Conf. univ. dr. ing. Árpád GELLÉRT
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LISTA LUCRĂRILOR PUBLICATE

A. Teza de doctorat

Arpad Gellert, *Advanced Prediction Methods Integrated Into Speculative Computer Architectures*, Teză de doctorat (în engleză), Domeniul Știința Calculatoarelor, Universitatea „Lucian Blaga" din Sibiu, 145 pg., conducători științifici prof. univ. dr. ing. Lucian VINȚAN (Universitatea „Lucian Blaga" din Sibiu) și prof. dr. Theo UNGERER (Universitatea din Augsburg, Germania), 2008.

B. Cărți si capitole în cărți

1. Constantin-Bălă Zamfirescu (coordonator), Alexandru Matei (editor), Vasile-Alexandru Butean, Dragoș Circa, Alin Marius Cruceat, **Arpad Gellert**, Teodor Ghețiu, Valentin Cătălin Govoreanu, Mihai Neghină, Răzvan Gabriel Pămărac, Radu Emanuil Petruse, Bogdan-Constantin Pîrvu, Livia Dana Pogan, Radu Ioan Popa, Ștefan Alexandru Precup, Samuel Pușcașu, Sergiu Gabriel Stanciu, Radu Traian Șoroștinean, Nicolae-Adrian Țocu, Radu-Alexandru Voju, *Ingineria sistemelor socio-fizico-cibernetice în sisteme de producție*, Editura Universității „Lucian Blaga" din Sibiu, ISBN 978-606-12-1848-6, 2021.

2. Constantin-Bălă Zamfirescu (coordonator), Vasile-Alexandru Butean, Dragoș Circa, Alin Marius Cruceat, **Arpad Gellert**, Teodor Ghețiu, Valentin Cătălin Govoreanu, Alexandru Matei, Mihai Neghină, Bogdan-Constantin Pîrvu, Ștefan Alexandru Precup, Samuel Pușcașu, Nicolae-Adrian Țocu, Radu-Alexandru Voju, *Studii de analiză a arhitecturilor, metodelor și tehnicilor de implementare a celei de-a patra revoluții tehnologice*, Editura Universității „Lucian Blaga" din Sibiu, ISBN 978-606-12-1847-9, 2021.

3. **Arpad Gellert**, *Analiza și proiectarea algoritmilor: o abordare pragmatică prin aplicații Java*, Ediția a 2-a, Editura Techno Media, ISBN 978-606-616-360-6, 2019.

4. **Arpad Gellert**, Rodica Baciu, *Programare în limbaj de asamblare: îndrumar de laborator*, Editura Techno Media, ISBN 978-606-8030-79-1, 2010.

5. **Arpad Gellert**, *Analiza și proiectarea algoritmilor: o abordare pragmatică prin aplicații Java*, Editura Techno Media, ISBN 978-606-8030-81-4, 2010.

6. **Arpad Gellert**, *Beyond the Limits of Modern Processors*, Matrix Rom Publishing House, ISBN 978-973-755-426-0, Bucharest, 2008.

7. **Arpad Gellert**, Lucian N. Vințan, Adrian Florea, *A Systematic Approach to Predict Unbiased Branches*, Lucian Blaga University Press, ISBN 978-973-739-516-0, 2007.

C. Articole în reviste cotate ISI și în volumele unor manifestări științifice indexate ISI proceedings

1. Lorena M. Olaru, **Arpad Gellert**, Ugo Fiore, Francesco Palmieri, Electricity Production and Consumption Modeling through Fuzzy Logic, International Journal of Intelligent Systems, Vol. 37, Issue 11, ISSN 0884-8173 (ISI Thomson Journals IF=8.993), DOI 10.1002/int.22942, pp. 8348-8364, November 2022.

2. **Arpad Gellert**, Stefan-Alexandru Precup, Alexandru Matei, Bogdan-Constantin Pirvu, Constantin-Bala Zamfirescu, *Real-Time Assembly Support System with Hidden Markov Model and Hybrid Extensions*, Mathematics, Vol. 10, Issue 15, ISSN 2227-7390 (ISI Thomson Journals IF=2.592), DOI 10.3390/math10152725, p. 2725, August 2022.

