

Technical University of Cluj-Napoca
Faculty of Automation and Computer Science
Computer Science Department

Candidate: Conf. Dr. Ing. Ionuț Manuel Anghel

List of Publications

A – Doctoral thesis

„Autonomic computing techniques for pervasive systems and energy efficient data centres”

Mentor: Prof.dr.ing. Ioan Salomie

Technical University of Cluj-Napoca, Faculty of Automation and Computer Science

Examination date: 09.07.2012

B – Books and book chapters

B1. Books

1. **I. Anghel**, T. Cioara - *Ambient Intelligence for Elders Care*, UT Press, 2018, ISBN: 978-606-737-297-7, 85 pagini.
2. T. Cioara, **I. Anghel** - *Distributed Frameworks for Managing Cyber Physical Production Systems in Smart Factories*, UT Press, 2018, ISBN: 978-606-737-296-0, 105 pagini.
3. M. Antal, C. Pop, D. Moldovan, T. Petrican, C. Stan, I. Salomie, T. Cioara, **I. Anghel**, *Distributed Systems – Laboratory Guide*, Editura UTPRESS Cluj-Napoca, 2018 ISBN 978-606-737-329-5
4. **I. Anghel**, I. Salomie, T. Cioara, G. Copil, D. Moldovan - *Autonomic computing techniques for pervasive systems and energy efficient data centres*, U.T. Press, 2013, ISBN 978-973-662-850-4, 140 pagini.
5. T. Cioara, I. Salomie, **I. Anghel**, D. Moldovan, G. Copil - *Context aware adaptive systems with applicability in green service centres*, UT Press, 2013, ISBN 978-973-662-851-1, 174 pagini.
6. I. Salomie, T. Cioara, **I. Anghel**, T. Salomie - *Distributed Computing and Systems*, Editura Albsatra, Cluj-Napoca, 2008, ISBN 978-973-650-234-7, 367 pagini.

B2. Book Chapters

1. D. Moldovan, **I. Anghel**, T. Cioara and I. Salomie, Apache Spark for Digitalization, Analysis and Optimization of Discrete Manufacturing Processes, Big Data Platforms and Applications, Springer International Publishing, Pop Florin, Neagu Gabriel (Eds.), 2021, ISSN 1617-7975
2. **I. Anghel**, T. Cioara, C. Pop, M. Antal. Semantic Data Model for Energy Efficient Integration of Data Centres in Energy Grids, Data Science and Big Data Analytics in Smart Environments 1st Edition, by Marta Chinnici (Editor), Florin Pop (Editor), Catalin Negru (Editor), CRC, ISBN 9780367407131, July 2021

3. C. Pop, M. Antal, T. Cioara, **I. Anghel**. Trading Energy as a Digital Asset: A Blockchain based Energy Market, Cryptocurrencies and Blockchain Technologies and Applications: Decentralization and Smart Contracts, 2020, Eds.: Shrivastava Gulshan, Le Dac-Nhuong, Sharma Kavita. Wiley-Scrivener, ISBN: 978-1-119-62116-4
4. **I. Anghel**, T. Cioara, I. Salomie, Context Aware and Reinforcement Learning based Load Balancing System for Green Clouds, in „*Resource Management for Big Data Platforms*”, book edited by Florin Pop, Joanna Kołodziej, Beniamino Di Martino, ISBN 978-3-319-44880-0 129-144, Springer Berlin Heidelberg, 2016.
5. T. Cioara, **I. Anghel**, D. Valea, I. Salomie, V. S. Martin, A. Marchena, E. Jimeno and M. Vastenburger, Adaptive Workspace Interface for Facilitating the Knowledge Transfer from Retired Elders to Start-up Companies, in „*Ambient Assisted Living and Enhanced Living Environments: Principles, Technologies and Control*”, book edited by: Ciprian Dobre, Constandinos X. Mavromoustakis, Nuno Garcia, Rossitza Ivanova Goleva and George Mastorakis, ISBN: 978-0-12-805195-5, Elsevier, 2016.
6. A. Kipp, T. Jiang, J. Liu, M. Fugini, **I. Anghel**, T. Cioara, D. Moldovan, I. Salomie, Energy-Aware provisioning of HPC services with virtualised web services, *Evolutionary Based Solutions for Green Computing*, Vol. 432, 2013, pp 29-53.

