

Prof. dr. habil. Alin Stefanescu

Curriculum Vitæ et Studiorum

Personal Data

Year and place of birth: 1975, Slatina, Romania

Citizenship: Romanian

Marital status: Married, 3 children

Education

- **Habilitation in Computer Science** (2017) at University of Bucharest, Romania
- **PhD in Theoretical Computer Science** (10/2000–05/2005) under the supervision of Prof. Dr. Dr.h.c. Javier Esparza
 - 04/2003–05/2005 University of Stuttgart, Germany
 - 06/2001–03/2003 University of Edinburgh, Scotland
 - 10/2000–05/2001 Technical University of Munich, Germany
- **Master in Computer Science** (10/1998–06/2000) at University of Bucharest, Romania
- **Bachelor in Computer Science** (10/1994–06/1998) at University of Bucharest, Romania
- Computer Science at 'Radu Greceanu' College (1990–1994), Slatina, Romania
- Primary and Secondary School 'Eugen Ionescu' (1982–1990), Slatina, Romania

Employment

- October 2017 - present: Full professor in the Computer Science Department of the University of Bucharest, Romania. Between 2017-2019, I was also the head of the Computer Science Department.
- October 2013 - September 2017: Associate professor in the Computer Science Department of University of Bucharest, Romania.
- July 2015 - September 2016: Senior researcher in the R&D department of software company INSOFT Development and Consulting, Bucharest, Romania (part-time)
- September 2010 - September 2013: Researcher and lecturer in the Computer Science Department of University of Pitesti, Romania
- July 2010 - September 2013: Research Project Manager in the R&D department of software company Softwin SRL, Bucharest, Romania (part-time)
- January 2007 - August 2010: Researcher in the Group of Software and Service Engineering and Architecture, SAP Research, Darmstadt, Germany
- June 2005 - December 2006: Research Assistant at the Chair of Software Engineering, Department of Computer and Information Science, University of Konstanz, Germany
- April 2003 - May 2005: Research Assistant at the Chair of Software Reliability and Security, Institute for Formal Methods in Computer Science, University of Stuttgart, Germany
- October 1999 - September 2000: Teaching Assistant at the Chair of Foundations of Computer Science, Bucharest University, Romania

Journal Papers

1. A. Panait, R. Olimid, A. Stefanescu. Identity management on blockchain - privacy and security aspects. *Proceedings of the Romanian Academy, Series A*, 21 (1), pp. 45-52, 2020.

2. L. Lin, A. Stefanescu, W. Wang, R. Su, W.M. Wonham. Symbolic Reachability Analysis and Maximally Permissive Entrance Control for Globally Synchronized Templates. *Automatica* 87, pp. 290-300, 2018.
3. T. Stoenescu, A. Stefanescu, S. Predut, F. Ipate. Binary Analysis based on Symbolic Execution and Reversible x86 Instructions, *Fundamenta Informaticae* 153 (1-2), pp. 105-124, 2017.
4. L. Lin, A. Stefanescu, R. Su. On Distributed and Parameterized Supervisor Synthesis Problems. *IEEE Transactions on Automatic Control* 61(3), pp. 777-782, 2016.
5. F. Ipate, A. Stefanescu, I. Dinca. Model Learning and Test Generation using Cover Automata. *Computer Journal* 58(5), pp. 1140-1159, Oxford University Press, 2015.
6. I. M. Niculescu, M. Gheorghe, F. Ipate, A. Stefanescu. From Kernel P Systems to X-Machines and FLAME. *Journal of Automata, Languages and Combinatorics* 19(1-4), pp. 239-250, 2014.
7. A. Stefanescu, S. Wiczorek, M. Schur. Message Choreography Modeling - A Domain-Specific Language for Consistent Enterprise Service Integration. *Software and Systems Modeling (SoSyM)* 13(1), pp. 9-33, Springer, 2014.
8. P. Mohagheghi, W. Gilani, A. Stefanescu, M.A. Fernandez. An Empirical Study of the State of the Practice and Acceptance of Model-Driven Engineering in four industrial cases. *Empirical Software Engineering (EMSE)* 18(1), pp. 89-116, 2013.
9. P. Mohagheghi, W. Gilani, A. Stefanescu, M.A. Fernandez, B. Nordmoen, M. Fritzsche. Where does Model-Driven Engineering Help? Experiences from Three Industrial Cases. *Software and Systems Modeling (SoSyM)* 12(3), pp. 619-639, 2013.
10. Y. Chen, X.C. Ding, A. Stefanescu, C. Belta. A Formal Approach to the Deployment of Distributed Robotic Teams. *IEEE Transactions on Robotics* 28(1), pp. 158-171, 2012.