3. **Arpad Gellert**, Darius Sarbu, Stefan-Alexandru Precup, Alexandru Matei, Dragos Circa, Constantin-Bala Zamfirescu, *Estimation of Missing LiDAR Data for Accurate AGV Localization*, IEEE Access, Vol. 10, ISSN 2169-3536 (ISI Thomson Journals IF=3.367), DOI 10.1109/ACCESS.2022.3185763, pp. 68416-68428, June 2022.

4. Stefan-Alexandru Precup, **Arpad Gellert**, Alexandru Matei, Maria Gita, Constantin-Bala Zamfirescu, *Towards an Assembly Support System with Dynamic Bayesian Network*, Applied Sciences, Vol. 12, Issue 3, ISSN 2076-3417 (ISI Thomson Journals IF=2.474, Scopus), DOI 10.3390/app12030985, p. 985, Switzerland, February 2022.

5. **Arpad Gellert**, Radu Sorostinean, Bogdan-Constantin Pirvu, *Robust Assembly Assistance Using Informed Tree Search with Markov Chains*, Sensors, Vol. 22, Issue 2, ISSN 1424-8220 (ISI Thomson Journals IF=3.275, Scopus, DBLP), DOI 10.3390/s22020495, p. 495, January 2022.

6. **Arpad Gellert**, Ugo Fiore, Adrian Florea, Radu Chis, Francesco Palmieri, *Forecasting Electricity Consumption and Production in Smart Homes through Statistical Methods*, Sustainable Cities and Society, Vol. 76, ISSN 2210-6707 (ISI Thomson Journals IF=7.587, Scopus), January 2022.

7. **Arpad Gellert**, *Web Usage Mining by Neural Hybrid Prediction with Markov Chain Components*, Journal of Web Engineering, River Publishers, Vol. 20, Issue 5, ISSN 1540-9589 (ISI Thomson Journals IF=0.617, DBLP), pp. 1279-1296, Denmark, July 2021.

8. Radu Sorostinean, **Arpad Gellert**, Bogdan-Constantin Pirvu, *Assembly Assistance System with Decision Trees and Ensemble Learning*, Sensors, Vol. 21, Issue 11, ISSN 1424-8220 (ISI Thomson Journals IF=3.275, Scopus, DBLP), DOI 10.3390/s21113580, p. 3580, May 2021.

9. **Arpad Gellert**, Stefan-Alexandru Precup, Bogdan-Constantin Pirvu, Ugo Fiore, Constantin-Bala Zamfirescu, Francesco Palmieri, *An Empirical Evaluation of Prediction by Partial Matching in Assembly Assistance Systems*, Applied Sciences, Vol. 11, Issue 7, ISSN 2076-3417 (ISI Thomson Journals IF=2.474, Scopus), DOI 10.3390/app11073278, p. 3278, Switzerland, April 2021.

10. **Arpad Gellert**, Remus Brad, *Image Inpainting with Markov Chains*, Signal, Image and Video Processing, Vol. 14, Issue 7, ISSN 1863-1703 (ISI Thomson Journals IF=1.794, Scopus, DBLP), DOI 10.1007/s11760-020-01675-7, pp. 1335-1343, October 2020.

11. **Arpad Gellert**, Stefan-Alexandru Precup, Bogdan-Constantin Pirvu, Constantin-Bala Zamfirescu, *Prediction-Based Assembly Assistance System*, 25th International Conference on Emerging Technologies and Factory Automation (ETFA), ISBN 978-1-7281-8957-4, DOI 10.1109/ETFA46521.2020.9212170, pp. 1065-1068, Vienna, Austria, September 2020.

12. **Arpad Gellert**, Constantin-Bala Zamfirescu, *Assembly support systems with Markov predictors*, Journal of Decision Systems, ISSN 1246-0125 (indexed ISI, Scopus), DOI: 10.1080/12460125.2020.1788798, pp. 63-70, July 2020.

13. **Arpad Gellert**, Constantin-Bala Zamfirescu, *Using Two-Level Context-Based Predictors for Assembly Assistance in Smart Factories*, Intelligent Methods in Computing, Communications and Control: 8th International Conference on Computers Communications and Control, Springer, ISBN 978-303-053-650-3 (indexed Scopus), DOI 10.1007/978-3-030-53651-0_14, pp. 167-176, Oradea, May 2020.

