

Alessandro Vittorio PAPADOPOULOS

PERSONAL DATA

PLACE OF BIRTH: Verona (VR), Italy
DATE OF BIRTH: October 21st, 1986
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CURRENT

today | **Associate Professor (Docent, Universitetslektor)** *Mälardalen University, Västerås, Sweden*
MAR 2018 | *Faculty of Innovation, Design and Engineering (IDT)*
Research groups: Complex Real-Time Embedded Systems, Robotics

today | **Leader of the *Complex Real-Time Embedded Systems* group** *Mälardalen University, Västerås, Sweden*
MAR 2019 | *Jointly with Prof. Thomas Nolte.*
People: ~ 14 (~ 8 PhD students)

PREVIOUS POSITIONS

MAR 2018 | **Senior Lecturer (Universitetslektor, tenured)** *Mälardalen University, Västerås, Sweden*
FEB 2018 | *Faculty of Innovation, Design and Engineering (IDT)*
Research groups: Complex Real-Time Embedded Systems, Robotics

JAN 2018 | **Forskarassistent (Assistant Professor equivalent)** *Mälardalen University, Västerås, Sweden*
SEP 2016 | *Faculty of Innovation, Design and Engineering (IDT)*
Research group: Complex Real-Time Embedded Systems
Research topic: Feedback computing for the management of IT-infrastructure resources (part of the SSF project: [Future factories in the cloud](#)).

AUG 2016 | **Postdoctoral Research Assistant** *Politecnico di Milano, Milano, Italy*
FEB 2016 | *Dipartimento di Elettronica, Informazione e Bioingegneria*
Supervisor: Prof. Maria Prandini
Research topic: Modeling and control of interconnected systems affected by uncertainty, with application to next generation electric grids.

JAN 2016 | **Postdoctoral Researcher** *Lund University, Lund, Sweden*
JAN 2014 | *Department of Automatic Control*
Supervisor: Prof. Karl-Erik Årzén
Research topic: Control design and implementation in cloud and embedded systems.

JAN 2016 | **Member** *LCCC, Lund, Sweden*
JAN 2014 | *Lund Center for Control of Complex Engineering Systems*

EDUCATION

MAR 2018 | Qualification as **Associate Professor (Docent) in Computer Science**
Mälardalen University, Västerås, Sweden

DEC 2013 JAN 2011	Ph.D. in Information Technology – Systems and Control Thesis title: Automatic Model Simplification for Continuous and Discontinuous Systems Advisor: Prof. Alberto Leva	<i>Politecnico di Milano, Milano, Italy</i>
SEP 2012 JUN 2012	Visiting Ph.D. Student <i>Department of Automatic Control</i> Supervisor: Prof. Johan Åkesson	<i>Lund University, Lund, Sweden</i>
OCT 2011	Professional Engineer License in Information Engineering (Abilitazione alla Professione di Ingegnere)	<i>Politecnico di Milano, Milano, Italy</i>
OCT 2010 OCT 2008	Master of Science in Computer Engineering Evaluation: Summa cum Laude, 110L/110; GPA: 28.98/30 Degree Date: 22/10/2010 Thesis title: Advanced control techniques for resource management in computing systems.	<i>Politecnico di Milano, Milano, Italy</i>
JUL 2008 SEP 2005	Bachelor of Science in Computer Engineering Evaluation: 108/110; GPA: 27.59/30 Degree Date: 23/07/2008 Thesis title: Model parameterisation for the automatic tuning of industrial regulators: the proposal of a unitary approach.	<i>Politecnico di Milano, Milano, Italy</i>

TEACHING EXPERIENCE

Lecturer, Course Responsible and Examiner

SPRING 2018–2019	Mobile Robotics (ELA406) 7.5 ECTS (Graduate course) 2019: 21 students, 44h 2018: 12 students, 44h	<i>Mälardalen University, SE</i>
SPRING 2017–2019	Control Theory (ELA407) 7.5 ECTS (Graduate course) 2019: 41 students, 44h – Overall Evaluation 9.6/10 2018: 43 students, 44h – Overall Evaluation 8.7/10 2017: 19 students, 12h. Course responsible and examiner <i>Dr. Giacomo Spampinato</i>	<i>Mälardalen University, SE</i>
FALL 2017–2018	Industrial Robotics (DVA414) 7.5 ECTS (Graduate course) 2018: 22 students, 39h – Overall Evaluation 8.5/10 2017: 13 students, 39h – Overall Evaluation 9.3/10	<i>Mälardalen University, SE</i>
FALL 2014	Real-Time Systems (FRTN01 – Realtidssystem) 10 ECTS (Graduate course) 2014: 98 students, 34h – Overall Evaluation +38 in a [-100,100] scale. Course responsible and examiner <i>Prof. Karl-Erik Årzén</i>	<i>Lund University, SE</i>

