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“PNRR MUR - M4C2 - SERICS -
SEcurity and RIghts in the CyberSpace
(SERICS)”

SPOKE N. 4

Research proposal
Securing Containers (SecCo)

SecCo-OC - Secure Containers Open Call

- Name of the PIs' host institution for the project
- Name of the Principal Investigators (PIs)
- Proposal duration in months:

Università degli Studi di Messina
Antonio Puliafito
16 Months

- Name and qualification of the Principal Investigator (PI)
- Name and qualification of the co- Principal Investigator (PI)
- Name and qualification of the components the research team

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ABSTRACT

Containers are essential elements for developing applications based on the microservices paradigm. Evaluating their security is a complex challenge, especially in distributed and heterogeneous contexts. Additionally, developers should focus exclusively on integration and deployment processes, known as CI/CD (Continuous Integration/Continuous Development), not caring about the management of tasks aimed at ensuring that the developed microservice, and consequently the associated container, is sufficiently secure to avoid introducing vulnerabilities in the application, platform, or framework where it is implemented.

The SecCo-OC project aims to create an architecture capable of integrating within the CI/CD process, typical of the DevOps development paradigm, a series of workflows dedicated to the security of the container and the developed microservice. This involves static and dynamic threat analysis, their resolution, also by means of runtime enforcement, and the publication of the secure container in a dedicated repository.

SecCo-OC ensures the security of the microservice/container through various operational approaches. These include technological transition in containerization, enhancing container functionality through virtualization techniques and pass-through to specific hardware resources, and incorporating security services and policies directly within the container. This practice aims to balance security with functionality and flexibility, ensuring the adoption of a unified interface for the analysis and optimization of the container under consideration.

The architecture of SecCo-OC is designed to meet the requirements of scalability, flexibility, and reliability. This is achieved through the adoption of Cloud/Edge and I/O cloud-based solutions, enabling the extension of the DevOps paradigm to security even in environments related to pervasive computing.

RESEARCH PROPOSAL

Sections (a) and (b) should not exceed 4 pages. References do not count towards the page limits.

This project will answer to the specific requests of the open call, that represent specific Work packages of the SECCO-OC project, assigned to the partners as follow:

- WP1 [UniCampania, UniNapoli]: Building Secure-by-Design Containers
- WP2 [UniUD]: Behavioral Models of Containers and Security Policy Specification Language
- WP3 [UniTN]: Runtime Policies and Configuration Enforcement
- WP4 [UniME]: Design and Implementation of the SecCo Service

We clarify that all the results produced in the project will follow the principle of open science, most of the sw code will be delivered in open source, and the information, numbers or facts collected as part of the project can be modified, examined and shared by anyone for any reason.

The following is a detailed description of the different WPs of the SECCO-OC proposal.

WP 1 Building Secure-by-Design Containers

Section a. State-of-the-art and objectives

According to McGraw [1], security should be addressed early at the requirements level. Software requirements should include both functional and security requisites. Additionally, he suggested the usage of abuse cases to describe the system's behavior under attack and to cover the security space. Russell et al. [2] identify most of the software security problems in the use of unsophisticated development techniques, the lack of security-focused quality assurance, and the limited training for software developers and project managers. Unicompania and Unina Teams worked on such a topic, proposing secdevops methodologies ([3,5]) and proposing a model aiming at outlining all the security activities needed to address the security during software development [5]

In such a context, the two teams will work on will address **Task 1.2: Building Secure-by-Design Containers** of the SecCo Project WP1, that will define the enabling methodologies and tools to build a *Hardening module* able to output a set of secured containers - ready to host a microservice application - that are compliant with security best practices and the requirements of the CI/CD team.

The hardening process includes the activities outlined in [5], like threat modeling and vulnerability assessment (VA), applied to the case of containers.

This task will involve the definition of the pipeline to support the hardening of general-purpose containers to meet the technical and security features of the application provided by the CI/CD team and security best practices.

According to the objectives outlined in the open call, we propose the following activities (in parenthesis the team that will address each activity):

A.1.1 Requirements (Unina): Identification of a methodology to parse requirements provided by the CI/CD team, with a special focus on threat modeling;

A.1.2 Hardening Design (Unicompania): Support the definition of a set of security tools to add plug-and-play security features inside containers;

A.1.3 SecuritySLA (Unina): Design of techniques to customize and expose the security level of general-purpose containers, in order to provide hardened container templates;

A.1.4: Hardening Implementation (Unicompania): Support the definition and implementation of the set of security tools and plug-and.play features as designed in task A2;

A.1.5: Hardening Pipeline (Unina and Unicompania): illustrate with a demo and toy examples the soundness of the hardening pipeline executed by the module (i.e., from the requirement parsing to the release of the hardened template).

References

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Section b. Methodology

As outlined in the previous section, development of secure applications is a complex issue that involves costly and time-expensive activities. In order to address such complexity Unicompania will rely on the MetaSEnD model that defines several high-level activities that should be included in the development of secure applications. The model complexity outlines the difficulties of addressing security in application development.

Applying the core idea behind MetaSEnD, build a custom secure development life cycle for each given application, we will apply the metamodel to select the activities and best practices that best fit the needs of secure development container. The result will be a selection of tools and techniques to increase the security of containers, addressing objectives 3,4 and 5.

According to the techniques described in [3,4], result of joint work from Unina and Unicompania teams, we will rely on security service level agreement to formally specify the security requirements of containers and we will adopt SLA composition techniques to evaluate the implementation of secured containers integrating additional tools and techniques to existing containers, addressing objectives 1 and 2. Implementation of the Hardening Pipeline for Continuous Integration and of the security tools will imply a dedicated consultancy contract devoted to development of the proof.-of-concepts. Unina and Unicompania allocated 5000€ each for material and equipment directly attributable to the project, specifically servers devoted to host the CI/CD solutions.

WP 2: Behavioral Models of Containers and Security Policy Specification Language

Section a. State-of-the-art and objectives

While container security research, exemplified by [LHC22], is growing, there's a notable absence in behavioral models and dedicated languages for specifying container security policies. Temporal logics like LTL and modal μ -calculus [Var05, BS07] are used for process behavior, supporting static model-checking [SW91] and dynamic monitoring [MM07, FS15]. Hyper logics, like HyperLTL [FRS15], address hyper properties, but their application to containers is unexplored. [ST10] proposed a mechanism for composing security policies in Service-oriented Architectures, but its applicability to the less-structured container context is unclear. Burco et al. [BMP20] introduced a graph-based model for containers using Bigraphical Reactive Systems (BRSs), enabling the formalization and verification of container properties through graph theory techniques.

Considering the objectives described in the open call, we propose the following activities:

A.2.1 Compositional topological model based on bigraphs: Improvement of compositional graph-based models for containers, building upon prior research, particularly drawing on bigraph-based approaches [BMP20, AMP23]. Presently, these models mostly address the topological aspects of containerized systems, focusing on their connections as defined, for instance, by tools like docker-compose. The outcome will be a formalism for representing the static topology of container-based systems.

A.2.2 Behavioral model for containers: Definition of a behavioral model for containers, capturing security-sensitive operations and supporting the representation of container interfaces, networking aspects, and interactions with the environment and other containers. The model must be compositional, allowing for the incremental construction of behavioral models for container compositions.

A.2.3 Synthesis of the model from observable events: Enhancement of existing behavioral models to incorporate dynamic elements of containerized systems. The proposed semantics will be event-driven, aligning with what can be observed at runtime through monitoring tools for containers, such as communication and interactions. To achieve this, we plan to employ a learning algorithm, similar to Angluin's L* algorithm, to infer the model from execution traces. The outcome will be a methodology for inferring models from individual containers and their compositions.

A.2.4 Analysis of security policy specification languages: Comprehensive analysis of state-of-the-art specification languages for security policies within the realm of Service-Oriented Architecture (SOA) and web services. Specifically, we will scrutinize variations of Linear Temporal Logic (LTL) and HyperLTL, which have proven effective in representing security properties, including non-interference.

A.2.5 Definition or identification of a security policy specification language: Definition or identification of a policy specification language for expressing security constraints on containers and container ecosystems. This language should accommodate both static security policies (SP) for evaluation at rest and dynamic security policies (DP) for enforcement at runtime. This language will be designed to predicate over events derived from the behavioral models established in the initial phase. From these specifications, we will distill properties suitable for verification at rest and those requiring enforcement at runtime.

A.2.6 Monitor synthesis algorithms for dynamic policies: Development of novel algorithms for monitor synthesis. Such monitoring will complement automated security verification techniques, such as model checking, applied to the model describing container interactions, obtained by combining the static security policy with representations of container connection.

References

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Section b. Methodology

Initially, we will advance a compositional graph-based model for containers, building upon prior research, particularly drawing on bigraph-based approaches [BMP20, AMP23]. Presently, these models address the topological aspects of containerized systems, focusing on their connections as defined, for instance, by tools like docker-compose. Our objective is to enhance these models to incorporate dynamic elements of these systems. The proposed semantics will be event-driven, aligning with what can be observed at runtime through monitoring tools for containers, such as communication and interactions. To achieve this, we plan to employ a learning algorithm, similar to Angluin's L* algorithm, to infer the model from execution traces. The outcome will be a formalism for representing the static topology of container-based systems and a methodology for inferring models from individual containers and their compositions.

Next, we aim to craft a specification language tailored for security policies in containers. This language will be designed to predicate over events derived from the behavioral models established in the initial phase. Our approach involves a comprehensive analysis of state-of-the-art specification languages for security policies within the realm of Service-Oriented Architecture (SOA) and web services. Specifically, we will scrutinize variations of Linear Temporal Logic (LTL) and HyperLTL, which have proven effective in representing security properties, including non-interference. From these specifications, we will distill properties suitable for verification at rest and those requiring enforcement at runtime. For the former, our focus will be on exploring appropriate model-checking algorithms, while for the latter, we will delve into the development of novel algorithms for monitor synthesis.

WP 3: Runtime Policies and Configuration Enforcement

Section a. State-of-the-art and objectives

There are many scenarios such as remote monitoring of critical infrastructures, emergency responses, traffic management and planning, etc. where moving functionality towards the edges has several benefits. Containers technology recognized this by developing container-orchestration systems (i.e., microk8s [1] and k3s [2]) specifically for edge devices. These benefits are even more emphasized if applications running on containers are developed as a combination of microservices. Scalability, portability and fault-tolerance are just few of the attributes that can be better exploited running microservices at the edge. On the other hand, security is more challenging because there is not a

single point of enforcement, data and computations are distributed and the isolation properties are weaker in containers compared to more traditional virtual machines [3]. Of particular interest is the thread model in which the containers must be protected by malicious or semi-honest hosts, thus the underlying operating system cannot be considered fully trusted [4].

An open research challenge is the design of solutions that can at the same time guarantee enforcement of runtime policies (i.e., control flow integrity) and acceptable overheads to be able to run on a wide range of edge devices [5,6].

According to the objectives described in the open call, we propose the following activities:

A.3.1 Security Policies Alignment: Interaction with WP2 to align with the proposed security policy specification language and contribute to the constructs to express properties and aspects of the security policies that need to be enforced at run-time compared to static enforcement and compliance performed at development time.

A.3.2 Threat model and approach definitions: Specification of the threat model. Identification of the appropriate methodologies and technologies to enforce security policies at runtime, also considering the approaches and technologies already used by the other two tasks in the WP3. The aim is to avoid replication and yet allow the conceptual integration of all the chosen methodologies in the workpackage.

A.3.3 Design of novel runtime enforcement techniques: Contribution, in collaboration with Tasks 3.1 and 3.2, to the design and specification of the Runtime Monitoring module. The design should consider how combining the approaches adopted by the tasks (3.1, 3.2 and 3.3) help to cover a wider spectrum of attacks compared to consider each approach in isolation.

A.3.4 Mitigation approaches: Microservices are becoming popular also in cyber-physical scenarios, thus it is of paramount importance to adopt non-disruptive mitigation approaches when a security policy breach is detected that limit attacks without stopping the operativity of the system. This activity studies in-depth how to design mitigations that are compatible with the safety and security constraints of the system.

A.3.5 Test and Validation: Implementation and validation of the enforcement techniques and methods introduced in this task as part of the Runtime Monitoring module.

References

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Section b. Methodology

The WP will be organized such that it starts with an initial step of synchronization and alignment with the main architectural and technological choices already made by the existing Secco project. It’s important to coordinate with WP2 (A.3.1) about the adopted security policy specification language to include the possibility to specify runtime security policy requirements and configurations. It’s also

important to align (A.3.2) with Task 3.1 and 3.2 of the same workpackage to coordinate with the other partners technology and solutions that could complement and integrate what has been already proposed with the aim of broadening and strengthening the enforcement capabilities of the overall Runtime Monitoring module of Secco. The next step (A.3.4) is to make design choices related on how the detection and mitigation of policy violations will be dealt with. Finally, the core of the task can start by proposing novel runtime enforcement solutions (A.3.3) suitable for edge devices and interacting with cloud providers as well as realization of related proof of concept (A.3.5) in order to test and validate the proposed solutions. In that respect, we may need to extend the available tested with new edge devices and software licences in order to meet the requirements of the usage scenarios that will emerge in WP4.

WP 4: Design and Implementation of the SecCo Service

Section a. State-of-the-art and objectives

Aral et al. [1] in 2023, Tocze and Nadjm-Tehrani [2] in 2017, Simic et al. [3] in 2021, and Uddin and Ahmad [4] in 2020 have focused their studies on optimization, resource management, challenges, and changes in Edge/Cloud architecture. On the Cloud-IoT integration side, Bruneo et al. [5] in 2018 presented the innovative I/Ocloud, while Tricomi et al. [6], [7] in 2020 and 2021 explored FaaS in IoT and "Software Defined Building 2.0". Subsequent studies [8]-[16] have delved into orchestration, automation, and FaaS applications in Cloud and IoT, extending the serverless paradigm to the Edge and enhancing IoT resource integration and management through virtualization techniques and passthrough provided by VirtIO [5] for direct access to host hardware resources.

According to the objectives described in the open call, we propose the following activities:

A.4.1 Definition of techniques to support the CI/CD security process, both for static and runtime analysis processes. This activity will focus on the definition of the SecCo-OC reference architecture, specifically exploiting concepts such as I/Ocloud [5], VirtIO [5], Deviceless, and FaaS [11], and providing adequate security levels (e.g., SSL-based VLAN and WebSocket [17]).

A.4.2 Definition and extension of the Edge/Cloud architecture: support for containerization technologies. The SecCo-OC architecture will be extended to provide the necessary support for integration with different containerization technologies (e.g., Kubernetes, Kata container, etc.) and in terms of the type of landing devices for the microservice (in Cloud or on Edge device [11]).

A.4.3 Unique orchestration interfaces: SecCo-OC provides a unique point for the infrastructure orchestration based on API. Moreover, we will evaluate the opportunity to integrate a graphical tool [18] for the instantiation of pipelines aiming to support the analysis and the validation of containers that directly leverage the capabilities of the Edge/Cloud platform, both for on-site and remotely performed tests.

A.4.4 Definition of guidelines for integration: This task supports the coordination of components' integration activities by providing useful guidelines aiming to make easier and faster the integration process for all the developers in SecCo.

References

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Section b. Methodology

Considering the objectives of OC.4 and according to the SecCo Open Call, the definition of an architecture capable of offering techniques and workflows for the structured deployment of pre-assembled components will be realized. The architecture to achieve the objectives set in A.4.1 must, among other things, be able to establish ad-hoc and secure interconnections between the CI/CD components and the components necessary for security checks execution. Objective A.4.2 allows the use of a common interface for developers using different containers (e.g., Docker, Kata container,

etc.) in terms of the technology used, or in terms of the container orchestration platform (e.g., Kubernetes), or in terms of the type of landing devices for the microservice (in Cloud or on Edge device). The architecture aims to enable faster development that benefits from integration with existing solutions even if implemented with different technologies. A.4.3 offers a unique interfacing system to architecture management based on API, and finally, A.4.4 will support the coordination of components' integration activities by providing useful guidelines aiming to make easier and faster the integration process.

