

Alessandro Vittorio PAPADOPOULOS

PERSONAL CONTACTS

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CURRENT POSITIONS

TODAY APR 2024	Scientific Advisor ZeroPoint Technologies AB	Göteborg, Sweden
TODAY MAR 2024	Scientific Leader for Applied AI Mälardalen University	Västerås, Sweden
TODAY SEP 2023	QUALIFICA Fellow – Part-time Researcher University of Málaga , <i>Institute for Software Engineering and Software Technology (ITIS)</i> Part of the QUALIFICA project	Málaga, Spain
TODAY MAY 2022	Professor of Electrical and Computer Engineering Mälardalen University , <i>Faculty of Innovation, Design and Engineering (IDT)</i> <i>Research groups:</i> Complex Real-Time Embedded Systems, Robotics	Västerås, Sweden
TODAY JAN 2021	Program Manager of the ARRAY & ARRAY++ Graduate School funded by KKS Mälardalen University <i># People:</i> 20 Industrial PhD students	Västerås, Sweden
TODAY MAR 2019	Leader of the Complex Real-Time Embedded Systems (CORE) group Mälardalen University (Jointly with Prof. Thomas Nolte) <i># People:</i> 20 (10 Seniors, 10 PhD students)	Västerås, Sweden

PREVIOUS POSITIONS

FEB 2024 AUG 2020	Scientific Advisor ABB AB , Industrial Automation – Process Control Platform (PCP)	Västerås, Sweden
MAY 2022 MAR 2018	Associate Professor (Docent, Universitetslektor) Mälardalen University , <i>Faculty of Innovation, Design and Engineering (IDT)</i> <i>Research groups:</i> Complex Real-Time Embedded Systems, Robotics	Västerås, Sweden
FEB 2022 APR 2021	Lab Technician A05 Diagnostics AB Support for diagnostics activities related to the COVID-19 pandemic (during weekends and red days)	Stockholm, Sweden
DEC 2020 DEC 2019	Program Manager of the Future Factories in the Cloud SSF project Mälardalen University <i># People:</i> 25 at MDH, Chalmers University of Technology (SE), Uppsala University (SE), and University of York (UK)	Västerås, Sweden

MAR 2018 FEB 2018	Senior Lecturer (Universitetslektor, tenured) Mälardalen University, <i>Faculty of Innovation, Design and Engineering (IDT)</i> <i>Research groups:</i> Complex Real-Time Embedded Systems, Robotics	Västerås, Sweden
JAN 2018 SEP 2016	Forskarassistent (Assistant Professor equivalent) Mälardalen University, <i>Faculty of Innovation, Design and Engineering (IDT)</i> <i>Research group:</i> 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).	Västerås, Sweden
AUG 2016 FEB 2016	Postdoctoral Research Assistant Politecnico di Milano, <i>Dipartimento di Elettronica, Informazione e Bioingegneria</i> Supervisor: Prof. Maria Prandini Research topic: Modeling and control of interconnected systems affected by uncertainty, with application to next generation electric grids.	Milano, Italy
JAN 2016 JAN 2014	Postdoctoral Researcher Lund University, <i>Department of Automatic Control</i> Supervisor: Prof. Karl-Erik Årzén Research topic: Control design and implementation in cloud and embedded systems.	Lund, Sweden
JAN 2016 JAN 2014	Member Lund Center for Control of Complex Engineering Systems (LCCC)	Lund, Sweden

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 Politecnico di Milano Thesis title: Automatic Model Simplification for Continuous and Discontinuous Systems Advisor: Prof. Alberto Leva	Milano, Italy
SEP 2012 JUN 2012	Visiting Ph.D. Student Lund University, <i>Department of Automatic Control</i> Supervisor: Prof. Johan Åkesson	Lund, Sweden
OCT 2011	Professional Engineer License in Information Engineering Politecnico di Milano, (Abilitazione alla Professione di Ingegnere)	Milano, Italy
OCT 2010 OCT 2008	Master of Science in Computer Engineering (Spec. Artificial Intelligence & Robotics) Politecnico di Milano 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.	Milano, Italy
JUL 2008 SEP 2005	Bachelor of Science in Computer Engineering Politecnico di Milano 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.	Milano, Italy

Lecturer, Course Responsible and Examiner

2021–2024	Introduction to graduate education 4.5 ECTS (PhD course) <i>Fall 2022–Spring 2023:</i> 32 students, 36h <i>Fall 2021–Spring 2022:</i> 44 students, 36h	<u>Mälardalen University, Sweden</u>
2017–2023	Control Theory (ELA410, previously ELA407) 7.5 ECTS (Graduate course) <i>Fall 2023:</i> 29 students, 44h – (course responsible & examiner) <i>Fall 2022:</i> 31 students, 44h – (course responsible & examiner) <i>Fall 2021:</i> 25 students, 44h – Overall Evaluation 5.7/6 <i>Fall 2020:</i> 38 students, 44h – Overall Evaluation 5.4/6 <i>Fall 2019:</i> 18 students, 44h – Overall Evaluation 5.8/6 <i>Spring 2019:</i> 41 students, 44h – Overall Evaluation 9.6/10 <i>Spring 2018:</i> 43 students, 44h – Overall Evaluation 8.7/10 <i>Spring 2017:</i> 19 students, 12h. Course responsible and examiner <i>Dr. Giacomo Spampinato</i>	<u>Mälardalen University, Sweden</u>
2017–2024	Industrial Robotics (DVA400, previously DVA414) 7.5 ECTS (Graduate course) <i>Spring 2024:</i> 14 students, 39h – (course responsible & examiner) <i>Spring 2023:</i> 23 students, 39h – (course responsible & examiner) <i>Spring 2022:</i> 18 students, 39h – (course responsible & examiner) <i>Spring 2021:</i> 16 students, 39h – (course responsible & examiner) Overall Evaluation 4.9/6 <i>Fall 2019:</i> 20 students, 39h – Overall Evaluation 5.7/6 <i>Fall 2018:</i> 22 students, 39h – Overall Evaluation 8.5/10 <i>Fall 2017:</i> 13 students, 39h – Overall Evaluation 9.3/10	<u>Mälardalen University, Sweden</u>
2018–2024	Mobile Robotics (ELA408, previously ELA406) 7.5 ECTS (Graduate course) <i>Spring 2023:</i> 19 students, 44h – (course responsible & examiner) <i>Spring 2023:</i> 19 students, 44h – (course responsible & examiner) <i>Spring 2022:</i> 19 students, 44h – (course responsible & examiner) Overall Evaluation 5.4/6 <i>Spring 2021:</i> 15 students, 44h – (course responsible & examiner) Overall Evaluation 5.4/6 <i>Spring 2020:</i> 17 students, 44h – (course responsible & examiner) <i>Spring 2019:</i> 21 students, 44h – Overall Evaluation 8.5/10 <i>Spring 2018:</i> 12 students, 44h	<u>Mälardalen University, Sweden</u>
2014	Real-Time Systems (FRTN01 – Realtidssystem) 10 ECTS (Graduate course) <i>Fall 2014:</i> 98 students, 34h – Overall Evaluation +38 in a [-100,100] scale. Course responsible and examiner <i>Prof. Karl-Erik Årzén</i>	<u>Lund University, Sweden</u>