Guest Lecturer

SPRING 2019	<i>Introduction to fog computing in IoT and Fog Computing</i> 1h, <i>PhD course</i>	<i>Mälardalen University, SE</i>
SPRING 2018	<i>Introduction to cloud computing in FORA PhD Training School</i> 1h, <i>PhD course</i> (15 students)	<i>TU Vienna, Austria</i>
FALL 2017–2018	<i>Cloud computing and virtualization in Embedded Systems II</i>	<i>Mälardalen University, SE</i>

	3h, Graduate course. Prof. Mikael Sjödin	
FALL 2017–2018	<i>Fog computing in Industrial Systems in Cloud Computing</i> 1h, Graduate course. Dr. Hongyu Pei-Breivold	Mälardalen University, SE
FALL 2017	<i>Path planning in autonomous vehicles in Autonomous vehicles</i> 2h, Undergraduate course. Dr. Masoud Daneshtalab	Mälardalen University, SE
SPRING 2017	<i>Cloud computing in IoT and Big Data Analytics</i> 1h, PhD course. Dr. Mohammad Ashjaei	Mälardalen University, SE

Teaching Assistant

SPRING 2016	<i>Fundamentals of Automatic Control</i> 10 ECTS (Undergraduate course). Course responsible: Prof. Marcello Farina 2016: 167 students, 35h – Overall Evaluation: High	Politecnico di Milano, IT
FALL 2011–2013	<i>Fundamentals of Automatic Control (for Bioengineering)</i> 7 ECTS (Undergraduate course). Course responsible: Prof. Maria Prandini 2013: 168 students, 20h – Overall Evaluation: High 2012: 136 students, 26h – Overall Evaluation: High 2011: 130 students, 20h – Overall Evaluation: High	Politecnico di Milano, IT
SPRING 2011–2013	<i>Fundamentals of Automatic Control (for Aerospace Engineers)</i> 8 ECTS (Undergraduate course). Course responsible: Prof. Luca Bascetta 2013: 187 students, 26h – Overall Evaluation: High 2012: 169 students, 28h – Overall Evaluation: High 2011: 160 students, 12h – Overall Evaluation: High	Politecnico di Milano, IT

RESEARCH PROGRAMS

2019–2023	co-PI and sub-project leader , FIESTA: Federated Choreography of an Integrated Embedded Systems Software Architecture, funded by Knowledge Foundation (KK-stiftelsen).
2019–2023	co-PI and sub-project leader , SACSys: Safe and Secure Adaptive Collaborative Systems, funded by Knowledge Foundation (KK-stiftelsen).
2017–2020	Team member , PARIS - Practical Probabilistic Timing Analysis of Real-Time Systems, funded by the Swedish Research Council (VR).
2018–2021	Team member , AFarCloud - Aggregate Farming in the Cloud, funded by ECSEL Vinnova.
2018–2020	Co-applicant and Team member , ARRAY – Automation Region Research Academy (ARRAY), funded by Knowledge Foundation (KK-stiftelsen).
2018–2019	Co-applicant and Team member , XPRES – Excellence in Production Research.
2016–2020	Co-applicant and Team member , Fog Computing for Robotics and Industrial Automation (FORA), funded by the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 764785 ¹ .
2016–TODAY	Team member , Future factories in the Cloud (FiC), Swedish Foundation for Strategic Research (SSF), 2016–2020.

¹<http://www.fora-etn.eu/>

- 2016–2017 | **PI and project leader**, SLA-IoT: Ensuring Quality of Service through Modeling of Service-level Agreements in Industrial IoT, Software Center².
- 2016–2016 | **Team member**, Unifying Control and Verification of Cyber-Physical Systems (UnCoVerCPS), European Commission, H2020, 2015–2018.
- 2014–2016 | **Team member**, Cloud Control, Swedish research council (VR), Framework Grant, 2013–2016.

SUPERVISION ACTIVITIES

PhD students

1. Mirgita Frasheri (Sep 2018–ongoing) – **Main Supervisor** (from 2018)
 - Topic: “Collaborative adaptive autonomous agents”
2. Anna Friebe (Jan 2019–ongoing) – **Co-Supervisor**
 - Topic: “Practical Probabilistic Timing Analysis of Real-Time Systems”
3. Bjarne Johansson (ABB) (Jan 2019–ongoing) – **Co-Supervisor**
 - Topic: “Machine learning for control systems”
4. Anders Lager (ABB) (Jan 2019–ongoing) – **Co-Supervisor**
 - Topic: “Industrial robots motion re-planning in uncertain dynamic environments”
5. Branko Miloradović (Nov 2018–ongoing) – **Co-Supervisor** (from 2018)
 - Topic: “Multi-agent mission planning”
6. Mahdi Momeni Kelageri (Jan 2019–ongoing) – **Co-Supervisor**
 - Topic: “Robots for Automated Construction”
7. Shaik Salman (ABB) (Nov 2018–ongoing) – **Co-Supervisor**
 - Topic: “Multicore consolidation in robotics systems”
8. Vaclav Struhar (May 2018–ongoing) – **Co-Supervisor**
 - Topic: “Resource management for dependable industrial applications”
9. Ngoc Tam Lam (Jan 2019–ongoing) – **Co-Supervisor**
 - Topic: “Autonomous and Automated Road Construction”

