

2 postdoc positions available at the Barillaro's group of the University of Pisa.

The Barillaro's group at the University of Pisa is excited to announce an opening for two (2) postdoctoral positions focused on:

1. fabrication of reconfigurable meta surfaces for space applications. This position is available within the framework of a prestigious project funded by the Italian Space Agency (ASI).
2. fabrication of silicon micromachined devices and systems. This position is available within the framework of a industrial project funded by Bosch.

Position Details:

- **Title:** Postdoctoral Researcher
- **Duration:** 1-year contract, extendable to 2 years
- **Location:** University of Pisa, Barillaro's Group

Project 1 Overview: Reconfigurable meta surfaces represent a cutting-edge approach in the development of advanced materials for space applications. These surfaces can dynamically alter their electromagnetic properties, enabling innovative solutions in areas such as satellite communication, remote sensing, and beyond. The successful candidates will contribute to the design, fabrication, and testing of these meta surfaces, integrating them into systems aimed at enhancing the functionality and performance of space missions.

Project 2 Overview: Silicon micro-machined devices and systems are at the forefront of micro-electromechanical systems (MEMS) technology, offering highly precise, miniaturized solutions for a range of applications, including sensors, actuators, and resonators. Leveraging silicon exceptional mechanical and electronic properties, these devices can achieve unprecedented levels of accuracy, stability, and integration, making them invaluable in fields such as biomedical instrumentation, aerospace, and telecommunications. The successful candidates will engage in the design, micro-fabrication, and characterization of these silicon-based devices, contributing to systems aimed at advancing the capabilities and efficiency of next-generation technologies.

Responsibilities:

- Collaborate in an interdisciplinary team involving electronic and telecommunication engineers, physicists, and material scientists.
- Design and fabricate devices and systems using advanced micro- and nanofabrication techniques.
- Conduct experimental validation and performance evaluation in relevant conditions.
- Publish research findings in high-impact scientific journals and present at international conferences.

Candidate Requirements:

- A PhD and/or ≥ 3 years of research experience in one or more of the following areas: optics and photonics, hard and soft lithography, nano and microstructure preparation, material preparation by physical vapor deposition.

- A strong background in micro- and nanotechnologies, with a particular focus on silicon technology and photonics
- Proven ability to work independently and as part of a team, with excellent communication skills.

Application Process: Passionate and outstanding candidates are invited to express their interest by sending an email to Professor Giuseppe Barillaro at giuseppe.barillaro@unipi.it. Please include your CV, a cover letter detailing your research experience and interests, and contact information for at least two references.

For further information on the position, please feel free to reach out to Professor Barillaro via email or connect with him on LinkedIn.