Prof. Orazio Tomarchio

Curriculum vitae

DIEEI - Dipartimento di Ingegneria
Industriale Elettrica Elettronica e Informatica
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Training

1. Graduated in Computer Engineering, in the A.Y. 1995/1996, at the Faculty of Engineering of the University of Catania, discussing the thesis Implementation of parallel applications for the evaluation of an object-oriented parallel language, reporting the grade of 110/110 cum laude.
2. PhD in Electronic, Computer and Telecommunications Engineering XI cycle, at the University of Palermo, presenting the thesis "Mobile agent programming techniques and their application in the management of distributed systems".

Current position:

1. **Associate Professor** at the Department of Electrical Electronic and Computer Engineering, University of Catania, scientific disciplinary sector IINF-05/A "Information processing systems", starting from 1 November 2014.

Positions held in the past:

1. Assistant Professor at the Department of Electrical Electronic and Computer Engineering, University of Catania, scientific disciplinary sector ING-INF/05 (February 2002 - October 2014).
2. Research collaboration, thanks to the award of a research grant, at the Dept. of Computer and Telecommunications Engineering (September 1999 - January 2002)

Qualifications obtained:

1. National Scientific Qualification as **full** professor for the competition sector 09/H1 - Information Processing Systems, scientific-disciplinary sector ING-INF/05 Information Processing Systems.

Teaching activity

As part of several Bachelor's and Master's Degree Courses, he has been a lecturer in various courses including Software Engineering, Security in Information Systems, Programming Techniques in Distributed Systems, Fundamentals of Computer Science, Database and Big Data Analytics.
Currently (a.y. 2025/2026) he is a professor of:

1. **Software Engineering** (9 CFU) for the master's degree course in Computer Engineering.
2. Elements **of Software Engineering** Module (6 CFU) for the degree course in Computer Engineering.

University Service Activities

1. President of the Degree Course in Computer Engineering (L8) at the University of Catania (November 2020 - present)
2. Director of the Catania node of the CINI Big Data National Laboratory (January 2018 - present)

3. Deputy Director of the Department of Electrical, Electronic and Computer Engineering (DIEEI) (December 2017 – October 2018)

Scientific activity

The candidate's scientific activity has developed continuously from 1995 until today, articulated in several main themes indicated below, also in relation to the technological and scientific innovations introduced in the ICT field, and to the knowledge acquired over time. This activity has been largely carried out within various national and European research projects, also indicated below.
His scientific activity initially concerned the study of distributed systems, with particular attention to innovative techniques for programming and management of such systems based on mobile code. Subsequently, his scientific interests focused on middleware for ad-hoc mobile networks, mobile P2P computing, Grid and service-oriented architectures, security and SLA management in Cloud environments, semantic technologies to support service discovery and composition. Recently he has been interested in issues related to Cloud computing and Big Data, Business Process Management (BPM) and service-oriented middleware for sensor networks and IoT.
He is the author of numerous scientific articles that have appeared in prestigious international journals and presented in renowned international conferences. For a complete list, please consult the lecturer's web page: https://www.dieei.unict.it/docenti/orazio.tomarchio
He has been a member of the program committee of numerous international conferences and workshops and has served as a reviewer for numerous international journals.

Participation and coordination roles in research projects

The research activities have been carried out within several national and European research projects, in which he has also played important coordination roles:

