



# Giancarlo La Penna

## WORK EXPERIENCE

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### Partnership & Stage

**CEA-Leti (Commissariat à l'énergie atomique et aux énergies alternatives - research institute)** [ 05/2022 – 12/2022 ]

City: Grenoble

Country: France

Realization of the research project "Multiscale and non-destructive techniques for the characterization of strain in electronic devices down to the nanometer scale" within the European project "Challenges".

### Internship at the Fluorescence Microscopy Laboratory

**IIT - Center for Life Nano Science** [ 2020 ]

City: Rome

Country: Italy

Training and experience in the use of Confocal Laser Scanning Microscopy: analysis of samples in vivo and in vitro.

### Thesis work

**CNIS - La Sapienza, University of Rome** [ 2020 ]

City: Rome

Country: Italy

Multiscale and non-destructive characterization of the strain in electronic devices down to the nanometer scale within the project CHALLENGES (Real time nano CHAracterization reLatEd techNlOGiEeS).

### Internship at the CNIS laboratory (Research Center for Nanotechnologies applied to the engineering)

**CNIS - La Sapienza, University of Rome** [ 2020 – 2021 ]

City: Rome

Country: Italy

Training and experience in the use of AFM (Atomic force Microscopy), SCM (Scanning Capacitance Microscopy): analysis of semiconductor devices and bio samples.

Training in the use of AFM-SEM (Atomic Force Microscopy-Scanning Electron Microscope).

### Mathematics and physics teacher in High school

**Istituto Paritario Interstudio** [ 2020 – 2021 ]

City: Latina

Country: Italy

### Raman and TERS laboratory technician

**CNIS Laboratory - La Sapienza, University of Rome** [ 2021 – Current ]

City: Rome

Country: Italy

## EDUCATION AND TRAINING

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### **Scientific High School Diploma**

*ISS Pacifici e De Magistris*

Address: 04018 Sezze (Italy)

### **Bachelor's Degree in Electronics Engineering**

*La Sapienza - University of Rome* [ 2014 – 2017 ]

Address: 00185 Rome (Italy)

<https://www.uniroma1.it/it>

Field(s) of study: Electronics, Physics, Electromagnetic Fields, Antennas

Thesis: Planar antennas: microstrip models and applications

### **Master's Degree in Nanotechnology Engineering**

*La Sapienza - University of Rome* [ 2017 – 2020 ]

Address: 00185 Rome (Italy)

<https://www.uniroma1.it/it>

Field(s) of study: Nanomaterials, Bionanotechnologies, Nanoelectronic devices and Nanocharacterization techniques.

Final grade : 110/110 Cum Laude

Thesis: Non-destructive characterization techniques of microelectronic devices down to the nanoscale.

Surface and thin film engineering and nanostructured materials, Micro-Nano fluid dynamics, MEMS, Electromagnetic Fields.

### **PhD Student - Grant winner for the Phd in MATHEMATICAL MODELS FOR ENGINEERING, ELECTROMAGNETICS AND NANOSCIENCES - XXXVI Cycle**

*Department of Basic and Applied Sciences for Engineering (SBAI) - La Sapienza, University of Rome* [ 2020 – Current ]

Address: Rome (Italy)

### **Grant winner for TUTORING ACTIVITIES FOR THE A.Y. 2020/2021 - PHD STUDENTS - I<sup>a</sup> TRANCHE (2020-1147-1443-164918)**

*Department of Basic and Applied Sciences for Engineering (SBAI) - La Sapienza, University of Rome* [ 2020 – 2021 ]

Address: Rome (Italy)

Field(s) of study: University Mentor/tutoring teacher for the module "Physics 1" (FIS / 01) at the Faculty of Civil and Industrial Engineering

### **Training Course - HORIZONE EUROPE: 4 steps towards the beginning**

*APRE* [ 12/2020 ]

Address: Rome (Italy)

### **Training in the use of Raman Spectroscopy and TERS (Tip-enhanced Raman Spectroscopy)**

*Renishaw S.p.a.* [ 2021 ]

Address: Torino (Italy)

## **Online Training - Distinguishing between similar materials with Raman spectroscopy and data classification**

**Renishaw** [ 2021 ]

Address: Rome (Italy)

## **Online Training - Advanced techniques in correlative AFM-in-SEM measurements**

**NenoVision** [ 2021 ]

Address: Rome (Italy)

## **General English Course Advanced Level C1**

**Centre of English Studies (CES School)** [ 07/2021 – 08/2021 ]

Address: 31 Dame Street, Dublin 2, Dublin (Ireland)

## **LANGUAGE SKILLS**

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Mother tongue(s): **Italian**

Other language(s):

### **English**

**LISTENING B2 READING C1 WRITING C1**

**SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1**

### **Spanish**

**LISTENING A2 READING A2 WRITING A2**

**SPOKEN PRODUCTION A1 SPOKEN INTERACTION A1**

## **PUBLICATIONS**

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### **Comparison of different correlative AFM SEM workflows on calcite moonmilk**

[2022]

Authors: S. Dinarelli, F. Mura, C. Mancini, G. La Penna, T. Rinaldi and M. Rossi.

Journal of Physics: Conference series

## **DRIVING LICENCE**

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**Driving Licence:** B

## **PROFICIENT IN:**

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### **IT Skills**

Microsoft Office - Excel, Word, Power Point and Publisher

Operating Systems (Windows, Mac, Linux etc.)

Graphics applications and programs (Suite Adobe, etc.)

Work and analysis programs (LabVIEW, Matlab, Gwyddion, Origin, Nanoscope, WiRe, Nanodrive)

### **Interpersonal Skills**

Team-Work oriented

Problem Solving

Testing

Continuous Improvement

Organizational and planning Skills

Analytical Skills

Laboratory Skills

Easily Adaptable

Public Speaking

Good listener and communicator