14. **Arpad Gellert**, Adrian Florea, Ugo Fiore, Francesco Palmieri, Paolo Zanetti, *A study on forecasting electricity production and consumption in smart cities and factories*, International Journal of Information Management, Elsevier, DOI 10.1016/j.ijinfomgt.2019.01.006, ISSN 0268-4012 (ISI Thomson Journals IF=5.063, Scopus, DBLP), Vol. 49, pp. 546-556, December 2019.

15. **Arpad Gellert**, Maria Vintan, Lucian Vintan, *Perceptron-Based Selective Load Value Prediction in a Multicore Architecture*, Romanian Journal of Information Science and Technology, Vol. 22, No. 3-4, ISSN 1453-8245, pp. 215-217, November 2019.

16. **Arpad Gellert**, Adrian Florea, Ugo Fiore, Paolo Zanetti, Lucian Vintan, *Performance and Energy Optimisation in CPUs through Fuzzy Knowledge Representation*, Information

Sciences, Elsevier, Vol. 476, ISSN 0020-0255 (ISI Thomson Journals IF=4.832, Scopus, DBLP, EBSCO), DOI 10.1016/j.ins.2018.03.029, pp. 375-391, February 2019.

17. **Arpad Gellert**, Lucian Vintan, *A Multicore Architecture with Selective Load Value Prediction*, Proceedings of the Romanian Academy, Series A, Vol. 19, No. 4, ISSN 1454-9069 (ISI Thomson Journals IF=1.752, Scopus), pp. 597-604, November 2018.

18. **Arpad Gellert**, Remus Brad, *Studying the influence of search rule and context shape in filtering impulse noise images with Markov chains*, Signal, Image and Video Processing (ISI Thomson Journals, IF=1.102, SRI=0.575), Springer London, Vol. 12, Issue 2, ISSN 1863-1703, DOI 10.1007/s11760-017-1160-1, pp. 315-322, February 2018.

19. **Arpad Gellert**, *Web Access Mining through Dynamic Decision Trees with Markovian Features*, Journal of Web Engineering, Vol. 16, Issue 5-6, ISSN 1540-9589 (ISI Thomson Journals, IF=0.622, SRI=0.217), pp. 524-536, USA, September 2017.

20. Adrian Florea, **Arpad Gellert**, *E-learning Approach of the Graph Coloring Problem Applied to Register Allocation in Embedded Systems*, The 6th International Conference on Innovative Computing Technology (INTECH 2016), ISBN 978-1-5090-2000-3 (indexed ISI, IEEE Xplore, Scopus), pp. 88-93, Dublin, Ireland, August 2016.

21. **Arpad Gellert**, Adrian Florea, *Web Prefetching through Efficient Prediction by Partial Matching*, World Wide Web, Vol. 19, Issue 5, ISSN 1386-145X (ISI Thomson Journals, IF=1.405, SRI=1.083), DOI 10.1007/s11280-015-0367-8, pp. 921-932, USA, September 2016.

22. **Arpad Gellert**, Remus Brad, *Context-Based Prediction Filtering of Impulse Noise Images*, IET Image Processing, Vol. 10, Issue 6, ISSN 1751-9659 (ISI Thomson Journals, IF=1.044, SRI=0.740), DOI 10.1049/iet-ipr.2015.0702, pp. 429-437, Stevenage, UK, June 2016.

23. Adrian Florea, Delilah Florea, **Arpad Gellert**, Adrian-Cristian Florea, *Teaching Programming by Developing Games in Alice*, The 12th International Scientific Conference "eLearning and Software for Education" (eLSE 2016), ISSN 2066026X (indexed ISI), Bucharest, April 2016.

24. Adrian Florea, Elimelec Burghelea, **Arpad Gellert**, Delilah Florea, *MiniGL: Game and Learning*, The 11th International Scientific Conference "eLearning and Software for Education" (eLSE 2015), ISSN 2066026X (indexed ISI), Vol. 1, Bucharest, April 2015.

