

## LISTĂ DE LUCRĂRI

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Lista de lucrări este structurată astfel:

- A. lista celor maximum 10 lucrări considerate de candidat a fi cele mai relevante pentru realizările profesionale proprii
- B. teza de doctorat
- C. cărți și capitole în cărți
- D. articole/studii în extenso, publicate în reviste din fluxul științific internațional principal
- E. publicații în extenso, apărute în lucrări ale principalelor conferințe internaționale de specialitate
- F. alte lucrări și contribuții științifice

**A. Lista celor maximum 10 lucrări considerate de candidat a fi cele mai relevante pentru realizările profesionale proprii**

**A[1]. Cărbureanu M.,** *The Development of a Neuro-Fuzzy Expert System for Wastewater pH Control*, Journal of Control Engineering and Applied Informatics, 2014, Vol. 16, No. 4, pp. 30-41, ISSN 1454-8658, **SCOR RELATIV DE INFLUENȚĂ: 0.129, ISI IMPACT FACTOR: 0,537.**

**A[2]. Cărbureanu, M.,** Gheorghe, C., *pH Variation in the Presence of the Coagulants used in Oil-well Industry Wastewater Treatment*, Revista de chimie, 2014, Vol. 65, No. 12, pp. 1498-1501, ISSN 0034-7752, **SCOR RELATIV DE INFLUENȚĂ: 0.183, ISI IMPACT FACTOR: 0,810.**

**A[3]. Cărbureanu, M.,** *Sistem expert neuro-fuzzy pentru controlul proceselor de epurare a apelor uzate, teză de doctorat*, Universitatea Petrol-Gaze din Ploiești, 2014.

**A[4]. Cărbureanu, M.,** *Introducere în cibernetică. Îndrumar de laborator*, Editura Universității Petrol-Gaze din Ploiești, 2015, ISBN 978-973-719-632-3, 92 pag.

**A[5]. Cărbureanu, M.,** *A System with Fuzzy Logic for Analysing the Emissary Pollution Level of a Wastewater Treatment Plant*, Proceedings CSCS-18- 18th International Conference on Control Systems and Computer Science, 2011, Vol. 1, pag. 413-420, Politehnica Press Publishing House, ISSN: 2066-4451.

**A[6]. Cărbureanu, M.,** Oprea, M., *Applying Computational Intelligence to Wastewater Treatment Performance Evaluation in the Case of Refineries*, ICPS'13, Convergence of Information Technologies and Control Methods with Power Systems, 2013, Preprints ICPS'13 , pp. 103-108, International Federation of Automatic Control-IFAC, **www.IFAC-**

**PapersOnLine.net** website, Digital Object Identifier (DOI) 10.3182/20130522-3-RO-4035.00002, ISBN 978-973-713-306-9.

**A[7].** Balaş, V., Hristova, P., Jain, L., co-autori Paraschiv, N., Oprea, M., **Cărbureanu, M.,** Olteanu, M. - *Computational Intelligence Techniques for Chemical Process Control* (Chaper 7), capitol în volumul *Innovations in Intelligent Machines-5. Computational Intelligence in Control Systems Engineering*, Vol. 561, pp. 191-226, Editura Springer-Verlag, Berlin, Germania, ISSN 1860-949X, ISBN 978-3-662-43369-0, DOI 10.1007/978-3-662-43370-6, 2014, **ISI WEB OF KNOWLEDGE.**

**A[8].** Oprea, M., Dragomir, E., **Cărbureanu, M.,** *On the Use of Collaborative Intelligence in an Agent-based Environmental Monitoring and Analysis System*, The 15th International Conference on System Theory, Control and Computing, ICSTCC 2011, IEEE Control Systems Society, Romanian Academy, SRAIT, ASTR, **IEEEExplore database**, <http://www.ace.tuiasi.ro/icstcc2011/index.html>, pp. 421-426, 2011, ISBN 978-1-4577-1173-2.