Moreover, A.4.1 and A.4.2 provide access to virtualization techniques and passthrough provided by VirtIO for direct access to host hardware resources or to devices such as sensors and physical actuators present in the container execution environment or virtualized through the remoting filesystem provided by the I/Ocloud paradigm implemented by extending the Stack4Things platform. Finally, A.4.1 and A.4.3 will extend towards the FaaS and Deviceless paradigms to support all phases related to the instantiation of distributed applications, on servers and devices.

UniME has allocated 30000€ for specialist consulting service to support the POC development. UniME has allocated 5000€ for material and equipment directly attributable to the project, specifically considering edge and mobile devices to exploit I/Ocloud and FaaS functionalities in the edge-to-cloud continuum.

Section c. Available instrumentations and resources

Two of the research labs available at the Department of Engineering and Computer Science at UNITN, the Networking and Security Lab and the IoT Testbed can provide the initial research environment, the core technology and instrumentation to start developing, test and validate the expected results of the proposed research.

One of the main resources of the UNIME Principal Investigator's research group is the cornerstone technological prowess named Stack4Things, i.e. an OpenStack-based Internet of Things framework. This software is a testament to the lab's commitment to simplifying IoT device management, transcending physical location constraints, network configurations, and underlying technology differences. Stack4Things is recognized for its cloud-oriented approach, which enables seamless IoT object virtualization, customization, and orchestration, thereby providing an intuitive experience across various embedded and mobile systems. In particular, UNIME has a fully available Stack4Things installation where edge-to-cloud experiments can be executed. Furthermore, several IoT devices and boards are available for deployment. Strong cooperation with the university spin-off company Smartme.io will ensure access to its labs and experimental setup for on-site tests.

Moreover, UNIME can further exploit its know-how about the Research Infrastructure (RI) named SoBigData, realized in an ongoing project linked to SLICES-PP. This RI can be useful for the SecCo-OC proposal because its aim is to provide a research infrastructure exploitable to test scripts and modules defined during the investigation phases of research. RI offers also the possibility to exploit one or more datasets available in the platform.

Section d. GANTT diagram

Cronoprogramma delle attuazioni			M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	
WP	Start	End	giu-24	lug-24	ago-24	set-24	ott-24	nov-24	dic-24	gen-25	feb-25	mar-25	apr-25	mag-25	giu-25	lug-25	ago-25	set-25	
WP1: Building Secure-by-Design Containers	01/06/24	30/09/25																	
A.1.1 Requirements	01/06/24	28/02/25																	
A.1.2 Hardening Design	01/06/24	28/02/25																	
A.1.3 SecuritySLA	01/06/24	28/02/25																	
A.1.4 Hardening Implementation	01/11/24	30/09/25																	
A.1.5 Hardening Pipeline	01/11/24	30/09/25																	
WP2: Behavioral Models of Containers and Security Policy Specification Language	01/06/24	30/09/25																	
A.2.1 Compositional topological model based on bigraphs	01/06/24	30/09/24																	
A.2.2 Behavioral model for containers	01/09/24	30/11/24																	
A.2.3 Synthesis of the model from observable events	01/11/24	30/01/25																	
A.2.4 Analysis of security policy specification languages	01/02/25	30/04/25																	
A.2.5 Definition of a security policy specification language	01/05/25	30/07/25																	
A.2.6 Monitor synthesis algorithms for dynamic policies	01/07/25	30/09/25																	
WP3: Runtime Policies and Configuration Enforcement	01/06/24	30/09/25																	
A.3.1 Security Policies Alignment	01/06/24	30/08/24																	
A.3.2 Threat model and approach definitions	01/07/24	30/09/24																	
A.3.3 Design of novel runtime enforcement techniques	01/09/24	30/06/25																	
A.3.4 Mitigation approaches	01/09/24	31/12/24																	
A.3.5 Test and Validation	01/10/24	30/08/25																	
WP4: Design and Implementation of the SecCo Service	01/06/24	30/09/25																	
A.4.1 Definition of techniques to support the CI/CD security process, both for static and runtime analysis processes.	01/06/24	30/06/25																	
A.4.2 Definition and extension of the Edge/Cloud architecture: support for containerization technologies.	01/06/24	30/06/25																	
A.4.3 Unique orchestration interfaces.	01/11/24	30/09/25																	
A.4.4 Definition of guidelines for integration.	01/06/24	30/09/25																	

Section e. Milestones, Deliverables, and KPI

Milestones:

MS1: Month 9: Stable methodologies and preliminary design

MS2: Month 16: Final Design and proofs-of-concept

Deliverables:

D1: Advancement reports of activities, Delivery: M9, Type: Report, A Report summarizing the Activities status and the results obtained in each WP.

D2: Final reports of activities, Delivery: M16, Type: Report, A Report summarizing the final results obtained in each WP.

KPI:

Publications: 2 Journal submitted, 6 Conference papers submitted

Code: 1 Account GitHub with 1 repository of proof-of-concepts software

Annexes: Curriculum vitae research team

Appendice dell'Allegato B

Curriculum vitae PI or CO-PI (max. 5 pages)

PERSONAL INFORMATION

Family name, First name: **Puliafito Antonio**

Researcher unique identifier(s) (such as ORCID, Research ID, etc. ...): 0000-0003-0385-2711

Date of birth:

Nationality: **IT**

URL for web site: mdslab.unime.it

ξ EDUCATION

1993 PhD, Dipartimento di Ingegneria, Università di Palermo, Italia

PhD Supervisor: Lorenzo Vita

1988 Master, Dipartimento di Ingegneria, Università di Catania, Italia

ξ CURRENT POSITION(S)

2003 – Current Prof. Ordinario, Dipartimento di Ingegneria, Università di Messina, Italia

ξ PREVIOUS POSITIONS

1998 - 2003 Prof. Associato, Dipartimento di Ingegneria, Università di Messina, Italia

1995 - 1998 Ricercatore, Dipartimento di Ingegneria, Università di Palermo, Italia

ξ FELLOWSHIPS AND AWARDS

1994 - 1995 Fellowship Engineering Department, Duke University, USA

2015 Visiting professor Indian Institute of Information Technology, Allahabad (India)

2016 Visiting professor University of Innopolis (Russia)

Nº	Research prize/award	Organization that issued the prize/award	Year	Scientific achievement rewarded
1.	Winner of the CISCO ICT Innovation Award 2005	CISCO	2005	Design and realization of the integrated voice/data network of the new Engineering Faculty of Università di Messina.
2.	Finalist winner of the Prize ForumPA 2008 "Protagonista dell'innovazione"	ForumPA	2008	Innovation in Public Administrations

3.	Best paper	17th IEEE International Workshop on Emerging Technologies for Next Generation GRID	2008	Bruneo, M. Scarpa, A. Puliafito (2008). A GSPN Model to analyze performance parameters in gLite Grids.
4	Best paper	AFIN '10 Proceedings of the 2010 Second International Conference on Advances in Future Internet	2010	A. Celesti; F. Tusa; M. Villari; A. Puliafito. Three-phase Cross-cloud Federation Model: The Cloud Sso Authentication
5	Best paper	Third International Conference on Evolving Internet (INTERNET 2011)	2011	A. Celesti; F. Tusa; M. Villari; A. Puliafito., Evaluating An Open Source Extensible Resource Identifier Naming System For Cloud Computing Environments
6.	Best paper	10th IEEE International Conference on Ubiquitous Intelligence and Computing	2013	D. Mulfari; A. Celesti; M. Villari; A. Puliafito, Using Virtualization and Guacamole/vnc To Provide Adaptive User Interfaces To Disabled People In Cloud Computing
7.	Best paper	17th International Conference on Enterprise Information Systems	2015	F. Longo; A.R. Lotronto; M. Scarpa; A. Puliafito, Optimizing routine maintenance team routes.
8.	Best paper	2016 International Conference on Natural Science and Applied Mathematics	2016	Dario Bruneo, Marina Dolfín, Francesco Longo, Marco Scarpa, Antonio Puliafito, KAOS: a Kinetic Theory Tool for Modeling Complex Social Systems
9.	Best Paper	10th IEEE Int. Conf. on Internet of Things (i-Things 2017)	2017	R. Dautov, S. Distefano, D. Bruneo, F. Longo, G. Merlino, A. Puliafito, Pushing Intelligence to the Edge with a Stream Processing Architecture
10.	Award	G7 TRASPORTI - Cagliari	2017	CarPooling @UniME

§

11.	Most Influential paper Celebrating the 30 years of ISSRE	30th Int. Symposium on Software Reliability Engineering (ISSRE 2019)	2019	Garg, S., Puliafito, A., Telek, M., and Trivedi, K. S. "Analysis of software rejuvenation using Markov Regenerative Stochastic Petri Net." ISSRE 1995.
12.	Outstanding Paper award	13th IEEE International Conference on Internet of Things (iThings-2020)	2020	Z. Benomar, F. Longo, G. Merlino, A. Puliafito, "A Stack4Things-Based Web of Things Architecture"

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

Relatore di un centinaio di tesi di laurea sia triennali che magistrali, tutte inerenti il settore ING-INF/05.

Relatore di 26 tesi di dottorato, tutte inerenti il settore ING-INF/05

§ ORGANISATION OF SCIENTIFIC MEETINGS

- 6th International Workshop on Petri Nets and Performance Models (PNPM'95), Durham, North Carolina, Oct 3-6, 1995 (Local arrangement and Financial Chair).
- 10th European Simulation Multiconference, Budapest, Hungary, June 2-6, 1996.
- Evaluation Conference on Inter University Cooperation in Europe in the Field of Computing, Dublin, Ireland, July 1-3, 1996.
- 5th Int. Conference on Fuzzy Theory and Technology, Durham (USA), March 1-5, 1997.
- 3th Int. Conference on Computer Science and Informatics, Durham (USA), March 1-5, 1997.
- 11th European Simulation Multiconference, Istanbul, Turkey, June 1-4, 1997.
- 5th Annual Conference on the Teaching of Computing, Dublin, Ireland, Aug 26-29, 1997 (Steering committee member).
- 4th International Conference on Analytical and Numerical Modeling Techniques with Application to QoS Modeling, Singapore, Sept. 1-4, 1997.
- 5th International Conference on Analytical and Numerical Modeling Techniques, Manchester, UK, June 16-19, 1998.
- European Simulation Symposium (ESS'99) – Analytical and Numerical Techniques track, Erlangen, Germany, October 24-27, 1999.
- IEEE Symposium on Computers and Communications (ISCC2000), Antibe – St. Juan les Pins, 4-6 July 2000.
- IEEE Symposium on Computers and Communications (ISCC2001), Ammameth – Tunisia, 2-5 July 2001.
- IEEE Petri Nets Performance Models (PNPM01), Aachen – Germania, 11-14 Settembre 2001.
- IEEE Symposium on Computers and Communications (ISCC2002), Taormina – Italy, 2-5 July 2002 (Local organizer).
- IEEE Symposium on Computers and Communications (ISCC2004), Alessandria d'Egitto – Italy, 1-4 July 2004 (Technical Chair).
- IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks WOWMOM 2005), Taormina – (Italy) 13-16 July 2005 (Local organization Chair).

- International Conference on High Performance Computing and Communications (HPCC05), Sorrento – (Italy) 21-23 September 2005 (Technical co-chair)
- IEEE 20th International Conference on Advanced Information, Networking and Applications (AINA2006), Vienna, 18-20 April 2006.
- 4th International Conference on Ubiquitous Intelligence and Computing (UIC-07), Hong Kong, July 11-13, 2007 (program co-chair).
- 13th IEEE Workshop on Dependable Parallel, Distributed and Network-Centric Systems (DPDNS'08), April 14-18, 2008, Miami, Florida (USA) (program chair).
- 9th IEEE International Symposium on Network Computing and Applications (NCA10), 15 – 17 July 2010, Cambridge, MA (USA).
- Workshop di Informatica Quantitativa (InfQ), 27-29 Giugno 2011, Lipari (Italy) – (General Chair)
- IEEE Symposium on Computers and Communications (ISCC2011), Corfu' – Greece, 1-4 July 2011.
- IEEE ServiceWave 2011 – Cloud Computing Track, Poznan (Polonia), 26-28 Oct 2011.
- IEEE NCA 2012 – Network Computing and Applications, Cambridge (USA), 23-25 Aug, 2012.
- 13th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing May 13-16, 2012, Ottawa, Canada.
- 17th IEEE Workshop on Dependable Parallel, Distributed and Network-Centric Systems, May 21-25, 2012, Shanghai, China.
- International Workshop on Extending Seamlessly to the Internet of Things - [esIoT 2012](#) – July 4-6, Palermo (Italy).
- 12th IEEE International Symposium on Network Computing and Applications (IEEE NCA13), 22-24 August 2013, Boston (USA)
- International Workshop on Sensors and Smart Cities (SSC 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022) - (General co-Chair)
- 5th International conference on Cloud Computing and services Science (Closer 2015), 20-22 May 2015, Lisbon.
- 4th IEEE Symposium on Network Cloud Computing and Applications (NCCA2015), June 11-12, Munich (program co-Chair).
- 2nd International Workshop on Sensors and Smart Cities (SSC 2016), 18 May 2016, S. Louis – USA (General Chair).
- IEEE International Conference on Communications (ICC 2016) SAC Internet of Things, 23 May 2016, Kuala Lumpur, Malesia.
- 10th EAI International Conference on Performance Evaluation Methodologies and Tools (Valuetools 2016), October 2016, Taormina Italy (General Chair).
- Eighth International Workshop on Software Aging and Rejuvenation (WOSAR 2016), October 23 and October 27, 2016, Ottawa, Canada.
- Ad-Hoc, Mobile and Wireless Networks: ADHOC-NOW 2017, June 2017, Taormina Italy (General Chair).
- 4th IEEE SmartComp Conference, June 2018, Taormina Italy (TPC Chair).
- 11th IEEE International Conference on Internet of Things (iThings 2018), Halifax (Canada), July 30 – August 3, 2018 (Technical co-chair).
- 12th IEEE International Conference on Internet of Things (iThings 2019), Atlanta (USA), 14-17 Luglio 2019 (General co-Chair).
- The 18th IEEE International Symposium on Network Computing and Applications (NCA 2019), Boston (USA), September 26-28, 2019.

- The 23th International Conferences on High Performance Computing and Communications HPCC-2021), 17-19 December 2021, Haikou, Hainan, China (General Co-chair).ù
- IEEE Global Communications Conference, 4–8 December 2022, Rio de Janeiro, Brasile.
- I-CiTies 2024, 17-20 September 2024, Taormina, Italy (General Chair).

