

List of publications

A – PhD Thesis	1
B – Books, student textbooks and chapters in books	1
b1) Books and student textbooks – 8 (eight).....	1
b2) Chapter in books – 3 (three)	2
C – Papers ISI/BDI	2
c1) Journal papers (ISI Web of Science) – 22 (twenty-two).....	2
c2) Conference papers in proceedings (ISI Web of Science and IEEE indexed) – 24 (twenty-four) .	4
c3) Conference papers in another proceedings (SCOPUS indexed) – 8 (eight)	6
D – Papers in not indexed conferences	7
d1) Papers in international conferences – 16 (sixteen)	7
d2) Papers in national conferences and national journals – 10 (ten).....	8
E – Patents - 1 (one) international patent at European Patent Office.....	9

A – PhD Thesis

Development and Evaluation of Numerical Models and Methods for Electrochemical Machining and Electrodeposition Applications.

PhD supervisor: **Prof. Dr. Eng. Johan Deconinck**

Vrije Universiteit Brussel, Belgium, 2005

B – Books, student textbooks and chapters in books

b1) Books and student textbooks – 8 (eight)

1. **Purcar, M.**, Bojiță, A., Avram A., *Instrumente CAD*, Editura, UTPress, 136 p., Cluj-Napoca 2019, ISBN 978-606-737-408-7.
2. **Purcar, M.**, *Modeling the Electrode Shape Changes for Electroforming and Electrochemical Machining Processes*, Editura Mediamira, 181 p., Cluj-Napoca 2010, ISBN 978-973-713-272-7.
3. Grindei L., Constantinescu C., **Purcar, M.**, *Aplicații C/C++/C# și Arduino în Inginerie Electrică*, Editura UTPress, 209 p., Cluj-Napoca 2020, ISBN 978-606-737-435-3.
4. **Purcar, M.**, Munteanu C., *Chestiuni speciale de electrotehnică*, Editura UTPress, 156 p., Cluj-Napoca 2020, ISBN: 978-606-737-465-0.
5. **Purcar, M.**, *Tehnici si tehnologii avansate de proiectare CAD-CAE - Îndrumător*

de laborator, 230 p., Cluj-Napoca 2020, ISBN: 978-606-737-467-4.

6. **Purcar, M.**, *Modelarea numerică a circuitelor electrice - Îndrumător de laborator*, 115 p., Cluj-Napoca 2020, ISBN: 978-606-737-466-7.
7. **Purcar, M.**, Man, E., *Managementul EMC în realizarea produsului*, Atelierul de multiplicare al Universității Tehnice, Cluj-Napoca 1999.
8. Man, E., **Purcar, M.**, *Introducere în asigurarea calității*, Atelierul de multiplicare al Universității Tehnice, Cluj-Napoca 1999.

b2) Chapter in books – 3 (three)

1. Bojita, A., **Purcar, M.**, Boianeanu, C., Florea, C., Simon, D., & Topa, V. "A simple metal-semiconductor substructure model for the thermal induced fatigue simulation in power integrated circuits", *Lecture Notes in Mechanical Engineering*, doi:10.1007/978-981-13-2273-0_3, 2019.
2. **Purcar, M.**, Deconinck, J., Van den Bossche, B., Bortels, L., "Numerical 3D BEM simulation of a CP system for a buried tank influenced by a steel reinforced concrete foundation", *Simulation of Electrochemical Processes Book Series: WIT TRANSACTIONS ON ENGINEERING SCIENCES*, Volume: 48, Pages: 47-56, (2005), ISBN:1-84564-012-8.
3. Bortels, L., Van Den Bossche, B., **Purcar, M.**, Dorochenko, A., Deconinck, J., "3D Cathodic Protection Design of Ship Hulls", *Book Series: WIT TRANSACTIONS ON ENGINEERING SCIENCES*, Volume: 54, Pages: 103-112, DOI: 10.2495/ECOR070101, (2007), 978-1-84564-071-2.