**A[9]. Cărbureanu, M.,** *The Efficiency Level Analysis for the Wastewater Mechanical Treatment Process using Data Mining and Fuzzy Logic*, Petroleum-Gas University of Ploiesti Bulletin, Mathematics-Informatics-Physics Series, 2009, Vol. LXI, Nr. 2, pp.59-66, ISSN:1224-4899, **(revistă BDI).**

**A[10]. Cărbureanu, M.,** *Expert System for Assessing the Effluent's Quality of a Wastewater Treatment Plant*, Petroleum-Gas University of Ploiesti Bulletin, Mathematics-Informatics-Physics Series, 2010, Vol. LXII, No. 2, pp. 36-45, ISSN:1224-4899, **(revistă BDI).**

## **B. Teza de doctorat**

**B[1].** *Sistem expert neuro-fuzzy pentru controlul proceselor de epurare a apelor uzate*, Universitatea Petrol-Gaze din Ploieşti, 2014, conducător științific Prof. Dr. ing. Mihaela Oprea.

## **C. Cărți și capitole în cărți**

**C[1].** Balaş, V., Hristova, P., Jain, L., co-autori Paraschiv, N., Oprea, M., **Cărbureanu, M.,** Olteanu, M. - *Computational Intelligence Techniques for Chemical Process Control* (Chaper 7), capitol în volumul *Innovations in Intelligent Machines-5. Computational Intelligence in Control Systems Engineering*, Vol. 561, pp. 191-226, Editura Springer-Verlag, Berlin, Germania, ISSN 1860-949X, ISBN 978-3-662-43369-0, DOI 10.1007/978-3-662-43370-6, 2014, **ISI WEB OF KNOWLEDGE.**

**C[2]. Cărbureanu, M.,** *Introducere în ciberetică. Îndrumar de laborator*, Editura Universității Petrol-Gaze din Ploiești, ISBN 978-973-719-632-3, 92 pag, 2015.

**C[3].** Constanta-Nicoleta Bodea, Ioan I.Andone (coordonatori), co-autori I. Tudor, **M. Cărbureanu** – *Tehnici de data mining în managementul cunoașterii într-o universitate* (Capitolul XXVI ), capitol în volumul *Managementul cunoașterii în universitatea modernă*, pp. 293-319, Editura ASE, București, ISBN 978-973-594-953-2, 2007.

#### **D. Articole/studii în extenso, publicate în reviste din fluxul științific internațional principal**

**D[1]. Cărbureanu M.,** *The Development of a Neuro-Fuzzy Expert System for Wastewater pH Control*, Journal of Control Engineering and Applied Informatics, 2014, Vol. 16, No. 4, pp. 30-41, ISSN 1454-8658, **SCOR RELATIV DE INFLUENȚĂ: 0.129, ISI IMPACT FACTOR: 0,537.**

**D[2]. Cărbureanu, M.,** Gheorghe, C., *pH Variation in the Presence of the Coagulants used in Oil-well Industry Wastewater Treatment*, Revista de chimie, 2014, Vol. 65, No. 12, pp. 1498-1501, ISSN 0034-7752, **SCOR RELATIV DE INFLUENȚĂ: 0.179, ISI IMPACT FACTOR: 0,810.**

#### **E. Publicații în extenso, apărute în lucrări ale principalelor conferințe internaționale de specialitate**

**E[1]. Oprea,M., Dragomir,E., Cărbureanu, M.,** *On the Use of Collaborative Intelligence in an Agent-based Environmental Monitoring and Analysis System*, The 15th International Conference on System Theory, Control and Computing, ICSTCC 2011, IEEE Control Systems Society, Romanian Academy, SRAIT, ASTR, **IEEEXplore database**, <http://www.ace.tuiasi.ro/icstcc2011/index.html>, pp. 421-426, 2011, ISBN 978-1-4577-1173-2.