25. **Arpad Gellert**, Adrian Florea, *Web Page Prediction Enhanced with Confidence Mechanism*, Journal of Web Engineering, Vol. 13, Issue 56, ISSN: 15409589 (ISI Thomson Journals, IF=0.361, SRI=0.313), pp. 507524, USA, November 2014.

26. Adrian Florea, Claudiu Buduleci, Radu Chis, **Arpad Gellert**, Lucian Vintan, *Enhancing the Sniper Simulator with Thermal Measurement*, The 18th International Conference on System Theory, Control and Computing, ISBN 978-1-4799-4602-0 (Scopus, IEEE Xplore), Sinaia, October 2014.

27. Adrian Florea, **Arpad Gellert**, *Different Approaches for Solving Optimization Problems using Interactive e-Learning Tools*, The 10th International Scientific Conference "eLearning and Software for Education" (eLSE 2014), ISSN 2066026X (indexed ISI), Vol. 2, Bucharest, April 2014.

28. Adrian Florea, Andrei F. Klein, Victor Badea, Mihai Stefanescu, **Arpad Gellert**, *Using FOCAP Tool for Teaching Microarchitecture Simulation and Optimization*, The 17th International Conference on System Theory, Control and Computing (ICSTCC 2013), ISBN 978-1-4799-2228-4 (indexed ISI, Scopus, IEEE Xplore), Sinaia, October 2013.

29. **Arpad Gellert**, Horia Calborean, Lucian Vintan, Adrian Florea, *Multi-Objective Optimizations for a Superscalar Architecture with Selective Value Prediction*, IET Computers & Digital Techniques, Vol. 6, Issue 4, ISSN: 1751-8601 (ISI Thomson Journals, IF=0.284, SRI=0.36945), pp. 205213, Stevenage, United Kingdom, July 2012.

30. Adrian Florea, Alexandru Ratiu, **Arpad Gellert**, Lucian Vintan, *A Visual Simulation Framework for Simultaneous Multithreading Architectures*, The 25th European Conference on Modelling and Simulation (ECMS 2011), ISBN: 978-0-9564944-2-9 (indexed ISI, Scopus,

DBLP), Krakow, Poland, June 2011.

31. Traian Anghel, Adrian Florea, **Arpad Gellert**, Delilah Florea, *Web-Based Technologies for Online e-Learning Environments*, 7th International Scientific Conference "eLearning and Software for Education" (eLSE 2011), ISSN 2066-026X (indexed ISI), Vol. 2, pp. 502-509, Bucharest, April 2011.

32. Adrian Florea, **Arpad Gellert**, Traian Anghel, Delilah Florea, *Online Collaborative Education Management Tool*, Proceedings of the 5th International Conference on Virtual Learning, ISSN 1844 - 893 (indexed ISI), pp. 367-374, Targu Mures, October 2010.

33. **Arpad Gellert**, Gianluca Palermo, Vittorio Zaccaria, Adrian Florea, Lucian Vintan, Cristina Silvano, *Energy-Performance Design Space Exploration in SMT Architectures Exploiting Selective Load Value Predictions*, International Conference on Design, Automation and Test in Europe (DATE 2010), ISBN: 978-3-9810801-6-2 (indexed ISI, Scopus, DBLP, ACM Digital Library, IEEE Xplore), pp. 271-274, Dresden, Germany, March 2010.

34. **Arpad Gellert**, Adrian Florea, Lucian Vintan, *Exploiting Selective Instruction Reuse and Value Prediction in a Superscalar Architecture*, Journal of Systems Architecture, Elsevier, Vol. 55, Issue 3, ISSN 1383-7621 (ISI Thomson Journals IF=0.722, Scopus, DBLP, ACM Digital Library, EBSCO), pp. 188-195, The Netherlands, 2009.

35. Adrian Florea, **Arpad Gellert**, Lucian Vintan, Marius Veltan, *The Impact of Java Applications at Microarchitectural Level from Branch Prediction Perspective*, International Journal of Computers, Communications & Control, Vol. IV, No. 1, ISSN 1841-9836, E-ISSN 1841-9844 (ISI Thomson Journals IF=0.373, Scopus), pp. 27-40, 2009.

