

PERSONAL INFO Sergio Saponara

📍 Dip. Ingegneria Informazione (DII), Università di Pisa, via G. Caruso 16, 56122, Pisa, Italia

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✉ sergio.saponara@unipi.it ssaponara@pec.it

🌐 <https://www.linkedin.com/in/sergio-saponara-3031431/>

WORKING EXPERIENCE

- Nov 2024- Oct 2028 **Director and legal representative of Dipartimento di Ingegneria della Informazione (DII) Università di Pisa**, a Department of University of Pisa with 120 research staff, 35 administrative/technical staff, 150 PhDs, 100 Post-docs, covering Electronics (Semiconductor), Electromagnetics, Telecommunication, Automotive and Space, Automation and robotics, AI, Cybersecurity, Computer Engineering, Bioengineering, <https://www.dii.unipi.it/>
- DII** has been awarded by Italian Government as Department of Excellence 2017-2022 and 2023-2028 with extra 22M€ budget for projects Forelab <https://forelab.unipi.it/> and Crosslab <https://crosslab.dii.unipi.it/>
- DII also includes a unit of the Italian National Research Council- IEIT institute- Department of Engineering
- May 2014 - Present **Co-founder, co-owner and scientific advisor of InegniArs srl** <https://www.ingeniars.com/>, a **spin-off of Univeristà di Pisa**, via Ponte a Piglieri 8, 56122, Pisa, Italy, a company operating in the Semiconductor&Electronics Space field. Since 2022, EasyTelemed Inc, is a subsidiary of InegniArs in US operating in the telemedicine field, <https://www.linkedin.com/company/easytelemed-inc/>
- In Nov 2017-Present **Full-professor of Electronic Engineering** at DII - University of Pisa, responsible for the courses:
- Vehicular Electronics 6 CFU (60 hours), MSc in Vehicular Engineering
- Electronic Systems for Automation and Robotics, 6 CFU (60 hours), MSc in Automation and Robotics Engineering
- Hardware and Embedded Security 9 CFU (72 hours), MSc in Cybersecurity
- Design of Integrated Circuits and Systems for IoT 6 CFU (60 hours), MSc in Electronic Engineering
- He has supervised as tutor **150 Master thesis** in Electronics, Automation and Robotics Engineering, Vehicular Engineering and Cybersecurity
- Jan 2005 – Present **Full Professor at Italian Naval Academy**, Livorno, Italy, responsible for the courses Electronics (Stato Maggiore) 6 CFU (60 hours)
- Fundamentals of Electronics for Telecommunications (Ruoli Speciali), 3 CFU (28 hours),
- Jan 2008- Present Member of the council of the PhD program in ICT Engineering at University of Pisa where he has been tutor of 20 PhDs in the electronics and ICT engineering fields.
- Jan 2023- Present **Expert member for FWO (Flanders foundation for science)**
- May 2022- Present **Expert member for MUR, Italian Government, for Semiconductors and Chip design**
- Jan 2020 - Present **Steering Committee member National Laboratory for HPC Key Technology and Tools**, CINI, Roma, <https://www.consortio-cini.it/index.php/en/national-laboratories/hpc-key-technologies-and-tools>
- Dec 2018 - Present **Steering Committee member European Processor Initiative**, <https://www.european-processor-initiative.eu/>