**E[2]. Cărbureanu, M.,** Oprea, M., *Applying Computational Intelligence to Wastewater Treatment Performance Evaluation in the Case of Refineries*, ICPS'13, Convergence of Information Technologies and Control Methods with Power Systems, 2013, Preprints ICPS'13 , pp. 103-108, International Federation of Automatic Control-IFAC, **www.IFAC-PapersOnLine.net** website, Digital Object Identifier (DOI) 10.3182/20130522-3-RO-4035.00002, ISBN 978-973-713-306-9.

**E[3].** Marinoiu, C., **Cărbureanu M.,** Oprea, M, *A Case Study of Using Statistical Software Instruments for Higher Education Quality Analysis*, The 6th International Seminar on Quality Management in Higher Education, CETEX, QMHE 2010 proceedings, 2010, Vol. 2, pp. 139-142, UNIV. TECH. GHEORGHE ASACHI IAȘI, ISBN:978-973-662-568-8, **ISI WEB OF KNOWLEDGE.**

**E[4].** Tudor, I., **Cărbureanu M.**, *Timetable planning using intelligent agents*, Proceedings of the 3<sup>rd</sup> International Conference on Virtual Learning, 2008, ICVL 2008, october 31- november 2, pp. 335-342, Bucharest University Press, ISSN: 1844-8933, **ISI Proceedings**.

**E[5].** Oprea, M., **Cărbureanu M.**, *An Expert System for University Research Quality Assessment*, The 6th International Seminar on Quality Management in Higher Education, CETEX, QMHE 2010 proceedings, 2010, Vol. 2, pp. 195-198, UNIV. TECH. GHEORGHE ASACHI IAȘI, <http://www.cetex.tuiasi.ro/qmhe2010/index.php>, <http://www.isiwebofknowledge.com/>, ISBN:978-973-662-568-8, **ISI WEB OF KNOWLEDGE**.

**E[6].** Oprea, M., **Cărbureanu M.**, *An Expert System for University Research Quality Assessment*, The 6th International Seminar on Quality Management in Higher Education, CETEX, QMHE 2010 proceedings, 2010, Vol. 2, pp. 195-198, UNIV. TECH. GHEORGHE ASACHI IAȘI, ISBN:978-973-662-568-8, <http://www.cetex.tuiasi.ro/qmhe2010/index.php>, <http://www.isiwebofknowledge.com/>, **ISI WEB OF KNOWLEDGE**.

**E[7].** **Cărbureanu M.**, *Digital Library “An Educational Process Tool”*, The 15<sup>th</sup> International Conference The Knowledge-Based Organization, 2009, Vol. 4, pp. 114-118, Editura Academiei Fortelor Terestre Nicolae-Balcescu, **ISI CPCI**, indexat ISI, ISSN: 1843-6722.

**E[8].** Tudor, I., **Cărbureanu M.**, *Timetable planning using intelligent agents*, Proceedings of the 3<sup>rd</sup> International Conference on Virtual Learning, 2008, ICVL 2008, october 31- november 2, **ISI Proceedings**, pp. 335-342, Bucharest University Press, ISSN: 1844-8933.

**E[9].** **Cărbureanu, M.**, *A System for Monitoring the Effluent’s Quality of an Industrial Wastewater Treatment Plant*, Proceedings of the 5<sup>th</sup> International Conference on Manufacturing Science and Education -MSE 2011 -Creative Thinking in Engineering and Academic Education, Editura Universității Lucian Blaga din Sibiu, 2011, Vol.I, pag.409-412, ISSN 1843-2522.

**E[10].** **Cărbureanu, M.**, *Simulators used for Treatment Processes Modelling*, Proceedings of the 5th International Conference on Manufacturing Science and Education - MSE 2011 - Creative Thinking in Engineering and Academic Education, Editura Universității Lucian Blaga din Sibiu, 2011, Vol.I, pag.413-416, ISSN 1843-2522.

**E[11].** **Cărbureanu, M.**, *The Modeling of a System with Fuzzy Logic for Air Pollution Level Control*, Proceedings of the 9th Balkan Conference on Operational Research BALCOR, 2009, pag.1-6, publisher EUROGEMA EXIM SRL, ISBN 973-86979-9-9.