36. Lucian Vintan, Adrian Florea, **Arpad Gellert**, *Random Degrees of Unbiased Branches*, Proceedings of the Romanian Academy, Series A, Vol. 9, No. 3, ISSN 1454-9069 (ISI Thomson Journals, Scopus), 2008.

37. **Arpad Gellert**, Adrian Florea, Maria Vintan, Colin Egan, Lucian Vintan, *Unbiased Branches: An Open Problem*, Twelfth Asia-Pacific Computer Systems Architecture Conference (ACSAC 2007), published in *Lecture Notes in Computer Science*, Springer-Verlag Berlin Heidelberg, Vol. 4697/2007, ISSN 0302-9743, ISBN 978-3-540-74308-8 (indexed ISI, Scopus, DBLP, ACM Digital Library), pp. 16-27, Seoul, Korea, August 2007.

38. Lucian Vintan, **Arpad Gellert**, Adrian Florea, Marius Oancea, Colin Egan, *Understanding Prediction Limits Through Unbiased Branches*, Eleventh Asia-Pacific Computer Systems Architecture Conference (ACSAC 2006), published in *Lecture Notes in Computer Science*, Springer-Verlag Berlin Heidelberg, Vol. 4186/2006, ISSN 0302-9743, ISBN 978-3-540-40056-1 (ISI Thomson Journals IF=0.402, Scopus, DBLP, ACM Digital Library), pp. 480-487, Shanghai, China, September 2006.

39. Lucian Vinţan, Adrian Florea, **Arpad Gellert**, *Focalising Dynamic Value Prediction to CPU's Context*, IEE Proceedings – Computers & Digital Techniques, Vol. 152, No. 4, ISSN 1350-2387 (ISI Thomson Journals IF=0.533, Scopus, **EBSCO**), pp. 473-481, Stevenage, United Kingdom, July 2005.

40. Ioana I. Moisil, **Arpad Gellert**, *Introducing Object-Oriented Applications with the Caché Database System*, Proceedings of the 2nd Balkan Region Conference on Engineering Education, ISBN 973-651-673-3 (indexed ISI), pp. 194 - 197, Sibiu, September 2003.

D. Articole în reviste și volumele unor manifestări științifice indexate în alte baze de date internaționale (BDI)

1. Claudiu Buduleci, **Arpad Gellert**, Adrian Florea, Alexandru Matei, *Extending Sniper with Support to Access Operand Values: A Case Study on Reusability Measurement*, 23rd International Carpathian Control Conference, ISBN 978-1-6654-6636-3 (indexed Scopus), Sinaia, May 2022.

2. **Arpad Gellert**, Remus Brad, Daniel Morariu, Mihai Neghina, *Filtering Random Valued Impulse Noise from Grayscale Images through Support Vector Machine and Markov Chain*, International Journal of Advanced Statistics and IT&C for Economics and Life Sciences, Vol. 11, Issue 1, ISSN 2559-365X (indexed PKP, ROAD, SCIENDO, EBSCO), DOI 10.2478/ijasitels-2021-0004, pp. 70-84, December 2021.

3. Alexandru Matei, Nicolae-Adrian Tocu, Constantin-Bala Zamfirescu, **Arpad Gellert**, Mihai Neghina, *Engineering a Digital Twin for Manual Assembling*, 10th International Symposium on Leveraging Applications of Formal Methods (ISoLA 2020), published in Leveraging Applications of Formal Methods, Verification and Validation: Tools and Trends, Lecture Notes in Computer Science, Vol. 12479, ISBN 978-3-030-83722-8 (indexed DBLP, Scopus), pp. 140-152, Springer, Cham, 2021.

4. Stefan-Alexandru Precup, **Arpad Gellert**, Alexandru Dorobantiu, Constantin-Bala Zamfirescu, *Assembly Process Modeling Through Long Short-Term Memory*, 13th Asian Conference on Intelligent Information and Database Systems, ISSN 1865-0929 (indexed DBLP, Scopus), pp. 28-39, Phuket, Thailand, April 2021.

5. Miroslav-Andrei Bachici, **Arpad Gellert**, *Modeling Electricity Consumption and Production in Smart Homes using LSTM Networks*, International Journal of Advanced Statistics and IT&C for Economics and Life Sciences, Vol. X, No. 1, ISSN 2559-365X (indexed PKP, ROAD, SCIENDO), DOI 10.2478/ijasitels-2020-0009, pp. 80-90, December 2020.