C – Papers ISI/BDI

c1) Journal papers (ISI Web of Science) – 22 (twenty-two)

1. Rapolti L, Rodica H, Grindei L, **Purcar M**, Dragan F, Copîndean R, Reman R. „Experimental Stand for Sorting Components Dismantled from Printed Circuit Boards”. *Minerals*. 2021; 11(11):1292. <https://doi.org/10.3390/min11111292>.
2. Vermeșan H., Tiuc A-E, **Purcar M.**, "Advanced Recovery Techniques for Waste Materials from IT and Telecommunication Equipment Printed Circuit Boards" *SUSTAINABILITY*, Volume: 12, Issue: 1, Article Number: 74, 2020, DOI: 10.3390/su12010074.
3. Bojita A., Boianeanu C., **Purcar M.**, Florea C., Simon D. and Pleșa C., "A simple metal-semiconductor substructure for the advanced thermo-mechanical numerical modeling of the power integrated circuits", *Journal of Microelectronics Reliability*, Elsevier, Volume 87, pages 142-150, August 2018, <https://doi.org/10.1016/j.microrel.2018.06.013>.
4. Avram, A., **Purcar, M.**, Topa, V., Munteanu C., "An XFEM Based Algorithm for Numerical Optimization of Current Density in Electrochemical Applications", *Environmental Engineering and Management Journal*, ISSN: 1582-9596, eISSN: 1843-3707, DEC 2016, Vol. 15, ISSUE 12, pp. 2587-2594.
5. **Purcar M.**, Munteanu C., Topa V., "3D Electrode Shape Change Simulation in Electroplating", in *Revue Roumaine Des Sciences Techniques-Serie Electrotechnique Et Energetique*, vol. 58, no. 3, pp. 252-262, 2013.
6. Chereches R., Barba, Di P., Topa V., **Purcar M.**, Wiak S., "Optimal shape design of electrostatic microactuators: A multiobjective formulation", in *International Journal Of Applied Electromagnetics And Mechanics*, vol. 43, no. 1-2, pp. 65-76,

- 2013.
7. **Purcar M.**, Topa V., Munteanu C., Chereches R., Avram A., Grindei L., "Optimisation of the layer thickness distribution in electrochemical processes using the level set method", in Iet Science Measurement & Technology, vol. 6, no. 5, pp. 376-385, 2012.
 8. Munteanu C., Mates G., **Purcar M.**, Topa V., Pop I.T., Grindei L. and Racasan A., "Electromagnetic field model for the numerical computation of voltages induced on buried pipelines by high voltage overhead power lines", European Physical Journal-Applied Physics, Volume: 58, Issue: 3, Article Number: 30902, DOI: 10.1051/epjap/2012110462, Published: JUL 2012.
 9. Topa V., **Purcar M.**, Avram A., Munteanu C., Grindei L., Chereches R., "Simulation of the electrode shape change in electrochemical machining based on the level set method", European Physical Journal-Applied Physics, Volume: 58 Issue: 1, Article Number: 11301 DOI: 10.1051/epjap/2012110461, Published: APR 2012.
 10. Topa V., **Purcar M.**, Munteanu C., Grindei L., Pacurar C., Garvasuc O., "Shape optimization approach based on the extended finite element method", Compel-The International Journal For Computation And Mathematics In Electrical And Electronic Engineering, Volume: 31 Issue: 2 Pages: 477-497, DOI: 10.1108/03321641211200545, Published: 2012.
 11. **Purcar M.**, Topa V., Munteanu C., Avram A., Grindei L., Chereches R., Optimization of the current density distribution in electrochemical cells based on the level set method and genetic algorithm", European Physical Journal-Applied Physics, Volume: 56, Issue: 1, Pages: 11302-p1 -11302-p8 DOI: 10.1051/epjap:2007098, Published: OCT 2011.
 12. Racasan A., Munteanu C., Topa V., **Purcar M.**, Grindei L., "Computation Of The Potential Induced On The Fluid Transport Pipelines By Overhead High Voltage Lines", Environmental Engineering And Management Journal, Volume:10, Issue: 4, Pages:505-510, Published: APR 2011.
 13. **Purcar M.**, Dorochenko A., Bortels L., Deconinck J., Van den Bossche B. and, "Advanced CAD integrated approach for 3D electrochemical machining simulations", Journal Of Materials Processing Technology, Vol: 203, ISSUE: 1-3, PAGES: 58-71, (2008).
 14. **Purcar M.**, Deconinck J., Van den Bossche B. and Bortels L., "Electroforming simulations based on the level set method", European Physical Journal-Applied Physics, Pages: 85 -94,DOI: 10.1051/EPJAP:2007098, (2007).
 15. Munteanu C., Topa V., Simion E., Mates G., Grindei L., De Mey G., **Purcar M.**, "Optimisation of an alternating current multi-conductor system", Engineering Analysis With Boundary Elements, 30 (7): 582-587, DOI: 10.1016/J.ENGANABOUND.2006.02.006, (2006).
 16. Pantleon K., Van den Bossche B., **Purcar M.**, M., Bariani, P., Floridor, G., "Simulation and experimental determination of the macro-scale layer thickness distribution of electrodeposited Cu-line patterns on a wafer substrate", Journal Of Applied Electrochemistry 35 (6): 589-598 JUN 2005.
 17. Nelissen G., Van den Bossche B., **Purcar M.**, et al., "Computer aided design (CAD) based optimization of chromium plating processes for complex parts", Transactions Of The Institute Of Metal Finishing, 82: 133-136 Part 5-6 SEP-NOV 2004.