C – Articles in international journals

C1. WoS Journals

1. C. Antal, T. Cioara, M. Antal, V. Mihailescu, D. Mitrea, **I. Anghel**, I. Salomie, G. Raveduto, M. Bertocini, V. Croce, T. Bragatto, F. Carere, F. Bellesini, Blockchain based decentralized local energy flexibility market, Energy Reports, Volume 7, 2021, Pages 5269-5288, ISSN 2352-4847 IF:6.87 Q1 [DOI](#)
2. M. Antal, A. Cristea, V. Pădurean, T. Cioara, **I. Anghel**, M. Antal, I. Salomie, N. Saintherant, Heating Homes with Servers: Workload Scheduling for Heat Reuse in Distributed Data Centers. Sensors 2021, 21, 2879. IF:3.576 Q1 [DOI](#)
3. C. Antal, T. Cioara, M. Antal and **I. Anghel**, Blockchain Platform For COVID-19 Vaccine Supply Management, in IEEE Open Journal of the Computer Society, vol. 2, pp. 164-178, 2021. WOS Emerging Sources Citation Index [DOI](#)
4. T. Cioara, M. Antal, V. T. Mihailescu, C. D. Antal, I. M. Anghel and D. Mitrea, Blockchain-Based Decentralized Virtual Power Plants of Small Prosumers, in IEEE Access, vol. 9, pp. 29490-29504, 2021 IF:3.367 Q2 [DOI](#)
5. C. Antal, T. Cioara, **I. Anghel**, M. Antal, I. Salomie, Distributed Ledger Technology Review and Decentralized Applications Development Guidelines. Future Internet 2021, 13, 62. WOS Emerging Sources Citation Index [DOI](#)
6. T. Cioara, M. Antal, C. Antal, **I. Anghel**, M. Bertocini, D. Arnone, M. Lazzaro, M. Mammina, T. Velivassaki, A. Voukidis, Y. Ricordel, N. Sainthérant, A. Oleksiak, W. Piatek, Data Centers Optimized Integration with Multi-Energy Grids: Test Cases and Results in Operational Environment. Sustainability 2020, 12, 9893. IF:3.251 Q2 [DOI](#)
7. C. D. Pop, M. Antal, T. Cioara, **I. Anghel** and I. Salomie, Blockchain and Demand Response: Zero-Knowledge Proofs for Energy Transactions Privacy, Sensors, 2020, 20, 5678. IF:3.576 Q1 [DOI](#)
8. **I. Anghel**, T. Cioara, D. Moldovan, M. Antal, C.D. Pop, I. Salomie, C.B. Pop, V. Chifu, Smart Environments and Social Robots for Age-Friendly Integrated Care Services. Int. J. Environ. Res. Public Health 2020, 17, 3801. IF: 3.39 Q1 [DOI](#)

9. D. Moldovan, **I. Anghel**, T. Cioara, I. Salomie, Adapted Binary Particle Swarm Optimization for Efficient Features Selection in the Case of Imbalanced Sensor Data. *Appl. Sci.* 2020, 10, 1496., IF: 2.679 Q2 [DOI](#)
10. A.V. Vesa, T. Cioara, **I. Anghel**, M. Antal, C. Pop, B. Iancu, I. Salomie, V. Dadarlat, Energy Flexibility Prediction for Data Center Engagement in Demand Response Programs. *Sustainability* 2020, 12, 1417, IF: 3.251 Q2 [DOI](#)
11. M. Antal, C. Pop, T. Cioara, **I. Anghel**, I. Salomie, F. Pop, A system of systems approach for data centers optimization and integration into smart energy grids, *Future Generation Computer Systems*, April 2020, ISSN 0167-739X. IF: 7.187 Q1 [DOI](#)
12. C. Pop, M. Antal, T. Cioara, **I. Anghel**, I. Salomie, M. Bertoncini, A Fog Computing Enabled Virtual Power Plant Model for Delivery of Frequency Restoration Reserve Services. *Sensors* 2019, 19, 4688. IF:3.576 Q1 [DOI](#)
13. C. Pop, M. Antal, T. Cioara, **I. Anghel**, D. Sera, I. Salomie, G. Raveduto, D. Ziu, V. Croce, M. Bertoncini, Blockchain-Based Scalable and Tamper-Evident Solution for Registering Energy Data. *Sensors* 2019, 19, 3033. IF:3.576 Q1 [DOI](#)
14. T. Cioara, **I. Anghel**, I. Salomie, M. Antal, C.a Pop, M. Bertoncini, D. Arnone, F. Pop, Exploiting data centres energy flexibility in smart cities: Business scenarios, *Information Sciences*, 2019, ISSN 0020-0255 IF: 6.795 Q1 [DOI](#)
15. M. Antal, T. Cioara, **I. Anghel**, R. Gorzenski, R. Januszewski, A. Oleksiak, W. Piatek, C. Pop, I. Salomie and W. Szeliga, Reuse of Data Center Waste Heat in Nearby Neighborhoods: A Neural Networks-Based Prediction Model, *Energies* 2019, 12(5), 814 IF: 3.004 Q3 [DOI](#)
16. M. Antal, C. Pop, T. Petrican, A. V. Vesa, T. Cioara, **I. Anghel**, I. Salomie, E. Niewiadomska-Szynkiewicz, MoSiCS: Modeling, simulation and optimization of complex systems—A case study on energy efficient datacenters, *Simulation Modelling Practice and Theory*, 2019, ISSN 1569-190X IF: 3.272 Q1 [DOI](#)
17. M. Antal, T. Cioara, **I. Anghel**, C. Pop and I. Salomie, Transforming Data Centers in Active Thermal Energy Players in Nearby Neighborhoods, *Sustainability* 2018, 10, 939. IF:2.592 Q2 [DOI](#)
18. C. Pop, T. Cioara, M. Antal, **I. Anghel**, I. Salomie and M. Bertoncini, Blockchain Based Decentralized Management of Demand Response Programs in Smart Energy Grids, *Sensors* 2018, 18(1), 162. IF:3.576 Q1 [DOI](#)
19. T. Cioara, **I. Anghel**, I. Salomie, L. Barakat, S. Miles, D. Reidlinger, A. Taweel, C. Dobre, F. Pop, Expert system for nutrition care process of older adults, *Future Generation Computer Systems*, Volume 80, March 2018, Pages 368-383, ISSN 0167-739X. IF:7.187 Q1 [DOI](#)
20. T. Cioara, **I. Anghel**, M. Bertoncini, I. Salomie, D. Arnone, M. Mammina, T. Velivassaki, M. Antal, Optimized Flexibility Management enacting Data Centres Participation in Smart Demand Response Programs, *Future Generation Computer Systems*, Volume 78, Part 1, January 2018, Pages 330-342. IF: 7.187 Q1 [DOI](#)
21. T. Cioara, **I. Anghel**, I. Salomie, Methodology for Energy Aware Adaptive Management of Virtualized Data Centers, in *Energy Efficiency*, April 2017, Volume 10, Issue 2, pp 475–498 IF: 2.574 Q3, [DOI](#)
22. A. Taweel, L. Barakat, S. Miles, T. Cioara, **I. Anghel**, A.-R. H. Tawil, I. Salomie, A service-based system for malnutrition prevention and self-management, in *Computer Standards & Interfaces*, 2016. IF: 2.487 Q2 [DOI](#)
23. **I. Anghel**, T. Cioara, I. Salomie, M. Dinsoreanu, A. Rarau - Middleware for Smart Environments Management -*International Journal of Computers Communications & Control*, Vol. 5/2, pp. 148-159, ISSN 1841-9836, 2010, IF:2.293 Q3 [download](#)

