

## PERSONAL INFORMATION

## Gheorghe Cosmin Silaghi



## Professor

Babeş-Bolyai University, Business Information Systems Department

## WORK EXPERIENCE

April 2013 -

- Classes (2024-2025): Algorithms and Data Structures (BA level), Object Oriented Programming (BA level), Artificial Intelligence (BA level), Deep Learning (MSc level), Natural Language Processing (MSc level), Research Methodologies and Academic Writing (MSc and Phd levels)
- Other classes: Fundamentals of Big Data, Methods in Data Science, Rapid Application Development with .NET, Parallel programming, Intelligent Computational Methods, Datamining and Simulation, Distributed Systems
- 2015-present: member of the Council of the Doctoral School in Economics and Business Administration at Babes-Bolyai University
- 2024-present: member of the Babes-Bolyai University Council for Doctoral Studies
- 2016-present: member of the Scientific Council of the Babes-Bolyai University
- 2016-present: director of the Business Informatics Research Center at Babes-Bolyai University

April 2019

## Guest lecturer

Erasmus University, Rotterdam School of Management

- Teaching classes of Accounting Analytics at Accounting and Financial management MA programs

October 2009 – April 2018

## Elected chair of Business Information Systems (Informatică Economică)

Babeş-Bolyai University, Business Information Systems Department

- Department strategic development regarding both research and teaching, in charge with study programs organized by the BIS department

October 2000 – March 2013

## Teaching assistant, lecturer and associate professor

Babeş-Bolyai University, Business Information Systems Department

- Teaching various courses and seminars

April 2007 – December 2007

## Postdoctoral fellow

Coimbra University, Portugal

- FP6 CoreGrid fellow, research topic: Trust management in grids

July 2006 – March 2007

## Postdoctoral fellow

STFC, Rutherford Appleton Laboratory UK

- FP6 CoreGrid fellow, research topic: Trust management in grids

## EDUCATION AND TRAINING

July 2012 **Habilitation defended, Domain: Business Information Systems**  
Romanian National Council for University Titles, Diplomas and Certificates

October 2002 – October 2005 **PhD in Business Information Systems**  
Babeş-Bolyai University, Cluj-Napoca, Romania  
▪ Thesis title: "Contributions to Conception, Design and Development of Collaborative Multi-Agent Systems"  
▪ Supervisor: Prof.dr. Stefan Ioan Nitchi

March 2001 – August 2002 **MSc in Artificial Intelligence**  
Free University, Amsterdam, The Netherlands  
▪ Relevant courses: Design of Multi-Agent Systems, Neural Networks, Evolutionary Methods, Intelligent Information Agents, Data Mining Techniques, Simulating Organizations, Web-based Knowledge Representation.

October 1997 – September 2002 **BEng in Computer science**  
Technical University, Cluj-Napoca, Romania

October 1995 – April 2000 **BA in Business Information Systems**  
Babeş-Bolyai University, Cluj-Napoca, Romania  
▪ Achieved performances: average year grades: 9.96, Final Examination: 10.

## PERSONAL SKILLS

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Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
Replace with name of language certificate. Enter level if known.					
French	A2	B1	A1	A1	A1
Replace with name of language certificate. Enter level if known.					

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user  
Common European Framework of Reference for Languages

Organisational / managerial skills ▪ 9 years of experience as manager of the BIS Department at Babes-Bolyai University. More than 9 years as manager of various research projects