- **Scientific Coordinator** of the project “Cloud Continuum aimed at On-Demand Services in Smart Sustainable Environments”, funded by the PRIN 2022 PNRR call (December 2023 - November 2025)
- Participation in the project: SUPER - A SUstainable Edge for Highly Demanding, HyPER-distributed Services, RESTART research and development program "RESearch and innovation on future Telecommunications systems and networks, to make Italy more smart", funded by the European Union - NextGenerationEU under the PNRR (January 2023 - December 2025).
- Participation in the National Center "HPC, Big Data and Quantum Computing" - Spoke 9 Digital Society and Smart Cities, funded by the European Union - NextGenerationEU under the PNRR (September 2022 - December 2025).
- **Scientific Coordinator** for the University of Catania of the project TRAIT: Therapeutic Robot and Artificial Intelligence in experimental Therapy, funded by the Sicily Region under the PO FESR Sicily 2014-2020 - Action 1.1.5 (January 2020 - October 2022).
- **Scientific Coordinator** for the University of Catania of the project QUALIAGRO 4.0: Business Process Management (BPM) and Internet of Things (IoT) in support of the Quality Management System (QMS) and the Safety Management System (SGSA) in the Agri-food sector for SMEs, funded by the Sicily Region under the PO FESR Sicily 2014-2020 - Action 1.1.5 (January 2021 - October 2023).
- Participation in the PON Servify project (SERVIce FirstlY). (2015-2017)
- **Scientific coordinator** for the University of Catania of the GALACON project, funded by the Region of Sicily under the OP FESR Sicily 2007-2013 - Line of intervention 4.1.1.1 (January 2014 - June 2015) *Topics addressed*: Intelligent ICT systems for the monitoring and control of energy consumption in domestic environments
- Responsible for activity A.2.5.5 within the PON Project Development of Micro and Nanotechnologies and Advanced Systems for Human Health - HIPPOCRATES (July 2012 - June 2015)
- Responsible for activity 19.9 within the PON Project Technologies for Energy and Energy Efficiency - ENERGETIC (January 2012 - June 2015)

- **Scientific coordinator** for the University of Catania of the Project "SeNSori - SEnsor Node as a Service for hOme and buildings eneRgy savIng", funded by MiSE in the framework of Industrial Innovation Projects (Industry 2015), (January 2011 - June 2014)
- *Topics addressed*: Design and development of a service middleware for sensor networks.
- **Scientific coordinator** for the University of Catania of the Project "Cloud4Business - Cloud technologies to support planning, programming and management control processes for SMEs" funded by the Sicily Region under the OP FESR Sicily 2007-2013 - Line of intervention 4.1.1.2 (years 2012-2013)
- *Topics addressed*: Open source cloud computing systems and platforms
- **Scientific coordinator** for the University of Catania of the Project "SEEE: Efficiency systems for energy emancipation" funded by the Region of Sicily under the PO FESR Sicily 2007-2013 - Line of intervention 4.1.1.2 (years 2012-2013)
- *Topics addressed*: ICT systems for the monitoring and control of energy consumption in domestic environments
- **Scientific coordinator** for the University of Catania of the Project "M3C: Mobile, monitoring, management and control" funded by the Region of Sicily under the PO FESR Sicily 2007-2013 - Line of intervention 4.1.1.2 (years 2012-2013)
- *Topics addressed*: BPM system for business process management
- **Scientific coordinator** for the University of Catania of the Project "HPM: Healthcare Process Management" funded by the Region of Sicily under the PO FESR Sicily 2007-2013 - Line of intervention 4.1.1.2 (years 2012-2013)
- *Topics addressed*: Design and implementation of a BPM system for the management of business processes for the procurement of medical and non-medical materials.
- **Scientific coordinator** for the University of Catania of the Project "PRO. MANA" funded by the Region of Sicily under the OP FESR Sicily 2007-2013 - Line of intervention 4.1.1.2 (years 2012-2013).
- *Topics addressed*: Design and implementation of a business intelligence system for the analysis of business performance and management control
- **Scientific coordinator** for the University of Catania of the Project "COLLABORADI: Collaborative prescription systems for diagnostic imaging examinations" funded by the Region of Sicily under the PO FESR Sicily 2007-2013 - Line of intervention 4.1.1.2 (years 2012-2013)
- *Topics addressed*: Design and implementation of an intelligent rule-based system for the appropriateness of diagnostic imaging test prescriptions
- **Scientific coordinator** for the University of Catania of the PRIN2008 Project "Cloud@Home: a new and powerful computing paradigm"
- *Topics addressed*: Management of Service Level Agreements in Cloud computing environments
- PON PI2S2 Project for the Implementation and Development of an e-Infrastructure in Sicily based on the GRID paradigm.
- CNR Strategic Project (Law 449/97), Sector ITC Platforms Enabling Complex Distributed Objects, IS-Manet: Software Infrastructure for Ad Hoc Networks Oriented to Harsh Environments. (years 2003-2006)

