



# LEONARDO LAMANNA

## CURRICULUM VITAE



Born / 25/03/1988  
Place of birth / PUTIGNANO (BA)  
Nationality/ citizenship / Italy  
Via V. Chiantera 59, 70044  
POLIGNANO A MARE (BA)  
Via vitantonio chiantera n.59, 70044  
POLIGNANO A MARE (BA)  
Driving licence / B / Car available  
ID/3127452 updated on 10/05/22

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## FOREIGN LANGUAGE SKILLS

MOTHER TONGUE(S): Italian



ENGLISH  
GOOD B2 B2 C1 C1 B2

## DIGITAL COMPETENCES

**Self-assessment grid**   
Information processing **Proficient user**  
Communication **Independent user**  
Content creation **Independent user**  
Safety **Independent user**  
Problem solving **Proficient user**

## EXPECTATIONS AND FEATURES OF THE DESIRED JOB

INTENTION TO CONTINUE STUDIES: **Yes /**  
ECONOMIC SECTOR: **1.** biomedical **/ 2.**  
chemical-pharmaceutical industry **/ 3.**  
healthcare  
CAREER FIELD: **1.** R&D and patents **/ 2.**  
Engineering and design **/ 3.** Management  
AVAILABILITY FOR BUSINESS TRAVELS:  
**Yes, including relocation**  
AVAILABILITY TO RELOCATE ABROAD:  
**Yes, even in non-European countries**



## WORK EXPERIENCES

university research  
assistant  
**UNIVERSITÀ DEL SALENTO**  
*Education, training,  
research and development*  
LECCE (LE)  
01/2022 - TODAY

**Main activities and responsibilities:** RTDa Dipartimento  
d'Ingegneria dell'Innovazione ING-IND/22

Post Doc/ External  
collaborator  
**ISTITUTO ITALIANO DI  
TECNOLOGIA**  
*Education, training,  
research and development*  
MILANO (MI)  
09/2020 - TODAY

**Main activities and responsibilities:** <https://elfoproject.eu/>  
| Company sector: Engineering and design

Post Doc  
**CNR (CONSIGLIO  
NAZIONALE DELLE  
RICERCHE)**  
*Education, training,  
research and development*  
PISA (PI)  
05/2020 - 09/2020

**Main activities and responsibilities:**  
<http://web.nano.cnr.it/neurosens/>  
Employed as: other - fixed-length contract | Company sector:  
Engineering and design

PostDoc  
**ISTITUTO ITALIANO DI  
TECNOLOGIA**  
*Education, training,  
research and development*  
LECCE (LE)  
01/2020 - 05/2020

**Main activities and responsibilities:** Wearable devices in healthcare  
Employed as: other - fixed-length contract | Company sector:  
Engineering and design

PhD  
**ISTITUTO ITALIANO DI  
TECNOLOGIA**  
*Education, training,  
research and development*  
(LE)  
11/2016 - 12/2019

**Main activities and responsibilities:** Design, fabrication and  
characterization of devices for wearable, implantable and IoT  
biosensors.  
Employed as: other - fixed-length contract | Company sector:  
Engineering and design

R&D  
**GELESIS**  
*Biomedical*  
CALIMERA (LE)  
06/2016 - 12/2016

**Main activities and responsibilities:** Material characterization  
(rheological and swelling test) and evaluation of DDI (drug device  
interaction).  
Employed as: other - fixed-length contract | Company sector: R&D  
and patents

Waiter and chef assistant  
**RESTAURANTS**  
*Commerce, hotels, public  
activities (chemists shop  
included)*  
(BA)  
01/2007 - 01/2016

**Main activities and responsibilities:** catering-related activities  
Employed as: other - fixed-length contract



## ACADEMIC STUDIES

MASTER COURSE

Università degli Studi di NAPOLI 'Federico II'