24. **I. Anghel**, C. B. Pop, T. Cioara, I. Salomie, I. Vartic - A Swarm-inspired Technique for Self-Organizing and Consolidating Data Centre Servers - Scalable Computing: Practice and Experience, Vol 14 (2), 2013, WOS Emerging Sources Citation Index [DOI](#)

C2. BDI Journals

1. T. Cioara, **I. Anghel**, I. Salomie, G. Copil, D. Moldovan, B. Pernici, „A Context Aware Self-Adapting Algorithm for Managing the Energy Efficiency of IT Service Centres”, *Ubiquitous Computing And Communication Journal* – Special Issue of RoEduNet, 2011, pp. 619 - 630, ISBN: 1994-4608. [**ProQuest**]
2. T. Cioara, **I. Anghel**, I. Salomie, M. Dinsoreanu, „A Generic Context Model Enhanced with Self-configuring Features”, *Journal of Digital Information Management*, Vol. 7, No 3, 2009, pp. 159-165, ISSN: 0972-7272. [**DBLP**]
3. I. Salomie, C. B. Pop, T. Cioara, **I. Anghel**, M. Grindean, I. Dragan, L. Ardelean, I. Carja, „Applying Rule-based Knowledge Acquisition on Historical Documents”, *Automation, Computers, Applied Mathematics Journal*, Vol. 18, No. 2, 2009, pp. 277-282, ISSN: 1221-437X. [**Mathematical Reviews**]
4. M. Dinsoreanu, I. Salomie, C. Rat, S. Suci, T. Cioara, **I. Anghel**, I. Dragan, L. Ardelean, I. Carja, „Hierarchical Data Models for the ArhiNet Ontology Representation and Processing”, *Automation, Computers, Applied Mathematics Journal*, Vol.18/2, 2009, pp. 289-295, ISSN: 1221-437X. [**Mathematical Reviews**]
5. T. Cioara, **I. Anghel**, I. Salomie, M. Dinsoreanu, A Self-configuring Middleware for Developing Context Aware Applications, *Studia Informatica - Sp.Issue 2 / 2009*, pp. 365-372, ISSN: 2067-1180.
6. I. Salomie, M. Dinsoreanu, T. Cioara, **I. Anghel**, T.I. Salomie, „Industrial Business Process Modeling, Verification and Simulation with Application in Food Industry”, *Automation, Computers, Applied Mathematics Journal*, Vol. 17, No. 1, 2008, pp. 102 - 111, ISSN: 1221-437X. [**Mathematical Reviews**]

D – Articles in international conferences

D1. WoS conferences

1. L. Todorean, C. Antal, M. Antal, D. Mitrea, T. Cioara, **I. Anghel**, I. Salomie, A Lockable ERC20 Token for Peer to Peer Energy Trading, ICCP2021, [**IEEE**]
2. I. A. Bozdog, D. Todea, M. Antal, C. Antal, T. Cioara, **I. Anghel**, I. Salomie, Human Behavior and Anomaly Detection using Machine Learning and Wearable Sensors, ICCP2021 [**IEEE**]
3. D. Moldovan, **I. Anghel**, T. Cioara and I. Salomie, "Machine Learning in Manufacturing: Processes Classification Using Support Vector Machine and Horse Optimization Algorithm," 2020 19th RoEduNet Conference: Networking in Education and Research (RoEduNet), Bucharest, Romania, 2020, pp. 1-6, [**IEEE**]
4. T. Cioara, C. Pop, R. Zanc, **I. Anghel**, M. Antal and I. Salomie, "Smart Grid Management Using Blockchain: Future Scenarios and Challenges," 2020 19th RoEduNet Conference: Networking in Education and Research (RoEduNet), Bucharest, Romania, 2020, pp. 1-5 [**IEEE**]
5. D. Moldovan, **I. Anghel**, T. Cioara and I. Salomie, Particle Swarm Optimization Based Deep Learning Ensemble for Manufacturing Processes, *International Conference on*