List of Publications (*last 10 years*)

International Journals

- Giuseppe Tina, Valeria Amenta, Orazio Tomarchio, and Giuseppe Di Modica. Web interactive non intrusive load disaggregation system for active demand in smart grids. EAI Endorsed Transactions on Energy Web, 1(3), 2014.
- Giuseppe Di Modica and Orazio Tomarchio. A semantic framework to support resource discovery in future cloud markets. International Journal of Computational Science and Engineering, 10(1-2):1-14, 2015.
- Giuseppe Di Modica and Orazio Tomarchio. Matching the business perspectives of providers and customers in future cloud markets. Cluster Computing, 18(1):457-475, 2015.
- G. Di Modica, O. Tomarchio, P. Bonacquisto, and G. Petralia. A procurement auction market to trade residual Cloud computing capacity. IEEE Transactions on Cloud Computing, 3(3):345-357, Jul-Sep 2015.

- Giuseppe Di Modica and Orazio Tomarchio. Matchmaking semantic security policies in heterogeneous clouds. Future Generation Computer Systems, 55:176- 185, 2016.
- Domenico Calcaterra, Marco Cavallo, Giuseppe Di Modica, and Orazio Tomarchio. Modelling and Monitoring Environmental Risks through a Semantic Framework. International Journal of Distributed Systems and Technologies (IJDST), 7(4):1-21, 2016.
- R. Placido, D. Calcaterra, S. Canitano, G. Capodieci, G. Di Modica, M.A. Marino, E. Pofi, O. Tomarchio, and A. Orlacchio. COLLABORADI: a rule-based diagnostic imaging prescription system to help the general practitioner to choose the most appropriate radiological imaging procedures. Radiologia Medica, 122(3):186-193, 2017.
- Marco Cavallo, Giuseppe Di Modica, Carmelo Polito, and Orazio Tomarchio. A Hierarchical Hadoop Framework to Handle Big Data in Geo-Distributed Computing Environments. International Journal of Information Technologies and Systems Approach (IJITSA), 11(1):16-47, 2018.
- D. Calcaterra, G. Di Modica, O. Tomarchio, and P. Romeo. A clinical decision support system to increase appropriateness of diagnostic imaging prescriptions. Journal of Network and Computer Applications, 117:17-29, 2018.
- Koldo Zabaleta, Unai Lopez-Novoa, Ivan Pretel, Diego Lopez de Ipina, Vincenzo Cartelli, Giuseppe Di Modica, and Orazio Tomarchio. Designing a human computation framework to enhance citizen-government interaction. Journal of Universal Computer Science, 25(2):122-153, February 2019.
- D. Calcaterra, G. Di Modica, and O. Tomarchio. Cloud resource orchestration in the multicloud landscape: a systematic review of existing frameworks. Journal of Cloud Computing, 9(49), 2020.
- D. Calcaterra, G. Di Modica, P. Mazzaglia, and O. Tomarchio. TORCH: a TOSCA-Based Orchestrator of Multi-Cloud Containerised Applications. Journal of Grid Computing, 19(1), 2021.
- Giuseppe Di Modica and Orazio Tomarchio. A Hierarchical Hadoop Framework to Process Geo-Distributed Big Data. Big Data and Cognitive Computing, 6(1), 2022.
- A. Marchese and O. Tomarchio. A Blockchain-Based System for Agri-Food Supply Chain Traceability Management. SN Computer Science, 3(4), 2022.
- D. Calcaterra and O. Tomarchio. Policy-Based Holistic Application Management with BPMN and TOSCA. SN Computer Science, 4(3), 2023.
- Caterina Formica, Lilla Bonanno, Fabio Mauro Giambó, Giuseppa Maresca, Desiree Latella, Angela Marra, Fabio Cucinotta, Carmen Bonanno, Marco Lombardo, Orazio Tomarchio, Angelo Quartarone, Silvia Marino, Rocco Salvatore Calabró, and Viviana Lo Buono. Paving the way for predicting the progression of cognitive decline: The potential role of machine learning algorithms in the clinical management of neurodegenerative disorders. Journal of Personalized Medicine, 13(9):1386, Sep 2023.
- Leonardo Longo, Orazio Tomarchio, and Natalia Trapani. A structured approach for enhancing clinical risk monitoring and workflow digitalization in healthcare. Decision Analytics Journal, page 100462, 2024.
- A. Marchese and O. Tomarchio. Enhancing the Kubernetes Platform with a Load-Aware Orchestration Strategy. SN Computer Science, 6, 2025.

