ECSE 519. SEMICONDUCTOR NANOSTRUCTURES AND NANOPHOTONIC DEVICES.

Credits: 3

Offered by: Electrical & Computer Engr (Faculty of Engineering)

This course is not offered this catalogue year.

Description

Physics, design, synthesis, and fundamental properties of semiconductor nanostructures, quantum dots, nanowires, and nanotubes. Nanoscale confinement of radiation, properties of microcavities, whispering gallery modes, photonic crystals, strong vs. weak coupling, and Purcell effect. Quantum dot lasers, nanowire LEDs, and photonic crystal lasers. Nonclassical light sources. Solar cells and thermoelectric devices.

Prerequisites: ECSE 354 and (ECSE 433 or ECSE 533)

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