Curriculum Vitae

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EMPLOYMENT HISTORY

2021–	Professor, Department of Automation and Industrial Informatics, University "Politehnica" of Bucharest
2017–2021	Associate Professor, Department of Automationand Industrial Informatics, University "Politehnica" of Bucharest Habilitation certificate (Dr.-Ing. habil.) for advising PhD students in Automation and Industrial Informatics – Systems Engineering domain Thesis: *Information Processing in Distributed Sensor Systems*
2019	University Project Assistant (with Doctorate), Institute of Technical Informatics, Technical University of Graz, Austria. LEAD Project "Dependable Things in Adverse Environments"
2013–2017	Assistant Professor, Department of Automation and Industrial Informatics, University "Politehnica" of Bucharest
2015–2016	Fulbright Visiting Scholar, EECS Department, School of Engineering, University of California, Merced, USA Topic: *Pervasive Building Energy Monitoring and Control over Reliable Wireless Sensor Networks* Faculty associate: Prof. Alberto Cerpa
2014–2015	Postdoctoral Researcher, Department of Automation and Industrial Informatics, University "Politehnica" of Bucharest Topic: *Aggregation and Data Fusion Strategies in Multi-sensory Intelligent Environments*, Project: "Development of Human Resources in Doctoral and Postdoctoral Research: Driving Force for a Knowledge-based Society" - KNOWLEDGE, POSDRU/159/1.5/S/134398. Adviser: Prof. Dan Popescu
2009–2013	Teaching and Research Assistant, Department of Automation and Industrial Informatics, University "Politehnica" of Bucharest

EDUCATION

2012	Ph. D., University "Politehnica" of Bucharest, Faculty of Automatic Control and Computers, Systems Engineering (adviser: Prof. Dr. Ing. Valentin Sgârciu), Public defense date: 19.10.2012 Thesis: *Improving Life and Work with Reliable Wireless Sensor Networks*. Grade: *Magna cum laudae*
2011	PhD Research Internship, Distributed Embedded Systems Group, Institute of Computer Engineering - ITI, University of Lübeck, Germany, Project: *Automating data collection and analysis from laboratory mice used in medical research through light-weight camera-enabled sensor networks and distributed computing (MiceNet)*, advisers Prof. Kay Römer (UzL), Prof. Valentin Sgârciu (UPB)
2011	M. Sc., University "Politehnica" of Bucharest, Faculty of Automatic Control and Computers, Automatic Control and Industrial Informatics
2009	ERASMUS Student, LaS3 Laboratory, University of Applied Sciences Regensburg, Germany, Diploma thesis: *Research on the influence of caching on task migration in multicore processors used in embedded automotive real-time systems*, advisers Prof. Jürgen Mottok (FH R), Prof. Dumitru Popescu (UPB)
2009	Dipl.-Eng. (5 year Engineering Studies, M.Sc. equivalent), University "Politehnica" of Bucharest, Faculty of Automatic Control and Computers, *top 2% – ranked 4th out of 259 graduates*
2004	Baccalaureate, Miguel de Cervantes High School, Bucharest, Mathematics-Informatics profile, bilingual Spanish

AWARDS

2018	Best Paper Award, *Wireless Sensor Network Architecture based on Fog Computing*, CODIT 2018, Thessaloniki, Greece.
2013	1st Prize, NIDays 2013 Graphical System Design Conference, Bucharest, October 2013.
	Competitive Travel Grant, 2nd COST IntelliCIS Training School – Simulation-based Design of Complex Infrastructure Systems, RWTH Aachen, Germany.
2012	Competitive Travel Grant, Advanced School on ICT for Future Energy Systems (ICT4FES'12), Trento.
	Best Paper Award, SENSORCOMM 2012, Rome, Italy.
	Student Travel Grant, 9th European Wireless Sensor Networks Conference – EWSN 2012, Trento, Italy.
2011	"Are Hjørungnes" Student Travel Grant, IEEE Distributed Computing in Sensor Systems, Barcelona.