Past PhD students

1. Hamid Reza Faragardi (2013–Mar 2018) – **Co-Supervisor** (from 2017):
 - “Optimizing Timing-Critical Cloud Resources in a Smart Factory”. Ph.D., March 2018.
 - “Resource Optimization in Multi-Processor Real-Time Systems”. Licentiate, September 2017.
2. Federico Terraneo (2012–2015) – **Co-Supervisor**
 - “Thermal and energy management techniques for multi-core and many-core systems”. Ph.D., February 2015.

Master and Bachelor Theses

1. Sebastian Andersson, Gustav Carlstedt, “Reliability analysis of software test in simulation” (in collaboration with ABB Robotics), MSc in Engineering – Robotics (30 credits), June 2019 (expected). (**Main supervisor**)
2. Tom Andersson, Niklas Persson, “Stabilising controller for a riderless bicycle”, MSc in Engineering – Robotics (30 credits), June 2019 (expected). (**Examiner**)

²<http://softwarecenter.gu.se/>

3. Ayoub Ayoub, Carl Martin Berg, “Design of an Active Boom Suspension System in a Hybrid Wheel Loader” (in collaboration with Volvo Construction Equipment), MSc in Engineering – Robotics (30 credits), June 2018. (**Main supervisor**)
4. Peter Charbachi, Filippo Ferrario, “Investigation of Methods for Automatic Hydraulics Calibration in Construction Equipment” (in collaboration with Volvo Construction Equipment), MSc in Computer Science – Embedded Systems (30 credits), June 2018. (**Main supervisor**)
5. Per Ekström, Elisabeth Eriksson, “A Framework for Testing Redundant Components In Software and Hardware” (in collaboration with ABB Robotics), MSc in Engineering – Robotics (30 credits), June 2018. (**Assistant supervisor**)
6. Fredrik Köhler, “Network Virtualization in Multi-Hop Heterogeneous Architecture”, BSc in Computer Science (15 credits), February 2018. (**Examiner**)
7. Johan Gärtner, Philip Johansson, “An Adaptive Control System Based on PID, I2PD and RLS: a Simulated Design for UAVs”, MSc in Engineering – Robotics (30 credits), June 2017. (**Main supervisor**)
8. Marcus Johansson, Lukas Olsson, “Comparative evaluation of virtualisation technologies in cloud”, BSc in Engineering – Computer Network Engineering (15 credits), June 2017. (**Main supervisor**)
9. Jonathan Larsson, “Client-side evaluation of Quality of Service in Cloud Applications”, Bachelor in Computer Science (15 credits), June 2017. (**Main supervisor**)

INVITED TALKS AND SEMINARS

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|----------|--|
| JAN 2020 | Invited seminar at the NII Shonan Meeting entitled “3rd Controlled Adaptation of Self-adaptive Systems (CASaS2020)”, Shonan Village Center (SVC), Japan, invited by Dr. Kenji Tei, Dr. Javier Camara, Dr. Nir Piterman |
| FEB 2019 | Invited seminar at the GIPSA-Lab in Grenoble, France, invited by Prof. Paolo Frasca |
| NOV 2018 | Invited seminar “Control of Autonomous Vehicles” at the High Performance Real-Time Lab, at the University of Modena and Reggio Emilia (UniMoRE), invited by Prof. Marko Bertogna |
| SEP 2018 | Invited speaker at the round table on “Automatica oltre l’ingegneria” (Automatic control beyond engineering) at Automatica.it 2018, Florence, Italy, invited by Prof. Laura Giarré, Prof. Pietro Tesi (available here) |
| AUG 2018 | Invited seminar at the GI-Dagstuhl Seminar n. 18343 on “Software Engineering for Intelligent and Autonomous Systems (SEfIAS)”, Dagstuhl, Germany, invited by Dr. Ada Diaconescu, Dr. Simos Gerasimou, Dr. Thomas Vogel (Report available here) |
| APR 2018 | Invited seminar “Control of Computing systems: Challenges and (great) opportunities” at the Department of Mechanical Engineering & Materials Science, Swanson School of Engineering, University of Pittsburgh, Pittsburgh, PA, USA, invited by Prof. Daniel Cole and Prof. Daniel Mosse |
| APR 2018 | Invited seminar “Cloud Control” at the Department of Computer Science, University of Pittsburgh, Pittsburgh, PA, USA, invited by Prof. Daniel Mosse |
| APR 2018 | Invited seminar “Control of Things” at the Carnegie Mellon University (CMU), Pittsburgh, PA, USA, invited by Prof. David Garlan and Dr. Javier Camara |
| JUL 2017 | Invited seminar “Bridging continuous and discrete control” at the NII Shonan Meeting entitled “2nd Controlled Adaptation of Self-adaptive Systems (CASaS2017)”, Shonan Village Center (SVC), Japan, invited by Prof. David Garlan, Dr. Nicolás D’Ippolito, Dr. Kenji Tei |