Book Chapters

1. A. Turcanu, L. Mierla, F. Ipate, A. Stefanescu, H. Bai, M. Holcombe, S. Coakley. Modelling and analysis of E. coli respiratory chain. Chapter in "Applications of Membrane Computing in Systems and Synthetic Biology" book. P. Frisco, M. Gheorghe, M. J. Pérez-Jiménez (Eds), Emergence, Complexity and Computation series, vol. 7, pp. 247-266, Springer, 2014.
2. S. Wiczorek, V. Kozyura, W. Wei, A. Roth, A. Stefanescu. Business Information Sector. Chapter in "Industrial deployment of system engineering methods" book. A. Romanovsky, M. Thomas (Eds), pp. 63-79. Springer, 2013.

Papers in Conferences and Workshops with Springer or IEEE or ACM proceedings

1. C. Paduraru, M. Paduraru, A. Stefanescu. RiverFuzzRL - An Open-Source Tool to Experiment with Reinforcement Learning for Fuzzing. In Proc. of 14th IEEE Conference on Software Testing, Verification and Validation (ICST'21), pp. 430-435, IEEE, 2021.
2. C. Paduraru, M. Paduraru, A. Stefanescu. Optimizing decision making in concolic execution using reinforcement learning. In *Proc. of A-MOST'20*, workshop affiliated to ICST'20, pp. 52-61, IEEE, 2020.
3. C. Paduraru, A. Stefanescu, B. Ghimis. Testing Multi-tenant Applications using Fuzzing and Reinforcement Learning. In Proc. of LANGETI'20, workshop affiliated to ESEC/FSE'20, pp. 1-6, ACM, 2020.
4. B. Ghimis, M. Paduraru, A. Stefanescu. RIVER 2.0: An Open-Source Testing Framework using AI Techniques. In Proc. of LANGETI'20, workshop affiliated to ESEC/FSE'20, pp. 13-18, ACM, 2020.