6. Claudiu Buduleci, **Arpad Gellert**, Adrian Florea, Radu Chis, Remus Brad, *Multi-Objective Optimization of Speculative and Anticipative Multi-Core Architectures*, Advanced Computer Architecture and Compilation for High-performance Embedded Systems, ISBN 978-9-0784-2700-1, pp. 11-14, Fiuggi, Italy, July 2020.

7. Nicolae-Adrian Tocu, **Arpad Gellert**, Ioana-Ramona Stefan, Teodor-Marian Nitescu, Gabriela-Alexandra Luca, *The impact of virtual reality simulators in manufacturing industry*, 12th International Conference on Education and New Learning Technologies, ISBN 978-84-09-17979-4 (indexed Google Scholar), pp. 3084-3093, Palma de Mallorca, Spain, July 2020.

8. Ugo Fiore, Adrian Florea, **Arpad Gellert**, Lucian Vintan, Paolo Zanetti, *Optimal Partitioning of LLC in CAT-enabled CPUs to Prevent Side-Channel Attacks*, Cyberspace Safety and Security (CSS 2018), Lecture Notes in Computer Science, Vol. 11161, Springer, ISBN 978-3-030-01688-3 (indexed DBLP, Scopus), pp. 115-123, October 2018.

9. Adrian Florea, **Arpad Gellert**, *Developing Heuristics for the Graph Coloring Problem Applied to Register Allocation in Embedded Systems*, Journal of Multimedia Processing and Technologies, ISSN 0976-4127 (indexed DBLP), Vol. 8, No. 3, pp. 74-87, September 2017.

10. **Arpad Gellert**, Adrian Florea, *Investigating a New Design Pattern for Efficient Implementation of Prediction Algorithms*, Journal of Digital Information Management, Vol. 11, Issue 5, ISSN 0972-7272 (indexed DBLP, Scopus, EBSCO), pp. 366-377, October 2013.

11. Traian Anghel, Adrian Florea, **Arpad Gellert**, Delilah Florea, *Developing Online Collaborative Games for e-Learning Environments*, The Second International Symposium on Knowledge Management and E-Learning (KMEL 2012), pp. 8190, Sinaia, September 2012, republished in Lecture Notes in Computer Science, New Horizons in Web Based Learning, ISBN 978-3-662-43453-6 (indexed DBLP, Scopus), Vol. 7697, pp. 221-230, 2014.

12. Adrian Florea, **Arpad Gellert**, Traian Anghel, Delilah Florea, *Enhanced Learning and Educational Management through Online Collaborative Technologies*, Journal of Digital Information Management, Vol. 9, No. 1, ISSN 0972-7272 (indexed DBLP, EBSCO, Scopus), pp. 33-42, February 2011.

13. Ciprian Radu, Horia Calborean, Adrian Florea, **Arpad Gellert**, Lucian Vintan, *Exploring Some Multicore Research Opportunities. A First Attempt*, Advanced Computer Architecture and Compilation for Embedded Systems (ACACES 2009), ISBN 978-9-0382-1467-2, Terrassa, Spain, 2009.

14. Lucian Vintan, Adrian Florea, **Arpad Gellert**, *Forcing Some Architectural Ceilings of the Actual Processor Paradigm*, Invited Paper, The 3rd Conference of The Academy of Technical Sciences from Romania (ASTR), ISBN 978-973-713-223-9 (indexed Google Scholar), Cluj-Napoca, November 2008.

15. Adrian Florea, Ciprian Radu, Horia Calborean, Adrian Crapciu, **Arpad Gellert**, Lucian Vintan, *Understanding and Predicting Unbiased Branches in General-Purpose Applications*,

Bulletin of the Polytechnic Institute of Iasi, Tom LIII (LVII), Fasc. 1-4, Section IV, ISSN 1220-2169 (indexed Zentralblatt), Iasi, 2007.

16. Adrian Florea, Ciprian Radu, Horia Calborean, Adrian Crapciu, **Arpad Gellert**, Lucian Vintan, *Designing an Advanced Simulator for Unbiased Branches Prediction*, Proceedings of 9th International Symposium on Automatic Control and Computer Science, ISSN 1843-665X (indexed Google Scholar), Iasi, 2007.