Book chapters/volume

- Giuseppe Di Modica, Francesco Pantano, and Orazio Tomarchio. Sensor node plug-in system: A service-oriented middleware for wireless sensor networks. In Salvatore Gaglio and Giuseppe Lo Re, editors, Advances onto the Internet of Things, volume 260 of Advances in Intelligent Systems and Computing, pages 191-208. Springer International Publishing, 2014.
- P. Bonacquisto, G. Di Modica, G. Petralia, and O. Tomarchio. Dynamic pricing in cloudmarkets: Evaluation of procurement auctions. volume 512 of Communications in Computer and Information Science, pages 31-46. Springer Verlag, 2015.
- V. Cartelli, G. Di Modica, and O. Tomarchio. Extending the BPMN specication to support cost-centric simulations of business processes. volume 631 of Communications in Computer and Information Science, pages 492-514. Springer Verlag, 2016.
- D. Calcaterra, V. Cartelli, G. Di Modica, and O. Tomarchio. A framework for the orchestration and provision of cloud services based on tosca and bpmn. volume 864 of Communications in Computer and Information Science, pages 262-285. Springer Verlag, 2018.
- D. Calcaterra, G. Di Modica, P. Mazzaglia, and O. Tomarchio. Cluster-agnostic orchestration of containerised applications. volume 1399 CCIS of Communications in Computer and Information Science, pages 301-324. Springer Science and Business Media, 2021.
- A. Marchese and O. Tomarchio. Evaluating microservices communication relationships for scheduling containers on kubernetes clusters. volume 1845 of Communications in Computer and Information Science, pages 45–65. Springer, 2024.

- A. Marchese and O. Tomarchio. Orchestrating microservices-based applications in the cloud-to-edge continuum. volume 1845 of Communications in Computer and Information Science, pages 170–187.
- Springer, 2024.

