



Alice Lenzi

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Address: Via Basoli 18, 40137, Bologna, Italy (Home)

● EDUCATION AND TRAINING

01/11/2024 – CURRENT Bologna, Italy

PH.D IN BIOMEDICAL, ELECTRICAL AND SYSTEM ENGINEERING University of Bologna

Research focusing on combining system identification, statistical learning and advanced signal processing methods for diagnosis and prognosis of complex dynamical systems.

Level in EQF EQF level 8

27/09/2021 – 18/03/2024 Bologna, Italy

MASTER'S DEGREE IN AUTOMATION ENGINEERING University of Bologna

110/110 Cum Laude, thesis in 'Condition monitoring of electric-cam mechanisms through motor current signature analysis'

Level in EQF EQF level 7

14/05/2018 – 07/10/2021 Bologna, Italy

BACHELOR'S DEGREE IN INGEGNERIA DELL'AUTOMAZIONE University of Bologna

Thesis in 'Metodi frequenziali per la diagnostica su cuscinetti volventi'

Level in EQF EQF level 6

15/09/2013 – 15/07/2018 Bologna, Italy

SCIENTIFIC HIGH SCHOOL DIPLOMA Liceo Scientifico Enrico Fermi

Level in EQF EQF level 4

01/03/2023 – 30/08/2023 Stuttgart, Germany

EUROPEAN UNION PROGRAM (ERASMUS PROGRAM) University of Stuttgart

- Followed courses in English on 'Nonlinear Control' and 'Model Predictive Control';
- Attended the A1 German Course offered by the University and passed the respective exam;

Field of study Electronics and automation

● WORK EXPERIENCE

UNDERGRADUATE INTERNSHIP – IOR - ISTITUTO ORTOPEDICO RIZZOLI – 06/11/2023 – 06/12/2023 – BOLOGNA, ITALY

Image processing of images of cancer and healthy cells for the purpose of obtaining a utilisable database for tracking cancer cells and system identification of the motion of cancer cells (150 hours)

● SKILLS

MATLAB | Python (computer programming) | use CAD software | programmable logic controller

● LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C2	C1	C1	C1
GERMAN	A2	A1	A1	A1	A1
CHINESE	A2	B1	A2	A2	A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● CONFERENCES AND SEMINARS

17/08/2024 – 30/08/2024 Alpbach, Austria

European Forum Alpbach (EFA) | Scholarship Holder

Selected for a competitive, fully funded, 2-week interdisciplinary forum, joining 600+ young talents and global decision-makers to discuss European policy, technology, and sustainability. In particular, I was selected through the Female* Talents in STEM programme, and was hosted by the Club Alpbach Trentino for the duration of the conference.

Link <https://www.alpbach.org>

● PUBLICATIONS

2025

[An Autoregressive-Based Motor Current Signature Analysis Approach for Fault Diagnosis of Electric Motor-Driven Mechanisms](#)

Diversi, R.; Lenzi, A.; Speciale, N.; Barbieri, M. An Autoregressive-Based Motor Current Signature Analysis Approach for Fault Diagnosis of Electric Motor-Driven Mechanisms. *Sensors* 2025, 25, 1130

Authors: Roberto Diversi, Alice Lenzi, Nicolò Speciale, Matteo Barbieri | **Journal Name:** *Sensors* | **Volume, Issue and Pages:** 25, 4, 1130 | **Publisher:** MDPI (Multidisciplinary Digital Publishing Institute)