

## PERSONAL INFORMATION

# Vincenzo Suriani

## **WORKING EXPERIENCE**

# 2024 – 2025 UNIVERSITY TEACHING IN "ELECTIVE IN ARTIFICIAL INTELLIGENCE"

Sapienza University of Rome - Master degree course in Artificial Intelligence and Robotics (LM-32)

3 CFU, Robot Benchmarching and Competition Module.

Course Language: ENG

# 2024 – 2025 UNIVERSITY TEACHING IN "LABORATORY OF CYBERSECURITY, SOCIAL NETWORK AND PRIVACY"

University of International Studies of Rome

Bachelor's degree course in Political Science, International Security and Crime (L-36)

6 CFU, Course Language: ITA

# 2024 – today RESEARCH FELLOW (Assegnista di Ricerca)

University of Basilicata - Department of Engineering, School of Engineering

Topic: "Metodologie Innovative per il Progetto e il Test di Architetture a Microservizi"

Project **Tech4You**, developing testing environment for automatic testing of software using Artificial Intelligence agents. The project focuses on innovative methodologies for the design, compliance verification, and testing of microservice-based architectures.

# 03/2020 – 10/2020 UNIVERSITY TEACHING ASSISTANT IN "LABORATORY OF INTERACTIVE

GRAPHICS AND ARTIFICIAL INTELLIGENCE"

Sapienza University of Rome, Bachelor's degree course in Computer and Automation Engineering

6 CFU, Course Language: ITA, Role: Teaching Assistant

# 2020 - 2022 UNIVERSITY TEACHING ASSISTANT IN "ARTIFICIAL INTELLIGENCE"

Sapienza University of Rome - Master degree course in Artificial Intelligence and Robotics (LM-32)

6 CFU/9CFU, Course Language: ENG, Role: Teaching Assistant

# 2019 - 2020 RESEARCH SCHOLARSHIP (Borsista di Ricerca)

Sapienza University of Rome 2019

Scholarship Topic: "Simulazione in Gazebo di ambienti e task per robot PAL Reem-c"

Working on the **EUROBENCH** Project on testing and simulating humanoid robots in everyday contexts.

# 2016 - today TEAM LEADER - SPQR TEAM

Sapienza University of Rome

Team Development Leader in the RoboCup team of the Department of Computer, Control, and Management Engineering Antonio Ruberti at Sapienza University of Rome, involved in RoboCup competitions since 1998.

http://spqr.diag.uniroma1.it/

euro*pass* Curriculum Vitae Vincenzo Suriani

#### 2014 - 2015TEAM MEMBER - SPQR TEAM

Sapienza University of Rome: Team Development Leader in the RoboCup team of the Department of Computer, Control, and Management Engineering Antonio Ruberti at Sapienza University of Rome, involved in RoboCup competitions since 1998.

#### **EDUCATION**

#### PHD IN COMPUTER ENGINEERING 10/2020-5/2024

Sapienza University of Rome - Ottimo

Thesis: Semantic Representations for Effective Robot Behaviors in Unstructured Environments

PhD Advisor: Prof. Daniele Nardi

#### MASTER'S DEGREE IN ARTIFICIAL INTELLIGENCE AND 09/2015 - 10/2019

**ROBOTICS** 

Sapienza University of Rome - 110/110

Thesis: Implicit Coordination through Gestures in Robot Soccer

#### BACHELOR'S DEGREE IN COMPUTER ENGINEERING 09/2009 - 12/2015

Sapienza University of Rome 94/110

Thesis: Behavior Design for Soccer Robots

## PERSONAL SKILLS

**Mother Thongue** Italiano

#### Other Languages

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken Interaction	Spoken Production	
C2	C2	C1	C1	C1

English

Livelli: A1/A2: Utente base - B1/B2: Utente intermedio - C1/C2: Utente avanzato

Quadro Comune Europeo di Riferimento delle Lingue

## OTHER INFORMATION

# Scientific Awards

RoboCup Best paper award 2023: Play everywhere: A temporal logic based game environment

independent approach for playing soccer with robots. 2023

26th RoboCup International Symposium 2023

RoboCup Best paper award 2021: Learning from the crowd: improving the decision making process 2021

in robot soccer using the audience noise.