ξ INSTITUTIONAL RESPONSIBILITIES

- Delegato del Rettore dell'Università di Messina per l'Informatizzazione dell'Ateneo nel periodo 2004-2008.
- Coordinatore del corso di studi in Ingegneria Informatica (2000 - 2012)
- Coordinatore del corso di dottorato di ricerca in Tecnologie avanzate per l'ingegneria dell'informazione (2000 - 2010)
- Responsabile ERASMUS per la Facoltà di Ingegneria di Messina (1998 - 2010)
- Coordinatore del Dottorato Internazionale in Cyber Physical Systems (2017-2021)
- Vice Presidente del Consorzio InterUniversitario COMETA per il calcolo ad alte prestazioni sino al 2008.
- Membro di IRIANC: International Research Institute on Autonomic Network Computing.
- Direttore del laboratorio Wireless ed RFID dell'Università di Messina (in collaborazione con Oracle ed Intel)
- Direttore del Center on Information Technology and their Applications (CIAM) dell'Università di Messina (2006-2009 e 2013-2018)
- Direttore del Laboratorio Nazionale CINI “Smart cities & Communities” (2018 – ad oggi).
- Responsabile dell'iniziativa di Crowdfunding #SmartME per la realizzazione di una infrastruttura di sensori collegata al Cloud all'interno della città di Messina (smartme.unime.it). L'obiettivo è quello di creare un Cyber Physical System di estensione metropolitana in cui sviluppare ed offrire servizi tipo: monitoraggio ambientale, mobilità intelligente e di energy management.
- Componente commissione esaminatrice CNR del concorso pubblico per titoli per l'assunzione con contratto di lavoro a tempo pieno e indeterminato di una unità di personale con il profilo di dirigente di ricerca - I livello professionale. Bando N. 367.153 DR – Area Strategica Informatica (2018)
- Componente commissione di valutazione MIUR PON-Infrastrutture di ricerca (2018).
- Componente commissione AQ - Dipartimento di Ingegneria (2018 – ad oggi)
- Componente commissione orientamento e tutorato - Dipartimento Ingegneria (2017 – ad oggi)
- Componente di numerose commissioni di concorso per RTD, Associato ed Ordinario banditi dalle Università italiane (BO, CT, MO, PI, PoliMi, BA, NA, MI, TO, PV, LE, PA)
- Fondatore e responsabile scientifico Inquadro srl, spin-off accademico Università di Messina con Inquadro srl (2005-2011)
- Fondatore di DHLabs srl, spin-off accademico Università di Messina con Arduino (2013-2017)
- Fondatore e responsabile scientifico di SmartMe.io, spin-off accademico Università di Messina (2017 – ad oggi). Oltre 30 dipendenti ed un fatturato annuo > 1M€.

ξ REVIEWING ACTIVITIES

Svolge con continuità attività di revisore per conferenze tra cui: CCGrid, Closer, DPDNS, GIoT, Globecom, ICC, Infocom, ISCC, i-Things, Kaleidoscope, NCA, NCCA, Valuetools, WF-IoT, Wosar, Globecom. Closer.

Svolge con continuità attività di revisore per riviste scientifiche tra cui: ACM Computing Survey, AdHocNetworks, IEEE Communications Magazine, IEEE Computer, Computer Networks, Computer Security, Computer Communications, Future Internet, IEEE Access, IEEE Network, IEEE Software, IEEE Systems, Internet of Things, IT Professional, Journal Grid Computing, Journal Computer Networks and Communications, Journal Systems & Software, Journal Parallel and Distributed Computing, Performance Evaluation, Pervasive Computing, Sensors, Software Practice & Experience, Transactions on Dependable and Secure Computing, Transactions on Parallel and Distributed Systems, Transactions on Cloud Computing, Transactions on Computers, Transactions on Industrial Informatics, Transactions on Sustainable Computing.

Ha svolto le seguenti attività di revisore scientifico: Commissione Europea dal 1998 di progetti per il 4, 5, 6 e 7 programma quadro e Horizon 2020, progetti PRIN, Fondazione Alexander von Humboldt, Agenzia for Science, Technology and Research (A*STAR)-Singapore, Swiss National Science Foundation, The National Centre for Research and Development (Polonia), Regione Emilia Romagna, Regione Puglia, Khalifa University.

ξ MEMBERSHIPS OF SCIENTIFIC SOCIETIES (if applicable)

2020 – Member, Research Network “SLICES”

1995 – Member IEEE

ξ MAJOR COLLABORATIONS (if applicable)

- Kishor S. Trivedi, Duke University, Usa: *System modeling*
- Miklos Telek, University of Budapest, Ungheria: *System modeling*
- Symeon Papavassilou, National Technical University, Greece: *Smart Cities*
- Joao Haro, University of Cartagena, Spagna: *LoRA protocol*
- Andrea Passarella, CNR, Italia: *Research infrastructures*
- Jannong Cao, Polytechnic of Hong Kong: *Internet of things*
- Adnan Al-Anbuky, Auckland University, New Zeland: *Cyber Physical Systems*

Curriculum vitae CO-PI MASSIMILIANO RAK

PERSONAL INFORMATION

Family name, First name: **RAK, MASSIMILIANO**

Researcher unique identifier(s) (such as ORCID, Research ID, etc. ...): 0000-0001-6708-4032

Date of birth: / /

Nationality:

URL for web site: <https://www.ingegneria.unicampania.it/dipartimento/docenti?MATRICOLA=058401>

ξ EDUCATION

2003 PhD Ingegneria Elettronice

Seconda Università degli Studi di Napoli (now Università della Campania Luigi Vanvitelli)

Supervisor: Nicola Mazzocca

1999 Laurea Degree (Master degree)

Ingegneria Informatica, 1. Università degli Studi Federico II, luglio 1999

ξ CURRENT POSITION(S)

2016 – Associate professor

Dipartimento di Ingegneria, Università della Campania Luigi Vanvitelli

ξ PREVIOUS POSITIONS

2002 – 2016 Aggregate professor (Researcher)

Dipartimento di Ingegneria, Università della Campania Luigi Vanvitelli

ξ FELLOWSHIPS AND AWARDS

2011 Collaboration and hosting in Misosara as external collaborator project FP7-ICT-SPRERS

2002 Hosted at Institute of Software Science in Vienna

ξ SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS (if applicable)

2002 – today

Supervisor for about 10 bachelor degree thesis per year, 5 master degree thesis per year

Supervisor for 7 PhD students

ξ ORGANISATION OF SCIENTIFIC MEETINGS (if applicable)

- General Chair THE 14TH IEEE INTERNATIONAL CONFERENCE ON CLOUD COMPUTING TECHNOLOGY AND SCIENCE
- Co-Chair, IFIP-ICTSS 2020, 32ND IFIP INTERNATIONAL CONFERENCE ON TESTING SOFTWARE AND SYSTEMS, 9-10 December, Naples, Italy
- General Track Chair, 2019 IEEE 28th International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE), June 12 2019 to June 14 2019, Napoli, Italy
- General Chair , 1st Workshop of the Project Cluster on Data Protection, Security and Privacy in the Cloud, 23 February 2016, Napoli, Italy (<https://eucloudclusters.wordpress.com/data-protection-security-and-privacy-in-the-cloud/>) dal 23-02-2016 al 23-02-2016
- Track Chair , 2013 Eighth International Conference on P2P, Parallel, Grid, Cloud and Internet Computing dal 28-10-2013 al 30-10-2013 Workshop Chair, Workshop on “Accountability and SLA management for the cloud” co-located with SecureCloud 2014 dal 03-04-2014 al 03-04- 2014
- Program Chair , 8th International conference on Information assurance and Security (IAS12) dal 21-11-2012 al 23-11-2012
- Workshop Co-Chair, Security and Performance of Emerging Distributed Architectures (SPEDA) dal 23-08-2010 al 25-08-2010
- General Chair, 4th International conference on Information assurance and Security (IAS08) 08-09-2008 al 10-09-2008

ξ INSTITUTIONAL RESPONSIBILITIES (if applicable)

- Delegato Dipartimentale per la Ricerca e la terza Missione nel presidio di qualità di Ateneo (dal 2023)
- Referente della Qualità per il Dipartimento di Ingegneria per le attività di terza Missione(dal 2023)
- Referente della Qualità per il corso di studio in Ingegneria Elettronica e Informatica L-8 (dal 2022)
- Membro della Commissione Terza Missione di Dipartimento (dal 2021)
- Membro del CTS Consorzio Meditech in qualità di rappresentante dell'Ateneo
- Delegato del rettore, Assemblea dei soci del CeRICT (20/5/2015, prot. 30180), 2015
- Delegato del rettore, Assemblea dei soci del CeRICT (24/5/2016, prot. 23096), 2016
- Delegato del rettore, Assemblea dei soci di RIMIC (20/12/2016, prot. 151130), 2016
- Delegato del rettore, Assemblea dei soci del CeRICT (19/7/2018, prot. 95836), 2018
- Delegato del rettore, Assemblea dei soci del CeRICT (11/07/2019, prot. 96264), 2019
- Delegato del rettore, Assemblea dei soci del CeRICT (07/07/2020, prot. 84841), 2020
- Delegato del rettore, Assemblea dei soci del CeRICT (07/07/2020, prot. 84841), 2021
- Rappresentante, Membro della Giunta di Dipartimento (Dipartimento di Ingegneria dell'informazione – DII) in qualità di rappresentante dei Ricercatori.
- Rappresentante, Membro del Consiglio di Facoltà (Facoltà di Ingegneria) in qualità di rappresentante dei Ricercatori
- Rappresentante, Membro del Consiglio di Dipartimento (Dipartimento di Ingegneria Industriale e dell'informazione) in qualità di rappresentante dei Ricercatori
- Membro Commissione Di Dottorato (Internazionale), commissione di dottorato - Universitat Politècnica de Catalunya (UPC) - Barcellona dal 05-05-2008 al 05-05-2008
- Membro Commissione Di Dottorato (Nazionale), commissione nazionale di dottorato XXIII Ciclo - Università di Messina (D.R. 412/2011 del 10/02/2011, Università di Messina) dal 31-03-2011 al 02-04-2011
- Membro della Commissione Finale di Dottorato XXXII ciclo, Università degli studi del Sannio
- Membro della Commissione Finale di Dottorato XXXIV ciclo, Università degli studi di Genova

- Membro della Commissione Finale di Dottorato XXXIV ciclo, Università degli studi di Napoli Federico II
- Presidente di Commissione di concorso per un posto da tecnico di livello C, Università degli studi di Salerno (DR/2022/2651 del 21/09/2022– Università di Salerno) 2022
- Presidente di Commissione di concorso per un posto da tecnico di livello D, Università degli studi di Salerno (DR/2022/2652 del 21/09/2022– Università di Salerno) 2022
- Commissario di concorso Proroga RTD-A, Università degli studi di Genova (DR/2023/1403 del 21/03/2023– Università di Genova) 2023
- Commissario di concorso Proroga RTD-A, Università Federico II (DR/2020/2864 del 15/09/2020– Università Federico II) 2020
- Commissario di concorso Proroga RTD-A, Università Federico II (DR/2020/3347 del 20/10/2020 – Università Federico II) 2020
- Commissario di concorso RTD-B, Università La Sapienza - CODICE BANDO 2018RTDB015 (D.R n. 101/2019 del 14.01.2019), 2019
- Commissario concorso Ricercatore, - Università Parthenope - CODICE BANDO R/10/2007 (DR 406 8/7/2008 – Università Parthenope) 2008
- Commissario concorso Ricercatore, - Università Federico II - CODICE BANDO R/04/2006 (DR 1140 21/3/2007 – Università Federico II) 2006

ξ REVIEWING ACTIVITIES (if applicable)

Massimiliano Rak, inoltre, partecipa ed ha partecipato, in qualità di membro del Program Committee alla organizzazione di numerose Conferenze Internazionali, ha inoltre svolto attività di session chair in numerose conferenze. A titolo non esaustivo si riportano alcuni dei riferimenti più recenti

SETCAC'23, CloudCom 2022, ARES 2023, ARES 2021, CloudCom 2019, CloudCom 2020, CloudCom 2021, QUATIC 2021, WETICE 2021, SIOTEC 2021, ICTSS 2022, ICCCN 2019 28th International Conference on Computer Communications and Networks, MTD 2018 5th ACM Workshop on Moving Target Defense (MTD 2018), CloudCom 2018 10th IEEE International Conference on Cloud Computing Technology and Science, WETICE2018 The International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises, ICCDMTA 2018, International Conference on Computers, Data Management & technology Applications, IUCC 2017 16th IEEE International Conference on Ubiquitous Computing and Communications, CSCIP 2017 International Workshop on Challenges and Solutions for Critical Infrastructure Protection 2017, WETICE 2017 26th IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises, CloudCom 2017 9th International Conference on Cloud Computing Technology and Science, GPC-2017 The 12th International Conference on Green, Pervasive and Cloud Computing, IEEE CIT-2017 The 17th IEEE International Conference on Computer and Information Technology, ICCISN'2017 IC on computer intelligent systems & networking, CF2016 Cloud Forward Conference 2016, ARES 2016 11th International Conference on Availability, Reliability and Security, WETICE'2016 25th IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises, STAM 2016 Second IEEE International Workshop on Security Testing and Monitoring, IUCC 2016 The 15th IEEE International Conference on Ubiquitous Computing and Communications, ItAIS2015 XII Conference of the Italian Chapter of AIS (ItAIS 2015) - Reshaping Organizations through Digital and Social Innovation, International Conference on Computing and network Communications (CoCoNet'15), Symposium on Emerging Topics in Computing and Communications (SETCAC'15), Global Summit on Computer and Information Technology (GSCIT' 2015), 17th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC2015), 24th IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE 2015), 4th IEEE International Conference on Ubiquitous Computing

and Communications (IUCC-2015), 1st International Workshop “From Dependable to Resilient, from Resilient to Antifragile Ambients and Systems” (ANTIFRAGILE 2014), International Conference on Information Security and Assurance (IAS 2014), 16th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing SYNASC2014-WORKSHOPS: PC member, author, 23th IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises WETICE 2014, The 15th IEEE International Conference on Computer and Information Technology (CIT-2015), Workshop on Security and Privacy in Systems and Communication Networks (SecureSysComm 2015), 3rd International Conference on Advances in Computing, Communication and Informatics (ICACCI-2014), 2013 8th International Conference on P2P, Parallel, Grid, Cloud and Internet Computing (3PGCIC), Workshop Agents for Cloud (A4C 2013) (held in conjunction with 7th International Symposium on Intelligent Distributed Computing - IDC 2), International Conference on Information Assurance and Security 2013, SLA management for data services (SLAdS 2013), Second International Workshop On Service Oriented Architecture And Cloud (Soac-2013), 4th IEEE International Conference on Cloud Computing Technology and Science (IEEE CloudCom 2012), The Sixth International Conference on Complex, Intelligent, and Software Intensive Systems (CISIS-2012), The 11th IEEE International Conference on Computer and Information Technology (CIT-2011), The 11th IEEE International Conference on Scalable Computing and Communications (ScalCom-11)

ξ MEMBERSHIPS OF SCIENTIFIC SOCIETIES (if applicable)

- OMG Cloud Working Group, membro del WG dedicato al Cloud dell'OMG, nell'ambito del quale ha assunto il ruolo di leader per la scrittura di chapter dei whitepaper OMG.
- CSA Metrics subgroup, Membro del Working Group internazionale “CSA Metrics subgroup” organizzato dalla Cloud Security Alliance (CSA) e parte del Cloud Trust working group (CSA CT wg) per la costruzione di un catalogo di metriche di sicurezza a cui partecipano membri di numerosi progetti europei coinvolti su tali tematiche. dal 01-01-2014 a oggi
- Cloud Standard Customer Council, Membro del Cloud Standard Customer Council dal 01-01-2014 a oggi
- EU Cluster on New Approaches for Infrastructure Services, Membro nel EU Cluster on New Approaches for Infrastructure Services (Clusters of European Projects on Cloud), come rappresentante del Progetto SPECS e del Progetto MUSA dal 01-01-2015 a oggi
- Laboratorio CINI-CyberSecurity, Membro del CINI e Affidente al laboratorio nazionale CINI-CyberSecurity dal 01-01-2015 a oggi
- EU Cluster on Data Protection, Security and Privacy, Membro nel EU Cluster on Data Protection, Security and Privacy (Clusters of European Projects on Cloud), come rappresentante del Progetto SPECS dal 01-01-2015 a oggi
- EU Cluster on Data Protection, Security and Privacy, Chair del Working Group WG1: Advanced security and data protection mechanisms, dal 01-01-2015 a oggi

MAJOR COLLABORATIONS (if applicable)

Dana Petcu, Madalina Erascu (Institute E-Austria Timisoara, Romania),
Erkuden Rios (Technalia, Spagna),
Daniel Vladusic, Jolanda Modic (XLAB, Slovenia).

Exact dates Please indicate the reason and the duration in months.