- Computer Communication and Processing (ICCP 2020)*, 3 – 5 September 2020, Cluj-Napoca, Romania [IEEE]
6. T. Sărățean, M. Antal, C. Pop, T. Cioara, **I. Anghel** and I. Salomie, A Physiotherapy Coaching System based on Kinect Sensor, *International Conference on Computer Communication and Processing (ICCP 2020)*, 3 – 5 September 2020, Cluj-Napoca, Romania [IEEE]
 7. C. Pop, M. Prata, M. Antal, T. Cioara, **I. Anghel** and I. Salomie, An Ethereum-based implementation of English, Dutch and First-price sealed-bid auctions, *International Conference on Computer Communication and Processing (ICCP 2020)*, 3 – 5 September 2020, Cluj-Napoca, Romania [IEEE]
 8. I. A. Daniel, C. Pop, **I. Anghel**, M. Antal and T. Cioara, A Blockchain based solution for Managing Transplant Waiting Lists and Medical Records, *International Conference on Computer Communication and Processing (ICCP 2020)*, 3 – 5 September 2020, Cluj-Napoca, Romania [IEEE]
 9. A. V. Vesa, V. Simion, R. Rus, M. Antal, C. Pop, **I. Anghel**, T. Cioara and I. Salomie, Human Activity Recognition using Smartphone Sensors and Beacon-based Indoor Localization for Ambient Assisted Living Systems, *International Conference on Computer Communication and Processing (ICCP 2020)*, 3 – 5 September 2020, Cluj-Napoca, Romania [IEEE]
 10. D. Moldovan, **I. Anghel**, T. Cioara, I. Salomie, V. Chifu, and C. Pop, Kangaroo Mob Heuristic for Optimizing Features Selection in Learning the Daily Living Activities of People with Alzheimer's, *CSCS22*, 2019
 11. D. Moldovan, **I. Anghel**, T. Cioara, I. Salomie, Time Series Features Extraction Versus LSTM for Manufacturing Processes Performance Prediction, *SPED 2019*, Timisoara, Romania
 12. R. Zanc, T. Cioara, **I. Anghel**, Forecasting Financial Markets using Deep Learning, *ICCP 2019*, Cluj-Napoca, Romania
 13. A. V. Vesa, N. Ghitescu, C. Pop, M. Antal, T. Cioara, **I. Anghel**, I. Salomie, A Stacking Multi-Learning Ensemble Model for Predicting Near Real Time Energy Consumption Demand of Residential Buildings, *IEEE ICCP2019*, September 2019, Cluj-Napoca, Romania
 14. D. Moldovan, A. Visovan, M. Bologna, C. Pop, V. R. Chifu, **I. Anghel**, T. Cioara and I. Salomie, Random Forest and Sequential Model for Anomalies Detection in the Activities of the People with Dementia, *MediTech 2018, IFMBE Proceedings*, vol 71. Springer, Singapore, 2019
 15. V. R. Chifu, C. B. Pop, T. Cioara, **I. Anghel**, D. Moldovan and I. Salomie, Identifying the Polypharmacy Side-Effects in Daily Life Activities of Elders with Dementia, *Volume 798 of the Studies in Computational Intelligence series*, ISSN 978-3-319-99625-7, IDC 2018
 16. C. Pinte, E. Pinte, M. Antal, C. Pop, T. Cioara, **I. Anghel** and I. Salomie, CoolCloudSim: Integrating Cooling System Models in CloudSim, *14th International Conference on Computer Communication and Processing (ICCP 2018)*.
 17. D. Moldovan, A. Olosutean, V. Chifu, C. Pop, T. Cioara, **I. Anghel**, I. Salomie, Big Data Analytics for the Daily Living Activities of the People with Dementia, *14th International Conference on Computer Communication and Processing (ICCP 2018)*.
 18. C. Pop, M. Antal, C. Pop, A. V. Vesa, C. Tudor, **I. Anghel**, I. Salomie and T. Petrican, Decentralizing the Stock Exchange using Blockchain: An Ethereum-based implementation of the Bucharest Stock Exchange, *14th International Conference on Computer Communication and Processing (ICCP 2018)*