Guest Lecturer

FALL 2019–2020	<i>Fog computing in Industrial Systems in Cloud Computing</i> 2h, Graduate course. Dr. Severine Sentille	<u>Mälardalen University, Sweden</u>
SPRING 2019	<i>Introduction to fog computing in IoT and Fog Computing</i> 2h, PhD course (25 students)	<u>Mälardalen University, Sweden</u>
SPRING 2018	<i>Introduction to cloud computing in FORA PhD Training School</i> 1h, PhD course (15 students)	<u>TU Vienna, Austria</u>

FALL 2017–2019	<i>Cloud computing and virtualization in Embedded Systems II</i> 3h, Graduate course. Prof. Mikael Sjödin	<u>Mälardalen University, Sweden</u>
FALL 2017–2018	<i>Fog computing in Industrial Systems in Cloud Computing</i> 1h, Graduate course. Dr. Hongyu Pei-Breivold	<u>Mälardalen University, Sweden</u>
FALL 2017	<i>Path planning in autonomous vehicles in Autonomous vehicles</i> 2h, Undergraduate course. Dr. Masoud Daneshtalab	<u>Mälardalen University, Sweden</u>
SPRING 2017	<i>Cloud computing in IoT and Big Data Analytics</i> 1h, PhD course. Dr. Mohammad Ashjaei	<u>Mälardalen University, Sweden</u>

Teaching Assistant

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

SUPERVISION ACTIVITIES

PhD Students (Active)

Main Supervisor

1. Niklas Persson (Jan 2020–ongoing) – **Main Supervisor**. (Co-supervisors: Martin Ekström, Mikael Ekström)
 - “Control and Navigation of an Autonomous Bicycle”, Lic., Mar 21, 2023.

Co-Supervisor

1. Emily Berghofer (Aug 2024–ongoing) – **Co-Supervisor**. (*Main Supervisor*: Thomas Westerback. *Co-supervisors*: Peder Thompson)
2. Daniel Bujosa Mateu (Dec 2019–ongoing) – **Co-Supervisor**. (*Main Supervisor*: Mohammad Ashjaei. *Co-supervisors*: Thomas Nolte, Julian Proenza)
 - “Enhancing TSN Adoption by Industry: Tools to Support Migrating Ethernet-based legacy Networks into TSN”, Lic., Apr. 20, 2023.
3. Anna Friebe (Jan 2019–ongoing) – **Co-Supervisor**. (*Main Supervisor*: Thomas Nolte. *Co-supervisors*: Filip Marković (MPI-SWS))
 - “Timing and Schedulability Analysis of Real-Time Systems using Hidden Markov Models”, Lic., Jun 21, 2022.

4. Bjarne Johansson (Industrial PhD student, from ABB Industrial Automation) (Jan 2019–ongoing) – **Co-supervisor**. (*Main Supervisor*: Thomas Nolte)
 - “Dependable Distributed Control System: Redundancy and Concurrency Defects”, Lic., Nov 8, 2022.
5. Sheela Hariharan (Industrial PhD student, from Volvo Construction Equipment) (Dec 2021–ongoing) – **Co-Supervisor**. (*Main supervisor*: Thomas Nolte) *Topic*: Cyber-security in heavy vehicles.
6. Anders Lager (Industrial PhD student, from ABB Robotics) (Jan 2019–ongoing) – **Co-Supervisor**. (*Main Supervisor*: Thomas Nolte. *Co-supervisors*: Giacomo Spampinato (ABB AB)) *Topic*: Industrial robots re-planning in uncertain dynamic environments
7. Mahdi Momeni Kelageri (Jan 2019–ongoing) – **Co-Supervisor**. (*Main Supervisor*: Thomas Nolte. *Co-supervisors*: Lars Pettersson (Skanska AB)) *Topic*: Robots for Automated Construction
8. Shaik Salman (Industrial PhD student, from ABB Robotics) (Nov 2018–ongoing) – **Co-Supervisor**. (*Main Supervisor*: Thomas Nolte. *Co-supervisors*: Saad Mubeen, Filip Marković (MPI-SWS))
 - “Integrating Elastic Real-Time Applications on Fog Computing Platforms”, Lic., Mar 30, 2022.
9. Václav Struhár (May 2018–ongoing) – **Co-Supervisor**. (*Main Supervisor*: Moris Behnam. *Co-supervisors*: Mohammad Ashjaei, Silviu Craciunas (TTTech))
 - “Improving Soft Real-Time Performance of Fog Computing”, Lic., Sep 28, 2021.

PhD Students (Completed)

Main supervisor

1. Branko Miloradović (Oct 2015–Jan 2022) – **Main Supervisor**. (*Co-supervisors*: Mikael Ekström, Baran Çürüklü)
 - “Multi-agent mission planning”, Ph.D., Jan 31, 2022.
 - *First position after Ph.D.*: PostDoc at Mälardalen University (Sweden)
2. Mirgita Frasherri (Jun 2015–Jun 2020) – **Main Supervisor**. (*Co-supervisors*: Mikael Ekström, Baran Çürüklü)
 - “Modeling and Control of the Collaborative Behavior of Adaptive Autonomous Agents”, Ph.D., Jun 12, 2020.
 - *First position after Ph.D.*: PostDoc at Aarhus University (Denmark)

Co-Supervisor

1. Hamid Reza Faragardi (2013–Mar 2018) – **Co-Supervisor** (from 2017) (*Main supervisor*: Thomas Nolte):
 - “Optimizing Timing-Critical Cloud Resources in a Smart Factory”. Ph.D., Mar 2018.
 - “Resource Optimization in Multi-Processor Real-Time Systems”. Licentiate, Sep 2017.
 - *First position after Ph.D.*: PostDoc at University of Innsbruck (Austria)
2. Federico Terraneo (2012–2015) – **Co-Supervisor** (*Main supervisor*: Alberto Leva)
 - “Thermal and energy management techniques for multi-core and many-core systems”. Ph.D., Feb 2015.
 - *First position after Ph.D.*: PostDoc at Politecnico di Milano (Italy)

PostDocs

1. Mojtaba Kaheni (Jan 2023–ongoing). PhD from Shahroud University of Technology, Iran (2019).
2. Anas Al-hashimi (Jun 2022–ongoing). PhD from Luleå University, Sweden (2018).
3. Branko Miloradović (Apr 2022–ongoing). PhD from Mälardalen University (2022).
4. Gabriele Gualandi (Sep 2020–Aug 2022). PhD from Università La Sapienza, Rome, Italy (2020). *First position after postdoc*: Associate Senior Lecturer (Assistant Professor) at MDU.