CURRICULA VITAE UniCampania

PERSONAL INFORMATION

Family name, First name: **Aversa Rocco**

E-mail: **rocco.aversa@unicampania.it**

Nationality:

Place of birth: ()

Date of birth: / /

Researcher unique identifier(s) <https://orcid.org/0000-0002-3554-0336>

ξ EDUCATION

1989 – Master's degree **Electronic Engineering at University of Naples "Federico II"**

1994 - Ph.D. in **Electronic Engineering at University of Naples "Federico II"**

ξ CURRENT POSITION(S)

Full Professor (S.C. 09/H1 - S.S.D. ING/INF-05) Dipartimento di Ingegneria dell'Università degli Studi della Campania "L. Vanvitelli"

ξ PREVIOUS POSITIONS

February 2005/December 2020 – Associate Professor (S.C. 09/H1 - S.S.D. ING/INF-05) Dipartimento di Ingegneria dell'Università degli Studi della Campania "L. Vanvitelli".

July 1995/January 2005 - Researcher (S.C. 09/H1 - S.S.D. ING/INF-05) Dipartimento di Ingegneria dell'Università degli Studi della Campania "L. Vanvitelli".

ξ ORGANISATION OF SCIENTIFIC MEETINGS (if applicable)

He organized as WORKSHOP CHAIR the Symposium "Distributed Computing: Tools, Paradigms and Infrastructures" within the 7th International Workshop, PARA 2004, Lyngby, Denmark.

He was designated member of the STEERING COMMITTEE of the 2nd International Conference on Computer, Informatics, Cybernetics and Applications 2012 (CICA 2012), Chongqing, China.

He organized as WORKSHOP CHAIR the International Symposium on Advances of Distributed and Parallel Computing (ADPC 2013) in conjunction with 13th International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP 2013)

ξ INSTITUTIONAL RESPONSIBILITIES (if applicable)

Since October 2004, Rocco Aversa has been responsible for the three-year degree course in Computer Engineering, and is currently coordinator of the Master's Degree course in Computer Engineering, for which he takes care of relations with students, and manages the procedures for the Class Council.

In March 2021 he was elected member of the Engineering Department Board as representative of the full professors.

In 2005 and afterwards in 2014, he was appointed in the board of the directors of the consortium "Centro Regionale Information e Communication Technology" as the representative of Università degli Studi della Campania "L. Vanvitelli". The main goal of the consortium is the coordination and the harmonization of the regional scientific research in

Information and Communication Technology and the enhancement of the technological transfer towards the business companies in the field.

ξ **REVIEWING ACTIVITIES (if applicable)**

He is Associate Editor of International Journal of Web Science (IJWSM – Inderscience Publishers).

ξ **PARTICIPATION IN RESEARCH PROJECTS**

2022–now. Member of the research group within the scientific project PON RASTA “Realtà Aumentata e Story-Telling Automatizzato per la valorizzazione di Beni Culturali ed Itinerari” supported by the Italian government.

2022–2023. Coordinator of the Department research group within the scientific project PON Governance 2014-2020 dal titolo: “MODELLI ORGANIZZATIVI E INNOVAZIONE DIGITALE: IL NUOVO UFFICIO PER IL PROCESSO PER L’EFFICIENZA DEL SISTEMA-GIUSTIZIA.” supported by Italian Ministry of Justice.

2019–2012. Member of the research group within the scientific project “CLEOPATRA: CoLlaborative ExploratiOn of cyber-PhysicAl culTuRal lAndscapes”, supported by the University of Campania “L. Vanvitelli”.

2018–2020. Task leader in the European scientific project “GreenCharge” supported by the European Commission under the “Horizon H2020 Framework Programme”.

2013–2017. Member of the research group within the scientific European project “CoSSMic (Collaborating Smart Solar-powered Micro-grids) supported by the European Commission under the 7th Framework.

2013-2016. Member of the research group within the scientific European project CRYSTAL – CRITICAL sYSTEM engineering AccELeration supported by the European Commission under the 7th Framework.

2014-2016. Member of the research group within the scientific project POR CAMPANIA FESR 2007/2013 - InTEgrated and INteroperable systEm for Railway Enhanced applications (ITINERE).

2012-2015. Member of the research group within the scientific project IT-MIUR PON “Laboratori Pubblico-Privati”, progetto *DISPLAY - Distributed hybrid Simulation PLatform for ATM and VTS Systems*.

2013-2015. Member of the research group within the scientific project IT Regione Campania CAMPUS, progetto MyOpenGov.

2010-2012 Member of the research group within the scientific project PRIN (Project of Relevant National Interest), Cloud@home: a new Enhanced Computing Paradigm, Funded by Ministry of Research (DM n.1407 4 April 2009)

2010–2013. Workpackage leader of the team working on the design aspects of the mOSAIC (Open-Source and API Platform for Multiple Clouds) European scientific project supported by the European Commission under the 7th Framework.

2008–2010. Coordinator of the Second University of Naples research group working in the project - INTEGRAZIONE AL PROGETTO ESECUTIVO CRdC ICT supported by Regione Campania.

2006-2009. Member of the research group within the scientific project the MIUR Project (FAR), LC3 - LABORATORIO PUBBLICO-PRIVATO DI RICERCA SUL TEMA DELLA COMUNICAZIONE DELLE CONOSCENZE CULTURALI - National Project of Ministry of Research MIUR DM1791.

2004-2006. Coordinator of the Second University of Naples research group working in the project "Centre on Information and Communication Technology", supported by Regione Campania with a financing of more than one million of euros.

2002-2003. Coordinator of the national research project: "Architettura e modelli di valutazione di sistemi distribuiti per applicazioni multimediali e di telecontrollo" supported by CNR-Agenzia2000.

2001-2002. Member of the research group within the scientific project the PRIN (Project of Relevant National Interest), ISIDE - Sistemi di elaborazione reattivi ed affidabili per applicazioni industriali, Funded by Ministry of Research (MURST)

1998-2000 Coordinator of the research group of the Second University of Naples in the strategic national research project "Progettazione e valutazione di applicazioni di telecollaborazione e telecontrollo per sistemi multimediali"

CURRICULA VITAE UniNA

PERSONAL INFORMATION

De Benedictis Alessandra

Researcher unique identifier(s) (ORCID): 0000-0001-7455-4653

Date of birth:

Nationality:

URL for web site: <https://www.docenti.unina.it/alessandra.debenedictis>

EDUCATION

- 2013 PhD in Computer and Automation Engineering
(ex)Dipartimento di Informatica e Sistemistica, University of Naples Federico II, Italy
PHD Supervisor: prof. Valentina Casola
- 2009 Master in Computer Engineering
(ex)Dipartimento di Informatica e Sistemistica, University of Naples Federico II, Italy

CURRENT POSITION(S)

- 2021 – today Tenured Assistant Professor (RTD-B)
Department of Electrical Engineering and Information Technology, University of Naples Federico II, Italy

PREVIOUS POSITIONS

- 2019 – 2021 RTD-A
Department of Electrical Engineering and Information Technology, University of Naples Federico II, Italy

FELLOWSHIPS AND AWARDS

- 2013 – 2015,
2017 – 2018 Research Fellow
Department of Electrical Engineering and Information Technology, University of Naples Federico II, Italy
- 2011, 2012 Visiting Researcher
George Mason University, Virginia, USA
- 2020-2029 Associate Professor qualification (Abilitazione Scientifica Nazionale II fascia) in the scientific sector ING-INF/05, 09/H1 Sistemi di Elaborazione delle Informazioni in 2020.

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS (if applicable)

- 2021 – 2024 2 PhD Students, more than 30 Master's and Bachelor's Students
Department of Electrical Engineering and Information Technology, University of Naples Federico II, Italy

ORGANISATION OF SCIENTIFIC MEETINGS

- 2023 Scientific Program Chair of the 14TH IEEE INTERNATIONAL CONFERENCE ON CLOUD COMPUTING TECHNOLOGY AND SCIENCE (CloudCom 2023). 2023
- 2021 Steering Committee member for the IFIP International Conference on Testing Software and Systems (IFIP-ICTSS).
- 2020 Scientific Program Chair of the 32nd IFIP International Conference on Testing Software and Systems (ICTSS 2020)
- 2019 Scientific Program Chair of the 28th IEEE International Conference on Enabling Technologies: Infrastructure Collaborative Enterprises (WETICE 2019)

- 2017 Scientific Program Chair of the 1st Workshop on Cloud Security Modeling, Monitoring and Management (CS3M), co-located with GPC 2017 – the 12th International Conference on Green, Pervasive and Cloud Computing
- 2019 Track Co-Chair of the track "IoT, Semantics and Adaptive M2M/HCI Interfaces" within 13-th International Conference on Complex, Intelligent and Software-intensive Systems (CISIS-2019)

INSTITUTIONAL RESPONSIBILITIES

- 2021 – 2023 Incoming Student Orientation referee for the Course in Computer Engineering at the University of Naples Federico II 2019 – 2024 Member of the "Social media commission" at the Course in Computer Engineering at University of Naples Federico II
- 2019 – 2024 Referee for the Department of Electrical Engineering and Information Technology of the University of Naples Federico II for the Young Women Empowerment Program in collaboration with Ortygia Business School and Intesa SanPaolo
- 2023 Referee for the Department of Electrical Engineering and Information Technology of the University of Naples Federico II for the “Fintech Project Work” initiative with Intesa SanPaolo
- 2019 – 2024 Member/president of several Commissions for granting research scholarships to graduate and PhD students at the DIETI of the University of Naples Federico II

REVIEWING ACTIVITIES (if applicable)

- 2010 - today Review Board member for several international conferences and journals including: Future Generation Computer Systems (Elsevier), IEEE Internet of Things, IEEE Access, International Journal of Grid and Utility Computing (Inderscience), Journal of Reliable Intelligent Environments, Computer Networks (Elsevier), Journal of Computer & Security (Elsevier), Journal of Parallel and Distributed Computing (Elsevier), Journal of Computer Standards & Interfaces (Elsevier),
- 2023 PhD Thesis External Examiner for a PhD Student of the University of Sannio, Italy

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

- 2019 – 2024 Member, National CINI Cybersecurity laboratory, HPC Key Technologies and tools laboratory, Embedded Systems and Smart Manufacturing laboratory.

MAJOR COLLABORATIONS (if applicable)

Massimiliano Albanese and Sushil Jajodia (George Mason University),
Madalina Erascu (Institute E-Austria Timisoara, Romania),
Douglas D. J. de Macedo (Federal University of Santa Catarina, Florianopolis, Brasile),
Erkuden Rios (Technalia, Spagna),
Jolanda Modic (XLAB, Slovenia).

CAREER BREAKS

Sept17-Feb18 Maternity leave for 5 months

PERSONAL INFORMATION

Family name, First name: **Casola, Valentina**

Researcher unique identifier(s) :ORCID 0000-0003-0964-7014

Date of birth:

Nationality:

URL for web site:

<https://www.docenti.unina.it/#!/professor/56414c454e54494e414341534f4c4143534c564e5437355236304638333951/curriculum>

EDUCATION

2004 PhD Ingegneria Elettronica

Facoltà di Ingegneria della Seconda Università degli Studi di Napoli

Supervisor: prof. Antnino Mazzeo

2001 Laurea (Master) Degree

Ingegneria Elettronica conseguita presso l'Università degli studi di Napoli Federico II

CURRENT POSITION(S)

2015 – today Associate Professor

Dipartimento di Ingegneria Elettrica e delle Tecnologie dell'Informazione (DIETI, ex-DIS)
dell'Università degli Studi di Napoli "Federico II"

PREVIOUS POSITIONS

2005 – 2015 Aggregate Professor (researcher)

Dipartimento di Ingegneria Elettrica e delle Tecnologie dell'Informazione (DIETI, ex-DIS)
dell'Università degli Studi di Napoli "Federico II"

FELLOWSHIPS AND AWARDS

2003 IBM PhD Fellowship.

2004 IBM PhD Fellowship award

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS (if applicable)

- Supervisor of more than 6 Phd Students

ORGANISATION OF SCIENTIFIC MEETINGS (if applicable)

- 2023 General Co- Chair of the 14TH IEEE INTERNATIONAL CONFERENCE ON CLOUD COMPUTING TECHNOLOGY AND SCIENCE (CloudCom 2023). 2023
- 2021 Steering Committee member for the IFIP International Conference on Testing Software and Systems (IFIP-ICTSS).
- 2020 General Chair of the 32nd IFIP International Conference on Testing Software and Systems (ICTSS 2020)
- 2019 General Chair of the 28th IEEE International Conference on Enabling Technologies: Infrastructure Collaborative Enterprises (WETICE 2019)
- 2012 Workshop e Special Session Chair della conferenza "The 8th International Conference on Information Assurance and Security" (IAS2012);

- 2011 Program Co-Chair della conferenza “The 7th International Conference on Information Assurance and Security” (IAS2011);
- 2010 Co-Chair del Workshop “Security and Performance in Emerging Distributed Architectures” (SPEDA2010) ;
- 2008 Program Co-Chair della conferenza “The 4th International Conference on Information Assurance and Security” (IAS2008);

INSTITUTIONAL RESPONSIBILITIES (if applicable)

- Convenzione tra l’Ateneo ed il CERICT per attività di ricerca a supporto del progetto FP7-ICT-2013-10-610795 – SPECS (2014-2016).
- Convenzione tra il DIS e il Ministero della Giustizia - Palazzo Giustizia: per attività di progettazione di un sistema web-based per la gestione e manutenzione dei sistemi di sicurezza antincendio del Palazzo di Giustizia di Napoli.
- Convenzione tra il DIS e AMRA scarl: per attività di progettazione di sistemi per l’interoperabilità delle reti di sensori.
- Convenzione tra il CERICT e Ansaldo sts: per attività di progettazione di un sistema dimostratore per la sicurezza delle reti di sensori, nell’ambito del progetto europeo pShield.
- Convenzione tra il CERICT e Inova s.r.l.: per attività di supporto alla progettazione di applicazioni per smartphone e strumenti per l’ottimizzazione di call center.
- Convenzioni con la Direzione Generale Sistemi Informativi del Ministero della Giustizia: per attività di consulenza relativa alla definizione di architetture per l’integrazione delle applicazioni e dei dati del ministero della giustizia sul territorio nazionale;
- Convenzione con la Fondazione Pascale: per attività di consulenza relativa alla definizione di architetture per l’integrazione delle applicazioni e dei dati dell’Ospedale Pascale;
- Convenzioni con il Consiglio Nazionale del Notariato: per attività di consulenza relativa alla definizione di architetture per l’archiviazione e la conservazione a norma di documenti elettronici.
- Membro della Giunta del Dipartimento DIETI in qualità di rappresentante eletta dei ricercatori (2012-2015).
- Membro del Consiglio della Facoltà di Ingegneria in qualità di rappresentante eletta dei ricercatori (2008-2011).
- Membro della Commissione di vigilanza Didattica della Facoltà di Ingegneria dell’Università di Napoli Federico II in qualità di rappresentante eletta dei ricercatori (2012-2013).
- Responsabile dell’attività di ricerca/didattica (RADOR) nei laboratori SECLAB e LABORATORIO DI INFORMATICA del DIETI (2010-2015).
- Membro della Commissione di Orientamento in entrata degli studenti del Corso di Laurea di Ingegneria Informatica dell’Università di Napoli Federico II (2010-2012).
- Membro del gruppo di lavoro a supporto del presidente del Corso di Laurea di Ingegneria Informatica dell’Università di Napoli Federico II per la valutazione delle pratiche studenti (2010-2011).
- Membro della Commissione di autovalutazione del Corso di Laurea di Ingegneria Informatica dell’Università di Napoli Federico II (2006-2007).
- Referente degli orari del Corso di Studi di Ingegneria Informatica del Dipartimento DIETI (2014-2015).
- Membro del gruppo di lavoro per l’analisi e progettazione di un sistema informatico web-based per la gestione dei progetti di Ricerca del Dipartimento DIETI (2014-2015).
- Membro aggiunto supplente per la prova di informatica della Commissione del Concorso, per esami, per l’ammissione alla prima classe dei corsi regolari dell’Accademia Aeronautica per l’a.a. 2015/2016 (2015).
- Presidente di due Commissioni per le prove di orientamento presso la Facoltà di Ingegneria dell’Università degli Studi di Napoli “Federico II”.