- JUN 2017 | **Invited seminar** at the 11th Cloud Control Workshop, Västerås, Sweden, invited by Prof. Erik Elmroth
- MAR 2017 | **Invited seminar** at the 10th Cloud Control Workshop, Umeå, Sweden, invited by Prof. Erik Elmroth
- NOV 2016 | **Invited seminar** “A control perspective on vertical scaling”, Chalmers University, Gothenubrg, Sweden, invited by Prof. Marina Papatriantafilou and Prof. Philippas Tsigas
- APR 2016 | **Invited seminar** at the NII Shonan Meeting entitled “Controlled Adaptation of Self-adaptive Systems (CASaS)”, Shonan Village Center (SVC), Japan, invited by Prof. Paola Inverardi, Dr. Nicolás D’Ippolito, Dr. Kenji Tei
- FEB 2016 | **Invited seminar** “Control of Self-Adaptive Software in Presence of Uncertainty”, University of Basel, Basel, Switzerland, invited by Prof. Dr. Jörg Schibler
- JAN 2016 | **Invited seminar** “Control and Performance Evaluation of Computing Systems in Presence of Uncertainty”, at GIPSA-Lab Grenoble and INRIA Grenoble Rhône-Alpes, France, invited by Prof. Eric Rutten and Prof. Bogdan Robu
- DEC 2015 | **Invited seminar** “Control-based Design of Computing Systems in Presence of Uncertainty”, at MDH, Västerås, Sweden, invited by Prof. Hans A. Hansson
- SEP 2014 | **Invited seminar** at the GI-Dagstuhl Seminar n. 14382 on “Control Theory meets Software Engineering”, Dagstuhl, Germany, invited by Prof. Antonio Filieri and Prof. Martina Maggio
- AUG 2014 | **Invited talk** “Adopting the Scenario Theory for Performance Evaluation in Cloud Applications”, at the 5th Cloud Control Workshop, Mölle, Sweden
- FEB 2014 | **Invited talk** “Modelling Aspects of Computing Systems: from clouds to earth and back again”, at the 3rd Cloud Control Workshop, Hemavan, Sweden
- NOV 2013 | **Invited seminar** “Model reduction of switched affine systems: a method based on balanced truncation and randomized optimization”, at ETH, Zürich, Switzerland, invited by Prof. John Lygeros and Dr. Kostas Margellos

GRANTS & HONOURS

- JUN 2019 | *co-PI and sub-project leader* of the **Knowledge Foundation (KK-stiftelsen)** project “FIESTA: Federated Choreography of an Integrated Embedded Systems Software Architecture”. Total budget 25.6MSEK.
- JUN 2019 | *co-PI and sub-project leader* of the **Knowledge Foundation (KK-stiftelsen)** project “SACSys: Safe and Secure Adaptive Collaborative Systems”. Total budget 20MSEK.
- MAY 2019 | Awarded the “**Ericsson Research Foundation Grant 2019**”. Total budget 25kSEK, funded by the Ericsson’s Research Foundation.
- APR 2019 | Elevated to the grade of **IEEE Senior member**.
- SEP 2018 | *Co-applicant and Member* of **XPRES – Excellence in Production Research**.
- MAY 2018 | Awarded the “**Ericsson Research Foundation Grant 2018**”. Total budget 35kSEK, funded by the Ericsson’s Research Foundation.

MAR 2018		<i>Co-applicant and Member</i> of the Knowledge Foundation (KK-stiftelsen) project “Automation Region Research Academy (ARRAY)”. Total budget 75MSEK.
MAY 2017		<i>Co-applicant and Member</i> of the H2020 project “Fog Computing for Robotics and Industrial Automation (FORA)”. Total budget 4MEuros.
MAY 2017		Awarded the “ Ericsson Research Foundation Grant 2017 ”. Total budget 20kSEK, funded by the Ericsson’s Research Foundation.
MAY 2017		Best artefact award at the 12th International Symposium on Software Engineering for Adaptive and Self-Managing Systems (SEAMS) for the paper “Self-Adaptive Video Encoder: Comparison of Multiple Adaptation Strategies Made Simple” ([C34, A1]).
DEC 2016		<i>Co-applicant and Member</i> of the SLA-IoT project (Ensuring Quality of Service through Modeling of Service-level Agreements in Industrial IoT). Total budget 265kSEK, funded by the Software Center Initiative by Chalmers University and the University of Gothenburg Sweden.
DEC 2013		Awarded with the European Doctorate certificate with honour.
DEC 2013		Ph.D. Scholarship funded by the Italian Government – \$55000
JAN 2011		Politecnico di Milano, IT

SERVICES TO THE RESEARCH COMMUNITY

Reviewer of thesis

- **Reviewer** of Lan Anh Trinh Licentiate Proposal, “Dependable Path Planning for Autonomous Control”, Mälardalen University. Advisor: Prof. Mikael Ekström (March 14th, 2019).
- **Member of the PhD Committee** of Konstantinos Angelopoulos PhD defence, “Optimal Adaptations over Multi-Dimensional Adaptation Spaces: A Control-Theoretic Approach”, University of Trento. Advisor: Prof. John Mylopoulos (April 8th, 2016).

