Curriculum Vitae

Personal Information

Name/Surname	**Stefano Taccetti**
Telephone Number	(+39) 389 0356950
Unibo E-mail	stefano.taccetti2@unibo.it
Personal E-mail	stefanotaccetti@hotmail.com
Nationality	Italian
Date of Birth	16/11/1998
Place of Residence	Viale Francesco Redi 47, Firenze (Florence), Italy

Research and Work Experiences

1st November 2023 -	Phd Student
in	Engineering and Information Technology for Structural and Environmental Monitoring and Risk Management – EIT4SEMM
at	Alma Mater Studiorum – University of Bologna
18th September 2023 -	Didactic Tutor
of	Industrial Electronics
at	Alma Mater Studiorum – University of Bologna
1st January 2025-30th March 2025	Freelance Contract
At	ARCES-Alma Mater Studiorum-University of Bologna
Project title	"Prototyping of Piezoelectric Transducers"
Supervisor	Professor Luca De Marchi
1st June 2024-30th September 2024	Freelance Contract
At	ARCES-Alma Mater Studiorum-University of Bologna
Project title	"Design of Piezoelectric Transducers"
Supervisor	Professor Luca De Marchi
1st January 2023 - 31st October 2023	Research Fellow
at	ARCES – Alma Mater Studiorum – University of Bologna
Project title	"Wireless Power Tranfer and Communications with Ultrasonic Guided Waves"
Supervisor	Professor Luca De Marchi

Education

5th December 2022	Master's Degree
in	Electronic Engineering
from	Alma Mater Studiorum – University of Bologna
Thesis title	"Design of an hybrid Energy Harvester for SHM applications"
Supervisor	Professor Luca De Marchi
	110/110 cum Laude
7th October 2020	Bachelor's Degree
in	Electronics and Telecommunications Engineering
from	University of Florence
Thesis title	"Analysis of algebraic tomographic inversion methods"
Supervisor	Professor Fabrizio Argenti
	110/110 cum Laude

Professional Qualification

17th January 2024	Italian State Exam
	Information Engineer – Section A
from	University of Florence

Skills

Programming Languages	C Matlab Python
Technical Skills	Circuit Simulation (LTSpice, TINA TI) for modelling and analyzing analog (e.g,, filters) and power circuits (amplifiers, energy harvesting modules) PCB Design (KiCad) of sensor nodes prototypes and linear amplifiers FEM Simulations (COMSOL Multiphysics) of piezoelectric transducers for Lamb Waves generation (mostly solid, electrostatics modules) Acoustic Emission software (Vallen Software) for analysis (VisualAE) and supervised/unsupervised model design (VisualClass) Microsoft Office Latex

Languages

Italian	Native Language
English	B2

Publications

Conferences

"Design of a Novel Pulser for Frequency Selective-based Power and Data Transmission" by Taccetti S., Peppi L. M., Zonzini F., Mohammadgholiha M., Zauli M., and De Marchi L. in 2023 IEEE International Workshop on Metrology for Automotive (MetroAutomotive). https://ieeexplore.ieee.org/document/10219099

"Enabling directional frequency-selective power transmission in ultrasonic guided wave inspections" by Masoud Mohammadgholiha, Stefano Taccetti, and Luca De Marchi, in 2024 IEEE South Asian Ultrasonics Symposium, 2024. https://ieeexplore.ieee.org/document/10563224

"Ultrasonic Wireless Power Transfer with Directional Piezoelectric Transducers and Impedance Matching" by Stefano Taccetti, Federica Zonzini, Matteo Zauli, Aldo Romani, Luca De Marchi in SIE 2024 LV Annual Meeting of the Italian Society of Electronics (Poster) https://cris.unibo.it/handle/11585/982398?mode=simple

"Ultrasonic Wireless Power Transfer in Metal Structures using Frequency-Steerable Acoustic Transducers and Impedance Matching," by Stefano Taccetti; Federica Zonzini; Matteo Zauli; Masoud Mohammadgholiha; Lorenzo Mistral Peppi; Aldo Romani; Luca De Marchi in 2024 IEEE Sensors Applications Symposium (SAS) https://ieeexplore.ieee.org/document/10636566

"Ultrasonic Wireless Power Transfer using Frequency Steerable Acoustic Transducers for Autonomous Guided Waves-based Inspection Systems" by Stefano Taccetti; Federica Zonzini; Matteo Zauli; Masoud Mohammadgholiha; Aldo Romani and Luca de Marchi in 2024 IEEE International Ultrasonic Symposium (IUS) https://ieeexplore.ieee.org/document/10794144

"Unlocking Directional Ultrasonic Wireless Power Transfer: Frequency Tuning and Energy Transfer Enhancement with Frequency Steerable Acoustic Transducers" by Stefano Taccetti, Matteo Zauli, Aldo Romani and Luca De Marchi in 2025 IEEE International Ultrasonic Symposium (IUS)
Accepted for publication

"Demonstration of Single Channel Beamforming with Frequency Steerable Acoustic Transducers Using Low-Cost Hardware" by Valerio Coppola. Giacomo Donati, Stefano Taccetti, Federica Zonzini, Masoud Mohammadgholiha and Luca De Marchi in 2025 IEEE International Ultrasonic Symposium (IUS)
Accepted for publication