5. M. Cernat, A.-N. Staicu, A. Stefanescu. Towards Automated Testing of RPA Implementations. In *Proc. of A-TEST'20*, workshop affiliated to ESEC/FSE'20, pp. 21-24, ACM, 2020.
6. A. Panait, R. Olimid, A. Stefanescu. Analysis of uPort Open, an identity management blockchain-based solution. In *Proc. of 17th Int. Conf. on Trust, Privacy and Security in Digital Business (TrustBus'20)*, LNCS 12395, pp. 3-13, Springer, 2020.
7. C. Paduraru, B. Ghimis, A. Stefanescu. RiverConc: An Open-source Concolic Execution Engine for x86 Binaries. In *Proc. of 15th Int. Conf on Software Technologies (ICSOFT'20)*, pp. 529-536, SciTePress, 2020.
8. M. Cernat, A.-N. Staicu, A. Stefanescu. Improving UI Test Automation using Robotic Process Automation. In *Proc. of 15th Int. Conf on Software Technologies (ICSOFT'20)*, pp. 260-267, SciTePress, 2020.
9. C. Paduraru, M. Melemciuc, A. Stefanescu. A distributed implementation using Apache Spark of a genetic algorithm applied to test data generation. In *Proc. of PDEIM'17, workshop of GECCO'17*, GECCO Companion, pp. 1857-1863, ACM, 2017.
10. T. Stoenescu, A. Stefanescu, S. Predut, F. Ipate. RIVER: A Binary Analysis Framework using Symbolic Execution and Reversible x86 Instructions. In *Proc. of 21st International Symposium on Formal Methods (FM'16)*, LNCS, vol. 9995, pp. 779-785, Springer, 2016.
11. G. Ciobanu, T.S. Hoang, A. Stefanescu. From TiMo to Event-B: event-driven timed mobility. In *Proc. of 19th IEEE Int. Conf. on Engineering of Complex Computer Systems (ICECCS'14)*, pp. 1-10, IEEE Computer Society, 2014. (the paper got a best paper award)
12. L. Lin, A. Stefanescu, R. Su, W. Wang, A. R. Shehabinia. Towards Decentralized Synthesis: Decomposable Sublanguage and Joint Observability Problems. In *Proc. of 55th American Control Conference (ACC'14)*, pp. 2047-2052. IEEE, 2014.
13. S. Akshay, I. Dinca, B. Genest, A. Stefanescu. Implementing Realistic Asynchronous Automata. In *Proc. of 33rd Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS'13)*, LIPIcs series, volume 24, pp. 213-224. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, 2013.
14. L. Lin, R. Su, A. Stefanescu. Remarks on the Difficulty of Top-Down Supervisor Synthesis. In *Proc. of 12th International Conference on Control, Automation, Robotics, and Vision (ICARCV'12)*, pp. 270-275. IEEE Computer Society, 2012.
15. I. Dinca, F. Ipate, A. Stefanescu. Model Learning and Test Generation for Event-B decomposition. In *Proc. of ISoLA'12 conference*, LNCS, volume 7609, pp. 539-553. Springer, 2012.
16. I. Dinca, F. Ipate, L. Mierla, A. Stefanescu. Learn and Test for Event-B - a Rodin Plugin. In *Proc. of ABZ'12*, LNCS, volume 7316, pp. 361-364. Springer, 2012.
17. A. Stefanescu, F. Ipate, R. Lefticaru, C. Tudose. Towards Search-Based Testing for Event-B Models. In *Proc. of 4th International Workshop on Search-Based Software Testing (SBST'11) from ICSTW'11*, pp. 194-197. IEEE Computer Society, 2011.
18. I. Dinca, A. Stefanescu, F. Ipate, R. Lefticaru, C. Tudose. Test Data Generation for Event-B Models using Genetic Algorithms. In *Proc. of the 2nd International Conference on Software Engineering and Computer Systems (ICSECS'11)*. CCIS Series, volume 181, pp. 76-90. Springer, 2011.
19. Y. Chen, X.C. Ding, A. Stefanescu, C. Belta. A Formal Approach to Deployment of Robotic Teams in an Urban-Like Environment. In *Proc. of 10th International Symposium on Distributed Autonomous Robotics System (DARS'10)*. Springer Tracts in Robotics, volume 83, pp. 313-327. Springer, 2013. (The paper got a best student paper award)
20. A. Stefanescu, M.F. Wendland, S. Wieczorek. Using the UML testing profile for enterprise service choreographies. 8 pp. In *Proc. of 36th EUROMICRO Conference on Software Engineering and Advanced Applications (SEAA'10)*, pp. 12-19. IEEE Computer Society, 2010.