Proceedings of International Conferences

- Marco Cavallo, Giuseppe Di Modica, Carmelo Polito, and Orazio Tomarchio. Context-aware MapReduce for Geo-distributed Big Data. In CLOSER 2015 - Proceedings of the 5th International Conference on Cloud Computing and Services Science, pages 414-421, Lisbon (Portugal), May 2015.
- Domenico Calcaterra, Giuseppe Di Modica, Placido Romeo, and Orazio Tomarchio. COLLABORADI: a rule-based diagnostic imaging prescription system. In International Symposium for Health Information Management Research (ISHIMR 2015), York (UK), June 2015.
- Marco Cavallo, Lorenzo Cusmà, Giuseppe Di Modica, Carmelo Polito, and Orazio Tomarchio. A Scheduling Strategy to Run Hadoop Jobs on Geodistributed Data. In Advances in Service-Oriented and Cloud Computing: Workshops of ESOCC 2015, Taormina, Italy, September 15-17, 2015, Revised Selected Papers, pages 5-19. Springer, 2015.
- Vincenzo Cartelli, Giuseppe Di Modica, and Orazio Tomarchio. A Cost-centric Model for Context-aware Simulations of Business Processes. In Proceedings of the 7th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management - Special session on Research and Development on Business Process Management RDBPM 2015, pages 303-314, Lisbon (Portugal), November 2015.
- Domenico Calcaterra, Marco Cavallo, Giuseppe Di Modica, and Orazio Tomarchio. A semantic framework to characterise and monitor territories affected by environmental risks. In 2nd International Conference on Information and Communication Technologies for Disaster Management (ICT-DM 2015), pages 272-279, Rennes (France), November 2015.
- Marco Sapienza, Ermanno Guardo, Marco Cavallo, Giuseppe La Torre, Guerrino Leombruno, and Orazio Tomarchio. Solving Critical Events through Mobile Edge Computing: An Approach for Smart Cities. In 2016 IEEE International Conference on Smart Computing, SMARTCOMP 2016, pages 1-5, St Louis (MO, USA), May 2016.
- Marco Cavallo, Lorenzo Cusmà, Giuseppe Di Modica, Carmelo Polito, and Orazio Tomarchio. A Hadoop based Framework to Process Geo-distributed Big Data. In Proceedings of the 6th International Conference on Cloud Computing and Services Science (CLOSER 2016), pages 178-185, Rome (Italy), April 2016.
- Vincenzo Cartelli, Giuseppe Di Modica, and Orazio Tomarchio. Complementing the BPMN to enable data-driven simulations of business processes. In 12th International Workshop on Enterprise and Organizational Modeling and Simulation EOMAS, volume 272 LNBIP of Lecture Notes in Business Information Processing, pages 22-36, Ljubljana (Slovenia), June 2016.
- Domenico Calcaterra, Giuseppe Di Modica, Placido Romeo, and Orazio Tomarchio. The COLLABORADI project: a rule-based diagnostic imaging prescription system. In 1st IEEE Workshop on ICT Solutions for e-Health (ICTS4eHealth 2016), pages 129-134, Messina (Italy), June 2016.
- Marco Cavallo, Giuseppe Di Modica, Carmelo Polito, and Orazio Tomarchio. Application Profiling in Hierarchical Hadoop for Geo-distributed Computing Environments. In IEEE Symposium on Computers and Communications (ISCC 2016), pages 555-560, Messina (Italy), June 2016.
- Marco Cavallo, Giuseppe Di Modica, Carmelo Polito, and Orazio Tomarchio. H2F: a Hierarchical Hadoop Framework for big data processing in geo-distributed environments. In 3rd IEEE/ACM International Conference on Big Data Computing, Applications and Technologies (BDCAT 2016), pages 27-35, Shangai (China), December 2016.
- Domenico Calcaterra, Vincenzo Cartelli, Giuseppe Di Modica, and Orazio Tomarchio. Combining TOSCA and BPMN to Enable Automated Cloud Service Provisioning. In Proceedings of the 7th International Conference on Cloud Computing and Services Science (CLOSER 2017), pages 187-196, Porto (Portugal), April 2017.
- Marco Cavallo, Giuseppe Di Modica, Carmelo Polito, and Orazio Tomarchio. A LAHC-based Job Scheduling Strategy to Improve Big Data Processing in Geo-distributed Contexts. In Proceedings of the 2nd International Conference on Internet of Things, Big Data and Security (IoTBDS 2017), pages 92-101, Porto (Portugal), April 2017.
- Marco Cavallo, Giuseppe Di Modica, Carmelo Polito, and Orazio Tomarchio. Multi-job Hadoop scheduling to process Geo-distributed big data. In IEEE Symposium on Computers and Communications (ISCC 2017), Heraklion, Crete (Greece), July 2017.
- Ivan Pretel, Unai Lopez-Novoa, Enrique Sanz-Yague, Diego López-de-Ipiña, Vincenzo Cartelli, Giuseppe Di Modica, and Orazio Tomarchio. Citizenpedia: A Human Computation Framework for the e-Government Domain. In The 14th IEEE International Conference on Ubiquitous Intelligence and Computing (UIC 2017), San Francisco (USA), August 2017.