18. **Purcar M.**, Deconinck J., Bortels L., Munteanu, C., Simion, E., and Topa, V., "A new approach for shape optimization of resistors with complex geometry", *Compel-The International Journal For Computation And Mathematics In Electrical And Electronic Engineering*, 23 (4): 1062-1069 2004.
19. **Purcar M.**, Van den Bossche B., Bortels L., et al. "Three-dimensional current density distribution simulations for a resistive patterned wafer", *Journal Of The Electrochemical Society*, 151 (9): D78-D86 2004.
20. **Purcar M.**, Bortels L., Van den Bossche B., et al. "3D electrochemical machining computer simulations", *Journal Of Materials Processing Technology*, 149 (1-3): 472-478 JUN 10 2004.
21. Bortels L., **Purcar M.**, Van den Bossche B., et al. "A user-friendly simulation software tool for 3D ECM", *Journal Of Materials Processing Technology*, 149 (1-3): 486-492 JUN 10 2004.
22. **Purcar M.**, Van den Bossche B., Bortels L., et al. "Numerical 3-D simulation of a cathodic protection system for a buried pipe segment surrounded by a load relieving U-shaped vault", *CORROSION* 59 (11): 1019-1028 NOV 2003.

c2) Conference papers in proceedings (ISI Web of Science and IEEE indexed) – 24 (twenty-four)

1. Luiza DOBRE, Adrian BOJITA, **Marius PURCAR**, Vasile TOPA and Calin MUNTEANU, "Chip structure metallization impact on thermally induced faults in power IC devices", *Proceedings - 2021 International Conference on Modern Power Systems*, 16-17 June 2021, MPS 2021, 10.1109/MPS52805.2021.9492689.
2. Fazakas, A., **Purcar, M.**, Vonsza, A.C., "Spent Battery Classification by Electrical Characterization. 2020 IEEE 26th International Symposium for Design and Technology in Electronic Packaging", *SIITME 2020 - Conference Proceedings*, 2020, pp. 358–361, 9292174
3. Fazakas A., **Purcar M.** and Turcu D., "Polarity Determination of Electrolytic Capacitors in Power Supplies from external terminals," 2019 IEEE 25th International Symposium for Design and Technology in Electronic Packaging (SIITME), Cluj-Napoca, Romania, 2019, pp. 395-398, doi: 10.1109/SIITME47687.2019.8990836.
4. Bojita I.A., **Purcar M.**, Boianeanu C., Topa V., "Efficient Computational Model Mesh of Thermo-Mechanical Phenomena in the Metal System of Power ICs", 25th THERMINIC International Workshop, 25-27 Septembrie 2019 1019, LECCO, Italy.
5. Florea C.I., Bostan C.G., Simon D.I., Topa V., **Purcar M.**, "Extraction of Equivalent Mechanical Properties for Power ICs Metallization", 25th THERMINIC International Workshop, 25-27 Septembrie 2019 1019, LECCO, Italy.
6. Fazakas A., Vonsza C. and **Purcar M.**, "Electrolytic Capacitor Polarity Determination Based on Electrical Measurements," 2018 IEEE 24th International Symposium for Design and Technology in Electronic Packaging (SIITME), Iasi, 2018, pp. 343-348, doi: 10.1109/SIITME.2018.8599205.
7. Bojita A., Boianeanu C., **Purcar M.**, Florea C. and Plesa C., "A simple metal-semiconductor substructure for the advanced thermo-mechanical numerical modeling of the power integrated circuits," 2017 23rd International Workshop on Thermal Investigations of ICs and Systems (THERMINIC), Amsterdam, 2017, pp. 1-6. doi: 10.1109/THERMINIC.2017.8233803"