21. Y. Chen, S. Birch, A. Stefanescu, C. Belta. A Hierarchical Approach to Automatic Deployment of Robotic Teams with Communication Constraints. In *Proc. of IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2010)*, pp. 5079-5084. IEEE Computer Society, 2010.
22. S. Wierzchok, A. Stefanescu, A. Roth. Model-driven Service Integration Testing - A Case Study. In *Proc. of International Conference on the Quality of Information and Communications Technology (QUATIC'10)*, pp. 292-297. IEEE Computer Society, 2010.
23. S. Wierzchok, A. Stefanescu. Improving testing of enterprise systems by model-based testing on graphical user interfaces. In *Proc. of the 7th Workshop on System Testing and Validation (STV'10)*, pp. 352-357, IEEE Computer Society, 2010.
24. S. Wierzchok, A. Roth, A. Stefanescu, V. Kozyura, A. Charfi, F.M. Kraft, I. Schieferdecker. Viewpoints for modeling choreographies in service-oriented architectures. In *Proc. of the 3rd European Conference on Software Architecture (ECSA'09)*, pp. 11-20, IEEE Computer Society, 2009.
25. S. Wierzchok, A. Stefanescu, I. Schieferdecker. Model-based integration testing of enterprise services. In *Proc. of Testing: Academic and Industrial Conference (TAICPART'09)*, pp. 56-60. IEEE Computer Society, 2009.
26. A. Stefanescu, S. Wierzchok, A. Kirshin. MBT4Chor: a model-based testing approach for service choreographies. In *Proc. of 5th European Conference on Model-Driven Architecture Foundations and Applications (ECMDA'09)*, LNCS, volume 5562, pp. 313-324. Springer, 2009.
27. S. Wierzchok, A. Stefanescu. Service integration: A soft spot in the SOA testing stack. In *Proc. of 5th Central and Eastern European Software Engineering Conference in Russia (CEE-SECR'09)*, pp. 211-216, IEEE Computer Society, 2009.
28. S. Wierzchok, A. Roth, A. Stefanescu, A. Charfi. Precise steps for choreography modeling for SOA validation and verification. In *Proc. of International Symposium on Service-Oriented System Engineering (SOSE'08)*, pp.148-153. IEEE Computer Society, 2008.
29. S. Wierzchok, A. Stefanescu, M. Fritzsche, J. Schnitter. Enhancing test driven development with model based testing and performance analysis. In *Proc of Testing: Academic and Industrial Conference (TAICPART'08)*, pp. 82-86. IEEE Computer Society, 2008.
30. S. Wierzchok, A. Stefanescu, I. Schieferdecker. Test data provision for ERP systems. In *Proc. of the International Conference on Software Testing, Verification, and Validation (ICST'08)*, pp. 396-403. IEEE Computer Society, 2008.
31. S. Leue, A. Stefanescu, W. Wei. An AsmL semantics for dynamic structures and run time schedulability in UML-RT. In *Proc. of the 46th International Conference on Objects, Models, Components, Patterns (TOOLS'08)*, Lecture Notes in Business Information Processing (LNBIP), volume 11, pp. 238-257. Springer, 2008.
32. S. Leue, A. Stefanescu, W. Wei. Dependency Analysis for Control Flow Cycles in Reactive Communicating Processes. In 15th International SPIN Workshop on Model Checking of Software (SPIN'08), LNCS, volume 5156, pp. 176-195. Springer, 2008.
33. S. Leue, A. Stefanescu, W. Wei. A livelock freedom analysis for infinite state asynchronous reactive systems. In *Proc. of the International Conference of Concurrency Theory (CONCUR'06)*, LNCS, volume 4137, pp. 79-94. Springer, 2006.
34. A. Stefanescu, K. Heljanko. Complexity results for checking distributed implementability. In *Proc. of the 5th International Conference on Application of Concurrency to System Design (ACSD'05)*, pp. 78-87. IEEE Computer Society, 2005.
35. A. Stefanescu, J. Esparza, A. Muscholl. Synthesis of distributed algorithms using asynchronous automata. In *Proc. of International Conference of Concurrency Theory (CONCUR'03)*, LNCS, volume 2761, pp. 27-41. Springer, 2003.

36. A. Stefanescu. Automatic synthesis of distributed systems. In *Proc. of 17th IEEE International Conference on Automated Software Engineering (ASE'02)*, p. 315. IEEE Computer Society, 2002.

Other Papers (Workshops, Technical Reports, Whitepapers)