- Marco Cavallo, Giuseppe Di Modica, Carmelo Polito, and Orazio Tomarchio. Fragmenting Big Data to boost the performance of MapReduce in geographical computing contexts. In The 3rd International Conference on Big Data Innovations and Applications (Innovate-Data 2017), Prague (Czech Republic), August 2017.
- Domenico Calcaterra, Vincenzo Cartelli, Giuseppe Di Modica, and Orazio Tomarchio. Exploiting BPMN features to design a fault-aware TOSCA orchestrator. In Proceedings of the 8th International Conference on Cloud Computing and Services Science (CLOSER 2018), Funchal-Madeira (Portugal), March 2018.
- Vincenzo Cartelli, Giuseppe Di Modica, Orazio Tomarchio, Diego López-de-Ipiña, Koldo Zabaleta, and Enrique Sanz. Citizenpedia: simplifying citizens interaction with public administration. In Proceedings of the 19th Annual International Conference on Digital Government Research: Governance in the Data Age, (DG.O 2018), pages 106:1-106:2, Delft (The Netherlands,), 2018.
- Domenico Calcaterra, Vincenzo Cartelli, Giuseppe Di Modica, and Orazio Tomarchio. Implementation of a fault aware cloud service provisioning framework. In 2018 IEEE 6th International Conference on Future Internet of Things and Cloud (FiCloud), August 2018.
- Koldo Zabaleta, Diego López-de-Ipiña, Enrique Sanz, Ane Irizar-Arrieta, Vincenzo Cartelli, Giuseppe Di Modica, and Orazio Tomarchio. Human Computation to Enhance E-Service Consumption among Elderlies. In Proceedings of the 12th International Conference on Ubiquitous Computing and Ambient Intelligence (UCAmI 2018), volume 2(19), page 1221, Punta Cana, (Dominican Republic), 2018.
- Giuseppe Di Modica, Orazio Tomarchio, HaoWei, and Joaquin Salvachua Rodriguez. Policy-based Deployment in a Hybrid and Multicloud Environment. In Proceedings of the 9th International Conference on Cloud Computing and Services Science (CLOSER 2019), pages 388-395, Heracklion, Crete (Greece), May 2019.
- Domenico Calcaterra, Vincenzo Cartelli, Giuseppe Di Modica, and Orazio Tomarchio. A Comparison of Multi-cloud Provisioning Platforms. In Proceedings of the 9th International Conference on Cloud Computing and Services Science (CLOSER 2019), pages 507-514, Heracklion, Crete (Greece), May 2019.
- Alfredo Cuzzocrea, Salvatore Cavalieri, Orazio Tomarchio, Giuseppe Di Modica, Concetta Cantone, and Angela Di Bilio REMS.PA: A Complex Framework for Supporting OLAP based Big Data Analytics over Data-intensive Business Processes. In Proceedings of the 21st International Conference on Enterprise Information Systems - Volume 1: ICEIS,, pages 223-230, Heracklion, Crete (Greece), May 2019. INSTICC, SciTePress.
- Giuseppe Di Modica and Orazio Tomarchio. MapReduce Join Across Geo-Distributed Data Centers. In International Conference on Big Data Innovations and Applications (Innovate-Data 2019), pages 18-31, Istanbul (Turkey), August 2019.
- Giuseppe Di Modica, Antonella Di Stefano, Orazio Tomarchio, and Giovanni Morana. On the cost of the management of user applications in a multicloud environment. In 2019 IEEE 7th International Conference on Future Internet of Things and Cloud (FiCloud), pages 175-181, Istanbul (Turkey), August 2019.
- Giuseppe Di Modica, Samuele Gulino, and Orazio Tomarchio. IoT Fault Management in Cloud/Fog Environments. In Proceedings of the 9th International Conference on the Internet of Things, Bilbao, Spain, October 2019.
- Domenico Calcaterra, Giuseppe Di Modica, Pietro Mazzaglia, and Orazio Tomarchio. Enabling Container Cluster Interoperability using a TOSCA Orchestration Framework. In Proceedings of the 10th International Conference on Cloud Computing and Services Science (CLOSER 2020), pages 127-137, May 2020.
- Angelo Marchese and Orazio Tomarchio. An Agri-Food supply chain traceability management system based on Hyperledger Fabric blockchain. In Proceedings of the 23rd International Conference on Enterprise Information Systems - Volume 2: ICEIS, pages 648-658, Online streaming, April 2021. SciTePress.
- Domenico Calcaterra and Orazio Tomarchio. Multi-faceted cloud portability with a TOSCA-based orchestrator. In 8th International Conference on Future Internet of Things and Cloud (FiCloud 2021), pages 326-333, Online streaming, August 2021.
- Domenico Calcaterra and Orazio Tomarchio. Automated Generation of Application Management Workflows using TOSCA Policies. In Proceedings of the 12th International Conference on Cloud Computing and Services Science (CLOSER 2022), pages 97-108, April 2022.
- Angelo Marchese and Orazio Tomarchio. Communication Aware Scheduling of Microservices-based Applications on Kubernetes Clusters. In Proceedings of the 12th International Conference on Cloud Computing and Services Science (CLOSER 2022), pages 190-198, April 2022.