5. Auday Al-Dulaimy (May 2020–Jun 2022). PhD from Beirut Arab University, Lebanon (2017). *First position after postdoc*: Associate Senior Lecturer (Assistant Professor) at MDU.
6. Inmaculada Ayala (Sep 2019–Mar 2020) – Visiting PostDoc from University of Malaga, Spain. PhD from University of Malaga, Spain (2013). *First position after postdoc*: Postdoc at University of Málaga, Spain.

Master and Bachelor Theses

1. Dennis Landré, Alfred Rönmark “Implementation of Direct Data-Driven Control on an Instrumented Bicycle”, MSc in Engineering – Robotics (30 credits), June 2024 (**Examiner**)
2. Chris Anderson “An Investigation of Self-Learning and Self-Protection for Adaptive Digital Twins”, *The University of Waikato*, New Zealand. Master’s of Science (Research). Advisor: Prof. Panos Patros (July, 2021). (**External examiner**)
3. Jonas Rehnholm, “Battery Pack Part Detection and Disassembly Verification Using Computer Vision” (in collaboration with NorthVolt AB), MSc in Engineering – Robotics (30 credits), June 2021 (**Examiner**)
4. Hampus Baaz, “Navigation and Planned Movement of Unmanned Bicycle”, MSc in Engineering – Robotics (30 credits), June 2020. (**Examiner**)
5. Malin Ghatta, Fredrik Hammar, “Counteracting 3D Double Pendulum Motion on the SIRO Platform in a Confined Space” (in collaboration with Knightec), MSc in Engineering – Robotics (30 credits), June 2020. (**Examiner**)
6. Sebastian Andersson, Gustav Carlstedt, “Reliability analysis of software test in simulation” (in collaboration with ABB Robotics), MSc in Engineering – Robotics (30 credits), June 2019. (**Main supervisor**)
7. Tom Andersson, Niklas Persson, “Stabilising controller for a riderless bicycle”, MSc in Engineering – Robotics (30 credits), June 2019. (**Examiner**) – **Awarded with ABB Robotics Scholarship 2019.**
8. 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**)
9. 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**)
10. 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**)
11. Fredrik Köhler, “Network Virtualization in Multi-Hop Heterogeneous Architecture”, BSc in Computer Science (15 credits), February 2018. (**Examiner**)
12. 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**)
13. Marcus Johansson, Lukas Olsson, “Comparative evaluation of virtualisation technologies in cloud”, BSc in Engineering – Computer Network Engineering (15 credits), June 2017. (**Main supervisor**)

KEYNOTES, INVITED TALKS, AND SEMINARS

- JUN 2024 | **Panelist** at the [31st Annual Conference and Professional Development Workshop Conference by the Consortium for International Marketing Research \(CIMaR\)](#), Gävle, Sweden.
- MAY 2024 | **Panelist and Speaker** “Empowering Society and Industry Through Applied AI” at the [International Week](#), Västerås, Sweden.

- MAY 2024 | **Invited Seminar** “Unveiling the Potential: Predictable Computation in the Computing Continuum” at Future Solutions, Volvo Construction Equipment, Eskilstuna, Sweden.
- APR 2024 | **Invited speaker** “Advancing Cyber-Physical System Security: From Anomaly Detection to Hybrid Moving Target Defense” at the [Focus Period Lund 2024: Security and Fault Tolerance of Cyber-Physical Systems](#), Lund, Sweden.
- NOV 2023 | **Invited speaker** “The Role of Control Engineering in a Computing World” at the 1st ITIS QUALIFICA Workshop, Málaga, Spain.
- SEP 2023 | **Keynote speaker** “Predictability in the Edge-to-Cloud Computing Continuum” at the [11th IEEE International Conference on Cloud Engineering \(IC2E\)](#), Boston, MA, USA.
- SEP 2022 | **Invited speaker** “Autonomous software systems design feat. Control Theory” at the CASTOR Software Days 2022 at KTH, Stockholm, Sweden invited by Prof. Ingo Sander and Dr. Matthias Becker (available [here](#) ).
- MAY 2022 | **Invited seminar** “Designing Self-Adaptive Software Systems with Control Theory: An Overview” at the University of Bologna, invited by Dr. Danilo Pianini (available [here](#) ).
- MAY 2021 | **Invited seminar** at the [Dagstuhl Seminar n. 21201 on “Serverless Computing”](#), Dagstuhl, Germany, invited by Prof. Cristina Abad, Prof. Ian T. Foster, Dr. Nikolas Herbst, Prof. Alexandru Iosup.
- OCT 2020 | **Invited seminar** “Automation of Computing Systems” at ABB Industrial Automation, Västerås, Sweden.
- JAN 2020 | **Invited seminar** at the [NII Shonan Meeting entitled “3rd Controlled Adaptation of Self-adaptive Systems \(CASA2020\)”](#), 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](#), Haga Slott, Enköping, 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 Papatriantafidou 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

- MAY 2024 | *co-PI, Vice-Director and Scientific Leader* of the **Knowledge Foundation (KK-stiftelsen) Profile** project (2024–2032), “Mälardalen University Automation Research Centre (MARC)”. Total budget 111MSEK.
- SEP 2023 | *co-PI* of the **Trusted Smart Systems (TSS) initiative at MDU** project (2024–2027), “TRIM: TRustworthy Interaction of Multi-agent systems”. Total budget 2MSEK.
- SEP 2023 | *co-PI* of the **Trusted Smart Systems (TSS) initiative at MDU** project (2024–2027), “MORETRUST: A MOdel-Driven Framework for the Design and RuntimE Self-Adaptation of TRUSTed Smart Software Systems”. Total budget 6MSEK.