**E[12].** **Cărbureanu, M.**, *Air pollutants dependence analysis for environmental quality evaluation*, Proceedings of the 4<sup>th</sup> International Conference on Manufacturing science and Education- MSE 2009, 2009, Vol. II, pag.211-214, Editura Universității „Lucian Blaga” din Sibiu, ISSN 1843-2522.

**E[13]. Cărbureanu, M., Tudor, I.,** *An Overview Of Data Mining Techniques To Improve The Quality Of Educational Process*, The 12th International Conference „The Knowledge Based Organization”, 2007, pag.188-196, Land Forces Academy Publishing House, ISBN 978-973-7809-71-1.

**E[14]. Cărbureanu, M., Tudor, I.,** *The management of research activities in the academic environment*, The 13th International Conference Knowledge Based Organisation, Land Forces Academy Publishing House, 2007, pag.137-143, ISSN 1843-6722.

**E[15]. Oprea, M., Tudor, I., Cărbureanu, M.,** *Prediction of student professional evolution with data mining techniques*, Proceeding of the 8th International Conference on Informatics in Economy, ASE Bucuresti, 2007, pag. 572-577, ASE Publishing House, ISBN 978-973-594-921-1.

**E[16]. Cărbureanu, M., Petre, E.,** *The simulation of an Educational Platform*, The 14th International Scientific Conference Knowledge-Based Organization, 2008, Vol. XX, Nr. XX, pag. 118-125, „Nicolae Bălcescu” Land Forces Academy Publishing House, ISSN 1843-6722.

## **F. Alte lucrări și contribuții științifice**

### **Articole**

**F[1]. Oprea, M., Cărbureanu, M., Dragomir, E.,** *AirQMAS: A Collaborative Multi-agent System for Air Quality Analysis*, Annals of the University of Craiova, Series: Automation, Computers, Electronics and Mechatronics, 2012, Vol. 9 (36), No. 1, pp. 20-26, ISSN: 1841-0626.

**F[2]. Cărbureanu, M.,** *Automatic Systems for Wastewater pH Control – A Comparative Study*, Journal of Electrical Engineering, Electronics, Control and Computer Science- JEECCS, 2015, Vol. 1, Nr. 1, pp. 33-43, Publishing House of the University of Pitești.

**F[3]. Mihalache, S., Cărbureanu, M.,** *Fuzzy Logic Controller Design for Tank Level Control*, Petroleum-Gas University of Ploiesti Bulletin, Technical Series, 2014, Vol. LXVI, No. 3, pp. 57-62, ISSN 1224-8495 (**revistă BDI**).

**F[4]. Cărbureanu, M., Buruiană, V.,** *Intelligent Automatic pH Control System Based on Microcontrollers*, Petroleum-Gas University of Ploiesti Bulletin, Technical Series, 2013, Vol. LXV, No. 4, pp. 112-120, ISSN 1224-8495 (**revistă BDI**).

**F[5]. Cărbureanu, M.,** *Wastewater pH Control Using Artificial Intelligence Techniques - A Comparative Study*, Petroleum-Gas University of Ploiesti Bulletin, Technical Series, 2013, Vol. LXV, No. 2, pp. 49-56, ISSN 1224-8495 (**revistă BDI**).

**F[6].Cărbureanu, M.,** Cangea, O., *Experimental Identification of a Hydraulic Process Simulated on ASTANK 2 Integrated Laboratory Platform*, Petroleum-Gas University of Ploiesti Bulletin, Technical Series, 2013, Vol. LXV, No. 3, pp. 57-64 , ISSN 1224-8495, **(revistă BDI)**.

**F[7]. Cărbureanu, M.,** *The Wastewater pH Control Using an Artificial Intelligence Technique*, Petroleum-Gas University of Ploiesti Bulletin, Technical Series, 2012, Vol. LXIV, No. 3, pp. 83-93, ISSN 1224-8495, **(revistă BDI)**.