Driving licence ▪ B

## ADDITIONAL INFORMATION

## Major journal publications

- R9. V.I.R. Iga, **Gheorghe Cosmin Silaghi**, "Assessing LLMs Suitability for Knowledge Graph Completion", in 2024 18<sup>th</sup> Intl. Conf. on Neural-Symbolic Learning and Reasoning (NESY 2024), LNCS vol. 14980, pp. 277-290, Springer, [https://doi.org/10.1007/978-3-031-71170-1\\_22](https://doi.org/10.1007/978-3-031-71170-1_22)
- R8. V.I.R. Iga, **Gheorghe Cosmin Silaghi**, "Leveraging BERT for Natural Language Understanding of Domain Specific Knowledge", in 2023 25<sup>th</sup> Intl. Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC 2023), IEEE Press, <https://doi.org/10.1109/synasc61333.2023.00035>
- R7. Mircea Moca, Cristian Litan, **Gheorghe Cosmin Silaghi**, Gilles Fedak, "Multi-criteria and satisfaction oriented scheduling for hybrid distributed computing infrastructures", in Future Generation Computer Systems, vol. 55, pp. 428-443, Elsevier, 2016, ISSN: 0167-739X, <http://dx.doi.org/10.1016/j.future.2015.03.022>
- R6. Ioan Petri, Omer Rana, **Gheorghe Cosmin Silaghi**, Yacine Rezgui, "Risk assessment in service provider communities", in Future Generation Computer Systems, vol. 41, pp. 32-43, Elsevier, 2014, ISSN: 0167-739X, <http://dx.doi.org/10.1016/j.future.2014.08.013>
- R5. Ioan Petri, Omer Rana, **Gheorghe Cosmin Silaghi**, "Service Level Agreement as a Complementary Currency in Peer-to-Peer Markets", in Future Generation Computer Systems, vol. 28(8), p. 1316-1327, <http://dx.doi.org/10.1016/j.future.2011.09.007>, Elsevier, 2012, ISSN: 0167-739X,
- R4. **Gheorghe Cosmin Silaghi**, L.D. Serban, Cristian Marius Litan, "A time constrained SLA negotiation strategy in competitive computational grids", in Future Generation Computer Systems, vol. 28(8), pp. 1303-1315 <http://dx.doi.org/10.1016/j.future.2011.11.002>, Elsevier, 2012, ISSN: 0167-739X
- R3. F. Araujo, J. Farinha, P. Domingues, **Gheorghe Cosmin Silaghi**, D. Kondo, "A maximum independent set approach for collusion detection in voting pools", in Journal of Parallel and Distributed Computing, vol. 71(10), pp. 1356-1366, Elsevier, 2011, ISSN: 0743-7315, <http://dx.doi.org/10.1016/j.jpdc.2011.06.004>
- R2. A.E. Arenas, B. Aziz, **Gheorghe Cosmin Silaghi**, "Reputation Management in Collaborative Computing Systems". In: Security and Communication Networks, vol. 3(6), pp. 546-564, 2010, Wiley/Blackwell, ISSN: 1939-0114, <http://dx.doi.org/10.1002/sec.146>
- R1. **Gheorghe Cosmin Silaghi**, F. Araujo, L.M. Silva, P. Domingues, A.E. Arenas, "Defeating Colluding Nodes in Desktop Grid Computing Platforms", in Journal of Grid Computing, vol. 7(4), pp. 555-573, Springer, 2009, ISSN: 1570-7873, <http://dx.doi.org/10.1007/s10723-009-9124-5>

## International Projects

- PI3. February 2012 – May 2015, **Babes-Bolyai University group principal investigator** in project **FP7 IP** "Rules, Expectations and Security through privacy-enhanced technologies (RESPECT)", won at competition SEC-2011.6.1-5,
- PI2. June 2011 – May 2014, **Babes-Bolyai University group principal investigator** in project **FP7 IP** "Scalable Measures for Automated Recognition Technologies" (SMART), competition SEC-2010.6.5-2
- PI1. July 2006 – December 2007: holder of the **CoreGrid fellowship**: research contract won by international competition organized by ERCIM France part of the FP6 project "CoreGrid", subject "Trust management in Grids". I performed 2 postdoctoral stages at STFC UK – Rutherford Appleton Laboratory and at University Coimbra – Center for Informatics and Systems

## National Projects

- Pn18 Jan 2022 – Dec 2023, researcher, "TaskMate – Integrated system for business processes automation with artificial intelligence", POC research project for companies in partnership with research institutions, main partner: Endava
- Pn17. May 2020 – December 2021, researcher, "SMARTCloudDss – Developing the cloud infrastructure of Babes-Bolyai University for building an integrated decision support and academic management system based on Big & Smart Data", POC Cloud structural funds research project,
- Pn16, September 2020 – 2024, Postdoctoral mentor, "Labor flows, labor market outputs and agent-based modelling", PNIII PD postdoctoral project, principal investigator Dr. Valentina Cheregi
- Pn15, February 2020 – January 2022, scientific monitor, "Researcher, future entrepreneur – new generation", POCU Project for doctoral and postdoctoral students, director Prof.dr. Ioan Hosu
- Pn14. July 2014 – September 2017, **principal investigator**, "Advanced technology for speech recognition from Romanian for improving the public services in courtrooms", **PNII Parteneriate** project
- Pn13. March 2014 – December 2015, **IT hardware director**, "Disaster management based on high

performance computing (MADECIP)", POSCCE structural funds research infrastructures projects

Pn12. August 2010 – July 2013, member in project "Intelligent methods for decision making on stock exchange based on public information", PNII TE project, principal investigator: Dr. Paul Bresfelean

Pn11. January 2009 – December 2011, **principal investigator** "A study about Peer-to-Peer collaborative environments for building a high performance computing system for SMEs", PNII IDEI project

Pn10. January 2009 – December 2012, member in project "Higher education and employment", PNII IDEI project, principal investigator Prof. Dr. N. Ghişoiu,

Pn9. October 2007 – September 2010: member in project "Contributions to the study of mobile systems: case study implementing an ERP on a mobile system", PNII IDEI project, principal investigator Prof. Dr. Nicolae Tomai,

Pn8. July 2007 – June 2008: principal investigator for project "Knowledge management, trust and negotiation in open systems with business applications", project TP\_T financed by Universitatea Babeş-Bolyai Cluj-Napca

Pn7. 2007-2008, member in project CNCISIS tip A, cod 18/1503 "Support systems for collaborative project management", principal investigator Prof. Dr. Ştefan Ioan Niţchi

Pn6. 2005 – 2007: member in consortium project CNCISIS "Collaborative systems in global economy", principal investigator Prof. Dr. Ştefan Niţchi