2020 - 2021



**PH.D.**

2015 - 2020



**MASTER'S DEGREE**

2013 - 2016

**CERTIFIED TITLE**



**BACHELOR'S DEGREE**

2007 - 2013

**CERTIFIED TITLE**



**LEVEL-2 ACADEMIC DIPLOMA**

1999

**STUDIES NOT COMPLETED**



**SCIENTIFIC CERTIFICATE**

MOLA DI BARI

2007



**ADVANCED TRAINING COURSE**

2018

2017 - 2018

**Faculty: CeSMA - centro servizi metrologici e tecnologici avanzati**

**Make - medtronic master advanced knowledge experience**

specific field of the degree course: experts in health and medical devices

Age at graduation: 33 | Official duration: 1 years

Graduation date: 23/07/2021

**Università del SALENTO**

**Engineering of materials, structures and nanotechnology**

specific field of the degree course: ingegneria

**PhD cycle: 32**

Dissertation/thesis title: Flexible SAW device for IoT application |

Thesis supervisor: Massimo De Vittorio, Alessandro Sannino,

Francesco Rizzi, Venkat Bhethanabotla | Dissertation/thesis

keywords: Acoustic devices, biosensors

Age at graduation: 32 | Official duration: 3 years

Graduation date: 13/05/2020

**Università del SALENTO**

**Dipartimento di Scienze e Tecnologie Biologiche ed Ambientali**

**Biotechnologie mediche e nanobiotechnologie**

LM-9 - 2nd level degree in Pharmaceutical, veterinary and medical biotechnologies

Dissertation/thesis title: synthesis and characterization of alginate-based microbeads for probiotic delivery | Dissertation/thesis

subject: INGEGNERIA TISSUTALE E SCIENZA E TECNOLOGIE DEI

BIOMATERIALI | Thesis supervisor: SANNINO

ALESSANDRO|DEMITRI CHRISTIAN

Age at graduation: 28 | Official duration: 2 years

Final degree mark: **110/110 cum laude**

Graduation date: 12/04/2016

**Università degli Studi di BARI**

**Dipartimento di Bioscienze, Biotechnologie e Biofarmaceutica**

**Biotechnologie per l'innovazione di processi e di prodotti**

1 - Class of second level degree in Biotechnologies

Dissertation/thesis title: ISOLATION AND CHARACTERIZATION OF THE GSE-B1 GENE FOR GLUTAMINE SYNTHETASE IN WHEAT |

Dissertation/thesis subject: BIOTECNOLOGIE GENETICHE E

VEGETALI | Thesis supervisor: BLANCO ANTONIO

Age at graduation: 24 | Official duration: 3 years

Final degree mark: **91/110**

Graduation date: 06/03/2013

**Conservatorio di Musica "Nino Rota" di Monopoli**

**Course of study: cello**

Last academic year of enrolment: 2006

Total number of exams passed: 5

Scientific High School

'E. MAJORANA', MOLA DI BARI (BA)

School-leaving examination mark: **90/100**

**Kind of secondary school diploma: Italian secondary school diploma**

## OTHER POSTGRADUATE STUDIES

**ADVANCED TRAINING COURSE**

2018

**Public Speaking and Science Communication Workshop**

Istituto Italiano di Tecnologia - Lecce

Course held by Jacopo Pasotti

**24 CFU per concorso scuola**

Università del SALENTO

(Italia)

24 CFU in disciplines anthro-psycho-pedagogical, and educational methods and technologies



## FOREIGN LANGUAGE SKILLS

### DIPLOMAS AND CERTIFICATES

**English** Lingua inglese CLA, Università del Salento, 03 Jul 2017 ,  
**Europass level B2**



## INFORMATION TECHNOLOGY SKILLS

### OFFICE AUTOMATION

**Office Suite:** (Highly Specialised) , Microsoft Office (Highly Specialised) | **Spreadsheets:** (Highly Specialised) | **Web Browser:** (Highly Specialised) | **Word Processors:** (Highly Specialised)

### APPLICATION SOFTWARE

**CAD - Assisted Design:** (Intermediate) | **CAE Software:** COMSOL Multiphysics (Intermediate) | **Data Visualization:** MATLAB (Intermediate) | **Numerical analysis:** Origin (Highly Specialised)

### COMPUTER PROGRAMMING

**Programming languages:** Python (Foundation) | **Web Programming:** (Foundation)

### GRAPHICS AND MULTIMEDIA

**3D graphics:** Blender (Intermediate)



## STUDIES AND EXPERIENCES ABROAD

### UNITED STATES OF AMERICA 2019

**Other experience acknowledged by the course of study (Scholar)**  
Place: **Tampa (United States of America)** | Language: English |  
Duration: 7 (months)  
Development of flexible SAW device for biosensing application

### UNITED KINGDOM 2011

Place: **Londra (United Kingdom)** | Language: English | Duration: 5 (months)  
Working experience as a waiter at 'The Don - Tower bridge'



## PROFESSIONAL ACCOLADES AND AWARDS

### PRIZE 07/07/2020

**3 Anni in 3 Minuti - 3A3M**  
Regional competition among Ph.D. of 2020. The goal is to develop a speech, describing the results of their research in 3 minutes.  
[www.accademiascienze.uniba.it/index.php/3-anni-i...](http://www.accademiascienze.uniba.it/index.php/3-anni-i...)