- JUL 2022 | *External Participant* of the project “IRIS: Stepwise configuration of virtualized Services for sustainable and adaptive mobile networks”, funded by the Spanish Ministry of Science and Innovation (project leader: Lidia Fuentes Fernández and Mercedes Amor Pinilla, University of Malaga).
- MAR 2022 | *co-PI* of the VINNOVA project (2022–2024), “ROBOREC: Semi-automated Dismantling System for Battery Metal Recovery and Recycling” (project leader: Northvolt Revolt AB). Total budget 5MSEK.
- OCT 2021 | **Outstanding service award** at ACSOS 2021.
- JUL 2021 | **Outstanding paper award** at ECRTS 2021 ([C53]).
- DEC 2020 | *Applicant and PI* of the **Swedish Foundation for Strategic Research SSF** (Stiftelsen för Strategisk Forskning) project (2021–2023), “FuturAS: Future Generation Automation Systems”. Total budget 1.3MSEK.
- OCT 2020 | *Applicant and PI* of the **Swedish Research Council VR** (Vetenskapsrådet) project (2021–2024), “PSI: Pervasive Self-Optimizing Computing Infrastructures”. Total budget 4MSEK.
- MAR 2020 | *co-PI and WP leader* of the VINNOVA project (2020–2024), “GREENER: Intelligent energy management in connected construction sites”, under the program Vehicle Strategic Research and Innovation (Fordonsstrategisk Forskning och Innovation, FFI). Total budget 17.5MSEK.
- JUN 2019 | *co-Applicant, PI, and sub-project leader* of the **Knowledge Foundation (KK-stiftelsen) Synergy** project (2019–2023), “FIESTA: Federated Choreography of an Integrated Embedded Systems Software Architecture”. Total budget 28.1MSEK. Leader of the “Distributed Control (DisCo)” sub-project.
- JUN 2019 | *co-Applicant, PI, and sub-project leader* of the **Knowledge Foundation (KK-stiftelsen) Synergy** project (2019–2023), “SACSys: Safe and Secure Adaptive Collaborative Systems”. Total budget 21.7MSEK. Leader of the “Real-Time Cloud (RTCloud)” sub-project. Listed in the IVA 100-list 2023 by the Royal Swedish Academy of Engineering Sciences (IVA).
- 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* (2018–2019), 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 | *Co-PI* of the **Knowledge Foundation (KK-stiftelsen)** project (2018–2024), “Automation Region Research Academy (ARRAY)”. Total budget 69.3MSEK. Supervisor of 4 PhD students involved in the industrial PhD school.
- MAY 2017 | *Co-PI* of the **H2020** project (2017–2021), “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 764785¹. Total budget 4MEuros. Supervisor of 2 PhD students involved in the PhD school.

¹<http://www.fora-etn.eu/>

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” ([C97, A3]).
DEC 2016	<i>Co-Applicant and PI</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 ² .
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

Other Research Programs

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.
2016–TODAY	Team member , Future factories in the Cloud (FiC), Swedish Foundation for Strategic Research (SSF), 2016-2020.
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.

COMMISSIONS OF TRUST

Expert Referee for National or International Research Councils

- Swedish Research Council (Vetenskapsrådet) – NT-Q Computer Science Panel (2024).
- French National Research Agency (Agence Nationale de la Recherche ANR).
- Austrian Science Fund (FWF) – the main Austrian funding organization for fundamental research.
- Dutch Research Council (NWO) Domain Science (ENW), for the NWO Talent Programme Veni.
- EU Horizon2020 for the Space Research Unit.

Services to the University Environment

2024–TODAY	Member of the working group on the revision of the education on Computer Science and Electronics at MDU.
2024–TODAY	Scientific Leader for Applied AI, for the AI@MDU initiative.

²<http://softwarecenter.gu.se/>

2021–2021		Coordinator for the selection of the strategic recruitment of postdocs at the Embedded Systems environment at MDU.
2021–2021		Contributor and support to the activity coordination for preparing the MDH's Evaluation for improved Research quality (MER21).
2020–TODAY		Program Manager for the ARRAY(++) project graduate school.
2019–2020		Program Manager for the SSF project “Future Factories in the Cloud”.
2019–TODAY		Group Leader of the Complex Real-Time Embedded Systems (CORE) ³ research group (jointly with Prof. Thomas Nolte).
2019–TODAY		Reference person for the SPEC organization ⁴ at MDU.
2016–2018		Task force leader for the “Future factories in the Cloud (FiC)” at the MDH, Sweden.

Services to the Research Community

Editorial Service

- **Associate Editor** of Control Engineering Practice (CEP) (2024-present)
- **Associate Editor** of Leibniz Transactions on Embedded Systems (LITES) (2023-present)
- **Associate Editor** of ACM Transactions on Autonomous and Adaptive Systems (TAAS) (2021-present)
- **Guest editor** of the special issue on “Current and Future Trends in Control and Automation – Selected Papers from the 30th Mediterranean Conference on Control and Automation (MED 2022)”, in *Machines* (2022-2023), with Prof. Kimon P. Valavanis, Prof. Maria Prandini, and Prof. Andrea Monteriú.
- **Guest editor** of the special issue on “Next Generation Real-Time Architectures in Autonomous Robots and Automation Systems”, in *Frontiers in Robotics and AI* (2021-2022).

Part of Selection Committees

- **Chair of the Selection Committee** for the [SPEC Kaivalya Dixit Distinguished Dissertation Award 2024](#).
- **Committee Member** for the [Most Influential Paper Award](#) for SEAMS 2023.
- **Coordinator for the postdoc recruitment program** (2021-2022) at Mälardalen University.

Part of Steering Committees

- Workshop on Autonomic and Self-* Management for the Edge-Cloud Continuum (ASMECC)

Part of Executive Committees

- Part of the **Executive Committee** of the *Technical Committee on Real-Time Systems (TCRTS)* (**Web Chair** and member of the **Diversity and Inclusion Committee**) (Jan 2024–TODAY).

Reviewer for Promotions

1. **Reviewer** for Pontus Ekberg [Docent](#) application, Uppsala University, Sweden (2024).