24th RoboCup International Symposium 2021

# Conference and Workshop Organization

#### Workshops:

"Piattaforme per il testing e la qualità del software: Test4You e Open Test 2.0"

2025 Role: Member of Organizing Committee University of Basilicata, 23/04/2025

# Conferences:

2024 Co-Chair in session Robot Motion Planning V session @ IEEE/RSJ International Conference on



Intelligent Robots and Systems (IROS) 2024 - Abu Dhabi

## PC Membership

2025 IEEE International Conference on Autonomous Robot Systems and Competitions (ICARSC)

12th European Conference on Mobile Robots (ECMR 2025)

28th RoboCup International Symposium 2025

2024 Workshop on Digital Innovations for Learning and Neurodevelopmental Disorders" (DILeND)

2021 International Conference on Automated Planning and Scheduling (ICAPS)

Research Tech4YOU: 2024-2025, Role: Participant/Developer,

Projects Funding Agency: EU Commission https://www.tech4youscarl.it/

SciRoc: 2020-202, Role: Participant/Developer

Funding Agency: EU Commission

https://sciroc.eu/

EUROBENCH: 2018-2019, Role: Participant/Developer

Funding Agency: EU Commission

https://neuralrehabilitation.org/projects/EUROBENCH/

# Summary of Scientific Achievements

# Google Scholar:

Total Citations: 232 Hirsch Index (H): 7 I10-Index: 5

https://scholar.google.it/citations?user=Y8LuLfoAAAAJ&hl=it

# SCOPUS:

Number of Products: 21 Total Citations: 112 Hirsch Index (H): 5

https://www.scopus.com/authid/detail.uri?authorld=57197733555

# Research Activity

Vincenzo Suriani has been a member of the Sapienza RoboCup SPL team since 2014 and has served as the Team Leader and Software Development Leader since 2016.

# **Events attended:**

RoboCup 2016 (Leipzig, Germany), GermanOpen 2017 (Magdeburg, Germany), RoboCup 2018 (Montreal, Canada), RoboCup 2019 (Sydney, Australia), RoboCup 2021 (Distributed Worldwide), RoboCup 2022 (Bangkok, Thailand), RoboCup 2023 (Bordeaux, France), RoboCup 2024 (Eindhoven, Nederland). He will also be participating in the RoboCup 2025 competition in Salvador, Brasil.

He was a member of the Ro.Co.Co. laboratory at the Department of Computer, Control and Management Engineering of Sapienza University of Rome (Prof. Daniele Nardi and Prof. Luca locchi). He took part in the EUROBENCH project, which aimed to establish a benchmarking system for humanoid robots. In this project, he focused on methodologies and testing environments, developing benchmark setups to evaluate performance indicators.



He has also coordinated the development of large-scale software projects, with particular emphasis on testing methodologies and software efficiency. His expertise in innovative methodologies and testing for edge architectures has been extensively applied in RoboCup WorldCup competitions.

Within the SCIROC project, he developed innovative methodologies for conducting human-robot interactions in remote, in-person, and simulated scenarios, evaluating the quality of these interactions.

He is currently involved in the Tech4YOU project, developing intelligent agents and environments for the automated testing of software components and executing benchmarking of the software components with new methodologies supported by artificial intelligent agents. The focus is on innovative methodologies for the design, compliance verification, and testing of microservice-based architectures. It specifically addresses the design of microservice architectures on both on-premise and cloud platforms, the evaluation of costs and the adoption of cloud-native and auto-scaling technologies, the integration of microservices and APIs, and the testing methodologies for software solutions based on microservices, with a strong focus on the adoption and integration of artificial intelligent agents.

#### Licensure (Esame di Stato)

Sapienza University of Rome

2023 State examination for the Engineering Profession

2024 Registered with the Order of Engineers of Rome, Section A.

#### **Publications**

## **Publications:**

Title: A deep learning approach for object recognition with NAO soccer robots

Year: 2017

Venue: RoboCup 2016: Robot World Cup XX 20, 392-403, 2017

Authors: Dario Albani and Ali Youssef and Vincenzo Suriani and Daniele Nardi and Domenico Daniele

Bloisi

Title: Game strategies for physical robot soccer players: a survey

Year: 2021

Venue: IEEE Transactions on Games 13 (4), 342-357, 2021

Authors: Emanuele Antonioni and Vincenzo Suriani and Francesco Riccio and Daniele Nardi

Title: Skin lesion area segmentation using attention squeeze u-net for embedded devices

