

CURRICULUM VITAE

Ioan Salomie, PhD

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1. STUDIES AND DEGREES

- 1973 – 1978 Student *Facultatea de Automatica*, Specialization *Computer Science and Engineering*, *Institutul Politehnic Bucuresti* (5 years study)
- 1978 Degree of Diplomat Engineer in Computer Science and Engineering
- 1989 – 1994 PhD Studies at *Technical University of Cluj-Napoca*
- 1994 PhD in Electrical Engineering, Thesis Title *Contributions to Object Oriented Data Modeling for CAD in Electrical Engineering*

2. PROFESIONAL HISTORY

- 1978 – 1981 Institute for Research and Design in Automation (IPA) Cluj-Napoca
- 1981 – 1983 IEIA Cluj-Napoca, Head of Micro Computer (Telerom-P) Production Division
- 1983 – 1990 Assistant Professor of Computer Science, Technical University of Cluj-Napoca
- 1990 – 1995: Lecturer of Computer Science, Technical University of Cluj-Napoca
- 1995 – 1998: Associate Professor of Computer Science, Technical University of Cluj-Napoca
- 1998 – Present Professor of Computer Science, Technical University of Cluj-Napoca,

3. PROFESSIONAL VISITS

- 1992 University of Nottingham, Computer Science Department (EC Tempus – Specialization in Object Oriented Methods)
- 1993 Research Fellow, Computer Science Department, Nottingham University
- 1996 Invited Professor (teaching activities), Loyola University in Maryland, Information Systems and Decision Sciences Department, Baltimore, USA
- 1997 Politecnico di Torino (EC Tempus, Specialization in Distributed Systems)
- 1998 University of Hamburg, Computer Science Department (EC Tempus, Development of Computer Science Curricula)
- 2001 - 2004: Invited Professor (teaching and research activities), University of Limerick, Ireland, ECE Department
- 2005 - 2008 External Examiner, University of Limerick, Ireland
- 2005 - 2018 External Examiner for 6 PhD Thesis in Rep. of Ireland and Czech Republic

4. RESEARCH ACTIVITY

Head of Distributed Systems Research Laboratory
Technical University of Cluj-Napoca,
<http://dsrl.coned.utcluj.ro>

4.1 Research domains

Large Scale Distributed Systems (Modeling, Simulation, Optimization, Adaptation), Autonomic Computing and Systems, Intelligent Systems, Green Computing and Systems (Energy efficient data centres, Smart grids, Smart cities).

4.2 Research awards

Prize Constantin Budeanu of Romanian Academy for the group of papers “*Intelligent Solutions for Energy Efficient Ecosystems*”, 2018

4.3 Publications

Books: **9**

Book Chapters: **15**

Papers (overall as of June, 2021)

- ISI Web of Science: 112 publications, h-index: 9, Citations: 507
https://app.webofknowledge.com/author/record/418793?lang=en_US&SID=C2Sdj9mYzTG4ECuuAAu
- Scopus: 159 publications, h-index: 14, Citations: 853 by 737 documents
<http://www.scopus.com/authid/detail.uri?authorId=15124243900#>
- Google Scholar: 252 publications, h-index: 17, i10-index: 43, Citations: 1496
https://scholar.google.ro/scholar?q=ioan+salomie&btnG=&hl=en&as_sdt=1%2C5&as_vis=1
- DBLP: 121 papers
http://dblp.uni-trier.de/search/publ?q=ioan%20salomie%20author%3AIoan_Salomie%3A

4.4 Relevant Research Papers (published in Journals with impact factor, last 4 years)

1. Marcel Antal, Claudia Pop, Tudor Cioara, Ionut Anghel, **Ioan Salomie**, Florin Pop - A system of systems approach for data centers optimization and integration into smart energy grids, in *Future Generation Computer Systems*, April 2020, ISSN 0167-739X. **IF: 5.768**
2. AV 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, in *Sustainability* 12 (4), 1417, **IF: 2.592**
3. Ionut Anghel, Tudor Cioara, Dorin Moldovan, Marcel Antal, Claudia Daniela Pop, **Ioan Salomie**, Cristina Bianca Pop and Viorica Rozina Chifu - Smart Environments and Social Robots for Age-Friendly Integrated Care Services, in *International journal of environmental research and public health*, 17(11), 3801, **IF: 2.468**
4. Dorin Moldovan, Ionut Anghel, Tudor Cioara and **Ioan Salomie** - Adapted Binary Particle Swarm Optimization for Efficient Features Selection in the Case of Imbalanced Sensor