19. T. Petrican, A. V. Vesa, M. Antal, C. Pop, T. Cioara, **I. Anghel** and I. Salomie, Evaluating Forecasting Techniques for Integrating Household Energy Prosumers into Smart Grids, *14th International Conference on Computer Communication and Processing (ICCP 2018)*.
20. R. Jurca, T. Cioara, **I. Anghel**, M. Antal, C. Pop, D. Moldovan, Activities of Daily Living Classification using Recurrent Neural Networks, *RoEduNet Conference 2018*.
21. D. Moldovan, V. Chifu, C. Pop, T. Cioara, **I. Anghel**, I. Salomie, Chicken Swarm Optimization and Deep Learning for Manufacturing Processes, *RoEduNet Conference 2018*.
22. **I. Anghel**, T. Cioara, D. Moldovan, I. Salomie and M. M. Tomus, Prediction of Manufacturing Processes Errors: Gradient Boosted Trees Versus Deep Neural Networks, *EUC-2018*.
23. D. Moldovan, M. Antal, C. Pop, A. Olosutean, T. Cioara, **I. Anghel**, and I. Salomie, Spark-based Classification Algorithms for Daily Living Activities, *Advances in Intelligent Systems and Computing Series*, ISSN 2194-5357, CSOC 2018
24. **I. Anghel**, T. Cioara, T. Velivassaki, M. Bertoncini, A. Voulkidis, A. Oleksiak, N. Saintherant, V. Georgiadou, M. A. Paglia and C. Pop, Converting Data Centres in Energy Flexibility Ecosystems, *2018 IEEE Industrial and Commercial Power Systems Europe*.
25. T. Cioara, M. Bertoncini, D. Ioannidis, V. Croce, **I. Anghel**, K. Votis, C. Pop and L. D'Oriano, Enabling New Tehnologies for Demand Response Decentralized Validation using Blockchain, *2018 IEEE Industrial and Commercial Power Systems Europe*.
26. C. Pop, A. Craciun, C. Knoblaue, M. Antal, D. Moldovan, T. Cioara, **I. Anghel** and I. Salomie, "Semantic data factory: A framework for using domain knowledge in software application development," *2017 13th IEEE International Conference on Intelligent Computer Communication and Processing (ICCP)*, Cluj-Napoca, Romania, 2017, pp. 21-28. ISBN: 978-1-5386-3368-7
27. D. Moldovan, T. Cioara, **I. Anghel** and I. Salomie, "Machine learning for sensor-based manufacturing processes," *2017 13th IEEE International Conference on Intelligent Computer Communication and Processing (ICCP)*, Cluj-Napoca, Romania, 2017, pp. 147-154. ISBN: 978-1-5386-3368-7
28. T. Petrican, C. Stan, M. Antal, I. Salomie, T. Cioara and **I. Anghel**, "Ontology-based skill matching algorithms," *2017 13th IEEE International Conference on Intelligent Computer Communication and Processing (ICCP)*, Cluj-Napoca, Romania, 2017, pp. 205-211. ISBN: 978-1-5386-3368-7
29. M. Antal, C. Pop, T. Cioara, **I. Anghel**, I. Tamas and I. Salomie, "Proactive day-ahead data center operation scheduling for energy efficiency: Solving a MIOCP using a multi-gene genetic algorithm," *2017 13th IEEE International Conference on Intelligent Computer Communication and Processing (ICCP)*, Cluj-Napoca, Romania, 2017, pp. 527-534. ISBN: 978-1-5386-3368-7
30. M. Antal, A. Burnete, C. Pop, T. Cioara, **I. Anghel** and I. Salomie, "Self-adaptive task scheduler for dynamic allocation in energy efficient data centers," *2017 13th IEEE International Conference on Intelligent Computer Communication and Processing (ICCP)*, Cluj-Napoca, Romania, 2017, pp. 535-541. ISBN: 978-1-5386-3368-7
31. D. Moldovan, P. Stefan, C. Vuscan, V. R. Chifu, **I. Anghel**, T. Cioara, I. Salomie, „Diet Generator for Elders using Cat Swarm Optimization and Wolf Search”, *International Conference on Advancements of Medicine and Health Care through Technology*; 12th - 15th October 2016, Cluj-Napoca, Romania, IFMBE Proceedings, vol 59. Springer, pp 238-243, 2017

32. D. Moldovan, C. Pop, M. Antal, T. Cioara, **I. Anghel**, I. Salomie, „Semantic Web Application Generator – A Library for Using Ontologies as Web Services”, *2016 IEEE 12th International Conference on Intelligent Computer Communication and Processing (ICCP 2016)*, 8-10 September 2016, Cluj-Napoca, Romania, pp. 103-110.
33. M. Antal, C. Pinteaa, E. Pinteaa, C. D. Pop, T. Cioara, **I. Anghel**, I. Salomie, „Thermal Aware Workload Consolidation in Cloud Data Centers”, *2016 IEEE 12th International Conference on Intelligent Computer Communication and Processing (ICCP 2016)*, 8-10 September 2016, Cluj-Napoca, Romania, pp. 377-392.
34. **I. Anghel**, T. Cioara, I. Salomie, ICT Architecture for Supporting Elder Employees to Make Conscious Decisions Under Time Pressure. in „*State-of-the-Art and Future Directions of Smart Learning. Lecture Notes in Educational Technology*”, ISBN: 978-981-287-866-3, Springer, Singapore, 2016.
35. M. Antal, C. Pop, D. Valea, T. Cioara, **I. Anghel**, I. Salomie, Optimizing Data Centres Operation to Provide Ancillary Services On-demand, in „*Economics of Grids, Clouds, Systems, and Services. Lecture Notes in Computer Science*”, GECON 2015, vol. 9512, ISBN: 978-3-319-43176-5, Springer International Publishing Switzerland, 2016.
36. T. Cioara, **I. Anghel**, M. Antal, S. Crisan, I. Salomie, „Data center optimization methodology to maximize the usage of locally produced renewable energy”, *Sustainable Internet and ICT for Sustainability (SustainIT)*, 14-15 April 2015, Madrid, Spain, pp. 1- 8.
37. D. Moldovan, M. Antal, D. Valea, C. Pop, T. Cioara, **I. Anghel**, I. Salomie, „Tools for Mapping Ontologies to Relational Databases: A Comparative Evaluation”, *Processing of the 2015 IEEE International Conference on Intelligent Computer Communication and Processing (ICCP2015)*, 3-5 September 2015, Cluj-Napoca, Romania, pp.77-84.
38. C. Pop, D. Moldovan, M. Antal, D. Valea, T. Cioara, **I. Anghel**, I. Salomie, „M2O: A Library for Using Ontologies in Software Engineering”, *Processing of the 2015 IEEE International Conference on Intelligent Computer Communication and Processing (ICCP2015)*, 3-5 September 2015, Cluj-Napoca, Romania, pp. 69-74.
39. **I. Anghel**, M. Bertoncini, T. Cioara, M. Cupelli, V. Georgiadou, P. Jahangiri, A. Monti, S. Murphy, A. Schoofs, T. Velivassaki, GEYSER: Enabling Green Data Centres in Smart Cities, in *Energy Efficient Data Centers, E2DC 2014*, vol. 8945, pp. 71-86.
40. T. Cioara, **I. Anghel**, I. Salomie, A Self-configuring Middleware Solution for Context Management, in „*e-Business and Telecommunications Volume 130 of the series Communications in Computer and Information Science*”, ICETE 2009, ISBN: 978-3-642-20076-2, Springer Heidelberg, 2011.
41. T. Cioara, I. Salomie, **I. Anghel**, I. Chira, A. Cocian, E. Henis, R. Kat, A Dynamic Power Management Controller for Optimizing Servers’ Energy Consumption in Service Centers, in „*Service-Oriented Computing Volume 6568 of the series Lecture Notes in Computer Science*”, ICSOC2010, ISBN: 978-3-642-19393-4, Springer, 2011.
42. I. Salomie, T. Cioara, **I. Anghel**, D. Moldovan, G. Copil, P. Plebani, An Energy Aware Context Model for Green IT Service Centers, in „*Service-Oriented Computing Volume 6568 of the series Lecture Notes in Computer Science*”, ICSOC2010, ISBN: 978-3-642-19393-4, Springer 2011.
43. **I. Anghel**, T. Cioara, I. Salomie, M. Dinsoreanu, G. Copil, D. Moldovan, „An Autonomic Context Management Model based on Machine Learning”, *Proceedings of the 12th IEEE International Symposium on Symbolic and Numeric Algorithms for Scientific Computing*, 23-26 Sept. 2010, Timisoara, pp. 335 – 338.
44. T. Cioara, **I. Anghel**, I. Salomie, M. Dinsoreanu, G. Copil, D. Moldovan, A Self-Adapting Algorithm for Context Aware Systems, *Proceedings of the 9th IEEE RoEduNet International Conference*, 24-26 June 2010, Sibiu, Romania, pp. 374 – 379.