17. Ciprian Radu, Horia Calborean, Adrian Crapciu, **Arpad Gellert**, Adrian Florea, *An Interactive Graphical Trace-Driven Simulator for Teaching Branch Prediction in Computer Architecture*, The 6th EUROSIM Congress on Modelling and Simulation, (EUROSIM 2007), ISBN 978-3-901608-32-2 (indexed Google Scholar), Ljubljana, Slovenia, September 2007.

18. Marius Oancea, **Arpad Gellert**, Adrian Florea, Lucian Vinţan, *Analyzing Branch Prediction Contexts Influence*, Advanced Computer Architecture and Compilation for Embedded Systems (ACACES 2006), ISBN 90-382-0981-9 (indexed Google Scholar), pp. 5-8, L'Aquila, Italy, July 2006.

19. Adrian Florea, **Arpad Gellert**, *Memory Wall – A Critical Factor in Current High-Performance Microprocessors*, Science and Supercomputing in Europe, ISBN 978-88-86037-19-8 (indexed Google Scholar), pp. 257-264, Barcelona, Spain, 2006.

20. **Arpad Gellert**, Adrian Florea, *Finding and Solving Difficult Predictable Branches*, Science and Supercomputing in Europe, ISBN 978-88-86037-19-8 (indexed Google Scholar), pp. 265-271, Barcelona, Spain, 2006.

21. **Arpad Gellert**, Lucian Vintan, *Person Movement Prediction Using Hidden Markov Models*, Studies in Informatics and Control, Vol. 15, No. 1, ISSN 1220-1766 (indexed IEE INSPEC), National Institute for Research and Development in Informatics, Bucharest, March 2006.

22. Lucian Vinţan, **Arpad Gellert**, Adrian Florea, *Value Prediction Focalized on CPU Registers*, Advanced Computer Architecture and Compilation for Embedded Systems (ACACES 2005), Academia Press, ISBN 90-382-0802-2 (indexed Google Scholar), pp. 181-184, Ghent, Belgium, July 2005.

23. Lucian Vinţan, **Arpad Gellert**, Adrian Florea, *Register Value Prediction Using Metapredictors*, Proceedings of the 8th International Symposium on Automatic Control and Computer Science, Iasi, October 2004, republished in *Bulletin of the Polytechnic Institute of Iasi*, Fasc. 1-4, Section IV, Tomul L (LIV), ISSN 1220-2169 (indexed Zentralblatt), pp. 109-122, Iasi, 2004.

24. Lucian Vinţan, **Arpad Gellert**, Jan Petzold, Theo Ungerer, *Person Movement Prediction Using Neural Networks*, Proceedings of the KI2004 International Workshop on Modeling and Retrieval of Context (MRC 2004), Vol-114, ISSN 1613-0073 (indexed CiteSeerX), Ulm, Germany, September 2004.

25. Ioan Z. Mihu, **Arpad Gellert**, Horia V. Caprita, *Improving the Recognition System Architecture in Order to Increase the Set of Recognized Geometric Shapes*, Proceedings of the International Conference on Computers and Communications (ICCC 2004), ISBN 973-613-542-X, pp. 241-247 (indexed Google Scholar), Oradea, May 2004.

26. Ioan Z. Mihu, Horia V. Caprita, **Arpad Gellert**, *Parallel Programming Using MPI Library on Message-Passing Architectures*, Proceedings of the 6th International Conference on Technical Informatics (CONTI 2004), Transactions on Automatic Control and Computer Science, Vol. 49(63), No. 4, ISSN 1224-600X (indexed COPERNICUS, VINITI), pp. 37-42, Timisoara, May 2004.

27. Ioan Z. Mihu, **Arpad Gellert**, Horia V. Caprita, *Improved Methods of Geometric Shape Recognition Using Fuzzy and Neural Techniques*, Proceedings of the 6th International Conference on Technical Informatics (CONTI 2004), Transactions on Automatic Control and Computer Science, Vol. 49(63), No. 4, ISSN 1224-600X (indexed CiteSeerX, COPERNICUS, VINITI), pp. 99-104, Timisoara, May 2004.

