

Mattia Mengozzi

Postdoctoral Researcher in Electronic Engineering



Personal Information



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Via Fratelli Bandiera 12, 48018, Faenza (RA), Italia



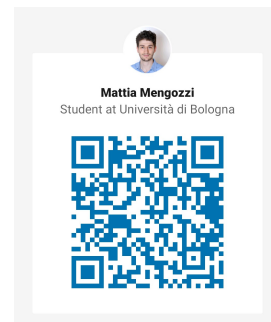
+39 3393612889



mattia.mengozzi@outlook.it



linkedin.com/in/mattia-mengozzi



Scientific Experience

- 2024-Now** **Postdoctoral Researcher**, *Advanced Research Center on Electronic System (ARCES), University of Bologna, Bologna, IT.*
- Project: R-PODID - Reliable Powerdown for Industrial Drives
- 2020-2024** **Ph.D. student**, *Department of Electrical, Electronic, and information Engineering (DEI), University of Bologna, Bologna, IT.*
- 2022-2023** **Gastwissenschaftler (Visiting Researcher)**, *Ferdinand-Braun-Institut gGmbH, Berlin, DE.*
- Project title: "Behavioral Modeling and DPD Techniques for Multiple-Input Multiple-Output Transmitters"
 - Project description: the focus was on optimizing device parameters for multiple-input power amplifiers, utilizing nonlinear optimization algorithms. An automated measurement setup was created to characterize multiple-input microwave devices using wideband modulated signals. The project involved validating and characterizing microwave integrated circuits performance, assessing output power, efficiency, and linearity.
- 2019-2020** **Internship for Master's Thesis**, *EDM-LAB (Electronic Design and Measurement Lab for RF and Industrial Applications), Bologna, IT.*
- Project Title: "PA digital Predistortion for Maximum RF Output Power by Global Constrained Optimization"

Teaching Experience

- 2024-Now** **Adjunct Professor**, *University of Bologna, Bologna, IT.*
- Course: "B0039 - Laboratorio di Elettrotecnica e Misure P-LU"
- 2024-Now** **Teaching Tutor**, *University of Bologna, Bologna, IT.*
- Course: "88150 - Strumentazione di Misura P" (ING-INF/07)
- 2023** **Teaching Tutor**, *University of Bologna, Bologna, IT.*
- Course: "37063 - Principles of Electronics for Automation T" (ING-INF/01)
 - Course: "97454 - Laboratorio di Elettrotecnica e Misure P (Modulo 2)" (ING-INF/07)

Education

- 2020-2024** **Ph.D. in Electronic Engineering**, *University of Bologna, Bologna, IT.*
- Project Title: "Performance Optimization Methods for Multiple-Input 5G Transmitters"
- 2017-2020** **M.Sc in Electronic Engineering**, *University of Bologna, Bologna, IT.*
- Final grade: 110/110 with honours
 - Thesis: "Direct Learning Power Amplifier Digital Predistortion using Multi-Objective Optimization"
 - Supervisor: Prof. A. Santarelli
- 2014-2017** **B.Sc in Computer Engineering**, *University of Bologna, Bologna, IT.*
- Final grade: 110/110 with honours
 - Thesis: "Deterministic Extension to the Delay-Tolerant Network Simulator TheONE"
 - Supervisor: Prof. C. Caini

Publications

Complete List: [Google Scholar Link](#)

Contributions in Congresses and Workshops

- 2023 European Microwave Week:** speaker at the EuMIC technical sessions (finalist for the EuMIC best paper award) and at the short course "Wideband Microwave Measurements of Multi-Port Devices on VNA-Type Measurement Systems" and the workshop "Design, Linearization, and Optimization Techniques for Multiple-Input Power Amplifiers." Berlin, DE.
- 2023 International Microwave Symposium:** speaker at IMS 2023 and at the 101st ARFTG Conference technical sessions. San Diego, CA.
- 2022 IEEE Young Professional Workshop on Modeling and Optimization for Active Devices,** Virtual.
- 2022 International Microwave Symposium:** speaker at IMS 2022 technical sessions. Denver, CO.
- 2020 Asia-Pacific Microwave Conference:** speaker at APMC 2020 technical sessions. Virtual.

Awards

- 2022 MTT-S Graduate Fellowship** (Project: "Multiple-Input RF PAs Digital Predistortion by Machine Learning Optimization")
- 2021 EuMA Internship Award** (Project: "Behavioral Modeling and DPD Techniques for Multiple-Input Multiple-Output Transmitters")
- 2019 MTT-S Undergraduate Scholarship** (Project: "Performance Optimization of GaN HEMTs by Combined RF and LF Wideband Load-Pull")

Skills

- Languages
- o **Italian** - Native speaker
 - o **English** - Full Professional Proficiency
 - o **German** - A2 level obtained at University of Bologna

General Digital signal processing, RF measurements, instrument control (VISA API)

Programming Java, C, C++, VHDL, .NET, software engineering basics

Software MatLab, Eclipse, Visual Studio, Git, Keysight ADS, Quartus, LTspice, Cadence Virtuoso

Operating Systems Linux (Debian/Ubuntu system administration skills), Windows

Productivity LaTeX, MS Office