8. Bojita A., **Purcar M.**, Boianceanu C., Tomas E. and Topa V., "A study of adaptive mesh refinement techniques for an efficient capture of the thermo-mechanical phenomena in power integrated circuits,"017 International Semiconductor Conference (CAS), Sinaia, 2017, pp. 205-208. doi: 10.1109/SMICND.2017.8101201".
9. Bojita A., Avram A., **Purcar M.**, Munteanu C., Topa V., "Thermo-mechanical simulation of the metal-semiconductor structures of power integrated circuits", Proceedings - 2017 International Conference on Modern Power Systems, MPS 2017, DOI: 10.1109/MPS.2017.7974450, ISBN 9781509065653.
10. Avram A., Bojiță A., **Purcar M.**, Munteanu C., "Numerical analysis of electro-thermal behavior and optimization of the cooling system in electronic power devices using CAD/CAE tools", Proceedings - 2017 International Conference on Modern Power Systems, MPS 2017, DOI: 10.1109/MPS.2017.7974435, ISBN 9781509065653.
11. Munteanu C., **Purcar M.**, Muresan T., Pop A., Rizzo R., "Study of the electromagnetic field distribution inside a HV/MV substation, Proceedings - 2017 International Conference on Modern Power Systems, MPS 2017, DOI: 10.1109/MPS.2017.7974456, ISBN 9781509065653.
12. **Purcar M.**, Munteanu C., Avram A. and Miron F., "CAD/CAE modeling of electromagnetic field distribution in hv substations and investigation of the human exposure," 2016 International Conference on Applied and Theoretical Electricity (ICATE), Craiova, 2016, pp. 1-5, doi: 10.1109/ICATE.2016.7754698.
13. **Purcar M.**, Munteanu C., Avram A. and Bojita A., "A two layer ground computational model for the numerical simulations of the earthing systems," 2016 International Conference and Exposition on Electrical and Power Engineering (EPE), Iasi, 2016, pp. 398-402, doi: 10.1109/ICEPE.2016.7781370.
14. **Purcar M.**, Avram A., Munteanu C., "B-spline surface approximation of triangulated data set patches", in 2014 International Conference on Production Research - Regional Conference Africa, Europe and the Middle East And 3rd International Conference on Quality and Innovation In Engineering and Management (ICPR-AEM 2014), pp. 416-421, 2014.
15. **Purcar M.**, Munteanu C., Bortels L. and Baeté C., "AC interference assessment and impact on personnel safety," 2014 International Conference and Exposition on Electrical and Power Engineering (EPE), Iasi, 2014, pp. 457-461, doi: 10.1109/ICEPE.2014.6969949.
16. Munteanu C., **Purcar M.**, Bursasiu D., Merdan E. and Farcas V., "CAD/CAE modeling of the human exposure to electric field inside a high voltage substation," 2014 International Conference and Exposition on Electrical and Power Engineering (EPE), Iasi, 2014, pp. 476-479, doi: 10.1109/ICEPE.2014.6969953.
17. Avram A., Topa V., **Purcar M.** and Munteanu C., "Numerical optimization of an electrostatic device based on the 3D XFEM and genetic algorithm," 2014 49th International Universities Power Engineering Conference (UPEC), Cluj-Napoca, 2014, pp. 1-5, doi: 10.1109/UPEC.2014.6934757.
18. Miron F., **Purcar M.**, Munteanu C., Mihai G., "The study of high frequency electromagnetic shielding performance by numerical modeling", in EPE 2014 - Proceedings of the 2014 International Conference and Exposition on Electrical and Power Engineering, pp. 633-636, 2014.