RESEARCH PROJECTS - PAST 5 YEARS

2022–2023	Researcher, *Bridging Carbon Neutral LNG with the Energy Market – A Novel Ontochain Application*, NGI ONTOCHAIN Open Call 3. Beneficiary: Applied Research Solutions. OTCnLNG
2021–2024	**Project partner responsible**, *rEsilient and seLf-healed EleCTRical pOwer Nanogrid*, Call: H2020-SU-DS-2020, Topic: U-DS04-2018-2020, Start Date: 01/10/2021, Duration: 36 months. Partner: TUV Austria Romania, $257075. ELECTRON
2021	**Project director**, *PROSIM Cyber-Physical Platform for Application Development and Training in the Process Industries*, HUBCAP Call #2 Experiment, Subgrant no. HUBCAP-OC2.1-2020/1499086, Beneficiary: Asti Automation, $65558. PRO-CPS
2021–2023	Researcher, *Extending the Measurement Concept for the Control of Emerging Power Systems – EMERGE*, UEFISCDI Exploratory Research Projects Call 2020, PN-III-P4-ID-PCE- 2020-2876. EMERGE
2020–2023	Researcher, *HALYomorpha halys IDentification: Innovative ICT tools for targeted monitoring and sustainable management of the brown marmorated stink bug and other pests – HALY.ID*, HORIZON 2020, ERA NET COFUND, CT-AGRI-FOOD, 2019 Joint Call, ID 40606. HALY.ID
2019	**Project director**, *Data-driven Modelling of Complex Manufacturing Systems – DAMS*, Joint Excellence in Science and Humanities (JESH), Austrian Academy of Sciences, $18200.
2018–2021	Researcher, *Intelligent and Distributed Control of Three Complex Autonomous Systems based on Emerging Technologies for Medical and Social Assistance and Precision Flexible Assembly Lines – CIDS-ACTECH*, UEFISCDI PCCDI Call 2017, Project No. 78.
2018–2020	Researcher, *Integrated System for Intelligent Monitoring based on UAV-WSN-IoT in Precision Agriculture – MUWI*, NETIO Framework Project for Internet of Things Innovation.
2017–2020	Researcher, *Integrated Multi-Agent Aerial Robotic System for Exploring Terrestrial Regions of Interest – MAARS*, Romanian Space Agency STAR Program C3-2015.
2017	**Project director**, *Multi-protocol gateway for open automation in smart buildings – OPENBMS*, UEFISCDI Innovation Cheques, 73CI/2017, $12820. OPENBMS
2016–2017	**Project director**, *New Dynamic Consensus Algorithms for Thermal Energy Management in Buildings – CONSENSYS*, UPB Excellence Grants, Project no. 221, $4,750. CONSENSYS
2016–2018	Researcher, *Energy Efficient Automation and Telemetry System for Resource Management in Precision Agriculture – SA-TERRA*, UEFISCDI Bridge Grant Call June 2016, Project no. BG-2016-0387.
2016–2018	Researcher, *Multi-UAV System for Flood Damage Assessment – SIMUL*, UEFISCDI Bridge Grant Call June 2016, Project no. PN-III-P2-2.1-BG-2016-0318.
2016–2018	Researcher, *Advanced Process Control System for Intelligent Specialization in the Energy Field – ASID*, UEFISCDI Bridge Grant Call June 2016, Project no. PN-III-P2-2.1-BG-2016-0234.

PUBLICATIONS

Over 130 publications: books/book chapters, articles in journals and conference proceedings, in the fields of wireless sensor networks, information processing and intelligent measurements. *See on-line researcher profiles for full list.*

Selected Publications relevant to Current Research Activity

P10.   **Stamatescu G.**, Ciornei I., Plamanescu R., Albu M., *Detection of Anomalies in Power Profiles using Data Analytics*, 12th IEEE International Workshop on Applied Measurements for Power Systems (AMPS 2022), Cagliari, September 2022.

P9.   Fagaras R., Nichiforov C., Stamatescu I., **Stamatescu G.**, *Evaluation of Compressed Residential Energy Forecasting Models*, 2021 IEEE International Conference on Systems, Man, and Cybernetics (SMC 2021), Melbourne, October 2021.

P8.   **Stamatescu G.**, Chitu C., *Privacy-Preserving Sensing and Two-Stage Building Occupancy Prediction Using Random Forest Learning*, Journal of Sensors, vol. 2021, Article ID 8000595, 2021.

P7.   Nichiforov C., **Stamatescu G.**, Stamatescu I., Fagarasan I., *Learning Dominant Usage from Anomaly Patterns in Building Energy Traces*, 16th International Conference on Automation Science and Engineering (CASE), Hong Kong, August 2020.

P6.   Popescu D., Stoican F., **Stamatescu G.**, Ichim L., Dragana, C., *Advanced UAV–WSN System for Intelligent Monitoring in Precision Agriculture*, Sensors 2020, 20, 817.