- oltre 15 Commissioni per la Procedura di valutazione comparativa per il conferimento di incarichi di collaborazione coordinata e continuativa, prestazioni occasionali e borse di studio presso i Dipartimenti DIS e DIETI;
- oltre 5 Commissioni giudicatrice del Concorso, per titoli e colloquio, per il conferimento di assegni di ricerca (progetto EMBEDDED/Reti Eccellenza, progetto ScoPE) dell'Università di Napoli Federico II.
- oltre 5 Commissioni per il Collaudo e Controllo della regolare esecuzione della fornitura per gli acquisti relativi a diverse gare di acquisto beni presso i Dipartimenti DIS e DIETI;

PERSONAL INFORMATION

Family name, First name: **Barone, Salvatore**

Researcher unique identifier(s): ORCID 0000-0003-2007-3744

Date of birth: / /

Nationality:

URL for web site:

EDUCATION

2022 PhD in Information Technology and Electrical Engineering (ITEE)

Università degli studi Federico II

Supervisor: prof. Antonino Mazzeo

2015 Master Degree

DIETI, Università degli studi Federico II

CURRENT POSITION(S)

2022 – today RTD-A

DIETI, Università degli studi Federico II

PREVIOUS POSITIONS

2022 – 2022 Ricercatore invitato presso

l'Institute Nanotechnology De Lyon (INL), sito dell'É cole Centrale de Lyon (ECL) - Université de Lyon/Centre National de la Recherche Scientifique (CNRS)

2022 – 2022 Assegno di Ricerca

DIETI, Università degli studi Federico II

ORGANISATION OF SCIENTIFIC MEETINGS (if applicable)

- Guest Editor per Special Issue “Emerging Topics in Cybersecurity: Challenges and Solutions”, Electronics (ISSN 2079-9292)
- Publicity Chair per “The 19th IEEE Workshop on Silicon Errors in Logic – System Effects (SELSE 2023)”
- Track Chair per “11th edition of the Convergence of Distributed Clouds, Grids and their Management (CDCGM 2022@WETICE2022)”, “31th IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE2022)”, Stuttgart, Germany.
- Program committee member della track “Safety, Security and Privacy”, “15th International Conference on the Quality of Information and Communications Technology (QUATIC2022)” Talavera de la Reina, Spain.

INSTITUTIONAL RESPONSIBILITIES (if applicable)

- Commissione Rif.: Prot. B 005 2023: CA 3359 2022 H1 2023 01 ESSM, su nomina CINI
- Commissione Rif.: Prot. B 006 2023: CA 3359 2022 I2 2023 01 ESSM, su nomina CINI
- Commissione Rif.: Prot. B 010 2023: CA 3359 2022 H1 2023 02 ESSM, su nomina CINI.
- Commissione Rif.: Prot. B 015 2023: CA 3359 2022 H1 2023 02 ESSM, su nomina CINI.

REVIEWING ACTIVITIES (if applicable)

- IEEE Transactions on Industrial Informatics
- IEEE Transactions on Emerging Topics in Computing
- Special Issue on Design, Technology, and Test of Integrated Circuits and Systems.
- Future Generation Computer Systems
- Swarm and Evolutionary Computation
- 25th Design, Automation and Test in Europe Conference (DATE 2022)
- 14th International Conference on the Quality of Information and Communications Technology (QUATIC 2021)

CURRICULA VITAE UniUD

PERSONAL INFORMATION

Family name, First name: **Riccio, Vincenzo**

Researcher unique identifier(s) (ORCID): 0000-0002-6229-8231

Date of birth:

Nationality:

URL for website: <https://p1ndsvin.github.io/>

ξ EDUCATION

2019 PhD in Information Technology and Electrical Engineering

Dipartimento di Ingegneria Elettrica e delle Tecnologie dell'Informazione (DIETI), Università degli Studi di Napoli Federico II, Napoli, Italy

Supervisor: Anna Rita Fasolino

2015 Master of Science in Computer Science and Engineering

Dipartimento di Ingegneria Elettrica e delle Tecnologie dell'Informazione (DIETI), Università degli Studi di Napoli Federico II, Napoli, Italy

ξ CURRENT POSITION(S)

2022 – Assistant Professor (Ricercatore a Tempo Determinato di tipo B - RTDB)

Department of Mathematics, Computer Science and Physics (DMIF), University of Udine, Udine, Italy

ξ PREVIOUS POSITIONS

2019 – 2022 PostDoc Researcher

Software Institute, Università della Svizzera Italiana (USI), Lugano, Switzerland

ξ FELLOWSHIPS AND AWARDS

2020 ACM SIGSOFT Distinguished Artifact Award for the paper “Taxonomy of Real Faults in Deep Learning Systems”, ACM SIGSOFT

2015 – 2019 Scholarship for the Ph.D. Program of the Università degli Studi di Napoli Federico II. Provided by Università degli Studi di Napoli Federico II, Italy

ξ SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

2022 – present 1 PhD student Department of Mathematics, Computer Science and Physics (DMIF), University of Udine, Udine, Italy

2019 – present 1 PhD student, 2 Master students Software Institute, Università della Svizzera Italiana (USI), Lugano, Switzerland

2015 – 2019 1 Master student Università degli Studi di Napoli Federico II, Napoli, Italy

ξ ORGANISATION OF SCIENTIFIC MEETINGS

2025 Member of the organizing committee (Finance co-chair), IEEE International Conference on Software Testing, Verification and Validation (ICST) 2025

2024 Member of the organizing committee (Diversity, Inclusion and Newcomers co-chair), IEEE International Conference on Software ANalysis, Evolution and Reengineering (SANER) [CORE

ranking: A]

2024 Member of the organizing committee (Hot off the Press co-chair), International Symposium on Search-Based Software Engineering (SSBSE) [CORE ranking: B]

2024 Program co-organizer, International Workshop on Search-Based and Fuzz Testing (SBFT)

2020, 2021, 2023, 2024 Program co-organizer, International Workshop on Testing for Deep Learning and Deep Learning for Testing (DeepTest)

2021, 2022, 2023 Member of the organizing committee (Tool Competitions co-chair), International Workshop on Search-Based and Fuzz Testing (SBFT)

2021, 2022 Program co-organizer, #FormulaUSI, hackathon at Software Institute, Università della Svizzera Italiana (USI), Lugano, Switzerland (2 editions, 19 teams, 4 keynote speakers, 5 panelists)

ξ INSTITUTIONAL RESPONSIBILITIES (if applicable)

2022-present – Faculty member, Department of Mathematics, Computer Science and Physics (DMIF), University of Udine, Udine, Italy

2022-2023 - Secretary for the Degree Programme Council, Department of Mathematics, Computer Science and Physics (DMIF), University of Udine, Udine, Italy

2023-present - Member of the PhD board for the PhD Course in Computer Science and Artificial Intelligence, University of Udine, Udine, Italy

2023 - Member of an examining board for the entrance exams (TOLC), University of Udine, Udine, Italy

2022 - PostDoc Vice-Representative at the Faculty Council, Università della Svizzera Italiana (USI), Lugano, Switzerland

2021 - PostDoc Representative at the Faculty Council, Università della Svizzera Italiana (USI), Lugano, Switzerland

2022 – present Graduate Student (PhD) Advisor, Department of Mathematics, Computer Science and Physics (DMIF), University of Udine, Udine, Italy

2020 – present Graduate Student (PhD) Advisor, Università della Svizzera Italiana (USI), Lugano, Switzerland

2023 External Member of MSc Dissertation Defense Committee; UPFE, Brazil

2023 External Member of PhD Dissertation Defense Committee; University of Luxembourg, Luxembourg

ξ REVIEWING ACTIVITIES (if applicable)

2022-present – Program Committee Member, 27 International Conferences including the main tracks of GGS tier 1 conferences FSE and ISSTA

2019-present – Reviewer for 12 Journals, including the most impactful venues in Software Engineering, IEEE TSE and ACM TOSEM

2023-present – Distinguished Reviewers Board, ACM Transactions on Software Engineering and Methodology (Scimago rank: Q1)

2022 – PhD Thesis External Reviewer, University of Mondragon, Spain

2022 – External Reviewer for the Research Quality Evaluation (VQR 2015-2019), ANVUR (Italian National Agency for the Evaluation of University and Research)

ξ MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2022-2023 – Member, Association for Computing Machinery (ACM)

ξ MAJOR COLLABORATIONS (if applicable)

- Paolo Tonella, Software Testing, Università della Svizzera Italiana (USI), Lugano, Switzerland
- Marino Miculan, Software Security, University of Udine, Udine, Italy
- Anna Rita Fasolino, Software Engineering, Università degli Studi di Napoli Federico II, Napoli, Italy
- Alessio Gambi, Autonomous Vehicles, IMC University of Applied Science Krems, Austria
- Andrea Stocco, Software Testing, Technical University of Munich, Munich, Germany
- Gunel Jahangirova, Software Testing, King's College London, London, UK

PERSONAL INFORMATION

Family name, First name: **Della Monica, Dario**

Researcher unique identifier(s) (such as ORCID, Research ID, etc. ...): orcid.org/0000-0001-9743-665X

Date of birth:

Nationality:

URL for web site: <https://users.dimi.uniud.it/~dario.dellamonica/>

ξ EDUCATION

2011 PhD in Computer Science

Department of Mathematics and Computer Science, University of Udine, Italy

Supervisor: Montanari, Angelo

2007 Master in Computer Science

University of Napoli "Federico II", Italy

ξ CURRENT POSITION(S)

November 2022 – Current Position: Associate Professor

Department of Mathematics and Computer Science, University of Udine, Italy

ξ PREVIOUS POSITIONS

November 2019 – November 2022 Position held: Assistant Professor (tenure track – RTD-B)

Department of Mathematics and Computer Science, University of Udine, Italy

October 2018 – November 2019 Position held: Assistant Professor (RTD-A)

Department of Mathematics and Computer Science, University of Udine, Italy

October 2016 – September 2018 Position held: "INdAM-Marie Curie" Research Fellow at:

Department of Electrical Engineering and Information Technology (DIETI),

University "Federico II" of Naples, Italy

Sección Departamental de Sistemas Informáticos y Computación - Lenguajes y

Sistemas informáticos y Ciencia de la Computación e Inteligencia Artificial,

Universidad Complutense de Madrid, Spain

January 2016 – September 2016 Position held: Research Associate

Department of Electrical Engineering and Information Technology (DIETI),

University "Federico II" of Naples, Italy

March 2012 – December 2015 Position held: Research Associate

School of Computer Science, Reykjavik University, Iceland

February 2011 – January 2012 Position held: Research Associate

Department of Computer Science, University of Salerno, Italy

ξ FELLOWSHIPS AND AWARDS

- **“Marie Curie/INdAM-COFUND” Fellowship.** PI of project "Model Rating: Enhancing model checking with information on model distance", INdAM-COFUND Fellowship in Mathematics and/or Applications for experienced researchers, co-founded by "Marie Curie Actions", 2017-2018. Amount of the

grant: ca. **100,000.00 EUR**.

- **“Marie Curie/rannis” Fellowship.** PI of project "Decidability and Expressiveness for Interval Temporal Logics" (project nr. 130802-051), START Postdoctoral Fellowship programme, Rannis, Icelandic Research Fund, co-founded by "Marie Curie Actions", 2013-2015. Amount of the grant: 13,320,000.00 ISK (ca. **107,000.00 EUR** - exchange rate: Dec 2nd, 2017).
- PI of the Italian INdAM-GNCS project "Formal methods for combined verification" ("Metodi formali per tecniche di verifica combinata"), 2019. Amount of the grant: **7,000.00 EUR**.
- **March 2013:** [Young researcher award for 2011](#) from University of Udine (Italy) for the paper "Metric Propositional Neighborhood Logics on Natural Numbers" (coauthors: D. Bresolin, A. Montanari, V. Goranko, and G. Sciavicco), [Software and Systems Modeling](#) (SoSyM).
- **November 2012:** [GULP prize for the best Italian PhD dissertation in the area of Computational Logic](#) for the years 2010-2011 for the PhD thesis "Expressiveness, decidability, and undecidability of Interval Temporal Logic". [GULP](#) is the Italian Association for Logic Programming, affiliated to [Association for Logic Programming](#) (ALP).
- **May 2014:** [Best paper award](#) for the paper "First steps towards automated synthesis of tableau systems for interval temporal logics" (coauthors: A. Montanari, G. Sciavicco, and D. Tishkovsky), [5th International Conference on Computational Logics, Algebras, Programming, Tools, and Benchmarking \(COMPUTATION TOOLS 2014\)](#).

ξ SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS (if applicable)

2018 – 2023 supervised 3 master theses

Department of Mathematics and Computer Science, University of Udine, Italy

ξ ORGANISATION OF SCIENTIFIC MEETINGS (if applicable)

- PC Chair of GandALF 2023, Udine, Italy
- PC Chair of GandALF 2022, Madrid, Spain
- PC Chair of OVERLAY 2021, Padova, Italy
- PC Chair of CILC 2017, Napoli, Italy
- 2 meetings within the 2019 funded INdAM-GNCS project "Formal methods for combined verification" ("Metodi formali per tecniche di verifica combinata"), of which I have been the Principal Investigator

ξ INSTITUTIONAL RESPONSIBILITIES (if applicable)

2018 – Faculty member, University of Udine, Italy

2019 – PhD Board for the PhD programme in Computer Science and Artificial Intelligence (from 2021) and the one in Computer Science, Mathematics and Physics (until 2021)

More than 15 Master/Bachelor theses supervised

Organizer of around 15 events (international conferences/workshops in Italy and abroad)

Member of the PC of around 40 conferences

ξ REVIEWING ACTIVITIES (if applicable)

Acted as reviewer for more than 40 conferences and about 20 journals

ξ MAJOR COLLABORATIONS (if applicable)

Several active research collaborations with internationally renowned scientists

PERSONAL INFORMATION

Family name, First name: Alessi Fabio

Researcher unique identifier(s) (such as ORCID, Research ID, etc. ...):

Date of birth: / /

Nationality:

URL for web site: <https://users.dimi.uniud.it/~fabio.alessi/>

ξ EDUCATION

1992 PhD Dottorato di Ricerca in Matematica (Consorzio Genova-Milano-Torino-Pavia)
Supervisor: Mariangiola Dezani-Ciancaglini

1986 Master Laurea in Matematica - Genova University

ξ CURRENT POSITION(S)

2005-2024 – Associate Professor at DMIF - Udine University - Italy

ξ PREVIOUS POSITIONS

1993-2005 – Researcher at DMIF - Udine University - Italy

ξ FELLOWSHIPS AND AWARDS

ξ SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS (if applicable)

2005 – 2024 About 40 Master Students at DMIF - Udine University - Udine

ξ ORGANISATION OF SCIENTIFIC MEETINGS (if applicable)

ξ INSTITUTIONAL RESPONSIBILITIES (if applicable)

2017 – 2024 Delegato del Rettore for Music - Udine University - Italy

PERSONAL INFORMATION

Di Gianantonio, Pietro

Researcher unique identifier(s): ORCID: 0000-0002-0638-4610

Date of birth: / /

Nationality:

URL for web site: <https://users.dimi.uniud.it/~pietro.digianantonio/>

ξ EDUCATION

1993 PhD

Department of Computer Science, University of Pisa, Italy

PhD Supervisor: Furio Honsell

1987 Master

Department of Computer Science, University of Pisa, Italy

ξ CURRENT POSITION

2001 – Associate Professor Dpt. of Mathematics, Informatics and Physics, University of Udine, Italy

ξ PREVIOUS POSITIONS

1991 – 2001 Research Assistant Dpt. of Mathematics, Informatics and Physics, University of Udine, Italy

ξ FELLOWSHIPS AND AWARDS

1988 – 1989 CNR -Scholarship, Computing department of Imperial College of Science and Technology, the University of London, UK

ξ SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS (if applicable)

1991 – 2023 14 Master Students, Dpt. of Mathematics, Informatics and Physics, University of Udine, Italy

ξ INSTITUTIONAL RESPONSIBILITIES (if applicable)

2001 – Faculty member, Dpt. of Mathematics, Informatics and Physics, University of Udine, Italy

2016 – 2021 Member of Paritetico Commission , Dpt. of Mathematics, Informatics and Physics, University of Udine

ξ MAJOR COLLABORATIONS (if applicable)

Abbas Edalat Computing department of Imperial College, London, UK

Furio Honsell Dpt. of Mathematics, Informatics and Physics, University of Udine, Italy

Marina Lenisa Dpt. of Mathematics, Informatics and Physics, University of Udine, Italy

Marino Miculan Dpt. of Mathematics, Informatics and Physics, University of Udine, Italy

PERSONAL INFORMATION

Family name, First name: Lenisa, Marina

Researcher unique identifier(s) (such as ORCID, Research ID, etc. ...): 0000-0003-0497-0429

Date of birth: - -

Nationality:

URL for web site: <https://users.dimi.uniud.it/~marina.lenisa/>

ξ EDUCATION

1998 PhD in Computer Science, University of Pisa, Italy

1993 Master in Computer Science, University of Udine, Italy

ξ CURRENT POSITION

2002 – Associate Professor, Department of Computer Science, University of Udine, Italy

ξ PREVIOUS POSITIONS

1998 – 1999 Research Fellow, Laboratory for the Foundations of Computer Science, University of Edinburgh

2000 – 2002 Researcher, Department of Computer Science, University of Udine, Italy

2007 – 2009 Grant holder of the Tempus project DEUKS 2007-2009 (Doctoral School Towards European Knowledge Society).