Participation as Technical Program Committee Member

1. **AHPC 2016–2018**: International Workshop on Autonomic High Performance Computing
2. **ALGO CLOUD 2019**: International Symposium on Algorithmic Aspects of Cloud Computing
3. **AI-Science 2019**: International Workshop on Autonomous Infrastructure for Science
4. **CCW 2017**: Cloud Control Workshop
5. **CPS-IoTBench 2019**: Workshop on Benchmarking Cyber-Physical Systems and Internet of Things (part of CPS-IoT week)
6. **CTSE 2015**: International Workshop on Control Theory for Software Engineering (part of ESEC/FSE)
7. **EMSAC 2019**: International Workshop on Evaluations and Measurements in Self-Aware Computing Systems
8. **ETFA 2017–2019**: IEEE International Conference on Emerging Technologies And Factory Automation
9. **FC 2016–2017**: 12th Workshop on Feedback Computing
10. **Fog-IoT 2019**: Fog and the IoT Workshop (part of the CPS-IoT week 2019)
11. **HotCloudPerf 2019**: Workshop on Hot Topics in Cloud Computing Performance
12. **ICAC 2017–2019**: International Conference on Autonomic Computing
13. **ICCAC 2017**: IEEE International Conference on Cloud and Autonomic Computing
14. **ICCPs 2020**: ACM/IEEE International Conference on Cyber-Physical Systems
15. **ICIT 2019**: IEEE International Conference on Industrial Technology (IEEE-ICIT)

16. **IECON** 2018, 2019: Annual Conference of the IEEE Industrial Electronics Society (IECON)
17. **ISC** 2019: ISC High Performance conference (*PhD Forum Program Committee Member*)
18. **ISPA** 2015–2016: IEEE International Symposium on Parallel and Distributed Processing with Applications
19. **RTAS** 2019: IEEE Real-Time and Embedded Technology and Applications Symposium (Applied Methodologies and Foundations track)
20. **RTNS** 2018: International Conference on Real-Time Networks and Systems
21. **SCAV** 2017–2018: Safe Control of Connected and Autonomous Vehicles (part of the CPS week)
22. **SEAMS** 2018–2019: International Symposium on Software Engineering for Adaptive and Self-Managing Systems
23. **SRDS** 2017,2019: Symposium on Reliable Distributed Systems

Participation in Organizing Committees

1. **RTAS** 2020 (*Artifact Evaluation Co-Chair*): 26th IEEE Real-Time and Embedded Technology and Applications Symposium
2. **MELECON** 2020 (*Theme Chair for Embedded and Cyber-physical systems*): 20th IEEE Mediterranean Electrotechnical Conference
3. **SASO** 2019 (*Industry Chair*): 13th International Conference on Self-Adaptive and Self-Organizing Systems
4. **RTAS** 2019 (*Publicity Chair*): 25th IEEE Real-Time and Embedded Technology and Applications Symposium
5. **ECRTS** 2019 (*Artifact Evaluation Co-Chair*): 31st Euromicro Conference on Real-Time Systems
6. **RTNS** 2018 (*Artifact Evaluation Chair*): 26th International Conference on Real-Time Networks and Systems
7. **SASO** 2018 (*Publicity Chair*): 12th IEEE International Conference on Self-Adaptive and Self-Organizing Systems
8. **ICAC** 2018 (*Publicity Chair*): 15th IEEE International Conference on Autonomic Computing
9. **TC-CPS** 2018 (*Publicity Chair*): Workshop on Time Critical Cyber Physical Systems
10. **AHPC** 2017 (*Organizer, General and Program Chair*): International Workshop on Autonomic High Performance Computing
11. **CDC** 2016 (*Organizer and Chair of the invited session “Control of Computing Systems”*): 55th IEEE Conference on Decision and Control
12. **ECRTS** 2015 (*Local Chair*): Euromicro Conference on Real-Time Systems
13. **CCW** 2014 (*Social Chair*): 6th Cloud Control Workshop

Artifact/Repeatability Evaluation Committee Member

1. **ECRTS** 2016: Euromicro Conference on Real-Time Systems
2. **HSCC** 2016: International Conference on Hybrid Systems Computation and Control (part of the CPS week)
3. **RTNS** 2018: International Conference on Real-Time Networks and Systems
4. **RTSS** 2016–2018: IEEE Real-Time Systems Symposium