- Data, in *Applied Sciences* (Switzerland), 2020, 10(4), 1496;
<https://doi.org/10.3390/app10041496> - 21 Feb 2020, **IF: 2.474**
5. Pop, C.; Antal, M.; Cioara, T.; Anghel, I.; **Salomie, I.**; Bertoncini, M. - A Fog Computing Enabled Virtual Power Plant Model for Delivery of Frequency Restoration Reserve Services. *Sensors* 2019, 19, 4688. **IF: 3.031**
 6. Pop, C.; Antal, M.; Cioara, T.; Anghel, I.; Sera, D.; **Salomie, I.**; Raveduto, G.; Ziu, D.; Croce, V.; Bertoncini, M. - Blockchain-Based Scalable and Tamper-Evident Solution for Registering Energy Data. *Sensors* 2019, 19, 3033. **IF: 3.031**
 7. Tudor Cioara, Ionut Anghel, **Ioan Salomie**, Marcel Antal, Claudia Pop, Massimo Bertoncini, Diego Arnone, Florin Pop - Exploiting data centres energy flexibility in smart cities: Business scenarios, *Information Sciences*, 2019, ISSN 0020-0255, **IF: 5.524**
 8. Marcel Antal, Tudor Cioara, Ionut Anghel, Radoslaw Gorzenski, Radoslaw Januszewski, Ariel Oleksiak, Wojciech Piatek, Claudia Pop, **Ioan Salomie** and Wojciech Szeliga - Reuse of Data Center Waste Heat in Nearby Neighborhoods: A Neural Networks-Based Prediction Model, *Energies* 2019, 12(5), 814 **IF: 2.707**
 9. Marcel Antal, Claudia Pop, Teodor Petrican, Andreea Valeria Vesa, Tudor Cioara, Ionut Anghel, **Ioan Salomie**, Ewa 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: 2.426**
 10. Tudor Cioara, Ionut Anghel, **Ioan Salomie**, Marcel Antal, Claudia Pop, Massimo Bertoncini, Diego Arnone, Florin Pop - Exploiting data centres energy flexibility in smart cities: Business scenarios, *Information Sciences*, 2018, ISSN 0020-0255. **IF: 4.378**
 11. Marcel Antal, Tudor Cioara, Ionut Anghel, Claudia Pop and **Ioan Salomie** - Transforming Data Centers in Active Thermal Energy Players in Nearby Neighborhoods, in *Sustainability* 2018, 10, 939. **IF: 2.075**
 12. Claudia Pop, Tudor Cioara, Marcel Antal, Ionut Anghel, **Ioan Salomie** and Massimo Bertoncini - Blockchain Based Decentralized Management of Demand Response Programs in Smart Energy Grids, *Sensors* 2018, 18(1), 162. **IF: 2.475**
 13. Tudor Cioara, Ionut Anghel, **Ioan Salomie**, Lina Barakat, Simon Miles, Dianne Reidlinger, Adel Taweel, Ciprian Dobre, Florin Pop - Expert system for nutrition care process of older adults, in *Future Generation Computer Systems*, Volume 80, March 2018, pp. 368-383, ISSN 0167-739X. **IF: 5.768**
 14. Tudor Cioara, Ionut Anghel, Massimo Bertoncini, **Ioan Salomie**, Diego Arnone, Marzia Mammina, Terpsi Velivassaki, Marcel Antal - Optimized Flexibility Management enacting Data Centres Participation in Smart Demand Response Programs, in *Future Generation Computer Systems*, Volume 78, Part 1, January 2018, Pages 330-342. **IF: 5.768**
 15. Tudor Cioara, Ionut Anghel, **Ioan Salomie** - Methodology for Energy Aware Adaptive Management of Virtualized Data Centers, in *Energy Efficiency*, April 2017, Volume 10, Issue 2, pp 475–498. **IF: 1.634**
 16. Adel Taweel, Lina Barakat, Simon Miles, Tudor Cioara, Ionut Anghel, Abdel-Rahman H. Tawil, **Ioan Salomie** - A service-based system for malnutrition prevention and self-management, in *Computer Standards & Interfaces*, 2016. **IF: 1.479**
 17. Viorica Rozina Chifu, Cristina Bianca Pop, **Ioan Salomie**, Emil St. Chifu - Hybrid Honeybees Mating Optimization Algorithm for Identifying the Near-Optimal Solution in

Web Service Composition, in *Computing and Informatics*, vol. 36, no. 5, pp. 1143-1172, 2017. **IF: 0.524**