2016 – 2020 Coordinator for Udine University of the BE-OPEN project (Boosting Engagement of Serbian Universities in Open Science) funded under the Erasmus+ Capacity Building in Higher Education action.

ξ FELLOWSHIPS AND AWARDS

1998 – 1999 Research Fellow, Laboratory for the Foundations of Computer Science, University of Edinburgh European Project TMR Linear Logic in Theoretical Computer Science

ξ ORGANISATION OF SCIENTIFIC MEETINGS

2009 Chair of the organizing committee of the conference CALCO'09 (Conference on Algebra and Coalgebra in Computer Science), Udine, Italy, September 2009.

2017 Chair of the organizing committee of the Consortium meeting of BE-OPEN (Boosting Engagement of Serbian Universities in Open Science), September 2017

2019 Chair of the organizing committee of the Consortium meeting of BE-OPEN (Boosting Engagement of Serbian Universities in Open Science), October 2019

ξ INSTITUTIONAL RESPONSIBILITIES

2000 – Faculty member, University of Udine, Italy

2000 – Graduate Student Advisor, University of Udine, Italy

2004 – Erasmus Exchange Programme Delegate for the Bachelor and Master courses in Computer Science, University of Udine, Italy

ξ REVIEWING ACTIVITIES

2000 – Reviewer for more than 50 conference and journal papers

2000 – Member of the Final Committee for about 15 PhD thesis

CURRICULA VITAE UniTN

PERSONAL INFORMATION

Family name, First name: **CRISPO Bruno**

Researcher unique identifier(s): Scopus ID 8379216600

Date of birth: / /

Nationality:

URL for web site: <https://disi.unitn.it/~crispo/>

Bibliometrics: Scopus h-index 34, Scopus citations: 4424

● **EDUCATION**

1999 PhD in Computer Security from University of Cambridge, UK Prof. Roger M. Needham

1993 Laurea cum laude (Master Degree) in Computer Science, University of Turin, Italy

● **CURRENT POSITION**

2018 – present Full Professor, University of Trento, Italy (www.disi.unitn.it)

● **PREVIOUS POSITIONS**

2005 – 2018 Associate Professor at the University of Trento, Italy (www.disi.unitn.it)

2014 – 2015 Full Professor at KU Leuven, Belgium (www.cs.kuleuven.be)

2005 – 2006 Head of the Security Research Unit at Create-Net Research Centre, Trento, Italy

2002 – 2005 Associate Professor at Vrije Universiteit Amsterdam, The Netherlands (www.cs.vu.nl).

2001 – 2002 Managing Director of Cryptomathic Italia SpA, Italy (www.cryptomathic.com)

2000 Researcher at Stanford Research Institute, UK (www.sri.com)

● **FELLOWSHIPS AND AWARDS**

2018 Honorable Mention at the World Wide Web Conference

2015 Best paper award 3rd International Conference on Future Internet of Things and Cloud (FiCloud) - Special Track on Security, Privacy and Trust

2006 Best paper award Usenix LISA: 20th Large Installation System Administration Conference

2006 Best paper award "PerCom 2006: 4th Annual IEEE Int.l Conference on Pervasive Computing

2005 Best paper award "IEEE Int.l Conference on Service Computing".

● **SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS (if applicable)**

2006 – 2023 4 Postdocs/ 18 PhD

● **ORGANISATION OF SCIENTIFIC MEETINGS (if applicable)**

2021 Program Chair, Ubisec 2021: 17th International Conference on Ubiquitous Security

2020 Program Chair, The Web Conference 2020: Security, Privacy and Trust track

2014 Program Chair PRISM 2014: 3rd Int.l Conference on Privacy and Security in Mobile Systems

2014 Program Chair, CRiSIS 2013: 8th Int.l Conference on Risks and Security of Internet and Systems

General Chair, NeCS PhD Winter School (2017, 2018, 2019, 2022, 2023, 2024)

- **INSTITUTIONAL RESPONSIBILITIES (if applicable)**

2016 – present Member of the Executive Council of the National Inter-University Consortium for Informatics (CINI)

2018 – 2021 Coordinator of the IECS International Doctoral School of Trento University

2017 – 2018 Coordinator of the MSc curriculum in Computer Science

2017 – present Local Coordinator of the EIT Digital International MSc in Security and Privacy

- **REVIEWING ACTIVITIES (if applicable)**

2013 – 2021 Associate Editor of the ACM Transactions on Privacy and Security

2011 – 2014 Associate Editor of the Security and Communication Network Journal by Wiley

- **MEMBERSHIPS OF SCIENTIFIC SOCIETIES (if applicable)**

2001 – Senior Member of IEEE, Member of ACM

- **MAJOR COLLABORATIONS (if applicable)**

Gene Tsudik, UCI Irvine, USA trust technology

Ahmed Reza Sadeghi, TU Darmstadt, German hardware/software security co-design

Mauro Conti, University of Padua, Italy Mobile security

Engin Kirda, Northeastern University, Boston, USA web security

PERSONAL INFORMATION

Family name, First name: **GIORGINI Paolo**

Researcher unique identifier(s): Scopus id 6603873210

Nationality:

URL for web site: <http://www.dit.unitn.it/~pgiorgio/>

● EDUCATION

1998 PhD in Computer Science and Engineering Department of Information Engineering, Università Politecnica delle Marche, Italy

● CURRENT POSITION(S)

2019 - present Head of the Department of Information Engineering and Computer Science
University of Trento - Italy

2018 - present Full Professor in Computer Science and Engineering

Department of Information Engineering and Computer Science, University of Trento - Italy

● PREVIOUS POSITIONS

2011 - 2018 Associate Professor in Computer Science and Engineering
Department of Information Engineering and Computer Science,
University of Trento - Italy

2002 - 2011 Assistant Professor in Computer Science and Engineering
Department of Information Engineering and Computer Science,
University of Trento - Italy

1998 - 2002 Postdoctoral Researcher
Department of Information Engineering and Computer Science,
University of Trento - Italy

● FELLOWSHIPS AND AWARDS

2015 “10 Years Most Influential Paper Award” of the IEEE International Requirements Engineering Conference to Paolo Giorgini, Fabio Massacci, John Mylopoulos and Nicola Zannone for the paper “*Modeling security requirements through ownership, permissions and delegation*”

● SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS (if applicable)

2009 – 2020 9 PhD

● ORGANISATION OF SCIENTIFIC MEETINGS (if applicable)

2019 - Program Chair 31th International Conference on Advanced Information Systems Engineering (CAiSE)

● INSTITUTIONAL RESPONSIBILITIES (if applicable)

2018 -2019 Head of Industrial Innovation PhD Program

2015 - 2018

Department of Information Engineering and Computer Science,
University of Trento - Italy

Head of the international PhD Program on ICT
Department of Information Engineering and Computer Science,
University of Trento - Italy

- **REVIEWING ACTIVITIES (if applicable)**

2007 – present Associate Editor of the International Journal of Agent-oriented Software Engineering

- **MAJOR COLLABORATIONS (if applicable)**

John Mylopoulos, University of Toronto, Canada, Software Evolution

Fabiano Dalpiaz, Utrecht University, The Netherlands, Requirement Engineering

PERSONAL INFORMATION

Family name, First name: **Lizzi Leonardo**

Researcher unique identifier(s): ORCID 0000-0002-8369-1681

Date of birth: / /

Nationality:

URL for web site: <https://www.linkedin.com/in/leonardolizzi>

● EDUCATION

- 2011 PhD in Information and Communications Technologies
Department of Information Engineering and Computer Science, University of Trento, Italy
PhD Supervisor: Andrea Massa
- 2007 Master's degree in Telecommunication Engineering
Faculty of Telecommunication Engineering, University of Trento, Italy

● CURRENT POSITION(S)

- 2024 – Associate Professor
Department of Information Engineering and Computer Science, University of Trento, Italy

● PREVIOUS POSITIONS

- 2014 – 2023 Maître de Conférences
Polytech Nice Sophia, Université Côte d'Azur, France
- 2011 – 2014 Postdoc fellow
Laboratory of Electronics, Antennas, and Telecommunications, Université Côte d'Azur, France

● FELLOWSHIPS AND AWARDS

- 2019 EurAAP European School of Antennas (ESoA) best teacher award
- 2019 PhD Mentoring and Research Award (PEDR), French Ministry of Education, France
- 2013 1-year LABEX (Laboratory of Excellence) SOPHIA@UCN post-doctoral fellowship
- 2008 Student paper competition honorable mention for the paper “A time-based approach for the synthesis of antennas for UWB communication systems” at the 2008 IEEE International Symposium on Antennas and Propagation, San Diego, CA, USA, Jul. 5-11, 2008

● SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS (if applicable)

- 2014 – 2023 13 PhD students, 1 postdoc fellow, 17 master students
Laboratory of Electronics, Antennas, and Telecommunications, Université Côte d'Azur, France

● ORGANISATION OF SCIENTIFIC MEETINGS (if applicable)

- 2017 – Coordinator of the Ph.D. School on “Antennas and Rectennas for IoT Applications” in the framework of the European School of Antennas (ESoA). Université Côte d'Azur, France.
- 2015 – 2017 Steering Committee member at the Embedded Software and Micro-Electronics (eSAME) Conference, Sophia Antipolis, France.
- 2015 – 2017 Steering Committee member at the Assemblée Générale du GDR Ondes, France

● INSTITUTIONAL RESPONSIBILITIES (if applicable)

- 2015 – 2023 Elected member of the LEAT laboratory council, Université Côte d'Azur, France
- 2016 – 2023 Coordinator of the “Networks and Communicating Objects” area of the master's degree in “Industrial Electronic and Computer Science Engineering” of Polytech Nice Sophia, Université Côte d'Azur, France

2017 – 2023 Coordinator of the 4th and 5th years of the master's degree in "Industrial Electronic and Computer Science Engineering" of Polytech Nice Sophia, Université Côte d'Azur, France

2015 – 2023 Coordinator for Polytech Nice Sophia of the multilateral agreement (AML) for the delivery of double diplomas between France and Italy, Université Côte d'Azur, France

2017 – 2023 Member of the organization committee of the Université Côte d'Azur Academy 1 (RISE - Networks, Information and Digital society) seminars.

- **REVIEWING ACTIVITIES (if applicable)**

2020 – Associate editor of IEEE Open Journal of Antennas and Propagation

2020 – Associate editor of MDPI Electronics

2011 – Reviewer for international journals (IEEE Transaction on Antennas and Propagation, IEEE Antennas and Propagation Magazine, IEEE Transaction on Sensor Networks, International Journal of Microwave Wireless Technologies, IET Electronics Letters, etc).

2014 – Reviewer for international conferences (IEEE Symposium on Antennas and Propagation, European Conference on Antennas and Propagation, etc).

2017 TPC member of the International Conference on Advanced Technologies for Communication (ATC), October 18-20, 2017, Quynhon city, Vietnam

2016 TPC member of the 7th EAI International Conference on Sensor Systems and Software, December 1-2, 2016, Nice, France

2013 TPC member of the 3rd International Conference on Consumer Electronics, Communications and Networks (CECNet 2013), Nov. 20-22, 2013, Xianning, China

- **MEMBERSHIPS OF SCIENTIFIC SOCIETIES (if applicable)**

2020 – Senior member of the Institute of Electrical and Electronics Engineers (IEEE).

- **MAJOR COLLABORATIONS (if applicable)**

Joseph Costantine, American University of Beirut, Beirut, Lebanon

Michele Magno, ETH, Zurich, Switzerland

Lars Jonsson, KTH Royal Institute of Technology, Stockholm, Sweden

Le Huy Trinh, University of Information and Technology, Ho Chi Minh City, Vietnam

Antonella D'Orazio and Marco Grande, Polytechnic University of Bari, Bari, Italy

Manos M. Tentzeris, Georgia Institute of Technology (GeorgiaTech), Atlanta, USA

CURRICULA VITAE UniME

PERSONAL INFORMATION

Family name, First name: **Marco Scarpa (M)**

Researcher unique identifier(s) (such as ORCID, Research ID, etc. ...): 0000-0002-9560-7504

Nationality:

URL for web site: mdslab.unime.it/mscarpa

https://scholar.google.com/citations?hl=it&user=bZZ2bTYAAAAJ&view_op=list_works&sortby=pubdate

● **EDUCATION**

Febbraio 1999 - Dottorato in Informatica presso l'Università di Torino, Dipartimento di Informatica, Italia; tesi dal titolo Non-Markovian Stochastic Petri Nets with Concurrent Generally Distributed Transitions

Ottobre 1987/luglio 1994 - Master degree in Ingegneria Informatica conseguita presso l'Università degli Studi di Catania con votazione di 110/110 cum laude

● **CURRENT POSITION(S)**

Gennaio 2021/oggi - Professore ordinario (S.C. 09/H1 - S.S.D. ING/INF-05) presso il Dipartimento di Ingegneria dell'Università degli Studi di Messina.

● **PREVIOUS POSITIONS.**

Ottobre 2006/dicembre 2020 - Professore associato (S.C. 09/H1 - S.S.D. ING/INF-05) presso il Dipartimento di Ingegneria dell'Università degli Studi di Messina.

Ottobre 2003/settembre 2006 - Ricercatore a contratto presso il Dipartimento di Matematica dell'Università degli Studi di Messina per svolgere attività sullo studio delle prestazioni di sistemi real time.

● **SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS (if applicable)**

XXII ciclo - Longo Francesco - Advanced technologies for Information Engineering - Ph.D.

XXXIII ciclo - Chakib Chaouk - Cyber-Physical Systems - Ph.D.

XXXIII ciclo - Murtathaurtada Bin Arif Sahbudin - Cyber-Physical Systems - Ph.D.

XXXIX ciclo - Omar Serghini- Dottorato in Ingegneria - Ph.D.

● **ORGANISATION OF SCIENTIFIC MEETINGS (if applicable)**

2016, Technical Program Committee co-Chair; The 10th International Conference on Performance Evaluation Methodologies and Tools - VALUETOOLS 2016; Taormina, Italy, 25-28 July 2016

2017, Submissions & Registrations Chair; The 16th International Conference on Ad Hoc Networks and Wireless – AdHoc-Now 2017; Messina, Italia, 20-22 September 2017

2023, General Chair; The 19th European Performance Engineering Workshop (EPEW 2023); Florence - 20-23 June, 2023

● **INSTITUTIONAL RESPONSIBILITIES (if applicable)**

a.a. 2006/2007 - a.a 2010/2011: delegato del Direttore del Dipartimento di Matematica presso la Facoltà di Ingegneria dell'Università degli Studi di Messina.