processor-initiative.eu/

July 2022 – Present	Co-leader of Spoke “Multiscale Modelling and Engineering Applications”, PNRR National Center HPC, Big Data and Quantum , https://www.supercomputing-icsc.it/spoke-6-multiscale-modelling-engineering-applications/
July 2022 – Present	Technical Steering Committee member , PNRR National Center HPC, Big Data and Quantum
Nov 2017 - Present	President (2020-present, VP2017-19) of the Bachelor (L8) Programme in Electronic Engineering, School of Engineering, University of Pisa http://www.ing-ele.ing.unipi.it/ , including Coordination of Gruppo Riesame, Commissione paritetica, Commissione valutazione corso di studio e Commissione monitoraggio annuale
Nov 2017 - Present	President (2020-present, VP2017-19) of the Master (LM29) Programme in Electronic Engineering, School of Engineering, University of Pisa http://www.ing-ele.ing.unipi.it/ , including Coordination of Gruppo Riesame, Commissione paritetica, Commissione valutazione corso di studio e Commissione monitoraggio annual
Jan 2020 – Nov 2024	DII – Università di Pisa Department Delegate for “Attività di Terza Missione e Rapporti con il Territorio”
Nov 2017 – Dec 2023	University of Pisa Representative in the EERA (European Energy Research Alliance)- JP Smart Cities and in the association MOVET (MOTors VEHicles Technologies)
Jan 2012 – Present	Expert evaluator for MIUR, MISE, EU H2020 Space Tec, EU HEADA, Governments of Italy, Romania, Cyprus, Kazakistan, and for Italian Regions (Puglia, Piemonte, Campania, Trentino Alto Adige)
Feb 2020 - June 2021	Director Corso di perfezionamento “Automotive Electronics and Powertrain Electrification”, University of Pisa and Tuscany Region
Feb 2020 - Present	AI4People committee , European Institute for Science, Media and Democracy (EISMD)
May 2018 – Present	Director of UCAR (University Center for Automotive Research) https://www.linkedin.com/company/ucar-tuscany/
July 2016 – Present	Director Summer School “Enabling Technologies for Industrial IoT” , https://www.unipi.it/index.php/engineering/item/6869-summer-school-internet-of-things
July 2016 – Present	Director Laboratory I-CAS “Integrated and Embedded Circuits and Systems” Chip design expertise using Cadence, Synopsys and Mentor CAD tools Semiconductor technologies by STMicroelectronics, GF, TSMC, UMC, IMEC, IHP, AMS: 180 nm and 350 nm HV MOS, iSiPP50G SiliconPhotonics, 90 nm and 130 nm BCD, 22 nm, 28 nm, 40 nm, and 65nm bulk CMOS, 18nm FDSOI, 65nm SOI, 7nm FinFet, 12 nm FinFet,
May 2017 – May2021	IEEE distinguished lecturer with the Instrumentation and Measurement Society , lecture title: “Electronic Systems at the core of the Autonomous, Connected and Electrified Vehicles Revolution”
Jan 2018 – June2020	Responsible Crosslab IoT https://crosslab.dii.unipi.it/ , Polo Tecnologico di Navacchio
Nov 2017- Nov 2020	National leader of the area “Electronic Systems and Applications” of the SIE (Società Italiana di Elettronica)
Dec 2011- Oct 2017	Associate Professor, Ingegneria Elettronica , DII - University of Pisa
Jan 2006 - May 2010	Engineering Consultant, Consorzio Pisa Ricerche scari CPR scari, Corso Italia 8, 56126, Pisa, Italy

Dec 2005- Nov 2011	Assistant Professor, Ingegneria Elettronica , DII - University of Pisa
Dec 2002 - Nov 2005	Post-doc Research Fellow , DII- University of Pisa
May 2002 – Dec 2002	Marie Curie Research Fellow , Interuniversity Microelectronics Center (IMEC), Leuven, Belgium
May 1999 – Dec 1999	Post-graduate Researcher , Grant funded by CNR-CSMDR (Consiglio Nazionale delle Ricerche-Centro Studi Metodi e Dispositivi di Radiotrasmissioni), Pisa, Italy

EDUCATION

Jan 2000 – Dec 2002	PhD in Information Engineering (research grant by STMicroelectronics) with a PhD thesis on real-time image and video compression HW/SW systems. An abstract of his PhD thesis was awarded at the 1st EDAA (European Design Automation Association) PhD forum in Munich, 2003 Università di Pisa, Italia
Nov 1999 – April 1999	Laurea in Ingegneria Elettronica (5-years), final mark: 110/110 cum Laude Università di Pisa, Italia
Sept 1989 – June 1993	Diploma Maturità Scientifica , final mark: 60/60 Liceo Scientifico “E. Majorana”, Genzano di Lucania (PZ), Italia

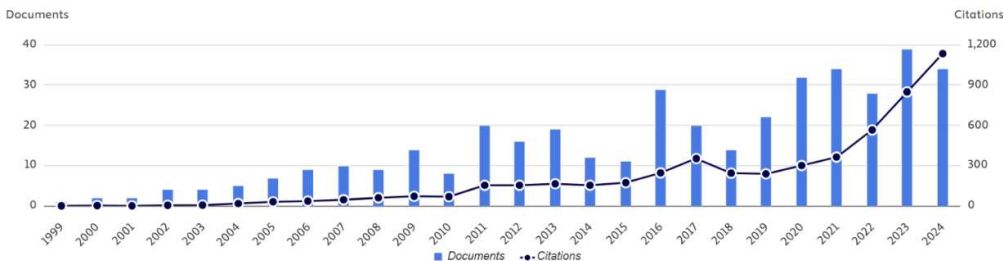
SCIENTIFIC AND TECHNOLOGY TRANSFER ACTIVITY