19. Conecici L.M., Munteanu C., **Purcar I.M.**, "Study of the shielding performances of different materials regarding Electromagnetic Field Interference", IOP Conference Series: Materials Science and Engineering, Vol. 200, Issue, 1, DOI: 10.1088/1757-899X/200/1/012045, ISSN 17578981.
20. Munteanu C., Topa V., Mates G., **Purcar M.**, Racasan A., and Pop I. T., "Analysis of the electromagnetic interferences between overhead power lines and buried pipelines," International Symposium on Electromagnetic Compatibility - EMC EUROPE, Rome, 2012, pp. 1-6, doi: 10.1109/EMCEurope.2012.6396746.
21. Muntean, F., Avram, A., Deconinck, J., **Purcar, M.**, Topa, V., Munteanu, C., Grindei, L., Garvasuc, O., "Optimization of the Current Density Distribution in Electrochemical Reactors", 8th Conference on Scientific Computing in Electrical Engineering (SC EE), Scientific Computing in Electrical Engineering (SC EE 2010), Book Series: Mathematics in Industry, Vol. 16 Pages: 163-172, DOI: 10.1007/978-3-642-22453-9__18, (2012).
22. Baeté C., **Purcar M.**, Bortels L., Van Den Bossche B., Dewilde J-M., "CP System Validation of Offshore Structures Through Modeling", Paper 0001657 in CORROSION 2012, March 11-15 - Salt Lake City, Utah, USA. NACE International 2012.
23. Purcar M., Topa V., Munteanu C., Avram A., Chereches R., "Electrochemical Machining Simulations Based on the Level Set Method", Proceedings of the 1st International Conference on Quality and Innovation in Engineering and Management, Cluj-Napoca 17-19.03.2011.
24. Purcar M., Topa V., Munteanu C., Chereches R., Avram A., Grindei L., "Optimization of the Layer Thickness Distribution in Electrochemical Processes Using the Level Set Method", The 8th International Conference on Computation in Electromagnetics CEM 2011, 11-14 April 2011 Wroclaw, Poland.

c3) Conference papers in another proceedings (SCOPUS indexed) – 8 (eight)

1. **Purcar M.**, Topa V., Avram A., Chereches, R., "CAD/CAE integration of the 3D electrode shape change modeling for electrochemical processes", in Quality - Access to Success, vol. 13, no. SUPPL.5, pp. 519-524, 2012.
2. **Purcar M.**, Topa V., Munteanu C., Avram A., Chereches R., "Numerical Modeling of the Electrode Shape Change in Electrochemical Machining", Acta Electrotehnica, Special Issue, Selected Papers from the 4th International Conference On Modern Power Systems MPS2011, 17-20 May 2011, Cluj-Napoca, Romania.
3. **Purcar M.**, Topa V., Munteanu C., Avram A., „Electrode Shape Change Simulations based on the XFEM”, XFEM 2011 The 2nd International Conference on the EXtended Finite Element Method, 29.06-01.07 2011, Cardiff University, UK.
4. Munteanu C., Topa V., **Purcar M.**, Grindei L., Racasan A., "Study of the Electric Field Generated by the High Voltage Substations", MATHEMATICAL METHODS and COMPUTATIONAL TECHNIQUES in ELECTRICAL ENGINEERING, 12th WSEAS International (MMACTEE '10), Politehnica University of Timisoara, October 21-23, 2010, ISSN: 1792-5967, ISBN: 978-960-474-238-7.
5. **Purcar M.**, Muntean, F., Maxim, N., Pacurar, C., Garvasuc, O., Grindei, L., Topa, V., Munteanu, C. "Optimal Design of the Deposited Layer Thickness during the Electroplating Process", Acta Electrotehnica, ISSN 1841-3323, vol. 3, nr. 5, pp.311-315, 2010.

6. Munteanu, C., Grindei, L., **Pacurar, C.**, Garvasuc, O., Purcar, M., Topa, V. "Multi-Objective Optimization using a Strength Pareto Evolutionary Algorithm", ActaElectrotehnica, ISSN 1841-3323, vol. 3, nr. 5, pp.311-315, 2010.
7. Bortels L., **Purcar M.**, "Manage Pipeline Integrity By Predicting Mitigating High Voltage Ac Interference", Analele Universității din Oradea Fascicula de Energetică, ISSN 1224-1261, Vol. 15, pp. 189-195 2009.
8. **Purcar M.**, Bortels L., "Design and Optimization of Pipeline Cathodic Protection Systems", Analele Universității din Oradea Fascicula de Energetică, ISSN 1224-1261, Vol. 15, pp. 289-294 2009.