Session chair or co-chair at International Conferences

- **HPCS** 2018: Session: “Work-in-progress”
- **CDC** 2017: Session “Emerging Control Applications”
- **CDC** 2016: Session “Control of Computing Systems”
- **CDC** 2015: Session “Control Applications II”
- **CTSE** 2015: Main track session
- **Feedback Computing** 2015: Main track session

- IFAC World Congress 2014: Session “Modelling of Human Performance”
- CDC 2013: Session “Emerging Control Applications”

Reviewer of International Journals

- ACM Transactions on Embedded Computing Systems (TECS) • ACM Transactions on Modeling and Performance Evaluation of Computing Systems (TOMPECS) • Advances in Computational Mathematics (ACOM) • Autonomous Robots (AuRo) • AIMS Electronic Engineering (ElectronEng) • Applied Mathematics and Computation (AMC) • Automatica • Control Engineering Practice (CEP) • IEEE Transactions on Automatic Control (TAC) • IEEE Transactions on Automation Science and Engineering (TASE) • IEEE Transactions on Cloud Computing (TCC) • Transactions on Computers (TC-CS) • IEEE Transactions on Industrial Informatics (TII) • IEEE Transactions on Network and Service Management (TNSM) • IEEE Transactions on Parallel and Distributed Systems (TPDS) • IEEE Transactions on Services Computing (TSC) • Real-Time Systems Journal (RTSJ)

Reviewer of International Conferences

- ACM/EDAC/IEEE Design Automation Conference (DAC) • ACM/IEEE International Conference on Cyber-Physical Systems (ICCPS) • American Control Conference (ACC) • Annual Conference of the IEEE Industrial Electronics Society (IES) • Design, Automation and Test in Europe (DATE) • European Control Conference (ECC) • IEEE Annual Conference on Decision and Control (CDC) • IEEE International Conference on Cloud and Autonomic Computing (ICCA) • IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA) • IEEE International Conference on Industrial Technology (ICIT) • IEEE International Conference on Robotics and Automation (ICRA) • IEEE International Symposium on Industrial Embedded Systems (SIES) • IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS) • IFAC Symposium on Advances in Control Education (ACE) • IFAC Symposium on Control in Transportation Systems (CTS) • IFAC International Conference of Mathematical Modelling (MATHMOD) • IFAC Conference on Advances in PID Control (PID) • IFAC World Congress (IFAC WC) • Mediterranean Conference on Control and Automation (MED)

LANGUAGES

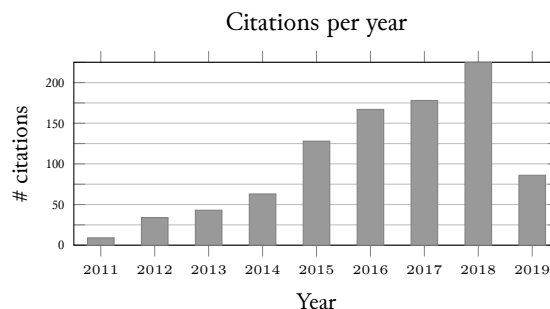
ITALIAN: Mother tongue
 GREEK: Mother tongue, bilingual
 ENGLISH: Fluent – TOEFL iBT 81/120 – C1 (CEFR) (October 2007)
 FRENCH: Basic Knowledge
 SWEDISH: Basic Knowledge – Level 1 Certificate 82.5/100 (June 2014)

PUBLICATIONS

Citations overview

Source: [Google scholar](#) (20/06/2019)

- Number of citations: 940
- h-index: 17
- i10-index: 28
- g-index: 27



Books and book chapters

- [B4] V. Gulisano, M. Papatriantafidou, and A. V. Papadopoulos. “Elasticity”. In: *Encyclopedia of Big Data Technologies*. Ed. by S. Sakr and A. Y. Zomaya. Cham: Springer International Publishing, 2019, pp. 1–7. doi: [10.1007/978-3-319-63962-8_191-1](https://doi.org/10.1007/978-3-319-63962-8_191-1).

- [B3] M. Maggio, T. Abdelzaher, L. Esterle, H. Giese, J. O. Kephart, O. J. Mengshoel, A. V. Papadopoulos, A. Robertsson, and K. Wolter. “Self-adaptation for Individual Self-aware Computing Systems”. In: *Self-Aware Computing Systems*. Ed. by S. Kounev, J. O. Kephart, A. Milenkoski, and X. Zhu. Cham: Springer International Publishing, 2017, pp. 375–399. doi: [10.1007/978-3-319-47474-8_12](https://doi.org/10.1007/978-3-319-47474-8_12).
- [B2] A. V. Papadopoulos and M. Prandini. *Fondamenti di Automatica: Esercizi*. (In Italian). Pearson Italia, 2016.
- [B1] A. Leva, M. Maggio, A. V. Papadopoulos, and F. Terraneo. *Control-based operating system design*. Control Engineering Series. IET, 2013. doi: [10.1049/PBCE089E](https://doi.org/10.1049/PBCE089E).

