir, Data mining and ANFIS application to particulate matter air pollutant prediction. A comparative study, *Proceedings of the Int. Conf. ICAART 2017*, vol. 2, 551-558.
- D.19. **Oprea M.**, Popescu M., Dragomir E., Mihalache S., Models of particulate matter concentration forecasting based on artificial neural networks, *Proceedings of the 9th IEEE Int. Conf. IDAACS*, 2017.
- D.20. **Oprea M.**, Liu, H.-Y., *A knowledge based approach for PM2.5 air pollution effects analysis*, Proceedings of the International Symposium on INnovations in Intelligent SysTems and Applications (INISTA 2016), Sinaia, Romania, Aug 2-5, 2016.
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#### **(F) Proiecte de cercetare dezvoltare inovare pe bază de grant/contract**

##### **F.1. Proiecte de cercetare-dezvoltare-inovare obținute prin competiție pe bază de grant**

##### **F.1.1 Proiecte de cercetare-dezvoltare-inovare obținute prin competiție pe bază de grant, în calitate de director**

- F.1.1.1. Proiect european de cercetare: ROKIDAIR - *Towards a better protection of infants against air pollution threats in the urban areas of Romania*, contract de cercetare nr. 20SEE/30.06.2014, Beneficiar: MEN-ANCS, 2014-2017; Coordonator: Universitatea Valahia din Targoviste, Parteneri: NILU, Norvegia; UPG Ploiesti, Universitatea Politehnica din Bucuresti, responsabil UPG Ploiesti.
- F.1.1.2. Proiect de cercetare postdoctorala: CEEEX nr. 1533/2006, *Studiul aplicarii inteligentei artificiale in protectia mediului*, MEDC-UEFISCSU, 2006-2008, 3 cercetatori postdoctoranzi.
- F.1.1.3. Proiect de cercetare CEEEX (CNMP-INFOSOC) nr. 645/2006, *Strategii, sisteme, metode și instrumente pentru managementul cunoașterii în universități* (1.08.2006-30.06.2007), Coordonator: ASE Bucuresti, responsabil UPG Ploiesti.
- F.1.1.4. Proiect european de cercetare FP6 - IST 002006, AgentLink III– *The European Coordination Action for Agent-Based Computing*, responsabil nod retea AgentLink pentru UPG Ploiesti, 2005;

- F.1.1.5. Proiect european de cercetare FP5 - EVP3-2002-00506, *Multi-Pollutant Multi-Effect Assessment of Air Pollution Control Strategies - an integrated approach*, UE, Coordonator: University of Stuttgart, Germania; 2002-2004, responsabil UPG Ploiesti.
- F.1.1.6. Grant de cercetare CNCSIS AT429/2003, *Sistem expert prototip pentru diagnoza poluării atmosferice*, 2003;
- F.1.1.7. Grant de cercetare CNCSIS AT18/2002, *Dezvoltarea unui sistem bazat pe cunoștințe pentru acordarea optima a buclelor de reglare*, 2002.
- F.1.1.8. Proiect de cercetare INFOSOC nr. 58/8.08.2002, *Interfață inteligentă pentru recunoașterea caracterelor scrise de mână*, 2002-2003.
- F.1.1.9. Grant de cercetare CNCSIS AT221/2001, *Dezvoltarea unui sistem bazat pe cunoștințe pentru acordarea optimă a buclelor de reglare*, 2001.

**F.1.2 Proiecte de cercetare-dezvoltare-inovare obținute prin competiție pe bază de grant, în calitate de membru în colectiv**

- F.1.2.1. Proiect de cercetare PN-II, contract nr. 71-006/18.09.2007, *INTELCHIM - Modelare și conducere automată utilizând instrumente ale inteligenței artificiale pentru aplicații în chimie și inginerie de proces*, CNMP, Coordonator: Universitatea Tehnică Gh. Asachi din Iași, 2010.
- F.1.2.2. Proiect de cercetare PN II 143/2007, *Dezvoltarea unui laborator pentru aplicarea tehnologiilor CIM*, ANCS, 2007-2009.
- F.1.2.3. Proiect de cercetare CEEX (CNMP-INFOSOC) nr. 645/2006, *Strategii, sisteme, metode și instrumente pentru managementul cunoașterii în universități* (1.07.2007-1.08.2008), Coordonator: ASE Bucuresti.
- F.1.2.4. Grant CNFIS 39691/1999-2002, *Model de software integrat de tip multimedia pentru invatare interactiva generat la Universitatea Petrol-Gaze din Ploiesti*, 1999-2002;
- F.1.2.5. Proiect MOSS, contract nr. C020/1994, cod UNESCO 1203/18, *Cercetari si experimentari privind functionarea sistemelor deschis*, 1994.
- F.1.2.6. Contract de cercetare nr. 3018/1994, Ministerul Invatamantului, *Sistem informatic pentru managementul Universitatii Ploiesti*, 1992-1994.