P5.   **Stamatescu G.**, Entezari R., Römer K., Saukh O., *Deep and Efficient Impact Models for Edge Characterization and Control of Energy Events*, Proc. of the 25th IEEE International Conference on Parallel and Distributed Systems (ICPADS), Tianjin, China, December 2019.

P4.   **Stamatescu G.**, Stamatescu I., Arghira N., Fagarasan I., *Data-Driven Modelling of Smart Building Ventilation Subsystem*, Journal of Sensors, vol. 2019, Article ID 3572019, 2019.

P3.   Popescu D., Stoican F., **Stamatescu G.**, Chenaru O., Ichim L., *A Survey of Collaborative UAV–WSN Systems for Efficient Monitoring*, Sensors 2019, 19, 4690.

P2.   Fagarasan I., Iliescu S. S., **Stamatescu G.**, Dumitru I., Arghira N., *Intelligent Simulator for Industrial Processes*, Request A 2009 00756/24.09.2009, Published 30.06.2011//6/2011, RO126447-A2, Awarded Patent no. 126447B1 from 31.10.2018, State Office for Inventions and Brands OSIM.

P1.   Popescu D., Dragana C., Stoican F., Ichim L., **Stamatescu G.**, *A Collaborative UAV-WSN Network for Monitoring Large Areas*, Sensors 2018, 18, 4202.

PROFESSIONAL ACTIVITIES

Service *selection*

- Co-Editor-in-Chief, *International Journal of Computing*, ISSN 2312-5381 IJC

- Lead Guest Editor: Special Issue on Complex Data Processing Systems and Computing Algorithms: New Concepts and Applications (DataPro), *Sensors (MDPI)*; Special Issue on Convergence of Intelligent Data Acquisition and Advanced Computing Systems (IDAACS2019), *Sensors (MDPI)*; Special Issue on Sensing and Data-Driven Control for Smart Building and Smart City Systems (SBSCS), *Journal of Sensors*.

- Guest Editor: Special Issue on Advanced Topics in Systems Safety and Security (IWSSS2019), *Information*; Special Issue on Energy Management for Smart Buildings (EM SB), *Energies*

- Editor: *Journal of Sensors*, ISSN: 1687-7268 (Online), *Sensors (MDPI)*, ISSN 1424-8220

- General co-chair, *9th IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications* IDAACS 2017

- Organizing Committee Co-Chair, *International Workshop on Systems Safety & Security (IWSSS)*, 2013-2022.

- Special sessions: Advanced Methods and Applications for Increasing Control Systems Reliability, Safety and Security - IEEE SMC 2016, Intelligent Wireless Sensor Networks for Monitoring, Diagnosis and Control - IEEE CODIT 2017 and CODIT 2018, Control in Smart Cities - MED 2018, Intelligent data processing from sensors in control and decision support systems - MED 2021.

- Reviewer for several relevant top journals such as IEEE Sensors, Elsevier Engineering Applications of Artificial Intelligence, Computers in Industry, Applied Energy, Sustainable Cities and Society. Member of multiple TPCs for international indexed conferences, most recently IEEE SECON 2021, IEEE MASS 2021.

- External expert/evaluator for the Ministry of Scientific Research and Innovation, UEFISCDI, Malta Council for Science and Technology, Foundation for Polish Science, EU–COST, DG-REGIO.

Memberships

2007–	Senior Member, Institute of Electrical and Electronics Engineers (IEEE) – IEEE Romania Section Secretary. Past-Chair of IEEE Romania Robotics and Automation Society Chapter. Chair of IEEE Romania Section Young Professionals (YP) Affinity Group 2017-2019. Member of IEEE RAS Technical Committee on Smart Buildings. Member of IEEE IES Technical Committee on Industrial Agents.
2016–	Member, Association for Computing Machinery (ACM); Special Interest Group on Energy Systems and Informatics (SIGEnergy).
2011–	Member, Romanian Society of Automatic Control and Technical Informatics (SRAIT)
2020–	Member, Romanian Society of Robotics (SRR)
2017–	Member, IFAC TC3.3.Telematics: Control via Communication Networks.

