

BOSTON UNIVERSITY PHOTONICS CENTER UNIVERSITY OVERVIEW

The Boston University Photonics Center in Boston, Massachusetts, was created in the mid 1990's as an interdisciplinary research center, addressing the science and technology of light. Engineering is the largest research group, but physics and chemistry are also represented, as well as communication, medicine, and management.

The state-of-the-art facility includes an optical fiber draw tower and more than a dozen special-purpose research laboratories. The building has an unusual architecture; to minimize vibration, it's not connected to the bedrock, and the basement floor is between four and eight feet thick. Even though it's adjacent to the Massachusetts Turnpike and the commuter rail line, it is relatively vibration free.

The Photonics Center's Optical Characterization and Nanophotonics research group focuses on developing and applying advanced optical characterization techniques to the study of solid-state and biological phenomena at the nanoscale. An interdisciplinary group of faculty, graduate and undergraduate students, and visitors including guest faculty, students, and often high school students and teachers work on a broad range of truly interdisciplinary research projects. One of the current research projects is the development novel photodetectors and imaging biosensors for use with DNA and protein microarrays. Let's see how that's done.