28. Ioan Z. Mihu, **Arpad Gellert**, Cosmin N. Suciu, *Hierarchical Architecture Implying Fuzzy and Neural Techniques for On-Line Geometric Shape Recognition*, Annals of the University of Craiova, vol. 27, ISSN 1223-530X (indexed Google Scholar), pp. 173-180, Craiova, 2003.
29. Ioan Z. Mihu, **Arpad Gellert**, Cosmin N. Suciu, *Geometric Shape Recognition Using Fuzzy and Neural Techniques*, Proceedings of the 11th International Scientific Symposium (SINTES 11), ISBN 973-8043-416-6 (indexed Google Scholar), pp. 354 − 358, Craiova, October 2003.

E. Granturi / proiecte de cercetare

1. Director, *Monitoring eco-friendly quality of the PET bottle manufacturing using advanced AI*, Grant DIH-World 952176, 2022-2023, 28.125 EUR.
2. Membru, *Futures of Innovation Technologies European Digital Innovation Hub*, Proiect Digital Europe 101083915, 2022-2025, director Bogdan-Constantin Pîrvu, 745.529,99 EUR.
3. Director, *Metode de estimare a consumului de energie electrică la nivel de oraș*, Grant intern LBUS-IRG-2022-08, 2022-2025, 12.000 lei.
4. Director, *Modelarea proceselor de asamblare asistată a produselor prin metode de inteligență artificială*, Grant intern LBUS-IRG-2021-07, 2021-2024, 12.000 lei.
5. Membru, *Ingineria învățării automate în Digital Twin*, Grant LBUS-HPI-ERG-2020-03, 2021-2023, director Constantin-Bala Zamfirescu, 750.000 lei.
6. Director, *Modelare și estimare prin metode avansate de predicție*, Grant intern LBUS-IRG-2020-06, 2020-2023, 12.000 lei.
7. Director, *Tehnici de predicție a consumului și a producției de energie electrică în clădiri*, Grant intern LBUS-IRG-2019-05, 2019-2022, 11.875 lei.
8. Membru, *Dezvoltarea sistemelor socio-fizico-cibernetice pe baza Internetului Lucrurilor în fabrica viitorului*, Proiect POC, ID P_37_771, 2019-2020, director Bogdan Pîrvu, 8.925.938,42 lei.
9. Director, *Metode de anticipare statistice în sisteme de gestiune a energiei electrice*, Grant intern LBUS-IRG-2018-04, 2018-2020, 9.000 lei.
10. Membru, *High Performance and Embedded Architecture and Compilation (HiPEAC)*, FP7 project no. 287759, 2012-2015, director Koen de Boschere (Ghent Univ., Belgium), EUR 3.808.245.
11. Responsabil, *Design Space Exploration of Advanced Prediction Methods for Speculative Computer Architectures*, proiect de cercetare cod 0066/AMM din 22.05.2009, Politecnico di Milano, Italia, 2009, EUR 3.000.
12. Membru, *Extinderea paradigmei analizei scurtcircuitelor monofazate în rețelele electrice de înaltă tensiune prin metode clasice și euristice*, Grant CNCSIS, cod 485, 2008, director Maria Vințan, 510.320 lei.
13. Director, *Metode avansate de predicție integrate în arhitecturi cu procesări speculative*, Grant CNCSIS tip TD, cod 248, 2007/2008, 28.428 lei.
14. Membru, *Microarhitectură superscalară avansată cu procesări paralele și predictiv-speculative*, Grant CNCSIS tip A, cod 39, 2007/2008, director Lucian Vințan, 175.000 lei.
15. Membru, *Sistem de suport al deciziilor de grup în mediul academic și al administrației publice − premisă a descentralizării și democratizării sistemului decizional*, Proiect P-CD, Nr. eCD1, Effective Decisions, 2005, director Constantin Oprean, 129.735 lei.
16. Membru, *Îmbunătățiri ale paradigmei arhitecturilor superscalare prin reutilizarea și predicția valorilor instrucțiunilor*, Grant CNCSIS cod 71/2004 - 2006, director Lucian Vințan, 14.000 lei + 12.000 lei + 10.000 lei.

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Semnătura: