



## NANOFABRICATION FACILITY OPPORTUNITIES

The NC State Nanofabrication Facility (NNF) is a 7,400 ft.<sup>2</sup> Class 100 cleanroom which is recognized as one of NC State University's Shared Core Research Facilities. The NNF possesses a full range of micro- and nano-fabrication capabilities, enabling the research of 80+ NCSU graduate students in several science and engineering disciplines; including physics, chemistry, materials science, mechanical engineering, electrical engineering, and chemical engineering. The NNF also provides semiconductor processing capabilities to a broad range of users outside of NC State, including other universities, national labs, and local industry.

The NNF is part of the Research Triangle Nanotechnology Network, an innovation hub for transformative nanotechnology research, discovery, education, commercialization, and workforce development that is part of the NSF-funded National Nanotechnology Coordinated Infrastructure (NNCI). The RTNN connects and provides university facility access for thousands of researchers, students, and members of the public. Through RTNN, NNF staff collaborates with a large team of investigators at three different universities in the Research Triangle (NC State, Duke, and UNC-CH).

The NNF is currently in a period of rapid growth, and looking to aggressively expand our capabilities. Due to this growth, we anticipate a need to increase the size of our staff. Our staff provides foundational support to the facility, and hence, we are seeking world class talent for potential hires in the following areas:

**Plasma Etch Engineer:** Design and develop next generation plasma etch processes, using reactive ion etch (RIE), deep RIE, and inductive coupled plasma (ICP) techniques. Collaborate with professors, postdocs, students, and industry professionals to develop standardized processes, and optimize etch processes tailored to their individual projects. Develop process control and engineering change control methodology for the tools and processes. Train users on plasma etch processes. Run established processes for users. Assist in troubleshooting/repair of tools. Develop and execute a roadmap for process and tool capability.

**Lithography Engineer:** Design and develop next generation lithographic processes, using contact, projection, direct-write, e-beam, and imprint lithography techniques. Collaborate with professors, postdocs, students, and industry professionals to develop standardized processes, and optimize lithography processes tailored to their individual projects. Develop process control and engineering change control methodology for the tools and processes. Train users on lithographic processes. Run established processes for users. Assist in troubleshooting/repair of tools. Develop and execute a roadmap for process and tool capability.

Questions can be directed to NNF Director of Operations, Dr. Philip Barletta, at [pbarlet@ncsu.edu](mailto:pbarlet@ncsu.edu). Interested candidates can apply for the position at <https://jobs.ncsu.edu/postings/178184>.