**F[8]. Cărbureanu, M.,** *Pollution Level Analysis of a Wastewater Treatment Emissary using Data Mining*, Petroleum-Gas University of Ploiesti Bulletin, Mathematics-Informatics-Physics Series, 2010, Vol. LXII, No. 1, pp. 69-78, ISSN:1224-4899, **(revistă BDI)**.

**F[9]. Cărbureanu, M.,** *Expert System for Assessing the Effluent's Quality of a Wastewater Treatment Plant*, Petroleum-Gas University of Ploiesti Bulletin, Mathematics-Informatics-Physics Series, 2010, Vol. LXII, No. 2, pp. 36-45, ISSN:1224-4899, **(revistă BDI)**.

**F[10]. Cărbureanu, M.,** *The Efficiency Level Analysis for the Wastewater Mechanical Treatment Process using Data Mining and Fuzzy Logic*, Petroleum-Gas University of Ploiesti Bulletin, Mathematics-Informatics-Physics Series, 2009, Vol. LXI, Nr. 2, pp.59-66, ISSN:1224-4899, **(revistă BDI)**.

**F[11]. Cărbureanu, M.,** *The Analysis of Currency Exchange Rate Evolution using a Data Mining Technique*, Petroleum-Gas University of Ploiesti Bulletin, Economical-Sciences Series, 2011, Vol. LXIII, No. 3, pp. 105-112, ISSN 2284-8576, **(revistă BDI)**.

**F[12]. Tudor, I., Cărbureanu M.,** *Correspondence Analysis Application in the Banking System*, Petroleum-Gas University of Ploiesti Bulletin, Economic Sciences Series, 2010, Vol. LXII, No. 2, pp. 102-109, ISSN 2284-8576, **(revistă BDI)**.

**F[13]. Cărbureanu M.,** *The Annual Inflation Rate Analysis Unsing Data Mining Techniques*, Economic Insights-Trends and Challenges, 2012 , Vol. I (LXIV), No. 4, pp. 121-128, ISSN 2284-8576, **(revistă BDI)**.

**F[14]. Cărbureanu M.,** *The calculation of the integrals using the Monte Carlo method*, Petroleum-Gas University of Ploiesti, Mathematics-Informatics-Physics Series, 2006, Vol LVIII, Nr.1, pp.65-72,ISSN:1224-4899, **(revistă BDI)**.

**F[15]. Cărbureanu M.,** *The Calculation of the Integrals using the Sample Mean Method*, Petroleum-Gas University of Ploiesti, Mathematics-Informatics-Physics Series, 2006, Vol. LVIII, Nr. 2, pp. 79-86, ISSN:1224-4899, **(revistă BDI)**.

**F[16]. Cărbureanu M.,** *The Divorce Rate Prediction using Data Mining Techniques*, Petroleum-Gas University of Ploiesti, Mathematics-Informatics-Physics Series, 2007, Vol. LIX, Nr. 2, pp.37-42,ISSN:1224-4899, **(revistă BDI)**.

**F[17]. Cărbureanu M.,** *An Application on Social Domain using SAS*, Petroleum-Gas University of Ploiesti, Mathematics-Informatics-Physics Series, 2008, Vol. LX, Nr. 1, pp.57-62, ISSN:1224-4899, **(revistă BDI)**.

**F[18]. Tudor, I., Cărbureanu M.,** *An example of expert system used in education field*, Petroleum-Gas University of Ploiesti, Mathematics-Informatics-Physics Series, 2007, Vol. LIX, Nr. 2, pp. 49-54, ISSN:1224-4899.

**F[19]. Tudor, I., Cărbureanu M.,** *Data Mining Techniques in Knowledge Management in Academic Environment*, Petroleum-Gas University of Ploiesti, Mathematics-Informatics-Physics Series, 2007, Vol. LIX, Nr. 1, pp.29-34, **(revistă BDI)**.