45. **I. Anghel**, T. Cioara, I. Salomie, M. Dinsoreanu, A. Rarau, A Policy Driven Self-healing Algorithm for Context Aware Systems, *Proceedings of the 5th International Conference on Intelligent Computer Communication and Processing*, 27 – 29 August 2009, Cluj-Napoca, Romania, pp. 229-236.
46. T. Cioara, **I. Anghel**, I. Salomie, M. Dinsoreanu, "A Context-based Semantically Enhanced Information Retrieval Model", *Proceedings of the 5th International Conference on Intelligent Computer Communication and Processing*, 27-29 August 2009, Cluj-Napoca, Romania, pp. 245-250.
47. **I. Anghel**, T. Cioara, I. Salomie, M. Dinsoreanu, A. Rarau, „A Self-Configuring Middleware for Managing Context Awareness”, *Proceedings of the International Conference on Wireless Information Networks and Systems*, 2009, pp. 131-138, BEST STUDENT PAPER AWARD.
48. T. Cioara, **I. Anghel**, I. Salomie, M. Dinsoreanu, „A Policy-Based Context Aware Self-Management Model”, *Proceedings of the 2009 11th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing*, 26-29 September 2009, Timisoara, Romania, pp. 333 – 340.
49. T. Cioara, **I. Anghel**, I. Salomie, M. Dinsoreanu, A. Rarau, „A Self-configuring Middleware for Developing Context Aware Applications”, *KEPT2009*, Studia Universitatis Babeş-Bolyai, Series Informatica, Special Issue: Knowledge Engineering: Principles and Techniques, vol. LIV, 2009, pp. 300-304, ISSN: 1224-869x.
50. I. Salomie, **I. Anghel**, T. Cioara, M. Dinsoreanu, „A Context Awareness Model Enhanced with Autonomic Features”, *Proceedings of the 4th International Conference on Intelligent Computer Communication and Processing*, 28 – 30 August 2008, Cluj-Napoca, Romania, pp. 239-246.
51. I. Salomie, T. Cioara, **I. Anghel**, M. Dinsoreanu, „RAP A Basic Context Awareness Model”, *Proceedings of the 4th International Conference on Intelligent Computer Communication and Processing*, 28 – 30 August 2008, Cluj-Napoca, Romania, pp. 315-318.
52. T. Cioara, **I. Anghel**, I. Salomie, M. Dinsoreanu, „A Generic Context Model with Autonomic Features”, *Proceedings of the 3rd International Conference on Digital Information Management*, November 13-16, 2008, London, UK, pp. 891-896.
53. I. Salomie, T. Cioara, **I. Anghel**, M. Dinsoreanu, T. I. Salomie, „A Layered Workflow Model Enhanced with Process Algebra Verification for Industrial Processes”, *Proceedings of the 3rd International Conference on Intelligent Computer Communication and Processing*, 6-8 September 2007, Cluj-Napoca, Romania, pp. 185-192.
54. I. Salomie, T. Cioara, **I. Anghel**, M. Dinsoreanu, T. I. Salomie, „Machine Simulation for Workflow Integration Testing”, *Proceedings of the 3rd International Conference on Intelligent Computer Communication and Processing*, 6-8 September 2007, Cluj-Napoca, Romania, pp. 193-199.
55. I. Salomie, T. Cioara, **I. Anghel**, M. Dinsoreanu, T. Salomie, „Workflow models enhanced with process algebra verification for industrial business processes”, *Proceedings of the 11th WSEAS International Conference on Computers*, July 23-28, 2007, Agios Nikolaos, Crete Island, Greece, pp. 501-506.
56. I. Salomie, T. Cioara, **I. Anghel**, M. Dinsoreanu, T. Salomie, „Machine and business modeling and simulation for workflow integration”, *Proceedings of the 9th WSEAS International Conference on Automatic Control, Modeling & Simulation*, May 27 - 29, 2007, Istanbul, Turkey, pp. 165-170.

