

# OPEN KNOWLEDGE PROGRAM

## MODULE 6

### OVERVIEW ON NANOFABRICATION PROCESSES, TOOLS AND FACILITIES



**Dr Raúl Pérez**

*Nanofabrication Facility,  
ICN2*

## Basic concepts on micro and nanofabrication processes

This lecture covers the underlying principles and applications of micro and nanofabrication technologies. Nanofabrication is the design and manufacture of devices with dimensions measured in nanometers. It is one of the enabling technologies of nanodevice/nanoscience researches. While it was mainly invented through the progresses of semiconductor industry, its applications have gone beyond semiconductor devices and circuits. In this lecture we will place emphasis on lithography, material deposition, pattern transfer and metrology.

The lecture will cover all major top-down nano-lithography technologies capable of generating or duplicating sub-100nm patterns, including those based on photons, charged beams, scanning probes and replication. Within each lithographic technique, the attendants will learn its working principle, related materials and instrument processes and limits.



October 5, 2016 - 12:00h  
ICN2 Seminar Hall, ICN2 Building

Participate in this pioneering initiative!

**ICN2 attendees:** Please, confirm your attendance by sending an e-mail to: [training@icn2.cat](mailto:training@icn2.cat)

**External attendees:** [Register here](#) to book your place.  
(limited to 25 people)

Module coordinated by  
**Dr. Raúl Pérez,**  
**Dr. Xavier Borrísé** and  
HR & Education Dept.