Nanoelectronics

Specialization: Electrical Engineering, Computer Engineering (compulsory subject)

Level of the course: MSc

Course code: NGM_FI004_1

Credits: 3

Language: Hungarian

Course description: The curriculum of the course covers the following topics: History of electronics and related technologies up to the appearance of nanoelectronics; Liquid crystalline properties and application; Superconductivity; Crystalline defects and effects in nanoelectronics; Single crystalline materials and properties; Electrons in reduced dimensions; Band gap engineering; Epitaxial techniques (MOVPE, MBE, etc.); Etching techniques at the atomic scale; Imaging of nanostructures (SEM, TEM, STEM, etc.); Characterization of nanostructures (EDX, WDX, AES, XRD, etc.).