1. A. Ilie, M. Popescu, A. Stefanescu. Robustness as inherent property of datapoints. Poster paper. In *Proc. of AI Safety 2020 Workshop*, affiliated with IJCAI'2020. CEUR-WS, 2020.
2. A. Panait, R. Olimid, A. Stefanescu. Identity management on blockchain - privacy and security aspects. Technical report arXiv:2004.13107, 2020.
3. A. Bagnato, A. Sadovykh, S. Dahab, S. Maag, A. Cavalli, A. Stefanescu, J. Rocheteau, S. Mallouli, W. Mallouli. Modeling OMG SMM metrics using the Modelio modeling tool in the MEASURE project. *Revue Génie Logiciel*, 120, pp. 46-52, 2017.
4. I. Dinca, F. Ipate, A. Stefanescu. A survey of scientific results of the team of the University of Pitesti in the DEPLOY project. *Buletin Stiintific al Universitatii din Pitesti, seria Matematica-Informatica*, no. 18, pp. 13-20, December 2012.
5. A. Roth, A. Stefanescu, S. Wiczorek. Automatic test design and verification using MCM. *Research Whitepaper*, 8 pages. SAP Research, May 2009.
6. S. Wiczorek, A. Stefanescu, J. Großmann. Enabling Model-Based Testing for SOA Integration. In *Proc. of Model-based Testing in Practice Workshop (MOTIP'08)*, in conjunction with ECMDA'08 conference, pp. 77-82. Fraunhofer IRB Verlag, 2008.
7. S. Leue, A. Stefanescu, W. Wei. An AsmL Semantics for Dynamic Structures and Run Time Schedulability in UML-RT. *Technical Report soft-08-02*, 37 pages, Chair for Software Engineering. University of Konstanz, 2008.
8. A. Stefanescu. Next-generation model-based testing for service-oriented architectures at SAP. *Research Whitepaper*, 17 pages. SAP Research, 2008.
9. S. Wiczorek, A. Stefanescu. Challenges for ERP test data generation. In *Proc. of 5th Workshop on System Testing and Validation (STV'07)*, in conjunction with ICSSEA conference. Fraunhofer IRB Verlag, 2007.
10. A. Stefanescu, S. Wiczorek. An Analysis of the Testing Process at AP SRM. *Technical Report*, 11 pages. SAP Research, 2007.
11. S. Leue, A. Stefanescu, W. Wei. A livelock freedom analysis for infinite state asynchronous reactive systems, *Technical Report soft-06-02*, 16 pages, Chair for Software Engineering. University of Konstanz, 2006.
12. A. Stefanescu, K. Heljanko. Complexity results for checking distributed implementability. *Technical Report 05/2004*, 37 pages. University of Stuttgart, 2004.

Drafts and submitted papers

1. A. Abherve, A. Bagnato, A. Cavalli, S. Dahab, M. Go, A. Lupei, S. Maag, W. Mallouli, J. Rocheteau, J. Shimahara, A. Stefanescu. An Innovative Industrial Learning-based Software Measurement Platform: Experiments, Evaluations and Discussions on Industrial Use Cases. Submitted to [software engineering journal], 2020.

Invited Talks

1. A. Stefanescu. Search Based Software Engineering for Model Based Development and Testing. At *the 13th CREST Open Workshop Future Internet Testing (FITTEST) & Search Based Software Engineering (SBSE)*, 2011.
2. S. Wiczorek, A. Stefanescu. Model-based testing in the enterprise software domain - past and future initiatives. At *Dagstuhl Seminar 10421 "Model-Based Testing in Practice"*, 2010.

3. A. Stefanescu, S. Leue, W. Wei. An AsmL semantics for dynamic structures in UML-RT. At *the 2nd Workshop on "A Formal Semantics for UML" 2006*, in conjunction with UML/MoDELS'06 conference, 2006.
4. A. Stefanescu, S. Leue. An ASM semantics for the communication layer in Rational Rose Real-Time. At *the 1st Workshop on "A Formal Semantics for UML"*, in conjunction with ECMDA'05 conference, 2005.

Theses

- Habilitation Thesis (2017). *Formal methods for software testing, verification and synthesis*. 159 pages, University of Bucharest.
- PhD Thesis (2006). *Automatic Synthesis of Distributed Transition Systems*. 215 pages, University of Stuttgart. Supervisor: Prof. Javier Esparza. Defended in front of a jury composed of: Prof. Colin Stirling (University of Edinburgh), Prof. Volker Diekert (University of Stuttgart), Prof. Javier Esparza (now at Technical University of Munich). *Final grade: Magna cum laude*.
- MSc Thesis (2000). *Flownomial Calculus - from theory to practice*. 80 pages, University of Bucharest. Supervisor: Prof. Gheorghe Stefanescu. *Final grade: 10 out of 10*.
- BSc Thesis (1998). *Process Algebras in Computer Science*. 70 pages, University of Bucharest. Supervisor: Prof. Gheorghe Stefanescu. *Final grade: 10 out of 10*.