International Journals

- [J23] D. Ioli, A. Falsone, A. V. Papadopoulos, and M. Prandini. “A compositional modeling framework for the optimal energy management of a district network”. In: *Journal of Process Control* 74 (2019), pp. 160–176. doi: [10.1016/j.jprocont.2017.10.005](https://doi.org/10.1016/j.jprocont.2017.10.005).
- [J22] K. Angelopoulos, A. V. Papadopoulos, V. E. S. Souza, and J. Mylopoulos. “Engineering Self-Adaptive Software Systems: From Requirements to Model Predictive Control”. In: *ACM Transactions on Autonomous and Adaptive Systems* 13.1 (2018), 1:1–1:27. doi: [10.1145/3105748](https://doi.org/10.1145/3105748).
- [J21] A. Ilyushkin, A. Ali-Eldin, N. Herbst, A. Bauer, A. V. Papadopoulos, D. Epema, and A. Iosup. “An Experimental Performance Evaluation of Autoscalers for Complex Workflows”. In: *ACM Transactions on Modeling and Performance Evaluation of Computing Systems (TOMPECS)* 3.2 (2018), 8:1–8:32. doi: [10.1145/3164537](https://doi.org/10.1145/3164537).
- [J20] S. Mubeen, S. Abbaspour Asadollah, A. V. Papadopoulos, M. Ashjaei, H. Pei-Breivold, and M. Behnam. “Management of Service Level Agreements for Cloud Services in IoT: A Systematic Mapping Study”. In: *IEEE Access* 6.1 (2018), pp. 30184–30207. doi: [10.1109/ACCESS.2017.2744677](https://doi.org/10.1109/ACCESS.2017.2744677).
- [J19] A. V. Papadopoulos, F. Terraneo, A. Leva, and M. Prandini. “Switched control for quantized feedback systems: invariance and limit cycles analysis”. In: *IEEE Transactions on Automatic Control* 63.11 (2018), pp. 3775–3786. doi: [10.1109/TAC.2018.2797246](https://doi.org/10.1109/TAC.2018.2797246).
- [J18] F. Terraneo, A. V. Papadopoulos, A. Leva, and M. Prandini. “FLOPSYNC-QACS: Quantization-aware Clock Synchronization for Wireless Sensor Networks”. In: *SIGBED Rev.* 14.4 (2018), pp. 33–38. doi: [10.1145/3177803.3177809](https://doi.org/10.1145/3177803.3177809).
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Technical Reports

- [T1] A. V. Papadopoulos, L. Versluis, A. Bauer, N. Herbst, J. von Kistowski, A. Ali-Eldin, C. L. Abad, J. N. Amaral, P. Tüma, and A. Iosup. *Methodological Principles for Reproducible Performance Evaluation in Cloud Computing*. Tech. rep. SPEC-RG-2019-03. SPEC, 2019. URL: <https://research.spec.org/news/single-view/article/technical-report-on-reproducible-performance-evaluation-in-cloud-computing-published.html>.

Software Artifacts

- [A2] A. V. Papadopoulos, E. Bini, S. Baruah, and A. Burns. “AdaptMC: A Control-Theoretic Approach for Achieving Resilience in Mixed-Criticality Systems (Artifact)”. In: *Dagstuhl Artifacts Series* 4.2 (2018), 1:1–1:3. DOI: 10.4230/DARTS.4.2.1. URL: <http://drops.dagstuhl.de/opus/volltexte/2018/8969>.
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Other Publications

- [O1] A. V. Papadopoulos and M. Maggio. *Autonomous Computing Systems: The Convergence of Control Theory and Computing Systems*. IEEE Software Blog. 2019. URL: <http://blog.ieeesoftware.org/>.

Submitted to International Journals

- [SJ1] A. V. Papadopoulos, L. Versluis, A. Bauer, N. Herbst, J. von Kistowski, A. Ali-Eldin, C. L. Abad, J. N. Amaral, P. Tüma, and A. Iosup. “Methodological Principles for Reproducible Performance Evaluation in Cloud Computing”. In: *IEEE Transactions on Software Engineering* (2018). (submitted under review).

Submitted to International Conferences

- [SC6] B. Johansson, B. Leander, A. Čaušević, A. V. Papadopoulos, and T. Nolte. “Classification of PROFINET I/O Configurations utilizing Neural Networks”. In: *24th IEEE Conference on Emerging Technologies and Factory Automation*. ETFA. (submitted under review). 2019.
- [SC5] A. Lager, G. Spampinato, A. V. Papadopoulos, and T. Nolte. “Towards Reactive Robot Applications in Dynamic Environments”. In: *24th IEEE Conference on Emerging Technologies and Factory Automation*. ETFA. (submitted under review). 2019.
- [SC4] M. Momeni, J. Relefors, L. Petterson, E. Hellström, A. Thunell, A. V. Papadopoulos, and T. Nolte. “Towards Automated Installation of Reinforcement Using Industrial Robots”. In: *24th IEEE Conference on Emerging Technologies and Factory Automation*. ETFA. (submitted under review). 2019.
- [SC3] S. M. Salman, A. V. Papadopoulos, and T. Nolte. “On Migration of Single-core Legacy Software Systems to Multi-core Platforms”. In: *24th IEEE Conference on Emerging Technologies and Factory Automation*. ETFA. (submitted under review). 2019.