Invited Talks

2022	*Tutorial: Data Preprocessing Techniques for Multiscale Measurements Analytics*, 2022 IEEE International Instrumentation and Measurement Technology Conference (I2MTC 2022), Ottawa, Canada, May 2022. *with M. Albu*
2021	*Data Processing Methods based on Artificial Intelligence for Time Series*, 8th International Conference on Signal Processing and Integrated Networks (SPIN 2021), Amity University, India, August 2021.
2020	*ESENSE: Efficient distributed sensing and inference in heterogeneous IoT systems*, Networked Embedded Systems Workshop – Complexity Science Hub, February 10th, Vienna, Austria.
2019	*Deep Impact Models for Local Characterisation of Energy Events*, Department of Automation – Tsinghua University, December 6th, Beijing, China.
2019	*Time series modelling for prediction and anomaly detection of energy consumption in large commercial buildings*, Automation and Information Systems Scientific Seminar – Faculty of Automatic Control and Computers, November 22nd, Bucharest, Romania.
2019	*Data-driven Modelling of Large Scale Manufacturing Systems*, Complexity Science Hub, March 8th, Vienna, Austria.
2019	*Data-driven Modelling of Complex Manufacturing Systems*, Institute of Technical Informatics, Technical University of Graz, March 4th, Graz, Austria.
2016	*Modeling and Predictive Control for Thermal Energy Management in Smart Buildings*, Cyber-Physical Systems and Advanced Control Seminar, SRAIT-Faculty of Automatic Control and Computers, June 16th, Bucharest, Romania.
2016	*Wireless Sensor Networks for Building Energy Management*, Fulbright Outreach Lecturing Fund (OLF), International Technological University, February 2nd, San Jose/CA, USA.

DEPARTAMENT ACTIVITIES AND INSTITUTIONAL DEVELOPMENT

Advising students for project work, student scientific research competitions, bachelor and master thesis. Research activities in the field of automatic control and industrial informatics with a focus on intelligent measurement technologies and transducers. Preparing scientific conference proceedings and journal articles, project reports and giving scientific talks. Reporting and administrative work.

2014–2015	Supervising faculty, Institutional development project co-financed with european funds, POSDRU 161 /2.1/G/134386, *From school, let's prepare ourselves for an active life*, enabling student career counseling and practical experience through specialised internships. SHIVA
2010–2017	Co-founder and Coordinator, *National Instruments LabVIEW Academy Program*, Faculty of Automatic Control and Computers, UPB, First implementation of the NI academic program in Romania.

2013–2017	Co-founder and member of the team, *Phoenix Contact EduNet International Education Network*, Faculty of Automatic Control and Computers, UPB, First implementation of EduNet in Romania.
2020–	Member of the Council of the Faculty of Automatic Control and Computers: committee for research, innovation and relation with the business environment and committee for international relations.
2020-2023	Project coordinator for Partner UPB, Erasmus+ Capacity Building Project *Master of Engineering in Internet of Things*, Coordinator: University of Siegen, Germany. IoTRAIN. $65608
2021-2022	Engineer your Future! STEM educational outreach project for high-school seniors. Small Grants for Alumni Programs – Embassy of the United States of America in Romania. $15000

TEACHING

2009–	Regelungstechnik (Control Engineering), Seminar/Laboratory, 3rd year B.Sc., Faculty of Engineering in Foreign Languages, German Department.
2009–	Information Processing, Laboratory, 1st year B.Sc., Faculty of Automatic Control and Computers.

COURSES TAUGHT

Fall 2013–	Regelungstechnik, 3rd year B.Sc., Faculty of Engineering in Foreign Languages.
Fall 2013–	Information Processing, 1st year B.Sc., Faculty of Automatic Control and Computers.
Fall 2014–	Regelungstechnik II, 4rd year B.Sc., Faculty of Engineering in Foreign Languages.
Fall 2020–	Intelligent Measurement Systems, Master programme of Automation and Industrial Informatics, Faculty of Automatic Control and Computers

FOREIGN LANGUAGES

English (C2 – Common European Framework Level), Spanish (C2), German (C2), French (B2), Russian (A2).

OTHER INFORMATION

Programming languages: Python, Julia, MATLAB, R, C/C++, LabVIEW

Certificates: Cambridge Certificate in Advanced English, Diploma Basico de Espanol, Goethe Zertifikat C1, Didactic Training Certificate UPB, Certified Trainer Certificate, Project Management Certificate, Stanford Online Statistical Learning Statement of accomplishment (with distinction), Coursera Machine Learning, Coursera Deep Learning specialisation, including: Neural Networks and Deep Learning, Structuring Machine Learning Projects, Improving Deep Neural Networks, Convolutional Neural Networks, Sequence Models.