- Angelo Marchese and Orazio Tomarchio. Network-aware container placement in cloud-edge kubernetes clusters. In 2022 22nd IEEE International Symposium on Cluster, Cloud and Internet Computing (CCGrid), pages 859-865, Taormina, Italy, May 2022.
- Angelo Marchese and Orazio Tomarchio. Extending the kubernetes platform with network-aware scheduling capabilities. In Service-Oriented Computing: 20th International Conference, ICSOC 2022, Seville, Spain, November 29 - December 2, 2022, Proceedings, pages 465-480, 2022.
- Angelo Marchese and Orazio Tomarchio. Sophos: A Framework for Application Orchestration in the Cloud-to-Edge Continuum. In Proceedings of the 13th International Conference on Cloud Computing and Services Science (CLOSER 2023), pages 261-268, April 2023.
- Vincenzo Cartelli, Leonardo Longo, Natalia Trapani, and Orazio Tomarchio. Digitalization of Healthcare Processes Through BPMN for Clinical Risk Monitoring and Management. In Proceedings of the 9th International Conference on Information and Communication Technologies for Ageing Well and e-Health (ICT4AWE 2023), pages 151-158, April 2023.
- Angelo Marchese and Orazio Tomarchio. Application and Infrastructure-Aware Orchestration in the Cloud-to-Edge Continuum. In IEEE International Conference on Cloud Computing, CLOUD 2023, page 262-271. July 2023.
- Angelo Marchese and Orazio Tomarchio. Orchestrating DAG workflows on the Cloud-to-Edge continuum. In The 2nd Italian Conference on Big Data and Data Science, ITADATA 2023, September 2023.
- Leonardo Longo, Orazio Tomarchio, and Natalia Trapani. Enhancing Clinical Risk Monitoring and Management in Healthcare through BPMN-Based Process Digitalization. In The 50th International Conference on Computers and Industrial Engineering, November 2023.
- Angelo Marchese and Orazio Tomarchio. Orchestrating serverless applications in the cloud-to-edge continuum. In Proceedings of the 1st International Workshop on Middleware for the Computing Continuum, Mid4CC '23, page 12–17, Bologna, Italy, 2023.
- Angelo Marchese and Orazio Tomarchio. Load-Aware Container Orchestration on Kubernetes Clusters. In Proceedings of the 14th International Conference on Cloud Computing and Services Science (CLOSER 2024), pages 92–102, Angers, France, May 2024.
- A. Marchese and O. Tomarchio. Telemetry-driven microservices orchestration in cloud-edge environments. In 2024 IEEE 17th International Conference on Cloud Computing (CLOUD), pages 91–101, Shenzhen, China, July 2024.
- Davide Ferrauto, Angelo Marchese, and Orazio Tomarchio. Scheduling microservices applications in the cloud-to-edge continuum. In 2nd International Workshop on Scalable Compute Continuum (WSCC 2024), Madrid, Spain, August 2024. Springer.
- Angelo Marchese and Orazio Tomarchio. Network slo-aware container orchestration on kubernetes clusters. In Service-Oriented Computing: 22nd International Conference, ICSOC 2024, Lecture Notes in Computer Science, vol 15405, pages 96–104, Tunis, Tunisa, December 2024.
- Angelo Marchese and Orazio Tomarchio. SLO and Cost-Driven Container Autoscaling on Kubernetes Clusters. In Proceedings of the 15th International Conference on Cloud Computing and Services Science (CLOSER 2025), pages 72–79, Porto, Portugal, April 2025.
- Isaak Kavasidis, Amelia Sorrenti, Orazio Tomarchio, Daniela Giordano, Marco Milazzo, Gabriele Turco, Carlo Cattano, and Concetto Spampinato. Training-free fish species population monitoring in unconstrained underwater videos. In Proceedings of the he 8th International Conference on Emerging Data and Industry (EDI40)), Patras, Greece, April 2025.