2007/2010: vicedirettore del “Center on Information Technologies Development and their Applications” (C.I.A.) dell’Università degli Studi di Messina per nomina del Senato Accademico.

Aprile 2011 / Aprile 2014: membro del Consiglio di Amministrazione del “Consorzio Multi-Ente per la promozione e l’adozione di Tecnologie di calcolo Avanzato” (COMETA) in rappresentanza dell’Università degli Studi di Messina.

2013 - 2018: componente del Direttivo del Centro Informatico di Ateneo (CIAM) dell’Università degli Studi di Messina.

2014 – 2020: coordinatore del Corso di Laurea Magistrale Internazionale in “Engineering and Computer Science” erogato dal Dipartimento di Ingegneria dell’Università di Messina.

2018 - oggi: membro del Consiglio di Amministrazione del “Consorzio Multi-Ente per la promozione e l’adozione di Tecnologie di calcolo Avanzato” (COMETA) in rappresentanza dell’Università degli Studi di Messina.

Ottobre 2021 - oggi: delegato del Direttore del Dipartimento di Ingegneria all’Internazionalizzazione.

È stato inoltre componente di innumerevoli Commissioni di concorso ricoprendo anche il ruolo di Presidente.

- **REVIEWING ACTIVITIES (if applicable)**

Editor; International Journal of Distributed Sensor Networks, Taylor & Francis, Inc.

2016, Guest Editor; Performance Evaluation, Elsevier - Special Issue ValueTools 2016

Area editor; EAI Endorsed Transactions on Cloud System (ToCS), European Alliance for Innovation

Advisor board member; Applied Computing and Informatics, Elsevier.

Academic Editor per la rivista "International Journal of Distributed Sensor Networks" SAGE Publishing hosted by Hindawi

2021, Lead editor per lo Special Issue "Models and Techniques to Forecast Consumer Experience on 5G Networks" - Wireless Communications and Mobile Computing; Hindawi

2021, Guest editor per lo Special Issue "Sensor Networks for Dependable Monitoring of Critical Applications" – MDPI Sensors (section "Sensor Networks")

2023, Guest editor per lo Special Issue "Spectrum Sensing for Wireless Communication Systems" – MDPI Sensors (section "Communications")

2023, Guest editor per lo Special Issue “Applications of Cooperative Spectrum Sensing to Cognitive Radio” - Frontiers in Communications and Networks / Frontiers in Signal Processing

- **MEMBERSHIPS OF SCIENTIFIC SOCIETIES (if applicable)**

2017 – present Membre of *Institute of Electrical and Electronics Engineers (IEEE)* and of *IEEE Computer Society*

2017 – 2021 Member of *Association for Computing Machinery (ACM)*

- **MAJOR COLLABORATIONS (if applicable)**

2023: Progetto PRIN 2022 PNRR, “Privacy and Blockchain in Public Integrated Filing systems: a privacy-by-design-compliant, cost-effective and performance-aware reference architecture (PaB-PIF)”; ERC PE6_5. Ruolo: Principal Investigator.

2007/2010: Progetto PRIN 2007, “Affidabilità e qualità del servizio in sistemi di monitoraggio basati su Wireless Sensor Networks per applicazioni critiche”. Ruolo: Responsabile scientifico dell’unità di Messina.

2007/2013: Progetto PON 2007-2013 SIGMA-Formazione, cod. PON01 00683/17, “Formazione di personale altamente qualificato nella progettazione e gestione di infrastrutture di monitoraggio complesse con supporto di computazione distribuita” (2013-2015). Ruolo: Responsabile della realizzazione delle attività di formazione.

Attività di cooperazione tra Università di Messina e Polytechnic University of Hong Kong per le attività inerenti il percorso di studi per il rilascio del titolo doppio in Informatica incardinato sul corso magistrale interclasse Engineering and Computer Science (LM18/LM32) dell’Università degli Studi di Messina. Ruolo: Responsabile.

2016/2017: Laboratorio di ricerca congiunto, di durata biennale, tra International Institute of Information Technology Naya Raipur (IIIT Naya Raipur) e l’Università di Messina, nel campo della sicurezza applicata al Cloud Computing, con particolare riferimento allo Storage Sicuro. Ruolo: Coordinatore scientifico.

2008/2010: Progetto Europeo FP7 “RESERVOIR - Resources and Services Virtualization without Barriers”. Ruolo: Responsabile di Workpackage.

PERSONAL INFORMATION

Family name, First name: **Distefano Salvatore**

Researcher unique identifier(s) (such as ORCID, Research ID, etc. ...): 0000-0002-2752-626X

Date of birth: /

Nationality:

URL for web site: <https://unime.unifind.cineca.it/individual?uri=http://irises.unime.it/resource/person/6473>

● EDUCATION

- 2006 PhD in Information Science and Technology from University of University of Messina
Topics: System Dependability and Performance: Techniques, Methodologies and Tools
- 2001 M. Sc. In Computer Engineering University of Catania
Topics: DB, CAD, Modeling

● CURRENT POSITION(S)

- 2024 – present Full Professor of Computer Science (SSD INF/01) University of Messina Piazza Pugliatti 1, Messina

● PREVIOUS POSITIONS

- 2015 - 2024 Associate Professor of Computer Engineering (SSD ING-INF/05) University of Messina Piazza Pugliatti 1, Messina
- 2011 - 2015 Assistant Professor of Computer Engineering (SSD ING-INF/05) Politecnico di Milano, Piazza Leonardo da Vinci, 32

● SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS (if applicable)

- 2006-2010 Vincenzo Daniele Cunsolo, “Security and Volunteer Computing mechanisms in Grids and Clouds”, University of Messina.
- 2015-2019 Alexander Ferenets, “Security and Trustworthiness in Stack4Things”, Kazan Federal University.
- 2015-2020 Ammar Altaher, “The attacks to the hypervisor. User Isolation in cloud computing.”, Kazan Federal University.
- 2016-2020 Riccardo Di Pietro, “ Cloud computing supports to information forensics”, University of Messina.
- 2016-2021 Ramil Aglyamzanov, “ Hole punching networking solutions for IoT”, Kazan Federal University.
- 2017-2021 Artur Sagitov, “CPS for Surgery Robotics”, University of Messina.
- 2018-2022 Matvey Maltsion, “ Hierarchical Processing Event Networks”, Kazan Federal University.
- 2018-2022 Carlo Scaffidi, “CPS for Intelligent Transportation Systems”, University of Messina.
- 2018-2021 Muhammad Ahmad, “Hyperspectral Imaging for CPS”, University of Messina.
- 2018-2022 Giovanni Cicceri, “Machine Learning techniques to shape Intelligent Human-Centered Cyber-Physical Systems”, University of Messina.

● ORGANISATION OF SCIENTIFIC MEETINGS (if applicable)

TPC Chair -

- Chair of the 10th International Conference Advances in Computational Intelligence and Informatics - ICACII 2019
- International JOINT Conference European Safety and Reliability Conference (ESREL2020) and 15th Probabilistic Safety Assessment and Management Conference (PSAM15) - Track Chair

(CPS))

TPC member -

- IEEE International Conference on Advances in Computing, Communications and Informatics (ICACCI 2015-now)
- International Symposium on Big Data and Cloud Computing Challenges (ISBCC 2016-now)
- URBAN COMPUTING, The International Symposium on Emerging Frontiers of Urban Computing and Smart Cities 2016-now
- IEEE GLOBAL IoT SUMMIT, GIOTS, 2017-now
- The IEEE Conference of Open Innovations Association FRUCT, 2015-now
- IEEE International Conference on Smart Computing - SMARTCOMP 2016-now

● **INSTITUTIONAL RESPONSIBILITIES (if applicable)**

- “Information science and technology training and stage (SAT)”, Politecnico di Milano, Milan-Leonardo scientific supervision, 2012-2015.
- “Politecnico di Milano - Cluster on Security, Safety, Defence, Disaster Management & Recovery”, Politecnico di Milano, co-founder and DEIB Department representative, 2012-2015.
- “CINI - Smart Cities Lab”, Politecnico di Milano DEIB Department representative, 2013-2015.
- “European Alliance for Innovation - EAI”, Politecnico di Milano DEIB Department representative, 2014-2015.
- Member of “Commissione Paritetica”, University of Messina, MIFT Department, 2015-Now.
- Member of “Commissione Didattica”, University of Messina, Computer Science School, 2016-Now.
- Member of “Commissione Tirocini”, University of Messina, Computer Science School, 2017-Now.
- President of “Presidio di Qualità”, University of Messina, Computer science and engineering School, 2016-Now.
- Member of “Giunta di Dipartimento MIFT - MIFT Department Board”, University of Messina, MIFT Department, 2016-Now.
- Computing and Information Systems Deputy Chair, MIFT Department, University of Messina, 2016-2019.
- Disable Student Deputy Chair, MIFT Department, University of Messina, 2018-2022.
- CINI - BigData Lab”, University of Messina representative, 2017-Now.
- Member of the “Scientific Board”, Kazan Federal University, Higher Institute for Information Technology and Information Systems, 2016-Now.
- Member of the Scientific Board of the International PhD Programme in Cyber Physical Systems, University of Messina, Department of Engineering, 2017-Now.
- “CINI - BigData Lab”, Management Committee Member, 2018-Now.
- “CINI - Task Force COVID19/IT”, Founder and Coordinator, 2020-Now
- “CINI Working Group System and Service Quality”, Founder and Coordinator, 2021-Now

● **REVIEWING ACTIVITIES (if applicable)**

- | | |
|----------------|---|
| 2015-present | - Associate Editor of the IEEE Transactions on Dependable and Secure Computing, https://www.computer.org/web/tdsc |
| 2013-present | International Journal of Big Data (JoBD), Springer http://www.journalofbigdata.com/ |
| 2010-present | International Journal of Cloud Computing Advances, Systems and Applications (JoCCASA), Springer http://www.journalofcloudcomputing.com |
| 2014 - present | International Journal of Distributed Sensor Networks (IJDSN), Hindawi http://www.hindawi.com/journals/ijdsn/ |
| 2018-present | International Journal of Sensor and Actuator Networks, MDPI https://www.mdpi.com/journal/jsan |
| 2018-present | International Journal of Applied Computing and Informatics, Emerald |

- 2022 - present <https://www.emeraldgrouppublishing.com/journal/aci>
Frontiers in the Internet of Things, Frontiers Media S.A.
<https://www.frontiersin.org/journals/the-internet-of-things>
- 2018-present
Sensors, MDPI <https://www.mdpi.com/journal/sensors>
- 2011-present
- Associate Editor of the International Journal of Performability Engineering (IJPE),
RAMS Consultant <http://www.ijpe-online.com/>
- International Journal of Engineering and Industries (IJEI), Advanced Institute of
Convergence IT <http://www.aicit.org/ijei/home/index.html>
- International Journal of Computer Science & Information Technology Applications
(IJCSITA) <https://sites.google.com/site/ijcsita>

PERSONAL INFORMATION

Family name, First name: **Longo, Francesco**

Researcher unique identifier(s) (such as ORCID, Research ID, etc. ...): 0000-0001-6299-140X

Date of birth: / /

Nationality:

URL for web site: mdslab.unime.it/flongo

● EDUCATION

2011 PhD in Advanced Techniques for Information Technologies

University of Messina, Italy

Prof. Marco Scarpa

2008 M. Sc. in Computer Engineering

University of Messina, Italy

● CURRENT POSITION(S)

2022 – present Associate Professor

Department of Engineering, University of Messina, Italy

● PREVIOUS POSITIONS

2019 - 2022 Tenure-track (Senior) Assistant Professor

Department of Engineering, University of Messina, Italy

2016 - 2019 (Junior) Assistant Professor

Department of Engineering, University of Messina, Italy

● SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS (if applicable)

2016-present 1 Postdoc student / 2 PhD student / 10 Master Students

Department of Engineering, University of Messina, Italy

● ORGANISATION OF SCIENTIFIC MEETINGS (if applicable)

2023 TPC co-Chair of “EPEW 2023 - 19th European Performance Engineering Workshop, Florence, Italy, 20-23 June 2023”

2019 TPC co-Chair of “iThings’19 - 12th IEEE International Conference on Internet of Things, Atlanta, U.S.A., 14-17 July 2019”

2017 TPC co-Chair of “AdHoc Now’17 - 16th International Conference on Ad Hoc Networks and Wireless, Messina, Italy, 20-22 September 2017”

● INSTITUTIONAL RESPONSIBILITIES (if applicable)

2022-present Vice-coordinator of the course “Ingegneria Elettronica e Informatica”, Department of Engineering, University of Messina

2021-present Delegate for Internationalization activities of the Department of Engineering, University of Messina

2020-present Faculty advisor for the Zangle E-Drive team of the University of Messina participating to the Formula student competitions in driver-less electric category.

2020-present Scientific responsibility of the agreement between University of Messina and CINI (National Inter-universities Consortium for Informatics) regarding the participation to the Cyberchallenge national competition.

- **REVIEWING ACTIVITIES (if applicable)**

2021-present Member of the Editorial Board of Sensors, MDPI. ISSN: 1424-8220

2015-present Member of the Editorial Board of International Journal of Distributed Sensor Networks (IJDSN), SAGE Publications. ISSN: 1550-1477

2017-2020 Member of the Editorial Board of Future Generation Computer Systems (FGCS), Elsevier. ISSN: 0167-739X

2019 Guest Editor of Sensors, MDPI, ISSN: 1424-8220, for the special issue “Exploiting the IoT within Cyber Physical Social System”.

2019 Guest Editor of Transactions on Internet Technology (TOIT), ACM, ISSN: 1533-5399, for the special issue “Fog, Edge, and Cloud Integration for Smart Environments”.

- **MEMBERSHIPS OF SCIENTIFIC SOCIETIES (if applicable)**

2019 – present Member of *Association for Computing Machinery (ACM)*

2017 – present Membre of *Institute of Electrical and Electronics Engineers (IEEE)* and of *IEEE Computer Society*

- **MAJOR COLLABORATIONS (if applicable)**

Prof. Kishor Trivedi (Duke University, U.S.A)

Dr. Eliot Salant (IBM Research Haifa, Israel)

Prof. Stefano Russo (Università degli Studi di Napoli, Italy)

Prof. Yaron Wolfsthal (Ben-Gurion University of the Negev, Israel)

Dr. Andreas Metzger (University of Duisburg Essen, Germany)

Prof. Adnan Al-Anbuky (Auckland University of Technology, New Zealand)

Prof. Rajkumar Buyya (University of Melbourne, U.S.A).

Prof. Omer Rana (University of Cardiff, UK)

Prof. O.P. Vyas (IIIT- AllaHabab, India)

Prof. Asaf Shabtai (Ben-Gurion University of the Negev, Israel)

Prof. Michele Colaianni (University of Modena and Reggio Emilia, Italy)

Prof. Enzo Mingozzi (Università di Pisa, Italy)

PERSONAL INFORMATION

Bruneo Dario

<https://orcid.org/0000-0002-6080-9077>

Date of birth: /

Nationality:

URL for website: <https://unime.unifind.cineca.it/get/person/025100>

● EDUCATION

2005 Dottorato di ricerca in “Tecnologie avanzate per l’ingegneria dell’informazione” conseguito presso il Dipartimento di Matematica dell’Università degli Studi di Messina. Titolo della tesi: “Advanced Services Provisioning in Mobile Wireless Networks: QoS Strategies and Middleware Solutions”.

2000 Abilitazione alla professione di ingegnere conseguita presso l’Università degli Studi di Palermo.

2000 Laurea in Ingegneria Informatica conseguita presso l’Università degli Studi di Palermo.

Votazione 110/110 e lode. Titolo della tesi: “Metodi di riduzione di modelli di sistemi dinamici lineari e stazionari”.

