

## CURRICULUM VITAE



# Francesca Santucci

## PERSONAL INFORMATION

 <https://www.linkedin.com/in/francesca-santucci-8b7951180/>

## PROFILE

Master's Degree in Biomedical Engineering at the University Campus Bio- Medico of Rome. I am interested in the analysis of big data generated by wearable devices for disease management, injury prevention and maintenance of health. I particularly enjoy working in multidisciplinary teams and international environments.

## LANGUAGES

**ITALIAN:** Mother tongue

**ENGLISH:** Good user, IELTS – overall score 7.0 (King's College, Oxford)

**SPANISH:** Independent user

**FRENCH:** Basic user

**GERMAN:** Basic user, Fit in Deutsch – level A2 (Goethe Institut, Rome)

## IT SKILLS

- Microsoft Office
- Matlab & Simulink
- Eagle
- Cisco Packet Tracer
- Onshape/Simscale

## SOFT SKILLS

- Summer Homestay Programs in Great Britain, Ireland Spain and Austria.
- Volunteering at Caritas and within the Rebibbian Penitentiary Institute (Rome)
- Outdoor/Indoor climbing

## OTHER INFO

- Driving License B
- European Computer Driving License (ECDL)

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" e degli Art. 13 e 14 del Regolamento Europeo 679/2016 – "GDPR"

## EDUCATION

- **PHD STUDENT IN BIOENGINEERING** 01/12/2020 – Today  
Campus Bio-Medico University of Rome (Rome)  
My research project focuses on the development of innovative techniques for processing signals obtained by wearable devices to encourage improvements on remote monitoring of health-related parameters.
- **MASTER'S DEGREE IN BIOMEDICAL ENGINEERING.** 2017 – 2020  
Campus Bio-Medico of Rome (Rome)  
**Final grade:** 110/110 cum laude and honour mention to the academic career  
**Thesis Title:** "Development and assessment of a novel wearable system based on Fiber Bragg Grating sensors for heart rate monitoring".
- **BACHELOR'S DEGREE IN INDUSTRIAL ENGINEERING** 2013 – 2017  
Campus Bio-Medico University of Rome (Rome)  
**Final grade:** 100/110  
**Thesis Title:** "Temperature monitoring during thermal ablation procedures of localized tumors through computed tomography images"
- **HIGH SCHOOL DIPLOMA IN CLASSICS** 2008 – 2013  
High School Francesco Vivona (Rome)  
**Final grade:** 97/100  
**Lifelong Learning Programme Comenius - Miur:** Exchange Program with Dutch students of the Oranje Nassau College (Zoetermeer, The Netherlands).

## CERTIFICATIONS AND COURSES

- **QUALIFICATION TO THE PROFESSION OF ENGINEER** 24/07/2020  
Campus Bio-Medico University of Rome (Rome)  
Section A – Industrial Sector.
- **BUSINESS ENGINEERING AND SURGICAL TECHNOLOGIES INNOVATION COURSE** 08/2017  
IRCAD (Strasbourg, France)  
The B.E.S.T innovation course includes both theoretical and hands-on sessions on entrepreneurship, clinical needs, and surgical technologies. I had the opportunity to share ideas with surgeons, researchers and entrepreneurs from the most prestigious Institutions worldwide.

## EMPLOYMENT HISTORY

- **TEACHING ASSISTANT** 01/09/2021 – Today  
Campus Bio-Medico University of Rome (Rome)  
Faculty of Biomedical Engineering and Smart Systems Engineering.
- **IT SUPPORT** 05/10/2020 – 23/10/2020  
SANTECS.p.A (Avellino, Italy)  
IT support to the healthcare personnel during the renewal of the Hospital Information Management System at the Campus Bio- Medico University Hospital of Rome.
- **ERASMUS + TRAINEESHIP** 05/06/2017 – 31/10/2017  
IHU - Institut de Chirurgie guidée par l'image (Strasbourg, France)  
I was involved in a research project that aims at developing a novel strategy for safe tumor removal with laser therapy. I analysed CT images and developed an algorithm in Matlab environment for a 3D reconstruction of the necrotic tissue over time (under the supervision of Prof. Paola Saccomandi - Politecnico di Milano). During my stay at the IHU I also had the chance to support physicians in various other activities using cutting-edge technologies.

## PUBLICATIONS

- "Precordial vibrations: a review of wearable systems, signal processing techniques, and main applications" - Sensors MDPI, 2022-08 | Journal article
- "A multi-point heart rate monitoring using a soft wearable system based on fiber optic technology" - Scientific Reports Nature, 2021-12 | Journal article
- "Smart System for Worker Safety: Scenarios and Risk" - Proceedings of the 31st European Safety and Reliability Conference (ESREL 2021) | Conference paper
- "A clustering-based approach for quality level verification of sanitation procedures in workplaces" - 2021 IEEE International Workshop on Metrology for Industry 4.0 & IoT (MetroInd4.0&IoT) 2021-06 | Conference paper

Roma, 01/08/2022 *Francesca Santucci*