Year: 2022

Venue: Journal of Digital Imaging 35 (5), 1217-1230, 2022

Authors: Andrea Pennisi and Domenico D Bloisi and Vincenzo Suriani and Daniele Nardi and Antonio

Facchiano and Anna Rita Giampetruzzi

Title: LLM Based Multi-agent Generation of Semi-structured Documents from Semantic Templates in

the Public Administration Domain

Year: 2024

Venue: International Conference on Human-Computer Interaction, 98-117, 2024

Authors: Emanuele Musumeci and Michele Brienza and Vincenzo Suriani and Daniele Nardi and

Domenico Daniele Bloisi

Title: On field gesture-based robot-to-robot communication with NAO soccer players

Year: 2019

Venue: RoboCup 2019: Robot World Cup XXIII 23, 367-375, 2019

Authors: Valerio Di Giambattista and Mulham Fawakherji and Vincenzo Suriani and Domenico D

Bloisi and Daniele Nardi

Title: S-AVE: Semantic active vision exploration and mapping of indoor environments for mobile robots

Year: 2021

Venue: 2021 European Conference on Mobile Robots (ECMR), 1-8, 2021



Authors: Vincenzo Suriani and Sara Kaszuba and Sandeep R Sabbella and Francesco Riccio and Daniele Nardi

Title: Machine learning for RealisticBall detection in RoboCup SPL

Year: 2017

Venue: arXiv preprint arXiv:1707.03628, 2017

Authors: Domenico Bloisi and Francesco Del Duchetto and Tiziano Manoni and Vincenzo Suriani

Title: Learning from the crowd: improving the decision making process in robot soccer using the

audience noise Year: 2021

Venue: Robot World Cup, 153-164, 2021

Authors: Emanuele Antonioni and Vincenzo Suriani and Filippo Solimando and Daniele Nardi and

Domenico D Bloisi

Title: Autonomous and remote controlled humanoid robot for fitness training

Year: 2020

Venue: Companion Publication of the 2020 International Conference on Multimodal ..., 2020 Authors: Emanuele Antonioni and Vincenzo Suriani and Nicoletta Massa and Daniele Nardi

Title: Knowledge acquisition and completion for long-term human-robot interactions using knowledge graph embedding

Year: 2022

Venue: International Conference of the Italian Association for Artificial ..., 2022

Authors: Ermanno Bartoli and Francesco Argenziano and Vincenzo Suriani and Daniele Nardi

Title: Adaptive team behavior planning using human coach commands

Year: 2022

Venue: Robot World Cup, 112-123, 2022

Authors: Emanuele Musumeci and Vincenzo Suriani and Emanuele Antonioni and Daniele Nardi and

Domenico D Bloisi

Title: Rosmeery: Robotic simulated environment for evaluation and benchmarking of semantic

mapping algorithms

Year: 2021

Venue: arXiv preprint arXiv:2105.07938, 2021

Authors: Sara Kaszuba and Sandeep Reddy Sabbella and Vincenzo Suriani and Francesco Riccio

and Daniele Nardi

Title: Multi-Agent Coordination for a Partially Observable and Dynamic Robot Soccer Environment

with Limited Communication

Year: 2024

Venue: AIRO, 2024

Authors: Daniele Affinita and Flavio Volpi and Valerio Spagnoli and Vincenzo Suriani and Daniele

Nardi and Domenico D Bloisi

Title: Play Everywhere: A Temporal Logic based Game Environment Independent Approach for

Playing Soccer with Robots

Year: 2023

Venue: Robot World Cup, 3-14, 2023

Authors: Vincenzo Suriani and Emanuele Musumeci and Daniele Nardi and Domenico Daniele Bloisi

Title: Shape and style GAN-based multispectral data augmentation for crop/weed segmentation in

precision farming Year: 2024

Venue: Crop Protection 184, 106848, 2024

Authors: Mulham Fawakherji and Vincenzo Suriani and Daniele Nardi and Domenico Daniele Bloisi

Title: Enhancing Graph Representation of the Environment through Local and Cloud Computation

Il presente *curriculum vitae*, è redatto ai fini della pubblicazione nella Sezione "Amministrazione trasparente" del sito web istituzionale dell'Ateneo al fine di garantire il rispetto della vigente normativa in materia di tutela dei dati. Il C.V. in versione integrale è conservato presso gli Uffici della Struttura che ha conferito l'incarico.