### PRIZE 2019

**Light Interaction with AIN-Based SAW Device Fabricated on Flexible and Silicon Substrate**  
**Grading in list:** 1st Place Best Poster Award  
[ieee-sensors2019.org/](http://ieee-sensors2019.org/)

### ENROLLMENT IN THE PROFESSIONAL REGISTER 2016

**Biologist**



## CONFERENCES AND SEMINARS

### CONFERENCES 02/12/2021

**IBC as a communication system for Edible electronics** , Boston  
[www.mrs.org/meetings-e](http://www.mrs.org/meetings-e)

### CONFERENCES 28/10/2019

**Light Interaction with AIN-Based SAW Device Fabricated on Flexible and Silicon Substrate** , Montreal  
IEEE sensor conference  
[ieee-sensors2019.org/](http://ieee-sensors2019.org/)

### WORKSHOPS

**Characterization and application of aluminum nitride-based flexible**

26/09/2019

**surface acoustic wave devices on polyethylene naphth** , Università del Salento , LECCE  
Oral presentation in 'LEbiotech 2019', event within of European Biotech week.

## CONFERENCES

23/09/2019

**Fabrication of a flexible meander antenna for SAW remote sensing applications** , Rhodes - Greece

This work focuses on the manufacturing of an antenna on flexible substrates with total thickness of the order of hundreds of microns and skin-like compliance. The integration of the antennas to a piezoelectric Surface Acoustic Wave (SAW)-based device is expected to pave the way for a new class of battery-less device for health parameters monitoring.

[www.mne2019.org/](http://www.mne2019.org/)

## CONFERENCES

08/07/2019

**AIN-Based Flexible Surface Acoustic Wave Devices Fabricated on Transparent Polyethylene Naphthalate for Wearable Sensing** , Seattle - Washington

[www.mrs.org/icns-13](http://www.mrs.org/icns-13)

## WORKSHOPS

11/10/2017

**School of nanomedicine** , PoliBA , BARI



## PUBLICATIONS

### JOURNAL ARTICLES

2022

**Cataldi, Lamanna, Bertei, Arena, Rossi, Liu, Di Fonzo, Papageorgiou, Luzio, Caironi**, An Electrically Conductive Oleogel Paste for Edible Electronics

Review: Advanced Functional Materials

Publisher: Wiley

[doi.org/10.1002/adfm.202113417](https://doi.org/10.1002/adfm.202113417)

### JOURNAL ARTICLES

2021

**Piro, Lamanna, Guido, Balena, Mariello, Rizzi and De Vittorio**, Flexible SAW Microfluidic Devices as Wearable pH Sensors Based on ZnO Nanoparticles

Publisher: Nanomaterials

[doi.org/10.3390/nano11061479](https://doi.org/10.3390/nano11061479)

### JOURNAL ARTICLES

2020

**Lamanna, Rizzi, Guido, De Vittorio**, Flexible dual-wave mode AIN-based surface acoustic wave device on polymeric substrate

Publisher: IEEE Electron Device Letters

[10.1109/LED.2020.3025607](https://doi.org/10.1109/LED.2020.3025607)

### JOURNAL ARTICLES

2020

**Lamanna, Rizzi, Bhethanabotla & De Vittorio**, GHz AIN-based multiple mode SAW temperature sensor fabricated on PEN substrate

Publisher: Sensors and Actuators A: Physical

[doi.org/10.1016/j.sna.2020.112268](https://doi.org/10.1016/j.sna.2020.112268)

### JOURNAL ARTICLES

2020

**Lamanna, Rizzi, Bianco, Agostini, Cecchini, De Vittorio & Bhethanabotla**, Photoresponse of the AIN-based SAW device on polymeric and silicon substrates.