- [SC2] V. Struhár, M. Ashjaei, M. Behnam, S. S. Craciunas, and A. V. Papadopoulos. “DART: Dynamic Bandwidth Distribution Framework for Virtualized Software Defined Networks”. In: *45th Annual Conference of the IEEE Industrial Electronics Society*. IECON. (submitted under review). 2019.
- [SC1] J. Thörn, N. Vidimlic, A. Friebe, A. V. Papadopoulos, and T. Nolte. “Timing analysis of a periodic task on a microcontroller”. In: *24th IEEE Conference on Emerging Technologies and Factory Automation*. ETFA. (submitted under review). 2019.

PEDAGOGICAL COURSES

- *The higher education institution and the educational commission (PEA918)* – 2.5 ECTS (passed), Dr. Helena Darnell-Berggren, Mälardalen University, Västerås, Sweden, Jun 2018
- *Supervising and Examining Scholarly Papers and Degree Projects at First- and Second-Cycle Levels* – 2.5 ECTS (passed), Dr. Cecilia Lindh, Mälardalen University, Västerås, Sweden, Dec 2017
- *Supervisors – Third Cycle Programmes (Forskarhandledningsutbildning)* (passed), Prof. Hans Öberg, Mälardalen University, Västerås, Sweden, Dec 2016
- *Communicating Science (GB_S11)* – 5 ECTS (passed), Prof. A. Ahlberg, Prof. J. Löfgreen, Lund University, Lund, Sweden, Jun 2015
- *Introduction to Teaching and Learning in Higher Education (BG_A01)* – 5 ECTS (passed), Prof. A. Ahlberg, Prof. R. Andersson, Prof. J. Löfgreen, Lund University, Lund, Sweden, Jan 2015

DOCTORAL COURSES

- *Control of Robots*, Prof. L. Bascetta and Prof. P. Rocco, Politecnico di Milano, Milan, Italy, Jul 2013
- *Information Theory* (Mark: 30/30), Prof. G. Como, Lund University, Lund, Sweden, Sep 2012
- *Paradigmatic Models in Social Sciences* (Mark: 30/30 cum laude), Prof. S. Rinaldi, Prof. M. Scheffer, Prof. R. Casagrandi, Prof. F. Dercole, Prof. A. Colombo, Prof. K. Sigmund, Prof. C. Piccardi, and Prof. L. Tajoli, Politecnico di Milano, Milan, Italy, May 2012
- *Active Noise Control*, Prof. L. Piroddi, Politecnico di Milano, Milan, Italy, Jan 2012
- *Object-oriented modelling and simulation* (Mark: 30/30 cum laude), Prof. F. Casella, Politecnico di Milano, Milan, Italy, Nov 2011
- *Analysis of Innovation and Competition Processes* (Mark: 30/30 cum laude), Prof. F. Dercole, Politecnico di Milano, Milan, Italy, Sep 2011
- *Hybrid Systems* (Mark: 30/30 cum laude), Prof. M. Prandini, Prof. J. Lygeros, Politecnico di Milano, Milan, Italy, Jun 2011
- *Model Predictive Control* (Mark: 30/30), Prof. J. Maciejowski, Politecnico di Milano, Milan, Italy, Jun 2011
- *Associate Project Manager Certificate* (Mark: 30/30 cum laude), Prof. Donatella Sciuto, CEFRIEL, Milan, Italy, Feb 2011

MORE

ASSOCIATIONS	ACM Member (from 2019), ACM SIGBED member (from 2019), IEEE Senior Member (from 2012, Senior from 2019), IEEE Control Systems Society Member (from 2012), IEEE Computer Society Member (from 2017), IEEE Robotics and Automation Society (from 2018), IEEE Systems Council (from 2015), IEEE Computer Society Technical Committee on Real-Time Systems (from 2016), IEEE Computer Society Technical Community on Cloud Computing (from 2017), IEEE Computer Society Technical Council on Software Engineering (from 2017), Member of the Lund Center for Control of Complex Engineering Systems (LCCC), Lund, Sweden (from 2014)
INTERESTS	technology, mathematics, economics, travelling.
SPORTS	running, judo, volleyball, official volleyball referee for the Italian Federation Volleyball (FIPAV).
HOBBIES	photography, music, arts, literature, archaeology.
MUSICAL INSTRUMENTS	guitar.

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