³http://www.es.mdu.se/research-groups/44-Complex_Real_Time_Embedded_Systems

⁴<https://spec.org/>

Reviewer of PhD Theses

1. **Grading Committee** of Klervie Toczé PhD thesis, “Orchestrating a Resource-Aware Edge”, *Linköping University*, Sweden. Advisor: Prof. Simin Nadjm-Tehrani (Oct 4th, 2024).
2. **Examiner and Grading Committee** of Gricel Vazquez PhD thesis, “Scheduling of Missions with Constrained Tasks for Heterogeneous Multi-Robot Systems”, *University of York*, United Kingdom. Advisor: Prof. Radu Calinescu (Jul 17th, 2024).
3. **Examiner** of Ángel Jesús Cañete Valverde PhD thesis, “Energy-aware function and resource management in next-gen networks with variability models”, *University of Málaga*, Spain. Advisor: Prof. Lidia Fuentes (Feb, 2024).
4. **Opponent and Grading Committee** of Quentin Guilloteau PhD thesis, “Control-based runtime management of HPC systems with support for reproducible experiments” *Université de Grenoble*, Grenoble, France. Advisor: Prof. Eric Rutten (Dec 11th, 2023).
5. **Examiner** of José Miguel Horcas Aguilera PhD thesis, “WeaFQAs: A Software Product Line Approach for Customizing and Weaving Efficient Functional Quality Attribute”, *University of Málaga*, Spain. Advisor: Prof. Lidia Fuentes (Jun, 2023).
6. **Opponent (Discussion Leader)** of AyeH Mahjoubi Lic thesis, “Offline Task Scheduling in a Three-layer Edge-Cloud Architecture” *Karlstad University*, Karlstad, Sweden. Advisor: Prof. Karl-Johan Grinnemo (Jun 5th, 2023).
7. **Reviewer** of Shahriar Hasan Licentiate Proposal, “On Transient Communication Outages in Vehicle Platoon-ing”, *Mälardalen University*, Sweden. Advisor: Prof. Elisabeth Uhlemann (Feb 21st, 2023).
8. **Member of the Grading Committee** of Robbert Jongeling PhD thesis, “Lightweight consistency checking for advancing continuous model-based development in industry” *Mälardalen University*, Västerås, Sweden. Advisor: Prof. Jan Carlsson (Dec 2nd, 2022).
9. **Member of the Grading Committee** of Joel Scheuner PhD thesis, “Performance Evaluation of Serverless Applications and Infrastructures” *Chalmers University of Technology*, Göteborg, Sweden. Advisor: Dr. Philipp Leitner (Sep 8th, 2022).
10. **Opponent (Discussion Leader)** of Licentiate thesis of Fatemeh Akbarian, “Attack Resilient Cloud-based Industrial Control Systems”, *Lund University*, Lund, Sweden. Advisor: Prof. Maria Kihl (Apr 12th, 2022).
11. **Member of the Grading Committee** of Johan Sundell Licentiate thesis, “Safety Critical Software – Test Coverage vs Remaining faults”, *Mälardalen University*, Sweden. Advisor: Prof. Kristina Lundqvist (Apr 7th, 2022).
12. **Member of the Grading Committee** of Ivan Lujic PhD thesis defense, “Foundations for Sustainable and Trustworthy Edge Data Analytics”, *TU Wien*, Austria. Advisor: Prof. Ivona Brandic (Feb 17th, 2022).
13. **Member of the Grading Committee** of Moksadur Rahman PhD thesis defence, “On a Learning System for Industrial Automation: Model-Based Control and Diagnostics for Decision Support”, *Mälardalen University*, Sweden. Advisor: Prof. Konstantinos Kyprianidis (Jan 21st, 2022).
14. **Member of the Grading Committee** of Mohammadreza Barzegaran PhD thesis defense, “Configuration Optimization of Fog Computing Platforms for Control Applications”, *Technical University of Denmark (DTU)*, Denmark. Advisor: Prof. Paul Pop (June 14th, 2021).
15. **Member of the Grading Committee** of Mirko D’Angelo PhD thesis defense, “Engineering Decentralized Learning in Self-Adaptive Systems”, *Linnaeus University*, Sweden. Advisor: Prof. Mauro Caporuscio (May 28th, 2021).
16. **Reviewer** of Johan Sundell Licentiate Proposal, “Safety Critical Software - Test Coverage vs Remaining Faults”, *Mälardalen University*, Sweden. Advisor: Prof. Kristina Lundqvist (Apr 27th, 2021).
17. **Reviewer** of Van-Lan Dao Licentiate Proposal, “Performance Enhancements and Analysis of Pairwise NOMA”, *Mälardalen University*, Sweden. Advisor: Prof. Elisabeth Uhlemann (Sep 29th, 2020).

18. **Opponent (Discussion Leader)** of Joel Scheuner Licentiate thesis, “Towards Measuring and Understanding Performance in Infrastructure- and Function-as-a-Service Clouds” *Chalmers University of Technology*, Göteborg, Sweden. Advisor: Dr. Philipp Leitner (Aug 28th, 2020).
19. **Member of the Grading Committee** of Filip Markovic PhD thesis defense, “Preemption-Delay Aware Schedulability Analysis of Real-Time Systems”, *Mälardalen University*, Sweden. Advisor: Prof. Jan Carlson (Jun 15th, 2020).
20. **Member of the Grading Committee** of Andrea Casalino PhD thesis defence, “Allowing a real collaboration between humans and robots”, *Politecnico di Milano*, Italy. Advisor: Prof. Paolo Rocco (Feb 19th, 2020).
21. **Member of the Grading Committee** of Marco Baur PhD thesis defence, “Autonomous driving at the limits of handling”, *Politecnico di Milano*, Italy. Advisor: Prof. Luca Bascetta (Feb 19th, 2020).
22. **Opponent** of Gabriele Gualandi PhD thesis, “ASiMOV: A Microservices-Based Verifiable Controller with Estimable Detection Delay against Cyber-Attacks to Cyber-Physical Systems”, *Università La Sapienza*, Rome, Italy. Advisor: Prof. Luigi Vincenzo Mancini (Feb, 2020).
23. **Reviewer** of Rong Gu Licentiate Proposal, “Automatic Model Generation and Scalable Verification for Autonomous Vehicles”, *Mälardalen University*, Sweden. Advisor: Prof. Cristina Seceleanu (Dec 17th, 2019).
24. **Opponent** of Marco Baur PhD thesis, “Autonomous driving at the limits of handling”, *Politecnico di Milano*, Italy. Advisor: Prof. Luca Bascetta (Nov, 2019).
25. **Member of the Grading Committee** of Melika Hozhabri Licentiate thesis defence, “Human Detection and Tracking with UWB radar”, *Mälardalen University*, Sweden. Advisor: Prof. Maria Lindén (Oct 4th, 2019).
26. **Reviewer** of Jonatan Tidare Licentiate Proposal, “Discriminating Motor Imagery of Opening and Closing One Hand From Electroencephalogram Data”, *Mälardalen University*, Sweden. Advisor: Prof. Ning Xiong (Sep 6th, 2019).
27. **Reviewer** of Lan Anh Trinh Licentiate Proposal, “Dependable Path Planning for Autonomous Control”, *Mälardalen University*, Sweden. Advisor: Prof. Mikael Ekström (Mar 14th, 2019).
28. **Member of the Grading Committee** of Konstantinos Angelopoulos PhD thesis defence, “Optimal Adaptations over Multi-Dimensional Adaptation Spaces: A Control-Theoretic Approach”, *University of Trento*, Italy. Advisor: Prof. John Mylopoulos (Apr 8th, 2016).