Year: 2023

Venue: Workshop@RSS, 2023

Authors: Francesco Argenziano and Vincenzo Suriani and Daniele Nardi

Title: Structural pruning for real-time multi-object detection on NAO robots

Year: 2023

Venue: Robot World Cup, 203-214, 2023

Authors: G Specchi and Vincenzo Suriani and Michele Brienza and Francesco Laus and F Maiorana

and Andrea Pennisi and Daniele Nardi and Domenico Daniele Bloisi

Title: Fall detection using NAO robot pose estimation in RoboCup SPL matches

Year: 2022

Venue: Proc. of the 9th Italian Workshop on Artificial Intelligence and Robotics, 1-8, 2022 Authors: Cristian Zampino and Flavio Biancospino and Michele Brienza and Francesco Laus and Gianluca Di Stefano and Rocchina Romano and Andrea Pennisi and Vincenzo Suriani and Domenico Daniele Bloisi

Title: SPQR RoboCup 2016 Standard Platform League Team Description Paper

Year: 2016

Venue: RoboCup, 2016

Authors: V Suriani and D Albani and A Youssef and F Del Duchetto and A Nania and DD Bloisi and L

locchi and D Nardi

Title: EMPOWER: Embodied Multi-role Open-vocabulary Planning with Online Grounding and

Execution Year: 2024

Venue: IROS, 2024

Authors: Francesco Argenziano and Michele Brienza and Vincenzo Suriani and Daniele Nardi and

Domenico D Bloisi

Title: Multi-agent Planning using Visual Language Models

Year: 2024

Venue: ECAI, 2024

Authors: Michele Brienza and Francesco Argenziano and Vincenzo Suriani and Domenico D Bloisi

and Daniele Nardi

Title: LLCoach: Generating Robot Soccer Plans using Multi-Role Large Language Models

Year: 2024

Venue: arXiv preprint arXiv:2406.18285, 2024

Authors: Michele Brienza and Emanuele Musumeci and Vincenzo Suriani and Daniele Affinita and

Andrea Pennisi and Daniele Nardi and Domenico Daniele Bloisi

Title: Preserving HRI Capabilities: Physical, Remote and Simulated Modalities in the SciRoc 2021

Competition Year: 2023

Venue: arXiv preprint arXiv:2303.12492, 2023 Authors: Vincenzo Suriani and Daniele Nardi

Title: Perspective Chapter: European Robotics League-Benchmarking through Smart City Robot

Competitions Year: 2023

Venue: Human-Robot Interaction-Perspectives and Applications, 2023

Authors: Matthew Studley and Sarah Carter and Francisco J Perez-Grau and Antidio Viguria Jiménez and Gabriele Ferri and Fausto Ferreira and Deebul Nair and Sven Schneider and Paul G Plöger and Pedro U Lima and Meysam Basiri and Gerhard K Kraetzschmar and Daniele Nardi and Lun Wang

and Emanuele Antonioni and Vincenzo Suriani and Luca locchi

Title: European Robotics League: Benchmarking through Smart City Robot Competitions

Year: 2023



Venue: European Robotics League: Benchmarking through Smart City Robot Competitions, 2023 Authors: Matthew Studley and Sarah Carter and Deebul Nair and Sven Schneider and Paul G Plöger and Gerhard K Kraetzschmar and Daniele Nardi and Lun Wang and Emanuele Antonioni and Vincenzo Suriani and Luca locchi

Title: Coordination and Cooperation in Robot Soccer

Year: 2021

Venue: International Conference on Computational Collective Intelligence, 215-227, 2021 Authors: Vincenzo Suriani and Emanuele Antonioni and Francesco Riccio and Daniele Nardi

Title: Questioning Items' Link in Users' Perception of a Training Robot for Elders

Year: 2021

Venue: Social Robotics: 13th International Conference, ICSR 2021, Singapore ..., 2021

Authors: Emanuele Antonioni and Piercosma Bisconti and Nicoletta Massa and Daniele Nardi and

Vincenzo Suriani

#### **ATTACHMENTS**

Dati personali

Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali".

Il sottoscritto dichiara di essere consapevole che il presente *curriculum vitae* sarà pubblicato sul sito istituzionale dell'Ateneo, nella Sezione "Amministrazione trasparente", nelle modalità e per la durata prevista dal d.lgs. n. 33/2013, art. 15.

Data

20/05/2025

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