Patents

1. S. Wieczorek, A. Roth, A. Stefanescu, V. Kozyura, A. Charfi, F.M. Kraft. System and method for message choreographies of services. *U.S. Patent no 8448143 B2*, filed 18.12.2008, published 13.05.2013.

Awards and Scholarships

- Best paper award at ICECCS'14 conference (see publications above)
- Co-author of a paper at DARS'10 conference, which got a best student paper award (see publications above) - kudos to PhD student Yushan Chen
- Ranked 1st among the approx. 100 BSc students graduating in Computer Science at the University of Bucharest in 1998. The ranking was done according to the average of all marks over the 4 years of BSc studies (1994-1998). *My marks' average was 9.96 out of 10*.
- Ranked 1st among the approx. 10 master students graduating in Theoretical Computer Science at the University of Bucharest in 2000. The ranking was done according to the average of all marks over the 2 years of MSc studies (1998-2000). *My marks' average was 9.82 out of 10*.
- UK Overseas Research Student (ORS) Award for funding my PhD stage at the Edinburgh University (2001-2003)
- Doctoral Scholarship from the Graduate School "Logic in Computer Science" at the Technical University of Munich (2001)
- Procter&Gamble scholarship for the 3rd year (1997) of my BSc studies (there were 20 scholarships awarded nationwide in Romania in 1997)
- Various prizes during high-school in mathematics and physics Romanian national contests between 1986-1994. For instance, 2nd prize in National Physics Contest in 1990, 3rd prize in the National Mathematics Contests in 1993 and 1994, and member of the extended Romanian national team for mathematics in 1993.

Member of Program Committees

- ICSSP/ICGSE 2021 conference
- ICSEA'21 conference
- QUATIC'21 conference

- SERENE'21, SERENE'20, SERENE'19, SERENE'18 workshop (IEEE proceedings) - co-chair
- ICST'20, ICST'19, ICST'18 conference (IEEE proceedings)
- STAF-RPS'19 workshop
- MOBILESoft'18, MOBILESoft'17, MOBILESoft'16 conferences
- CiE'15 (part of organizing committee)
- ICTAC'14 (co-chair of organizing committee)
- DeMobile'15, DeMobile'14 workshops
- ECMFA'14, ECMFA'13, ECMFA'12, ECMFA'11, ECMFA'10, ECMDA-FA'09 conferences (Springer proceedings)
- MODELWARD'21, MODELWARD'20, MODELWARD'19, MODELWARD'18, MODELSWARDS'17, MODELSWARD'16, MODELSWARD'15, MODELSWARD'14, MODELSWARD'13 conferences
- BCI'13 conference (ACM proceedings)
- VALID'15, VALID'14, VALID'13, VALID'12, VALID'11, VALID'10 (Industry/Research Liaison Chair), VALID'09 conferences (IEEE proceedings)
- ICIT'12 special session on Model-based Testing
- CIT'11 conference (IEEE proceedings)
- CEE-SET'11 conference
- VAST'11 workshop (IEEE proceedings)
- EVACCS'11 workshop
- MOTIP'12, MOTIP'11, MOTIP'10, MOTIP'09 workshops
- STIX'11 Special Session at ICSTCC'11 conference

Reviewer

- Evaluator for Marie Skłodowska-Curie individual fellowships 2016, 2017, 2018, 2019 calls
- Independent evaluator and reviewer for the EC-funded FP7 project SERAMIS ([1st review](#))
- Journals: JSS, FAC, FMSD, SoSyM, STTT, TPLP, IARIA Journals, SACS
- Conferences: BIC-TA'15, ICCAD'15, CMC'15, DSC'15, BCI'15, ICST'15, DSC'14, ICST'14, SEFM'14, ICTAC'14, CMC'13, DSC'13, MODELSWARD'13, SEFM'12, ECMFA'12, SAC'12, CAV'11, QSIC'11, ICST'11, ServiceWave'09, SPIN'08, ECOWS'08, TACAS'04, FSTTCS'01-'03, ICATPN'03, CONCUR'02, LATIN'02, FOSSACS'01
- Workshops: VAST'11, MOTIP'10, MOTIP'09, PESOS'09, SCESM'08
- Reviewer of the PhD thesis of Denis Bogdanas (University of Iasi, Romania) - May 2015, Ionut Niculescu (University of Pitesti, Romania) - Oct 2018
- Supporting Member of the Revision Task Force for OMG's UML Testing Profile (UTP) standard (for version 1.1)