Pn5. 2005 – 2008: member in CEEX project "Higher education efficiency in Romania", project leader ASE Bucureşti, Prof. Dr. Ion Gh. Roşca

Pn4. 2005 – 2007: member in CEEX ET project "Rethinking of e-commerce – an approach towards homogeneity", contract nr. 47, principal investigator Dr. Robert Buchmann

Pn3. 2003 – 2005: doctoral scholarship won by competition at CNCISIS BD, principal investigator

Pn2. 2003 – 2005: member in project "Modalities for improving the organization management using multimedia applications", principal investigator Prof. Dr. Lucia Rusu,

Pn1. 2001 – 2003: member in project CNCISIS A nr. 1110/2001 "Research about cooperative and distributed information systems for assisting the intelligent enterprises", principal investigator Prof. Dr. Stefan I. Niţchi

#### Peer review experience

- July 2016 - : Member of CNATDCU, Romanian National Council for Granting University Titles, Certificates and Diplomas: responsible for the domain Business Informatics. Verifying the procedures for granting the PhD theses and habilitation certificates, participating in various habilitation juries
- November 2021 – December 2021 evaluator / reviewer for Romanian Authority for Scientific Research – UEFISCDI – Technological transfer projects (PTE), competition 2021-2022 (1 project)
- November 2019 – June 2020: evaluator / reviewer for Romanian Authority for Scientific Research – UEFISCDI, for young teams (TE) and solutions (SOL) projects, competition 2019-2020 (total 14 projects)
- July 2017 – January 2018: evaluator / reviewer for Romanian Authority for Scientific Research – UEFISCDI, for postdoctoral (PD) and young teams (TE) projects, competition 2017 (total of 15 projects)
- April 2016 –: member of the Scientific Council of Babeş-Bolyai University
- November 2009: Monitoring projects progress for the Romanian Authority for Scientific Research – CNMP: cooperation scientific projects on thematic priority areas
- March – June 2008: Evaluator/Reviewer for Romanian Authority for Scientific Research – CNMP: cooperation scientific projects on thematic priority areas: 15 projects
- June – July 2007: Evaluator/Reviewer for the Romanian Authority for Scientific Research – AMCSIT: innovative applied research projects for knowledge transfer towards industry: 10 projects

- October – December 2006: Evaluator/Reviewer for the Romanian Authority for Scientific Research – CNCSIS: individual fundamental research projects of different sizes: 4 projects
- Program Committee member and reviewer at the
  - International Conference on Databases and Expert Systems Applications, DEXA 2009 - 2024
  - International Conference on Business Information Systems, BIS 2011 - 2014
  - Service Matchmaking and Resource Retrieval workshop at the 2008 Intl. Semantic Web Conference
  - IADIS Intl. Conference WWW/Internet 2008, 2009, 2012
  - Agent-based Complex Automated Negotiation Workshop, in parallel with AAMAS, ACAN 2012-2014, ACAN 2018
  - International Conference on Economics of Grids, Clouds, Systems and Services, GECON 2012, 2013, 2014, 2018, 2019, 2022, 2023 and 2024
  - Knowledge Science, Engineering and Management, KSEM 2014, 2017
  - International Conference on Agents and Artificial Intelligence, ICAART 2014
  - International Conference on Computer Science and Intelligence Systems (FedCSIS) reviewer 2023
- Organizer and General Chair of the 30<sup>th</sup> International Conference on Information Systems Development, ISD 2022, August 31 – September 2, Cluj-Napoca, 2022
- Organizer and Local Chair of the 42<sup>nd</sup> CERN School of Computing, CSC 2019, September 15-28, 2019, Cluj-Napoca, Romania
- Organizer and Chair of the 12<sup>th</sup> International Conference on Economics of Grids, Clouds, Systems and Services, GECON 2015, September 15-17, 2015, Cluj-Napoca, Romania
- Organizer and Chair of the Formal Semantics for the Future Enterprise workshop in conjunction with BIS 2012 and BIS 2013 conferences
- Reviewer at the following conferences: BIS 2010, EUROPAR 2008, EUROPAR 2007, GRID 2007, ECIS 2019, 2022 and 2023,
- Reviewer at the following journals: Future Generation Computer Systems (Elsevier), Concurrency and Computation Practice and Experience (Wiley), Frontiers of Computer Science in China (Springer), Journal of Grid Computing (Springer), Decision Support Systems (Elsevier), IEEE Transactions on Parallel and Distributed Systems (IEEE Press), IEEE Transactions on Cloud Computing (IEEE Press), ACM Transactions on Autonomous and Adaptive Systems (ACM Press), Expert Systems with Applications (Elsevier), Journal of Cloud Computing (Springer), Journal of Network and Computer Applications (Elsevier), IEEE Access (IEEE), Simulation Modeling Practice and Experience (Elsevier), Expert Systems with Applications (Elsevier)

## ANNEXES

- More than 300 citations reported by ISI WoS, Scopus or ACM Digital Library, excluding autocitations
- H-Index: 10 based on ISI WoS, Scopus and ACM Digital library citations,
- 787 citations and H-Index: 15, according to Google Scholar

Cluj Napoca,  
J

