Nanomechatronics Laboratory (KIMM)

Staff: 9 researchers, 1 PhD student, 2 post-docs and 8 temporary staff

Research fields: Nanoscale patterning, nanomaterial synthesis & applications

Research topics in Micro and NanoSystems
- Nanomaterial Chemical sensor
- Carbon Nanotube Transparent conductive film
- Carbon Nanotube Transparent Heater
- OLED illumination film with nanoscale pattern
- Nano Confoconc microscope
- Mass producible Quantum Dot synthesis
- LCD lithography using nanoimprint
- Separation of carbon nanotube’s chirality

Technology
- Nanoscale stamp fabrication
- Large scale Nanoimprint patterning
- Resist solution for imprinting
- Nanowire, Quantum Dot synthesis
- Carbon nanotube dispersion, separation
- Nanomaterial inkjet printing
- NSOM/Confocal Microscope

Design, simulation & characterization tools
- FEMLAB
- Individual nanomaterial assembly equipment
- Field Emission SEM
- Raman Spectroscopy
- Absorption spectroscopy
- Probe station
- Photo Luminescence spectroscopy

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