4.5. Research Grants (last 5 years)

- **H 2020 (Research and Innovation Action) - EDREAM** - Enabling new Demand Response Advanced, Market oriented and secure technologies, solutions and business models 2018-2021 (H2020 LCE-01-2017) <https://edream-h2020.eu/> (member)
- **H 2020 CATALYST** - Converting DCs in Energy Flexibility Ecosystems 2017-2020 (H2020-EE- 2016-2017) <http://project-catalyst.eu/> (member)
- **H 2020 (Ambient Assisted Living (AAL)) - MEDGUIDE**, ICT Integrated System for Coordinated Polypharmacy Management in Dementia Patients 2017-2019, <http://medguide-aal.eu/> (member)
- **FP7 (Research and Innovation Action) - GEYSER** - Green Networked Data Centres as Energy Prosumers in Smart City Environments, (Data Centres in an energy-efficient and environmentally friendly Internet FP7-ICT-2013.6.2), <http://www.geyser-project.eu/> (director, scientific director for the project)
- **FP7 GAMES** – Green Active Management of Energy in IT Service Centres (FP7-ICT-2009-6.3: ICT for Energy efficiency), <http://www.green-datacenters.eu/> (director)
- **FP7 (Ambient Assisted Living (AAL)) - DIET4ELDERS** - Dynamic Nutrition Behaviour Awareness System for the Elders (2013- 2016) (Call 5), <http://www.diet4elders.eu/en> (director)
- **FP7 ELDERS-UP!** - Adaptive system for enabling the elderly collaborative knowledge transference to small companies (2014-2016) (Call 6), <http://www.eldersup-aal.eu/> (director, technical manager of the project)
- **International research contract: DSRL – Montran Labs, New York** -Blockchain distributed systems technology and services for electronic registration, transacting and processing of assets, 2016-2019, (director)
- **PN3 Bridge Grant ECO2CLOUD** - Tehnologii de Management si Planificare Efic Energetic a Resurselor in Cloud in Centrul de Date Alpis, 2016 – 2018, (director)
- **PN3 Bridge Grant OPTIPLAN** – Tehnologii pentru digitalizarea, analiza si optimizarea fluxurilor de productie la Fabrica Emerson, Cluj, 2016 – 2018 (member)
- **Research contract with Industry: Neural Networks for Machine Learning in Big-Data**, Beneficiary SIEMENS RO, Code 10848/2016 (member)
- **ICT COST Action IC1406 CHIPSET** - High-Performance Modelling and Simulation for Big Data Applications, MC (Work Group Vice-leader)
- **ICT COST Action IC1303 AAPELE** - Algorithms, Architectures and Platforms for Enhanced Living Environments (MC Supleant)
- **ICT COST Action CA15140 ImAppNIO** - Improving Applicability of Nature-Inspired Optimisation by Joining Theory and Practice(2016 – 2020) (MC Supleant)

4.6 PhD Thesis

- Supervised PhD Thesis (completed): 11
- Member of Thesis Evaluation Board in Romania: 30+

- External Examiner for PhD Thesis in Republic of Ireland and Czech Rep: 6

4.7 PC Member and Journal Reviewer

PC Member

2019: CSCS22
2018: IDC, EUC, ICCP, CSE
2017: SYNASC, ICCP, CSCS21, ISPDC
2016: INISTA, WETICE
2015: BCI, ICCP, ICGREEN, IDC
2014: IDC, KSEM, MCIS, WETICE/Web2Touch14
2013: ICCCI, IDC, ICCP, W2T, ECSCW/Web2Touch
2012: IDC, ICCP, LNCSVRED2012
2011: greenICCP2011 (Chair), FedCSIS2011, IDC 2011, IDC-CCPE-2010, ISPDC 2011
2010: IDC 2010, ICCP10, SEE 2010, SYNASC2010
2009: VLDB/RED 2009, ICCP09, etc.

Paper Evaluations for Transactions on Cloud Computing (IEEE), Future Generation Computing Systems (Elsevier), Transaction on Evolutionary Computing (IEEE), Simulation Modelling Practice and Theory (Elsevier)

5. TEACHING ACTIVITY

Courses (designed and taught) for the Technical University of Cluj-Napoca, Computer Science Department (since 2000)

- *Distributed Systems* for Bachelor in Computer Science programme (Romanian and English Track)
- *Programming Techniques* for Bachelor in Computer Science programme (Romanian and English Track)
- *Advanced Topics in Distributed Systems* for Master in Computer Science programme
- *Service Oriented Distributed Computing* for Master in Computer Science programme
- *Business Process Management*, for Master in Computer Science programme

Courses (designed and taught) for the University of Limerick, ECE Department (2001 – 2004, Spring Semester)

- *EE6502 Distributed Systems* for Master's in Computer Engineering and Communication
- *CE 4706 – Software Engineering I*, for BEng in Computer Engineering

Course (designed and taught) for Loyola College in Maryland, Information Systems and Decision Sciences Department, 1996, Spring Semester

- *Object Oriented Advanced Applications*

6. FOREIGN LANGUAGES

- English – Fluent

7. SERVICES TO THE ACADEMIC COMMUNITY

- CNATDCU – Member of the selection committee for CNATDCU Section Computer Science (2020 – 2024)
- CNATDCU – Member of Section Computer Science (2012 – 2016)
- Coordinator of Computer Science Doctorate School at Technical University of Cluj-Napoca (2016-2020)
- Member of the Senate of the Technical University of Cluj-Napoca (2012 – 2020)
- Member of the Executive Board of Computer Science Department, Technical University of Cluj-Napoca (2012-2020)

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