D2. BDI conferences

1. J. Rochat, A. Villaverde, H. Klitzing, T. L. Larsen, M. Vogel, J. Rime, **I. Anghel**, T. Cioara, C. Lovis, Designing an eHealth Coaching Solution to Improve Transitional Care of Seniors' with Heart Failure: End-User Needs, *Studies in Health Technology and Informatics (MIE2021 articles)*, IOS Press, Vol. 281, pp. 530 – 534, 2021, ISBN: 978-1-64368-184-9 [**Scopus**]
2. M. Antal, T. Cioara, **I. Anghel**, C. Antal, and I. Salomie. 2021. Flexibility Management of Data Centers to Provide Energy Services in the Smart Grid. In *Proceedings of the Twelfth ACM International Conference on Future Energy Systems (e-Energy '21)*. Association for Computing Machinery, New York, NY, USA, 443–449 [**ACM**]
3. G. Raveduto, V. Croce, M. Antal, C. Pop, **I. Anghel** and T. Cioara, Dynamic Coalitions of Prosumers in Virtual Power Plants for Energy Trading and Profit Optimization, 2020 *IEEE 20th Mediterranean Electrotechnical Conference (MELECON)*, Palermo, Italy, 16-18 June 2020 [**IEEE**]
4. Dorin Moldovan; Ionut Anghel; Tudor Cioara; Cristina Pop; Viorica Chifu; Ioan Salomie, Binary Cat Swarm Optimization Feature Selection and Machine Learning Based Ensemble for the Classification of the Daily Living Activities of the Elders, *MEDITECH 2020*, October 2020, Cluj-Napoca, Romania [**Springer**]
5. M. Antal, T. Cioara, **I. Anghel**, C. Pop, I. Salomie, M. Bertoncini, and D. Arnone. „DC Thermal Energy Flexibility Model for Waste Heat Reuse in Nearby Neighborhoods”. In *Proceedings of the Eighth International Conference on Future Energy Systems (e-Energy '17)*. ACM, New York, NY, USA, 278-283 [**ACM**]
6. T. Cioara, **I. Anghel**, I. Salomie, M. Antal, M. Bertoncini, D. Arnone, „Optimizing the Power Factor of Data Centers Connected to the Smart Grid”, *Proceedings of the 5th International Workshop on Energy Efficient Data Centres*, Article No. 3, June 21 – 24, 2016, Waterloo, Ontario, Canada. [**ACM**]
7. M. Bertoncini, D. Arnone, T. Cioara, **I. Anghel**, I. Salomie, T. H. Velivassaki, „Next Generation Data Centers Business Models Enabling Multi - Resource Integration for Smart City Optimized Energy Efficiency”, *Proceedings of the 2015 ACM Sixth International Conference on Future Energy Systems*, July 14 – 17 2015, Bangalore, India, pp. 247-252. [**ACM**]
8. M. Antal, I. Tamas, T. Cioara, **I. Anghel**, I. Salomie, „A Swarm-based algorithm for Optimal Spatial Coverage of an Unknown Region”, *Processing of the IEEE 9th International Conference on Intelligent Computer Communication and Processing (ICCP2013)*, 5-7 September 2013, Cluj-Napoca, Romania, pp. 7-14. [**IEEE**][**SCOPUS**]
9. C. B. Pop, **I. Anghel**, T. Cioara, I. Salomie, I. Vartic, „A Swarm-inspired Data Center Consolidation Methodology”, *International Conference on Web Intelligence, Mining and Semantics (WIMS'12)*, June 13 - 15, 2012, Craiova, Romania, pp. 1-7. [**DBLP**]
10. B. Pernici, C. Cappiello, M. G. Fugini, P. Plebani, M. Vitali, I. Salomie, **I. Anghel**, T. Cioara, et al., Setting energy efficiency goals in data centres: the GAMES approach – Energy Efficient Data Centers, in „*Energy Efficient Data Centers, vol. 7396 of the series Lecture Notes in Computer Science*”, E2DC2012, ISBN 978-3-642-33644-7, Springer Heidelberg, 2012. [**SPRINGER**]
11. D. Moldovan, G. Copil, I. Salomie, **I. Anghel**, T. Cioara, „A Membrane Inspired Model Applied on Service Center Workload Distribution”, *Processing of the IEEE 8th International Conference on Intelligent Computer Communication and Processing*, 30 August - 1 September, Cluj-Napoca, Romania, 2012, pp. 281-288.[**IEEE**][**SCOPUS**]