Participation as Technical Program Committee Member (Alphabetical Order)

1. ACSOS 2020–2023: IEEE International Conference on Autonomic Computing and Self-Organizing Systems
2. AHPC 2016–2018: International Workshop on Autonomic High Performance Computing
3. ALGO CLOUD 2019–2020: International Symposium on Algorithmic Aspects of Cloud Computing
4. AI-Science 2019: International Workshop on Autonomous Infrastructure for Science
5. CCGRID 2023: International Symposium on Cluster, Cloud and Internet Computing
6. CCW 2017: Cloud Control Workshop
7. CPS-IoTBench 2019: Workshop on Benchmarking Cyber-Physical Systems and Internet of Things (part of CPS-IoT week)
8. CTSE 2015: International Workshop on Control Theory for Software Engineering (part of ESEC/FSE)
9. DATE 2020–2021: Design, Automation and Test in Europe Conference Initiative day on Autonomous Systems Design
10. ECRTS 2020–2022: Euromicro Conference on Real-Time Systems
11. EMSAC 2019: International Workshop on Evaluations and Measurements in Self-Aware Computing Systems
12. EMSOFT 2024: International Conference on Embedded Software
13. ETFA 2017–2022: IEEE International Conference on Emerging Technologies And Factory Automation

14. FC 2016–2017: Workshop on Feedback Computing
15. **Fog-IoT** 2019–2020: Fog and the IoT Workshop (part of the CPS-IoT week)
16. **HotCloudPerf** 2019–2021: Workshop on Hot Topics in Cloud Computing Performance
17. ICAA 2024: International Conference on Assured Autonomy
18. ICAC 2017–2019: International Conference on Autonomic Computing
19. ICCAC 2017: IEEE International Conference on Cloud and Autonomic Computing
20. ICCPS 2020: ACM/IEEE International Conference on Cyber-Physical Systems
21. ICDCS 2021–2022: IEEE International Conference on Distributed Computing Systems
22. ICFEC 2024: IEEE International Conference on Fog and Edge Computing
23. ICINCO 2021: International Conference on Informatics in Control, Automation and Robotics
24. ICIT 2019–2020: IEEE International Conference on Industrial Technology
25. IECON 2018–2019: Annual Conference of the IEEE Industrial Electronics Society
26. ISC 2019: ISC High Performance conference (*PhD Forum Program Committee Member*)
27. ISORC 2022: International Symposium on Real-Time Distributed Computing
28. ISPA 2015–2016: IEEE International Symposium on Parallel and Distributed Processing with Applications
29. NG-RES 2020–2021: Workshop on Next Generation Real-Time Embedded Systems
30. RAGE 2022, 2024: International workshop on Real-time And intelliGent Edge computing
31. RTAS 2019, 2023: IEEE Real-Time and Embedded Technology and Applications Symposium
32. RTCSA 2020–2021: IEEE International Conference on Embedded and Real-Time Computing Systems and Applications
33. RTNS 2018: International Conference on Real-Time Networks and Systems
34. RTSS 2021: IEEE Real-Time Systems Symposium
35. SC 2022: International Conference for High Performance Computing, Networking, Storage, and Analysis (Supercomputing)
36. SCAV 2017–2018: Safe Control of Connected and Autonomous Vehicles (part of the CPS week)
37. SEAMS 2018–2025: International Symposium on Software Engineering for Adaptive and Self-Managing Systems
38. SRDS 2017, 2019: Symposium on Reliable Distributed Systems
39. WATERS 2020: Workshop on Analysis Tools and Methodologies for Embedded and Real-time Systems

Participation in Organizing Committees (Decreasing Chronological Order)

1. ICPE 2025 (*Program Co-Chair*): 16th ACM/SPEC International Conference on Performance Engineering
2. ACSOS 2024 (*General Co-Chair*): 5th IEEE International Conference on Autonomic Computing and Self-Organizing Systems
3. CCGRID 2024 (*Track Chair for Artifact Evaluation*): 24th International Symposium on Cluster, Cloud and Internet Computing
4. ECRTS 2023 (*Program Chair*): 35th Euromicro Conference on Real-Time Systems
5. CCTA 2022 (*Organizer of the Invited Session “Control for Computing”*): Conference on Control Technology and Applications
6. MED 2022 (*Program Chair*): 30th Mediterranean Conference on Control and Automation

7. RTAS 2022 (*Brief Presentations Chair*): 28th IEEE Real-Time and Embedded Technology and Applications Symposium
8. SEAMS 2022 (*Artifact Co-Chair*): 17th International Symposium on Software Engineering for Adaptive and Self-Managing Systems
9. ICPE 2022 (*Proceedings Chair*): 13th ACM/SPEC International Conference on Performance Engineering
10. ESWEEK 2021 (*Tutorial Organizer*: “Tutorial on Fog Computing for Industrial IoT”): Embedded System Week 2021
11. ACSOS 2021 (*Artifact Evaluation Co-Chair*): 2nd IEEE International Conference on Autonomic Computing and Self-Organizing Systems
12. WFCS 2021 (*WiP Chair*): 17th IEEE International Conference on Factory Communication Systems
13. ETFA 2021 (*Workshop Organizer* “WS 2 - Workshop on Advances in Industrial Automation”): 26th IEEE International Conference on Emerging Technologies And Factory Automation
14. ETFA 2021 (*Organizer of Special Session* “SS 05 - Fog Computing and IoT”): 26th Annual Conference of the IEEE Industrial Electronics Society
15. ECRTS 2020 (*Artifact Evaluation Co-Chair*): 32nd Euromicro Conference on Real-Time Systems
16. ETFA 2020 (*Organizer of Special Session* “SS 08 - Fog and Industrial IoT Applications”): 25th IEEE International Conference on Emerging Technologies And Factory Automation
17. RTAS 2020 (*Artifact Evaluation Co-Chair*): 26th IEEE Real-Time and Embedded Technology and Applications Symposium
18. MELECON 2020 (*Theme Chair* for *Embedded and Cyber-physical systems*): 20th IEEE Mediterranean Electrotechnical Conference
19. SASO 2019 (*Industry Chair*): 13th International Conference on Self-Adaptive and Self-Organizing Systems
20. RTAS 2019 (*Publicity Chair*): 25th IEEE Real-Time and Embedded Technology and Applications Symposium
21. ECRTS 2019 (*Artifact Evaluation Co-Chair*): 31st Euromicro Conference on Real-Time Systems
22. RTNS 2018 (*Artifact Evaluation Chair*): 26th International Conference on Real-Time Networks and Systems
23. SASO 2018 (*Publicity Chair*): 12th IEEE International Conference on Self-Adaptive and Self-Organizing Systems
24. ICAC 2018 (*Publicity Chair*): 15th IEEE International Conference on Autonomic Computing
25. TC-CPS 2018 (*Publicity Chair*): Workshop on Time Critical Cyber Physical Systems
26. AHPC 2017 (*Organizer, General and Program Chair*): International Workshop on Autonomic High Performance Computing
27. CDC 2016 (*Organizer and Chair of the invited session* “Control of Computing Systems”): 55th IEEE Conference on Decision and Control
28. ECRTS 2015 (*Local Chair*): Euromicro Conference on Real-Time Systems
29. CCW 2014 (*Social Chair*): 6th Cloud Control Workshop