Languages	Italiano (Madre Lingua), English (Fluent), French (Basic)
Scientific Editor	Associate Editor of Journal Real-Time Image Processing (Springer Nature), IEEE Canadian Journal for Electrical and Computer Engineering, Springer Lecture Notes in Electrical Engineering, IEEE Consumer Electronics Magazine, IEEE Vehicular Technology Magazine, IET Electronic Letters, IEEE VCAL Letters, Energies, Entropies, Sensors. Guest editor at IEEE Transactions on Industrial Informatics and at EURASIP Journal on Embedded Systems, Applied Sciences
Scientific Projects as Unit Leader/Coordinator, last 10 years	2018-21 H2020 European Processor Initiative (EPI) SGA1; UNIPi Leader & Steering Committee, Funding UNIPi: 1,545 M€ (Project 80 M€ lead ATOS) 2025-2028 EuroHPC JU Project Dare (Digital Autonomy with RISC-V in Europe), UNIPi Leader, Budget UNIPi: 0,9 M€ (Project 240 M€) 2022-25 EuroHPC JU, European Processor Initiative (EPI) SGA2; UNIPi Leader & Steering Committee, Funding UNIPi: 2,335 M€ (Project 70 M€ lead ATOS) 2022-25 Horizon Europe, Aero: Accelerating European Cloud; UNIPi Leader, Funding UNIPi: 0,45 M€ (Project 6 M€) 2024-2027 Horizon Europe, EU TRAINS, UNIPi Leader, Funding UNIPi: 0,3 M€ (Project 6 M€) 2021-24 EuroHPC JU, Textarossa, CINI coordinator, Funding UNIPi: 0.5 M€ (Project 6 M€ lead ENEA) 2022-25 EuroHPC JU EUPEX, UNIPi coordinator, Funding UNIPi: 0.5 M€ (Project 40M€ lead ATOS) 2021-24 EuroHPC JU TheEuropeanPilot, CINI coordinator, Funding UNIPi: 0.4 M€ (Project 35M€ lead BSC) 2023-26 Eu Digital Innovation Hub (EDIH) DAMAS, CINI coordinator, Funding: 0.4 M€ (Project 7M€ lead Leonardo) 2021-24 ECSEL JU Hiefficient, UNIPi Leader, Funding UNIPi: 0.4 M€ (Project 44 M€ lead AVL) 2013-17 FP7 ATHENIS3D, WP leader, Funding UNIPi: 0.35 M€ (Project 8 M€ lead AMS)

2020- 22 FESR EU project SURFACE Funding UNIFI: 0.15 M€ (Project 0.35 M€)
2017- 19 FESR EU project AirCardio Funding UNIFI: 0.3 M€ (Project 3 M€)
2021-23 Tuscany Region Project RE START Coordinator, Funding UNIFI: 0.24 M€ (Project 0.36 M€)
2021-2023 INFN callV funding, 0.9 M€, Falaphel, WP coordinator

Publication List 409 publications indexed in Scopus, Scopus ID: 57213944920, see also list here
<https://orcid.org/0000-0001-6724-4219> and here <https://scholar.google.com/citations?hl=it&tzom=-60&user=tiCVDbUAAAAJ>

Scientific Index, Honors and Awards H-index (37 in Scopus, 44 in Google Scholar) , citations (5700 Scopus, 7700 in Google Scholar);



in Stanford list of top 2% cited researchers in 2020, 2021, 2022, 2023 and 2024;
in list of Top Cited Italian Scientists since 2023

Best presentation awards at IEEE IECON 2016,
Gold leaf at IEEE Prime 2006
Best associate editor awards IEEE VCAL Letters