12. G. Copil, D. Moldovan, I. Salomie, T. Cioara, **I. Anghel**, D. Borza, „Cloud SLA Negotiation for Energy Saving – A Particle Swarm Optimization Approach”, *Processing of the IEEE 8th International Conference on Intelligent Computer Communication and Processing*, 30 August - 1 September, Cluj-Napoca, Romania, 2012, pp. 289-296. **[IEEE][SCOPUS]**
13. A. Cosinschi, C. Botau, T. Cioara, **I. Anghel**, I. Salomie, „A Workload Prediction Based Controller for Energy-Efficient Resource Allocation in Virtualized Data Centers”, *Proceedings of the 2012 IEEE 21st International Workshop on Enabling Technologies: Infrastructure for Collaborative Enterprises*, 25-27 June 2012, Toulouse, France, pp. 109-114. **[ACM]**
14. T. Cioara, **I. Anghel**, I. Salomie, D. Moldovan, G. Copil, A. Kipp, „Energy Aware Dynamic Resource Consolidation Algorithm for Virtualized Service Centers based on Reinforcement Learning”, *Proceedings of the 10th International Symposium on Parallel and Distributed Computing*, 6-8 July 2011, Cluj-Napoca, Romania, pp. 163-169. **[IEEE][ACM]**
15. **I. Anghel**, T. Cioara, I. Salomie, G. Copil, D. Moldovan, C. Pop, „Dynamic Frequency Scaling Algorithms for Improving the CPU’s Energy Efficiency”, *Proceedings of the IEEE 7th International Conference on Intelligent Computer Communication and Processing - Special Session: Green Computing*, 25-27 August 2011, Cluj-Napoca, Romania, pp. 485 – 491. **[IEEE][SCOPUS]**
16. T. Cioara, **I. Anghel**, I. Salomie, G. Copil, D. Moldovan, M. Grindean, „Time Series based Dynamic Frequency Scaling Solution for Optimizing the CPU Energy Consumption”, *Proceedings of the IEEE 7th International Conference on Intelligent Computer Communication and Processing - Special Session: Green Computing*, 25-27 August 2011, Cluj-Napoca, Romania, pp. 477 – 483. **[IEEE][SCOPUS]**
17. G. Copil, T. Cioara, **I. Anghel**, **I. Salomie**, D. Moldovan, D. Borza, „A Genetic-inspired Negotiation Algorithm for QoS and Energy Consumption Tradeoffs in Virtualized Service Centers”, *Proceedings of the IEEE 7th International Conference on Intelligent Computer Communication and Processing - Special Session: Green Computing*, 25-27 August 2011, Cluj-Napoca, Romania, pp. 471 – 476. **[IEEE][SCOPUS]**
18. T. Cioara, **I. Anghel**, I. Salomie, D. Moldovan, G. Copil, P. Plebani, „Dynamic Consolidation Methodology for Optimizing the Energy Consumption in Large Virtualized Service Centers”, *Proceedings of the 3rd Workshop on Software Services: Semantic-based software services*, 18 -21 September 2011, Szczecin, Poland, pp. 1005 - 1011. **[IEEE]**
19. **I. Anghel**, T. Cioara, I. Salomie, G. Copil, D. Moldovan, „An Autonomic Algorithm for Energy Efficiency in Service Centers”, *Proceedings of the 2010 IEEE International Conference on Intelligent Computer Communication and Processing*, 26-28 August 2010, Cluj-Napoca, Romania, pp. 281 – 288. **[IEEE][SCOPUS]**
20. T. Cioara, C. B. Pop, **I. Anghel**, I. Salomie, M. Dinsoreanu, I. Condor, F. Mihaly, „Immune-inspired Technique for Optimizing Server’s Energy Consumption”, *Proceedings of the 2010 IEEE International Conference on Intelligent Computer Communication and Processing (ICCP2010)*, 26-28 August 2010, Cluj-Napoca, Romania, 2010, pp. 273 – 280. **[IEEE][SCOPUS]**
21. T. Cioara, **I. Anghel**, I. Salomie, M. Dinsoreanu, G. Copil, D. Moldovan, „A Reinforcement Learning based Self-healing Algorithm for Managing Context Adaptation”, *Proceedings of the 12th International Conference on Information Integration and Web-based Applications & Services (iiWAS2010)*, 8-10 November 2010, Paris, France, 2010, pp. 859-862. **[DBLP][ACM]**

E – Papers in conference volumes with referees (not indexed)

1. A. Taweel, S. Miles, L. Barakat, I. Salomie, T. Cioara, **I. Anghel**, T. Sanders, J.Charvill, ” DIET4Elders: A service-oriented architecture for the prevention and self-management of malnutrition, Broader, Bigger, Better” – AAL solutions for Europe, *Proceedings of the AAL Forum 2014* Bucharest Romania.
2. **I. Anghel**, T. Cioara, I. Salomie, M. Dinsoreanu, „An Agent-based Context Awareness Management Framework”, *Proceedings of the 8-th International Conference RoEduNet 2009*, 3-4 December 2009, Galați, România, pp. 107-113.
3. I. Salomie, S. Nedevschi, M. Dinsoreanu, T. Cioara, **I. Anghel**, I.T. Salomie, „Workflow Integration Testing for Complex Industrial Processes using Machine Simulation with Application in Food Industry”, *Proceedings of the Workshop on Traceability and Systems for Traceability, ICCP 2008*, Cluj-Napoca, Romania, 2008.
4. I. Salomie, S. Nedevschi, M. Dinsoreanu, T. Cioara, **I. Anghel**, I. T. Salomie, C. B. Pop, S. L.Suciu, „Industrial Workflow Verification using Process Algebra”, *Proceedings of Workshop on Traceability and Systems for Traceability, ICCP 2008*, Cluj-Napoca, Romania, 2008.
5. S. Nedevschi, I. Salomie, M. Dinsoreanu, T. Cioara, **I. Anghel**, I. T. Salomie, C. B. Pop, S. L. Suciu, „Methodology for Industrial Business Process Modeling with Upstream and Downstream Traceability Features”, *Proceedings of the Workshop on Traceability and Systems for Traceability, ICCP 2008*, Cluj-Napoca, Romania, 2008.

Signature

A black rectangular box redacting the signature of the author.