Artifact/Repeatability Evaluation Committee Member (Decreasing Chronological Order)

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 (Decreasing Chronological Order)

- RTCSA 2020: Session “CPS and Emerging Applications”
- 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 (Alphabetical Order)

- ACM Transactions on Autonomous and Adaptive Systems (TAAS) • ACM Transactions on Cyber-Physical Systems (TCPS) • ACM Transactions on Embedded Computing Systems (TECS) • ACM Transactions on Modeling and Performance Evaluation of Computing Systems (TOMPECS) • ACM Transactions on Software Engineering and Methodology (TOSEM) • 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) • IEEE Transactions on Computers (TC-CS) • IEEE Transactions on Dependable and Secure Systems (TDSC) • 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 Robotics and Automation Letters (RAL) • IEEE Transactions on Services Computing (TSC) • Real-Time Systems Journal (RTSJ)

Reviewer of International Conferences (Alphabetical Order)

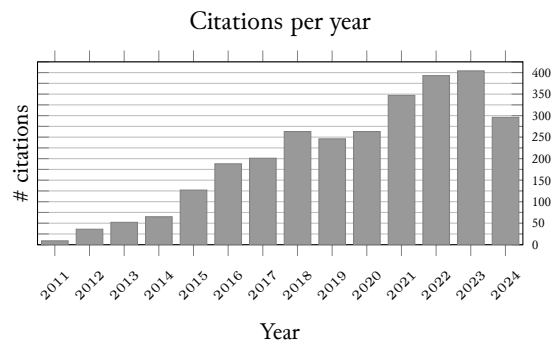
- ACM/EDAC/IEEE Design Automation Conference (DAC) • ACM/IEEE International Conference on Cyber-Physical Systems (ICCPs) • American Control Conference (ACC) • Annual Conference of the IEEE Industrial Electronics Society (IES) • Design, Automation and Test in Europe (DATE) • European Control Conference (ECC) • IEEE Annual Conference on Decision and Control (CDC) • IEEE International Conference on Cloud and Autonomic Computing (ICCAC) • IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA) • IEEE International Conference on Industrial Technology (ICIT) • IEEE International Conference on Systems, Man, and Cybernetics (SMC) • 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: Mothertongue
GREEK: Mothertongue, 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)

Citations Overview

Source: [Google scholar](#) (02/09/2024)
 Number of Citations: 3012
 h-index: 30
 i10-index: 69
 i100-index: 7
 g-index: 48



International Journals (Year ▼, Author ▲)

- [J1] D. Bujosa Mateu, J. Proenza, A. V. Papadopoulos, T. Nolte, and M. Ashjaei. “TALESS: TSN with Legacy End-Stations Synchronization”. In: *IEEE Open Journal of the Industrial Electronics Society* 5 (July 2024), pp. 807–822. doi: [10.1109/OJIES.2024.3436590](https://doi.org/10.1109/OJIES.2024.3436590).
- [J2] A. Al-Dulaimy, M. Jansen, B. Johansson, A. Trivedi, A. Iosup, M. Ashjaei, A. Galletta, D. Kimovski, R. Prodan, K. Tserpes, G. Kousiouris, C. Giannakos, I. Brandic, N. Ali, A. Bondi, and A. V. Papadopoulos. “The Computing Continuum: From IoT to the Cloud”. In: *Internet of Things* 27 (June 2024), p. 101272. doi: <https://doi.org/10.1016/j.iot.2024.101272>.
- [J3] M. Kaheni, A. V. Papadopoulos, E. Usai, and M. Franceschelli. “A Privacy-Preserving Distributed Greedy Framework to Desynchronize Power Consumption in a Network of Thermostatically Controlled Loads”. In: *IEEE Transactions on Control Systems Technology* (June 2024), pp. 1–8. doi: [10.1109/TCST.2024.3425210](https://doi.org/10.1109/TCST.2024.3425210).
- [J4] D. Kimovski, N. Saurabh, M. Jansen, A. Aral, A. Al-Dulaimy, A. B. Bondi, A. Galletta, A. V. Papadopoulos, A. Iosup, and R. Prodan. “Beyond von Neumann in the Computing Continuum: Architectures, Applications, and Future Directions”. In: *IEEE Internet Computing* 28.3 (2024), pp. 6–16. doi: [10.1109/MIC.2023.3301010](https://doi.org/10.1109/MIC.2023.3301010).
- [J5] V. Struhár, S. S. Craciunas, M. Ashjaei, M. Behnam, and A. V. Papadopoulos. “Hierarchical Resource Orchestration Framework for Real-Time Containers”. In: *ACM Transactions on Embedded Computing Systems* 23.1 (Jan. 2024). doi: [10.1145/3592856](https://doi.org/10.1145/3592856).
- [J6] B. Miloradović, B. Çürüklü, M. Ekström, and A. V. Papadopoulos. “Optimizing Parallel Task Execution for Multi-Agent Mission Planning”. In: *IEEE Access* 11 (Mar. 2023), pp. 24367–24381. doi: [10.1109/ACCESS.2023.3254900](https://doi.org/10.1109/ACCESS.2023.3254900).
- [J7] A. V. Papadopoulos, K. Agrawal, E. Bini, and S. Baruah. “Feedback-Based Resource Management for Multi-Threaded Applications”. In: *Real-Time Systems* 59.1 (Mar. 2023), pp. 35–68. doi: [10.1007/s11241-022-09386-7](https://doi.org/10.1007/s11241-022-09386-7).
- [J8] M. Frasheri, V. Struhár, A. V. Papadopoulos, and A. Čaušević. “Ethics of Autonomous Collective Decision-Making: the CAESAR Framework”. In: *Science and Engineering Ethics* 28.61 (6 Nov. 2022). doi: [10.1007/s11948-022-00414-0](https://doi.org/10.1007/s11948-022-00414-0).
- [J9] V. Gulisano, H. Najdataei, Y. Nikolakopoulos, A. V. Papadopoulos, M. Papatriantafidou, and P. Tsigas. “STRETCH: Virtual Shared-Nothing Parallelism for Scalable and Elastic Stream Processing”. In: *IEEE Transactions on Parallel and Distributed Systems* 33.12 (Dec. 2022), pp. 4221–4238. doi: [10.1109/TPDS.2022.3181979](https://doi.org/10.1109/TPDS.2022.3181979).
- [J10] A. Lager, G. Spampinato, A. V. Papadopoulos, and T. Nolte. “Task Roadmaps: Speeding up Task Replanning”. In: *Frontiers in Robotics and AI* 9 (Mar. 2022). doi: [10.3389/frobt.2022.816355](https://doi.org/10.3389/frobt.2022.816355).
- [J11] B. Miloradović, B. Çürüklü, M. Ekström, and A. V. Papadopoulos. “GMP: A Genetic Mission Planner for Heterogeneous Multi-Robot System Applications”. In: *IEEE Transactions on Cybernetics* 52.10 (Oct. 2022), pp. 10627–10638. doi: [10.1109/TCYB.2021.3070913](https://doi.org/10.1109/TCYB.2021.3070913).
- [J12] M. Momeni, J. Relefors, A. Khatri, L. Pettersson, A. V. Papadopoulos, and T. Nolte. “Automated fabrication of reinforcement cages using a robotized production cell”. In: *Automation in Construction* 133 (Jan. 2022), p. 103990. doi: [10.1016/j.autcon.2021.103990](https://doi.org/10.1016/j.autcon.2021.103990).
- [J13] S. M. Salman, A. V. Papadopoulos, S. Mubeen, and T. Nolte. “Multi-processor scheduling of elastic applications in compositional real-time systems”. In: *Journal of Systems Architecture* (2022), p. 102358. doi: [10.1016/j.sysarc.2021.102358](https://doi.org/10.1016/j.sysarc.2021.102358).