	IEEE distinguished lecturer with the Instrumentation and Measurement Society 2017-2021
	2019 SPIE community Champion
Patents	<p>4 patents with STMicroelectronics on Motion Estimator chip for video compression, on Network Interface chips for Spidergon NoC and on chips for synchronization links for NoC</p> <p>1 patent with CNR on Motion Estimator algorithms for video compression</p> <p>1 patent with Ericsson on a DC-DC isolated converter with multiple outputs for Telecom apparatus</p> <p>4 patents with Marelli Europe on 4 algorithms for Intrusion Detection Systems for CAN automotive networks and fingerprinting</p> <p>1 patent with INFN on rad-hard by design chips for high speed serial links in mission critical applications (e.g. space)</p> <p>1 patent (self-owned) on multi-resonating frequency PCB antenna for ISM Sub-GHz applications</p> <p>1 patent with Valeo on innovative inductorless 48V DC-DC converter chip for vehicular ECUs</p>
Technology and Knowledge Transfer	<p>Unit leader for industry funded research and knowledge transfer projects. Collaboration with:</p> <p>Marelli Europe on AI-based estimators for SoC/SoH of vehicular batteries and on Intrusion Detection Systems for CAN automotive networks</p> <p>Huawei Pisa research center on functional safety chip and its SW for vehicular networks</p> <p>Intel on post quantum cryptography algorithm and accelerator chips</p> <p>Valeo on innovative design of an inductorless 48V DC-DC converter chip for vehicular ECUs in HV MOS technology</p> <p>AMS on design in HV MOS technology of smart power driver chips: automotive-grade lamp driver, inductive load driver, Flexray bus driver</p> <p>ABB Powerone on Digital Energy solution for photovoltaic inverter and charging stations for electric vehicles</p> <p>MBDA on Intrusion Detection Systems for TCP/UDP-IP networks</p> <p>Videoworks on AI assistant for predicting and optimizing energy consumption on-board Yachts</p> <p>Magna Mechatronics on design and verification methodologies of ECUs for Electronic door actuators</p> <p>STMicroelectronics on Design in 18nm FDSOI of an ultra-low power Wake-up radio chip and on the design of chips for Spidergon ST Network on Chip (ST-NoC) in 90 nm and 65nm and on design of chips (motion estimation, DCT, entropy code and CABAC) for multimedia compression</p> <p>Kayser on the design of a space IP for controlling NV space-grade memory.</p> <p>Pierburg Pump Italy- Rheinmetall Group, on the design of an ECUs for an innovative axial flux pump electric motor.</p> <p>Ericsson on a DC-DC isolated converter with multiple outputs for Telecom apparatus</p> <p>Flyby on the design of a multi-camera hyperspectral system for remote monitoring with drones.</p> <p>Sitael on the design of an IP for VLIW DSP for space applications</p> <p>CarbonDream on the design of the dashboard and controller of a carbon small car and of a carbon electric bike</p> <p>RiCo on the design of an automotive radar ECU</p> <p>Sestalab on the design, using Profinet and Siemens PLC, of a measuring and controller system for gas and steam turbines</p> <p>I-Pool on the design of an AI-based classifier (integrated in the wheel of a car) of the status of the road pavement starting from the acoustic response of the tyre-road interface</p> <p>PurePowerControl: design of an innovative 3D scanner based on ultrasound sensors for agritech and smart farming applications</p>

Solari design of an innovative camera-based systems for early smoke detector and fire warning on board trains

Vitesco Technologies, setup of a HIL apparatus for optimizing calibration and verification of Belt-starter generators' ECU in hybrid vehicles

INFN/CERN, design in 65nm and 28 nm of rad-hard by design chips for high speed serial links (PLL, SerDes, Optical Modulator Driver) in mission critical applications (e.g. space)

SelexGalileo (Leonardo), analysis and system level sizing of a lighting Imager for the European Meteosat 3G satellite system and design of algorithms fitted on space-grade FPGAs

Piaggio, design of an HIL apparatus for optimizing calibration of ECUs in hybrid scooter

Movyon, secure-by-design analysis and implementation of a data logger for smart road

New Tech Holding srl, due diligence on ultra low-power chip in TSMC 40 nm

Prima Group, due diligence on 007 secure MCU of A-China semiconductor company

Teacher in courses for the re-skilling/up-skilling of companies: for Pierburg Rheinmetall Italy, Reinova, Magna Mechatronics, ABB Powerone, Vitesco Technologies, Sestalab

Scientific associations to CINI, CNIT, INFN, SIE (leader area Electronic Systems 2017-2020)
European Networks HIPEAC and Newcom

Pisa 1/03/2025