● CURRENT POSITION(S)

2016 Associate Professor. University of Messina. Department of Engineering

● PREVIOUS POSITIONS

2006 – 2016 Assistant Professor. University of Messina. Department of Engineering

● SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS (if applicable)

2006 – 2023 4 PhD Students, 1 Post-doc, 30+ Master students University of Messina

● ORGANISATION OF SCIENTIFIC MEETINGS (if applicable)

Demo & Poster co-chair - Ninth International conference on Smart Computing (IEEE SmartComp), Nashville, Tennessee (USA), giugno 2023

General co-chair - Ninth IEEE International Workshop on Sensors and Smart Cities, Nashville, Tennessee (USA), giugno 2023

General co-chair - Eighth IEEE International Workshop on Sensors and Smart Cities, Espoo (Finland), giugno 2022

Program co-chair - Seventh IEEE International Workshop on Sensors and Smart Cities, Irvine CA (USA), agosto 2021

Workshop co-chair - Seventh IEEE International conference on Smart Computing (IEEE SmartComp), Irvine CA (USA), agosto 2021

Program co-chair - Sixth IEEE International Workshop on Sensors and Smart Cities, Bologna, giugno 2020

Workshop co-chair - Sixth IEEE International conference on Smart Computing (IEEE SmartComp), Bologna, giugno 2020

Program co-chair - Fifth IEEE International Workshop on Sensors and Smart Cities, Washington (USA), maggio 2019

Workshop co-chair - Fifth IEEE International conference on Smart Computing (IEEE SmartComp),

Washington (USA), maggio 2019

Program co-chair - Fourth IEEE International Workshop on Sensors and Smart Cities, Taormina (Messina), giugno 2018

Workshop co-chair - Fourth IEEE International conference on Smart Computing (IEEE SmartComp), Taormina (Messina), giugno 2018

Program co-chair - 16th International Conference on Ad Hoc Networks and Wireless – AdHoc-Now 2017 - Messina, settembre 2017

Program co-chair - Third IEEE International Workshop on Sensors and Smart Cities, Hong Kong (China), maggio 2017

WIP/Demo co-chair - Third IEEE International conference on Smart Computing (IEEE SmartComp), Hong Kong (China), maggio 2017

Program co-chair - Second EAI International Conference on Cloud, Networking for IoT Systems - Brindisi, marzo 2017

Local chair - 10th EAI International Conference on Performance Evaluation Methodologies and Tools (Valuetools '16) - Taormina (Messina), ottobre 2016

Program co-chair - Second IEEE International Workshop on Sensors and Smart Cities - Saint Louis, Missouri (USA), maggio 2016

Local co-chair - Fourth European Conference on Service-Oriented and Cloud Computing (ESOCC '15) - Taormina (Messina), settembre 2015

Program co-chair - First IEEE International Workshop on Sensors and Smart Cities - Hong Kong, novembre 2014

- **INSTITUTIONAL RESPONSIBILITIES (if applicable)**

19/03/21 è stato nominato Coordinatore del Corso Laurea Magistrale in Ingegneria e Scienze Informatiche (LM-32/LM-18) - Dipartimento di Ingegneria - Università di Messina, per il triennio 2021-2024.

23/04/20 è stato nominato Vice-Coordinatore del Corso Laurea in Ingegneria Elettronica e Informatica (L-8) - Dipartimento di Ingegneria - Università di Messina. Rimane in carica fino al marzo 2021.

2023 È stato nominato dal Rettore alla Ricerca dell'Università di Messina referente di Ateneo per il coordinamento delle attività progettuali legate al PNRR - Partenariati Estesi - Linea 1 - Intelligenza Artificiale: Aspetti Fondazionali

27/04/2022 è stato designato dal Senato Accademico dell'Università di Messina, quale componente del Comitato scientifico del Centro Messina University Press, per un triennio.

18/06/20 è stato designato dal Consiglio di Amministrazione dell'Università di Messina quale rappresentante dell'Ateneo di Messina, all'interno del Comitato Tecnico Scientifico del Consorzio COMETA

2019 È stato nominato, dal Direttore del Dipartimento di Ingegneria dell'Università di Messina, Delegato per la Pianificazione e Ottimizzazione dei Servizi Informatici del Dipartimento per il triennio 2019/2021.

È Referente di nodo del Laboratorio Nazionale del CINI su “Artificial Intelligence and Intelligent Systems” per l'Università di Messina.

È Referente di nodo del Laboratorio Nazionale del CINI su “Embedded Systems & Smart Manufacturing” per l'Università di Messina.

- **REVIEWING ACTIVITIES (if applicable)**

Co-editor del book "Quantitative Assessments of Distributed Systems - Methodologies and Techniques" - Scrivener/Wiley - Performability Engineering Series

Editorial board member - "Wireless Communications and Mobile Computing" - Wiley -. ISSN: 1530-8669

Guest editor - special issue "Sensors and Smart Cities" della rivista MDPI Sensors ISSN 1424-8220

Guest editor - special issue "Sensors and Smart Cities" della rivista MDPI Computers ISSN 2073-431X

- **MEMBERSHIPS OF SCIENTIFIC SOCIETIES (if applicable)**

2018 IEEE Senior Member

- **MAJOR COLLABORATIONS (if applicable)**

Duke University (USA) - Prof. Kishor Trivedi

UC Berkeley (USA) - Prof. Randy Katz

IIIT- AllaHabad (India) - Prof. O.P. Vyas

Department of Computing, Hong Kong Polytechnic University (Hong Kong) - Prof. Jiannong Cao

National Technical University of Athens (Greece) - Prof. Symeon Papavassiliou

University of Duisburg Essen (Germany) - Dr. Andreas Metzger

Technion Israel Institute of Technology (Israel) - Prof. Avi Miron

IBM Research Haifa (Israel) - Dr. Eliot Salant

Auckland University of Technology (New Zealand) - Prof. Adnan Al-Anbuky

Missouri University of Science and Technology (USA) - Prof. Sajal K. Das

PERSONAL INFORMATION

Family name, First name: **Merlino, Giovanni**

Researcher unique identifier(s): 0000-0002-1469-7860 (ORCID), I-3169-2019 (ResearcherID)

Date of birth: / /

Nationality:

URL for web site: <https://unime.unifind.cineca.it/resource/person/30098>

● EDUCATION

2016 PhD in Computer and Telecommunications Engineering

Department of Electrical Electronic and Computer Engineering, University of Catania, Italy

Vincenza Carchiolo

2011 Master of Science in Electrical Engineering Department of Engineering, University of Messina, Italy

● CURRENT POSITION(S)

2023 – Associate Professor (tenured) Department of Engineering, University of Messina, Italy

● PREVIOUS POSITIONS

2020 – 2023 Tenure-track Assistant Professor Department of Engineering, University of Messina, Italy

2018 – 2020 Technical staff (permanent) Centre on Information Technologies, University of Messina, Italy

● FELLOWSHIPS AND AWARDS

2020 Outstanding Paper Award for “A Stack4Things-based Web of Things Architecture” at the 13th IEEE International Conference on Internet of Things (iThings 2020), IEEE, Greece

2015 – 2018 Research fellow (H2020 project BEACON - Enabling Federated Cloud Networking)
Department of Engineering, University of Messina, Italy

2019 Best Paper Award for “Authorization Transparency for Accountable Access to IoT Services” at the IEEE 2019 International Congress on Internet of Things (ICIOT 2019), IEEE, Italy

2017 Best Paper Award for “Pushing Intelligence to the Edge with a Stream Processing Architecture” at the 10th IEEE International Conference on Internet of Things (iThings 2017), IEEE, UK

● SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

2018 – Supervision/co-supervision of current/former PhDs: 6
Department of Engineering, University of Messina, Italy

● ORGANISATION OF SCIENTIFIC MEETINGS

2017 Workshop Chair, IEEE Intl. Conf. on Smart Computing (SMARTCOMP) - 1st International Workshop on Federated Networking, Clouds and IoT (FeNCI), Hong Kong, China

2016 Publicity Chair, IEEE Intl. Conf. on Smart Computing (SMARTCOMP) - 2nd IEEE International

Workshop on Sensors and Smart Cities (SSC), St. Louis (MO), USA

- 2023 TPC Member, Intl. Conf. on Smart Computing (SMARTCOMP) - 8th Intl. Workshop on Smart Service Systems (SmartSys), Nashville, USA
- 2023 TPC Member, Intl. Conf. on Smart Computing (SMARTCOMP) - 9th Intl. Workshop on Sensors and Smart Cities (SSC), Nashville, USA
- 2022 TPC Member, 21st IEEE Intl. Symposium on Network Computing and Applications (NCA), online
- 2022 TPC Member, Intl. Conf. on Smart Computing (SMARTCOMP) - 7th Intl. Workshop on Smart Service Systems (SmartSys), Aalto, Finland
- 2022 TPC Member, Intl. Conf. on Smart Computing (SMARTCOMP) - 8th Intl. Workshop on Sensors and Smart Cities (SSC), Aalto, Finland
- 2021 TPC Member, 14th IEEE Intl. Conf. on Internet of Things (iThings), Melbourne, Australia
- 2021 TPC Member, 10th IEEE Intl. Conf. on Cloud Networking (CloudNet), online
- 2021 TPC Member, 20th IEEE Intl. Symposium on Network Computing and Applications (NCA), online
- 2021 TPC Member, Intl. Conf. on Smart Computing (SMARTCOMP) - 7th Intl. Workshop on Sensors and Smart Cities (SSC), online
- 2020 TPC Member, 13th IEEE Intl. Conf. on Internet of Things (iThings), online
- 2020 TPC Member, 2020 IEEE Intl. Conf. on Smart Data Services (SmartDataServices), online
- 2020 TPC Member, 2020 IEEE World Congress on Services (SERVICES), online, 2020
- 2020 TPC Member, 2020 IEEE Intl. Conf. on Services Computing (SCC), online
- 2020 TPC Member, 19th IEEE Intl. Symposium on Network Computing and Applications (NCA), online
- 2020 TPC Member, Intl. Conf. on Smart Computing (SMARTCOMP) - 6th Intl. Workshop on Sensors and Smart Cities (SSC), online
- 2019 TPC Member, 12th IEEE Intl. Conf. on Internet of Things (iThings), Atlanta (GA), USA
- 2019 TPC Member, 7th Intl. Conf. on Future Internet of Things and Cloud (FiCloud), Istanbul, Turkey
- 2019 TPC Member, 18th IEEE Intl. Symposium on Network Computing and Applications (NCA), Cambridge (MA), USA
- 2019 TPC Member, Intl. Conf. on Smart Computing (SMARTCOMP) - 5th Intl. Workshop on Sensors and Smart Cities (SSC), Washington (D.C.), USA
- 2019 TPC Member, 2019 IEEE Intl. Congress on Internet of Things (ICIOT), Milan, Italy
- 2018 TPC Member, 2018 IEEE Intl. Congress on Internet of Things (ICIOT), San Francisco (CA), USA
- 2018 TPC Member, Intl. Conf. on Smart Computing (SMARTCOMP) - 4th Intl. Workshop on Sensors and Smart Cities (SSC), Taormina, Italy
- 2015 TPC Member, European Conf. on Service-Oriented and Cloud Computing (ESOCC) - Workshop on Federated Cloud Networking (FedCloudNet), Taormina, Italy
- 2015 TPC Member, 4th European Conf. on Service-Oriented and Cloud Computing (ESOCC) - 2nd Workshop on Seamless Adaptive Multi-cloud Management of Service-based Applications (SEAWAVE), Taormina, Italy
- 2015 TPC Member, IEEE Intl. Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM) - 4th Workshop on the IoT: Smart Objects and Services (IoT-SoS), Boston (MA), USA
- 2014 TPC Member, Intl. Conf. on Smart Computing (SMARTCOMP) - 1st Intl. Workshop on Sensors and Smart Cities (SSC), Hong Kong, China

- **INSTITUTIONAL RESPONSIBILITIES**

- 2023 – Deputy Head of the M.D. course in “Engineering and Computer Science”, Department of Engineering, University of Messina, Italy
- 2022 – 2023 National Secretary, Association of Fixed-Term/Tenure-Track Researchers (ARTeD), Italy
- 2021 – Delegate for ICT services, Department of Engineering, University of Messina, Italy
- 2021 – Member of the Scientific Board of the Ph.D. program in “Bioengineering applied to the Medical Sciences”, Department of Engineering, University of Messina, Italy
- 2021 – Head of International programs for the M.D. course in “Engineering and Computer Science”, Department of Engineering, University of Messina, Italy
- 2021 – 2023 Head of Guidance and Tutoring for the B.D. course in “Biomedical Engineering”, Department of Engineering, University of Messina, Italy

● REVIEWING ACTIVITIES

- 2020 – Editorial Board, MDPI IoT (ISSN: 2624-831X)
- 2019 – Editorial Board, Technical Committee Member, Elsevier Computer Communications (ISSN: 0140-3664)
- 2019 – 2023 Editorial Board, Associate, IEEE Access (ISSN: 2169-3536)
- 2013 – Reviewer,
- ACM Tran. on Internet Technology
 - IEEE Tran. on Parallel and Distributed System (TPDS)
 - IEEE Tran. on Dependable and Secure Computing (TDSC)
 - IEEE Tran. on Services Computing (TSC)
 - IEEE Communications Letters
 - IEEE Systems Journal
 - Elsevier Future Generation Computer Systems
 - Elsevier Pervasive and Mobile Computing
 - Scalable Computing: Practice and Experience, Univ. de Vest
 - Mobile Information Systems, Hindawi
 - Wireless Communications and Mobile Computing, Hindawi
- 2018 – Scientific Evaluation, Croatian Science Foundation (HRZZ), Croatia

● MEMBERSHIPS OF SCIENTIFIC SOCIETIES

- 2020 – Member, Research Network “SLICES”
- 2012 – Member, Computer Society, IEEE, USA

● MAJOR COLLABORATIONS

- Om Prakash Vyas, *Trustless sensing and Semantic activity recognition*, Department of IT, IIIT - Allahabad, India
- Enzo Mingozzi, *Container migration in Fog computing*, Department of Information Engineering, University of Pisa, Italy
- Anna Levin, *Federated Cloud networking*, IBM Research Labs Haifa, Israel
- Symeon Papavassiliou, *Mobile Crowdsensing*, School of Electrical and Computer Engineering, National Technical University, Greece
- Rafael Asorey Cacheda, *Long Range WAN roaming*, Department of Technologies for Information and Communications, Polytechnic University of Cartagena, Spain
- Andrea Passarella, *Distributed and Federated Infrastructures for Research*, IIT, CNR, Italy
- Adnan Al-Anbuky, *Smart City IoT infrastructure*, Auckland University, New Zealand

Appendix: All current grants and on-going and submitted grant applications of the PI and Co-PI

Current grant of PI

<i>Project Title</i>	<i>Funding source</i>	<i>Amount (Euros)</i>	<i>Period</i>	<i>Role of the PI</i>	<i>Relation to current proposal</i>
SLICES-PP	EU	3000K€	Sept 2022-Aug 2026	Coordinator Italian node	Research Infrastructure that could be used to exploit project results
Joule	Italian MUR	320K€	Oct 2023-Sept 2025	Coordinator UniMe	Cloud-to-Edge continuum
Agreed	PON-Gov	591K€	Oct 2022-March 2023	Coordinator CINI	Platform development

Current grant of co-PI

<i>Project Title</i>	<i>Funding source</i>	<i>Amount (Euros)</i>	<i>Period</i>	<i>Role of the Co-PI</i>	<i>Relation to current proposal</i>
UPSIDE	MIMIT	641.000,00 €	Oct 23-Oct24	Coordinator	Threat Modeling methodologies and Cybersecurity assessment for Complex Infrastructures
RASTA	MISE	1.110.000€	Nov 22-Jun25	Member	None
MicroCyber	EU	356.042,50	Oct 22-Oct 25	Member	Cybersecurity assessment
DEFEDGE	Italian MUR	70730 €	Dec 23-Dec 25	Unit Coordinator	Cloud-Edge Threat modeling and Penetration testing