Research Projects

1. SASHA (Platform for Security Assessment of Smart Home Interconnected Applications) - Romanian PED research grant (2020-2022). I am the principal investigator at the University of Bucharest.
2. MASSA (Advanced Security Mechanisms for Autonomous Systems) - Romanian PTE research grant (2020-2022). I am the principal investigator at the University of Bucharest.
3. [ALTAS](#) (Innovative hub for advanced cybersecurity technologies) - Romanian PCCDI research grant (2018-2020). I am the principal investigator at the University of Bucharest.
4. [MEASURE](#) (Measuring Software Engineering) - ITEA 3 European grant (2016-2019). I am the principal investigator at the University of Bucharest.

5. [MACPS](#) (Modelling and analysis of cyber-physical systems) - Romanian research grant (2017-2019) with Florentin Ipate as Principal Investigator. I am a senior researcher in the project team.
6. [MuVeT](#) (Multi-dimensional modeling, verification and testing) - Romanian research grant (2012-2015) with Florentin Ipate as Principal Investigator. I was a senior researcher in the project team.
7. Romanian Research Grant "[Testing and formal modeling of service-based software applications](#)" - CNCSIS-UEFISCDI grant no. RP-7/05.08.2010. This was a research grant that funded the research of my first 2 years (September 2010 - August 2012) at the University of Pitesti. This is a special grant from the Romanian Government for researchers returning back to Romania from abroad.
8. [SenDiS](#) (General Word Sense Disambiguation System applied to Romanian and English Languages) - Romanian POS CCE O212 grant no 207/20.07.2010. I am the project lead of this project, which runs at the Romanian software company SOFTWIN.
9. [DEPLOY](#) (Industrial deployment of advanced system engineering methods for high productivity and dependability) - EU FP7 Grant No. 214158. This European project with 15 academic and industrial partners currently funded my postdoctoral research at SAP Research and partially my research at University of Pitesti
10. [MODELPLEX](#) (MODELing solutions for comPLEX systems) - EU FP6 Grant No. 034081. This European project with over 20 academic and industrial partners funded my postdoctoral research at SAP Research between 2007 and 2009.
11. [IMCOS](#) (Incomplete Model Checking for Concurrent Object-Oriented Systems) - German DFG Grant No.: LE 1342/1 - 2. This German project funded my postdoctoral research at the University of Konstanz between from 2005 to 2006. I contributed to the acceptance of the follow-up project IMCOS2 (2 full research positions for 2 years).
12. [SYNTHESIS](#) (Automatic Synthesis of Distributed Systems) Project - EPSRC Grant R64322/01. This UK project funded my PhD studies from 2001 to 2004.

Teaching Experience

1. University of Bucharest (lectures): "Software development methods", "Software project management"
2. University of Pitesti (lectures & seminars): "Software engineering", "Cloud computing"
3. University of Konstanz (research seminars): "Foundations of software security", "Software development methods"
4. University of Stuttgart (seminars): "Logic in computer science", "Networks and processes", "Efficient algorithms", "Cryptographic protocols"
5. University of Edinburgh (seminar): "Database systems"
6. University of Bucharest (seminar): "Data structures and programming techniques", "Foundations of computer science"

PhD Students

1. Marius Melemciuc
2. Andreea Panait
3. Miruna Paduraru
4. Corina Ilinca
5. Marina Cernat
6. Catalin-Andrei Ilie

Industrial Experience

- scientific collaboration with UiPath for applying Robotic Process Automation in software testing

- scientific collaboration with Bitdefender for applying formal methods to security analysis of binary files
- I am the responsible inside my faculty with its relation with the IT industry
- internal SAP projects, transferring theoretical results into practice. SAP is the world's leading provider of business software
- supervised a 3-year research project at the Romanian software company SOFTWIN
- collaboration with IBM during the MODELPLEX and IMCOS projects
- member of the TCT (Technical Coordination Team) of the MODELPLEX project
- presentations and tool demos in front of the European Commission reviewers for the MODELPLEX project
- prepared and gave training sessions on model-based testing for the SAP test architects from Germany, Israel, India and China
- lead from SAP side a small research project together with Fraunhofer FOKUS research institute on applicability of model-based testing at SAP
- organized several F2F meetings of SAP with industrial and research partners on various topics