Publisher: IEEE sensors

[doi.org/10.1109/JSEN.2020.2992814](https://doi.org/10.1109/JSEN.2020.2992814)

### JOURNAL ARTICLES

2020

**Marasco, Niro, Lamanna, Piro, Guido, Algieri, Mastronardi, Qualtieri, Scarpa, De**, Compact and flexible meander antenna for Surface Acoustic Wave sensors

Publisher: Microelectronic Engineering

[doi.org/10.1016/j.mee.2020.111322](https://doi.org/10.1016/j.mee.2020.111322)

### JOURNAL ARTICLES

2020

**Lamanna, Rizzi, Bhethanabotla & De Vittorio**, Conformable surface acoustic wave biosensor for E-coli fabricated on PEN plastic film

Publisher: Biosensors and Bioelectronics

[doi.org/10.1016/j.bios.2020.112164](https://doi.org/10.1016/j.bios.2020.112164)

### JOURNAL ARTICLES

2020

**Lamanna, Rizzi, De Vittorio & Bhethanabotla**, Light interaction with AIN-based SAW device fabricated on flexible and silicon substrate

Publisher: IEEE sensor

[doi.org/10.1109/SENSOR43011.2019.8956526](https://doi.org/10.1109/SENSOR43011.2019.8956526)

## ABSTRACT/REPLY/COMMENTS

2019

**Lamanna, Rizzi, Das, Li, Bhethanabotla & De Vittorio,** Characterization and Application of Aluminum Nitride-Based Flexible SAW Devices on Thermoplastic Polyethylene Naphthalat  
Publisher: AIChE  
[aiche.confex.com/aiche/2019/meetingapp.cgi/Pap...](https://aiche.confex.com/aiche/2019/meetingapp.cgi/Pap...)

## JOURNAL ARTICLES

2019

**Lamanna, Rizzi, Guido, Algeri, Marras, Mastronardi, Qualtieri, De Vittorio,** Flexible and Transparent Aluminum-Nitride-Based Surface-Acoustic-Wave Device on Polymeric Polyethylene Naphthalate  
Publisher: Advanced Electronic Materials  
[doi.org/10.1002/aelm.201900095](https://doi.org/10.1002/aelm.201900095)

## JOURNAL ARTICLES

2018

**Lamanna, Rizzi, Demitri, Pisanello, Scarpa, Qualtieri, Sannino & De Vittorio,** Determination of absorption and structural properties of cellulose-based hydrogel via ultrasonic pulse-echo time-of-flight  
Publisher: Cellulose  
[doi.org/10.1007/s10570-018-1874-4](https://doi.org/10.1007/s10570-018-1874-4)

## JOURNAL ARTICLES

2017

**Demitri, Lamanna, De Benedetto, Damiano, Cappello, Siculella, Sannino,** Encapsulation of Lactobacillus kefir in alginate microbeads using a double novel aerosol technique  
Publisher: Materials Science and Engineering: C  
[doi.org/10.1016/j.msec.2017.04.010](https://doi.org/10.1016/j.msec.2017.04.010)

## ABSTRACT/REPLY/COMMENTS

2016

**Demitri, Lamanna, Damiano, Siculella, Sannino,** ENCAPSULATION OF PROBIOTICS IN ALGINATE MICROBEADS  
Publisher: Journal of Applied Biomaterials and Functional Materials  
[journals.sagepub.com/doi/pdf/10.5301/jabfm.500...](https://journals.sagepub.com/doi/pdf/10.5301/jabfm.500...)

## ABSTRACT/REPLY/COMMENTS

2012

**Giancaspro, Nigro, Marcotuli, Lamanna, Gadaleta, Blanco,** Isolation and characterization of cytosolic glutamine synthetase (GSe) genes in durum wheat  
Publisher: Proceedings of the 56th Italian Society of Agricultural Genetics Annual Congress  
[www.geneticagraria.it/attachment/SIGA\\_2012/6\\_07...](http://www.geneticagraria.it/attachment/SIGA_2012/6_07...)



## TEACHING ACTIVITIES

### LESSONS/LECTURES

2022

**Università del Salento**  
Corso di Biomateriali  
Character: Docente

### LESSONS/LECTURES

2018

**ITS Biotecnologie Piemonte**, Ivrea - Bioindustry Park  
WEARABLE DEVICE: una tecnologia per il benessere della persona  
Main Professor: Dott.ssa Anna Maria Forlenza  
Character: Docente