D – Papers in not indexed conferences

d1) Papers in international conferences – 16 (sixteen)

1. Ilea P., **Purcar M.I.**, Dorneanu S.A., Marincea A.H., "Enhancement of the mass transport by numerical simulation in an electrochemical reactor with concentric cylindrical electrodes," 7th Regional Symposium on Electrochemistry for South-East Europe (RSE-SEE 7), May 27-30, 2019, Split, Croatia.
2. **Purcar, M.**, Dorochenko, A., Bortels, L., Deconinck, J., Athanasiadis, T., "Advanced modelling of 3D electrochemical machining with time dependent imposed current or potential", 57th Annual Meeting of The International Electrochemical Society, Heriot-Watt University, Edinburgh, UK, 27 August to 1 September, 2006 (ISE 2006), Book of Abstracts, S5-KN-7.
3. **Purcar, M.**, Bortels, L., Van den Bossche, B., Deconinck, J., "3D electrochemical machining computer simulations", The 14th International Symposium For Electromachining Edinburgh 30th March 1st April 2004, Scotland.
4. Bortels, L., **Purcar, M.**, Van den Bossche, B., Deconinck, J. "A user-friendly simulation software tool for 3D ECM", The 14th International Symposium For Electromachining Edinburgh 30th March 1st April 2004 Scotland.
5. Van Theemsche, A., Deconinck, J., **Floridor, G.**, Purcar, M., Desmet, G., "Modeling electro-kinetically driven flow past and through etched chromatography packings", International Society of Electrochemistry - 55th Annual Meeting - Thessaloniki - 19-24 September 2004.
6. Nelissen, G., Van den Bossche, B., Purcar, M., Deconinck, J., "Three-dimensional simulations of current density distributions for patterned wafers and PCB's", Peaks in Plating Conference on Electrochemical Deposition for Microelectronics September 21-24, 2004, Whitefish, Montana.
7. **Purcar, M.**, Deconinck, J., "Numerical Simulation of 2D and 3D Electrodeposition and Electrochemical Machining", Industry-Ready Innovative Research, Brussels, 11 Dec. 2003.
8. **Purcar, M.**, Deconinck, J., Bortels, L., Munteanu, C., Simion, E., Topa, V., "A New Approach for Shape Optimization of Resistors with Complex Geometry", Proceedings of the Sixth International Symposium on Electric and Magnetic Fields, Aachen (Germany), 6-9 October 2003.
9. Munteanu, C., Topa, V., Mates, Gh., **Purcar, M.**, Grindei, L., Simion, E., De Mey, G., "Optimal Design Of Electromagnetic Devices by Multi – Objective Optimization", Proceedings of the Sixth International Symposium on Electric and Magnetic Fields, Aachen (Germany), 6-9 October 2003.
10. **Purcar, M.**, Nelissen, G., Deconinck, J., Bortels, L., Van den Bossche, B., "A New

- Algorithm for Simulation of Electrode Shape Changes in Electrochemical Reactors", Proceedings of the 2nd workshop Advances in Numerical Computation Methods in Electromagnetism, 15-16 May 2003, Gent, Belgium.
11. Van den Bossche, B., **Purcar, M.**, Nelissen, G., Deconinck, J., Bortels, L., "Current Density Distribution Simulations for a Plating Reactor with Resistive Wafer", Proceedings of the 2nd workshop Advances in Numerical Computation Methods in Electromagnetism, 15-16 May 2003, Gent, Belgium.
 12. **Purcar, M.**, Nelissen, G., Deconinck, J., Bortels, L., Van den Bossche, B., "New Algorithm for Simulation of Electrode Shape Changes in Electrochemical Reactors", Proceedings of the 203rd Meeting of The Electrochemical Society, Symposium Z1, "Computational Chemistry", Paris, April 27-May 2, 2003.
 13. **Purcar, M.**, Simion, E., Munteanu, C., Topa, V., Deconinck, J., "Numerical Computation of the Electrodynamics Forces between Two Rectangular Cross Section Conductors in Steady-State Regime", Proceedings of the XI International Symposium on Theoretical Electrical Engineering, ISTET'01, Linz, Austria, 19-22 August 2001.
 14. Munteanu, C., Topa, V., Simion, E., De Mey, G., **Purcar, M.**, "Minimisation of the Current Carrying Conductors Losses in Steady-State Regime bu Optimal Design using Genetic Algorithms", Proceedings of the XI International Symposium on Theoretical Electrical Engineering, ISTET'01, Linz, Austria, 19-22 August 2001.
 15. **Purcar, M.**, Deconinck, J., Bortels, L., Simion, E., "Numerical Computation of BEM 3D using Telles Transformations", Proceedings of the Advances in Numerical Computation Methods in Electromagnetism Symposium, ANCME 2000, Gent, Belgium, 8 - 9 June 2000.
 16. **Purcar, M.**, Deconinck, J., Bortels, L., Nelisen, G., "Two Layer Model for Cathodic Protection of Buried Pipes", Proceedings of the Advances in Numerical Computation Methods in Electromagnetism Symposium, ANCME 2000, Gent, Belgium, 8 - 9 June 2000.