Summerschools and Scientific Events

- Dagstuhl Seminar (2010): Model-Based Testing in Practice
- Research Week Palo Alto (2007): SAP Research Summit
- Springschool Marseille (2004): Concurrency Theory and Applications
- Dagstuhl Seminar (2004): Graph Transformations and Process Algebras for Modeling Distributed and Mobile Systems
- Summerschool Marktoberdorf (2001): Proof and System Reliability
- Springschool Venice (2001): Logic in Computer Science
- Summerschool Marktoberdorf (1999): Foundations of Secure Computation
- Summerschool Aarhus (1999): Semantics of Computation

Selected Talks

1. Limassol, Cyprus, FM conference, 2016
2. Tianjin, China, ICECCS conference, 2014
3. Berkeley, US, SYNT workshop, 2012
4. Pisa, ABZ conference, 2012
5. Edinburgh, LFCS seminar, University of Edinburgh, 2012
6. Helsinki, Aalto University, seminar talk, 2011
7. Kuantan, Malaysia, ICSECS conference, 2011
8. London, CREST Workshop, 2011
9. Berlin, SBST Workshop, 2011
10. Timisoara, SPRERS Training on Software Services, 2010
11. Cambridge, WICSA/ECSA Conference, 2009
12. Bruxelles, Meeting with EC project officers for the new FP7 call 5 project proposals, 2009
13. Berlin, MOTIP Workshop, 2008
14. Bruxelles, MODELPLEX project EU reviews, 2008-2010
15. Konstanz, Research Seminar, University of Konstanz, 2008
16. Stuttgart, TAV Workshop, 2007
17. Genova, UML Semantics Workshop, 2006
18. Boston, Research Seminar at Boston University, 2006
19. St. Malo, ACSO Conference, 2005
20. Nürnberg, UML Semantics Workshop, 2005
21. Rennes, INRIA Research Seminar, 2005
22. Stuttgart, Research Colloquium, 2004
23. Marseille, CONCUR Conference, 2003
24. Edinburgh, GAMES Workshop, 2002

25. Paris, LIAFA, 2002
26. Munich, GKLI, 2001

Short Research Visits

1. Nanyang Technological University, Singapore, March 2013
2. SAP Labs, Palo Alto, US, July 2012
3. University of Edinburgh, May 2012
4. Carnegie Mellon University (Silicon Valley Campus), December 2011
5. Aalto University, Helsinki, November 2011
6. University of Illinois at Urbana-Champaign, January 2009
7. Boston University, November 2006
8. University Paris Diderot - Paris 7, January 2002

Others

- Scientific advisor to French start-up boost.rs
- Member of the "Future of Technology" theme jury at FutureIdeas.org competition 2015
- Mentor of the University of Bucharest team of three undergraduate students participating in the Intel Cup Design Contest 2014 (Shanghai, China). The team won 1st prize.
- Student member of the Faculty Council at the Faculty of Mathematics and Computer Science, University of Bucharest
- My Erdős number (i.e. co-author chains until Paul Erdős) is 3: Alin Stefanescu (#3) – Marian Gheorghe (#2) – Solomon Marcus (#1) – Paul Erdős (#0).

Skills (advanced knowledge)

- foreign languages: English, German, French
- technical languages: C, Java, UML, C++
- tools: Eclipse, UiPath Studio, Apache Spark, IBM Rational Software Architect

Experience Summary

Dr. Alin Stefanescu has over 20 years of research experience in the formal methods area with a focus on software verification, testing, and synthesis, publishing more than forty papers in international journals, conferences and workshops. His work spans a large spectrum of topics from very theoretical ones like synthesis of distributed automata from formal languages to very applied ones like model-based testing for service-oriented architectures in industrial settings. He carried his research and taught student seminars at top European universities such as Technical University of Munich and University of Edinburgh and at research divisions of top companies such as SAP.

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