- [J14] I. Ayala, A. V. Papadopoulos, M. Amor, and L. Fuentes. “ProDSPL: Proactive Self-Adaptation based on Dynamic Software ProductLines”. In: *Journal of Systems and Software* 175.110909 (May 2021). doi: [10.1016/j.jss.2021.110909](https://doi.org/10.1016/j.jss.2021.110909).
- [J15] 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* 47.8 (Aug. 2021). Selected as Journal-First publication presented at ICSE 2020, pp. 1528–1543. doi: [10.1109/TSE.2019.2927908](https://doi.org/10.1109/TSE.2019.2927908).
- [J16] P. Patros, J. Spillner, A. V. Papadopoulos, B. Varghese, O. Rana, and S. Dustdar. “Towards Sustainable Serverless Computing”. In: *IEEE Internet Computing* 25.6 (Dec. 2021), pp. 42–50. doi: [10.1109/MIC.2021.3093105](https://doi.org/10.1109/MIC.2021.3093105).
- [J17] S. M. Salman, A. V. Papadopoulos, S. Mubeen, and T. Nolte. “A Systematic Methodology to Migrate Complex Real-Time Software Systems to Multi-Core Platforms”. In: *Journal of Systems Architecture* 117.102087 (Aug. 2021). doi: [10.1016/j.sysarc.2021.102087](https://doi.org/10.1016/j.sysarc.2021.102087).
- [J18] W. Wang, D. Mosse, and A. V. Papadopoulos. “Packet Priority Assignment for Wireless Control Systems of Multiple Physical Systems”. In: *Journal of Systems Architecture* 107 (Aug. 2020), p. 101708. doi: [10.1016/j.sysarc.2020.101708](https://doi.org/10.1016/j.sysarc.2020.101708).
- [J19] 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 (Feb. 2019), pp. 160–176. doi: [10.1016/j.jprocont.2017.10.005](https://doi.org/10.1016/j.jprocont.2017.10.005).
- [J20] A. Leva, A. V. Papadopoulos, S. Seva, and C. Cimino. “Explicit model-based real PID tuning for efficient load disturbance rejection”. In: *Industrial & Engineering Chemistry Research* 58.51 (Nov. 2019), pp. 23211–23224. doi: [10.1021/acs.iecr.9b04198](https://doi.org/10.1021/acs.iecr.9b04198).
- [J21] 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 (Apr. 2018), 1:1–1:27. doi: [10.1145/3105748](https://doi.org/10.1145/3105748).
- [J22] 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 (Apr. 2018), 8:1–8:32. doi: [10.1145/3164537](https://doi.org/10.1145/3164537).
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- [SJ5] M. Momeni, J. Relefors, L. Pettersson, A. V. Papadopoulos, and T. Nolte. “On Finding an Installation Order for the Reinforcement Bars Used in Concrete Structures – An Algorithmic Approach”. In: *Automation in Construction* (Oct. 2023). (submitted under review).

Submitted to International Conferences (Year ▼, Author ▲)

- [SC1] B. Miloradović and A. V. Papadopoulos. “Robust Online Epistemic Replanning of Multi-Robot Missions”. In: *40th International Symposium of Robotics Research (ISRR)*. (submitted under review). Aug. 2024.

PEDAGOGICAL COURSES

Course	HP	Details
The higher education institution and the educational commission (PEA918)	2.5	Dr. Helena Darnell-Berggren, MDH, Västerås, Sweden, Jun 2018

Supervising and Examining Scholarly Papers and Degree Projects at First- and Second-Cycle Levels	2.5	Dr. Cecilia Lindh, MDH, Västerås, Sweden, Dec 2017
Supervisors – Third Cycle Programmes (Forskarhandledningsutbildning)	0	Prof. Hans Öberg, MDH, Västerås, Sweden, Dec 2016
Communicating Science (GB_S11)	5	Prof. A. Ahlberg, Prof. J. Löfgreen, Lund University, Lund, Sweden, Jun 2015
Introduction to Teaching and Learning in Higher Education (BG_A01)	5	Prof. A. Ahlberg, Prof. R. Andersson, Prof. J. Löfgreen, Lund University, Lund, Sweden, Jan 2015
Total Credits	15	

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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), IEEE Communications Society (from 2023), Member of the Lund Center for Control of Complex Engineering Systems (LCCC), Lund, Sweden (2014–2016)

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