

Giancarlo La Penna - CV

Giancarlo La Penna is a PhD student at the Department of Basic and Applied Sciences for Engineering (SBAI) of Sapienza University of Rome.

From the same University, Giancarlo obtained a Bachelor's degree in Electronic Engineering and a Master's degree in Nanotechnology Engineering in 2020 with a mark of 110/110 cum laude.

During the Master's internship he was involved in working on a project entitled: "Multiscale and non-destructive characterization of the strain in electronic devices down to the nanometer scale", within the European project CHALLENGES (Real time nano CHAracterization reLatEd techNloGiEeS).

The activities carried out during the internship period continued with the start of the PhD. Laboratory activities are carried out at the Research Center for Nanotechnology applied to Engineering of Sapienza University of Rome (CNIS). In particular, the instrumentation used is represented by: μ -RAMAN, TERS (Tip-Enhanced Raman-Spectroscopy), and High Resolution X Ray Diffraction (HRXRD) techniques, which have the potential to be non-destructive and to achieve a resolution at the nanoscale. The activities are carried out in parallel with the European project "Challenges" and were partly conducted by Giancarlo during his PhD at the Commissariat a l'Energie Atomique et aux Energies Alternatives (CEA) in Grenoble.

Furthermore, simultaneously with the activities foreseen in the PhD project, several collaborations and research projects on various topics related to spectroscopic techniques applied to biological materials, cultural heritage and electronic semiconductors must also be included.