**F[20]. Cărbureanu M.,** *A factor analysis method applied in development field*, Analele Universității “Constantin Brâncuși” din Târgu Jiu, Seria Economie, 2010, Vol I., Nr. 1, pag. 187-194, Editura „Academica Brâncuși” a Universității „Constantin Brâncuși” din Târgu-Jiu, ISSN 2344-3685.

**F[21]. Cărbureanu, M.,** *The Monitoring of Wastewater pH using a Data Mining Technique*, International Conference of Scientific Paper–AFASES 2012, Braşov, indexat EBSCO, ASCEDU-ASSOCIATION for RESEARCH and EDUCATION, 2012, pp. 781-784.

**F[22]. Cărbureanu, M.,** *Using Principal Component Analysis in Wastewater Treatment Domain*, Proceedings of the International Scientific Conference ECO-TREND VIIth Edition , 2010, pag. 580-585, Academica Brancuși Publishing House, ISBN 978-973-144-409-3.

**F[23]. Cărbureanu, M.,** *The implementation of an air pollution warning system using elements of fuzzy logic*, AFASES 2009- The International session of XI-th scientific papers, Scientific Research and Education in the Air Force, Ministry of Defense Henri Coandă, Air Force Academy, 2009, pag. 1043-1048, I.S.B.N. 978-973-8415-67-6.

**F[24]. Cărbureanu, M., Tudor, I.,** *The Application of Data Mining Techniques in the field of Human Development*, The International Scientific Conference„ECO-Trend”, IV edition, Annals of the University Constantin Brâncuși of Tg-Jiu, No. 1/2008, Vol. 4, ISSN 1842-4856.

**F[25]. Cărbureanu, M., Tudor, I.,** *An Expert System Model for Students Knowledge Evaluation*, The annual international scientific conference of pedagogic staff and scientific researchers „Education and academic research structures of the knowledge-based society”, 2008, Vol. I, Nr. XX, pag.387-392, ALMA MATER Publishing House, ISSN 1844-5381.

**F[26]. Tudor, I., Cărbureanu, M.,** *Utilizarea tehnicilor de data mining în comunitățile de învățământ virtual*, Proceedings of 5th National Conference on Virtual Learning, Ovidius University, Constanța, pp. 189-196, 2007.

**F[27].** Tudor, I., **Cărbureanu, M.**, *Regresia liniară simplă ca aplicație în managementul cunoașterii în universități*, Universitatea Națională de Aparare Carol I, Spațiul Sud-European în Contextul Globalizării, Sesiunea de comunicări științifice cu participare internațională „Strategii XXI”, Secțiunea 10 Management și Educație, Workshop, Managementul Cunoașterii în Universități, Editura Universității Naționale de Apărare “CAROL I”, 2007, Vol. 2, pag.106-111, ISBN 978-973-663-547-3.

**F[28].** **Cărbureanu, M.**, Tudor, I., *Un exemplu de sistem multi-agent pentru modelarea procesului didactic*, AFASES 2008- „Scientific Research and Education in Air Forces”, Air Forces Academy Henri Coanda, 2008, Vol. I, pag. 682-689, ISBN: 978-973-8415-56-0.

**F[29].** Tudor, I., **Cărbureanu, M.**, *Data mining techniques used to predict the student professional orientation*, Proceedings of the international session of scientific papers „Education and scientific research at european standards”, 2007, pag. 794-799, Henri Coanda Air Force Academy Publishing House, ISBN 978-973-8415-45-4.

#### CONTRACTE DE CERCETARE

**F[1].** *Strategii, sisteme, metode și instrumente pentru managementul cunoașterii în universități*, CNMP, proiect CEEX - UNI-C, Contract 95-645-7-28.07.2006, 2006-2008, având funcția de **membru**.

**F[2].** *Dezvoltarea unui laborator pentru aplicarea tehnologiilor CIM*, PN II, ANCS, 20, 85/2007, 2007-2008, având funcția de **membru**.

Data

23.12.2015

Asist.dr. mat. Mădălina Cărbureanu