d2) Papers in national conferences and national journals – 10 (ten)

1. Lucaci F.I., Frîncu M.I., Covaci E., Dorneanu S.A., **Purcar M.I.**, Ilea P., "Metals selective electrodeposition from leaching solutions resulting in the WPCBs recycling process", 21st Romanian International Conference on Chemistry and Chemical Engineering, Constanta – Mamaia, România, 4-7 septembrie 2019.
2. Munteanu, C., Topa, V., Simion, E., **Purcar, M.**, Grindei, L., "Application of GAs in Steady-State Electromagnetic Field Optimal Design Problems", 3rd Japanese Romanian Joint Seminar on Applied Electromagnetics and Mechanical Systems, JRJSAEM'01, Oradea, Romania, September 2001.
3. **Purcar, M.**, Deconinck, J., Simion, E., Munteanu, C., Topa, V., "3D Numerical Simulation of a Cathodic Protection System for a Buried Pipe" Analele Universitatii din Oradea, A 6-a Conferința Internațională de Ingineria Sistemelor Moderne in Electrotehnica, EMES '01, Oradea, 24 - 26 Mai 2001.
4. Simion, E., **Purcar, M.**, Topa, V., Munteanu, C., "Numerical Computation of the Induced Currents in Soil by the AC Electrified Railway Traction Systems", Analele Universității din Oradea, A 6-a Conferința Internațională de Ingineria Sistemelor Moderne in Electrotehnica, EMES '01, Oradea, 24 - 26 Mai 2001.
5. Munteanu, C., Topa, V., Simion, E., De Mey, **Purcar, M.**, "Numerical Analysis of

- the Electromagnetic Field Diffusion in Multiple Conductor Systems using BEM”, Analele Universității din Oradea, A 6-a Conferința Internațională de Ingineria Sistemelor Moderne in Electrotehnica, EMES '01, Oradea, 24 - 26 Mai 2001.
6. **Purcar, M.**, Lecho, S., Deconinck, J., Bortels, L., Nelisen, G., “Cathodic Protection of Buried Pipes in Two Layers Ground” Proceedings of the 2’nd International Workshop CAD in Electromagnetism and Electrical Circuits, CADEMEC 99, Cluj-Napoca, 1999.
 7. Simion, E., **Purcar, M.**, Dan, C., “Per-Unit-Length Parameters Numerical Computation in High Frequencies for Electromagnetic Interference Analysis” Analele Universității din Oradea, Fascicola ELECTROTEHNICĂ, 5-a conferință internațională de ingineria sistemelor moderne în electrotehnică 27-29 Mai 1999 Băile Felix, România.
 8. **Purcar, M.**, MUNTEANU, C., SIMION, E., DRECHSLER, S. The Finite Network Method Applied In The Analysis of the Steady State Electrokinetic Field. Proceedings of the 1’st International Workshop CAD in Electromagnetism and Electrical Circuits, CADEMEC 97, Cluj-Napoca, 1997.
 9. Drechsler, S., Mindru, G., Fartschi, A., **Purcar M.**, ”Upon the Transient Regime of the Electromagnetic Field by Means of Finite Network Method” Acta Electrotehnica Napocensis, Cluj-Napoca, 1995.
 10. Mindru, G., Mindru, A., **Purcar M.**, “Numerical Analysis of the Stationary (Cvasistationary) Magnetic Fields by Elementary Flux Tube Method”, Acta Electrotehnica Napocensis, Cluj-Napoca, 1995.

E – Patents - 1 (one) international patent at European Patent Office

”A device suitable for electrochemically processing an object as well as a method for manufacturing such a device, a method for electrochemically processing an object, using such a device, as well as an object formed by using such a method”, Patent Number: WO2008010090-A2; NL1032174-C2; WO2008010090-A3; EP2044242-A2; S2009288954-A1, Inventor(s): VAN DEN BOSSCHE B J W; PURCAR M I, <http://www.wipo.int/pctdb/en/ia.jsp?ia=IB2007/002844>

Data
20.12.2021

Signature

