

Staff:

Nano-mechanics Laboratory (KIMM)

8 researchers, professors, lecturers, engineers and technicians 14 PhD students, post-docs and temporary staffs

Research fields: Nano-scale structure measurement and analysis

Research topics in mesurement/analysis for nanoscale

- Topic 1 Mechanical characterization of nano-materials
- Topic 2 Multi-physics measurement for nano devices
- Topic 3 Novel nano-mechanical devices
- Topic 4 Design and simulation of nano-devices
- Topic 5 In-line test system
- Topic 6 Reliability of small scale stcucture



Stiffness changeable nanoprobe for AFM



Optical bandgap of 2D photonic crystal

Technology

- Mechanical testing of nano-scale structures
- Multi-physics instrumentation
- Fabrication of MEMS and NEMS devices
- Multi-scale simulation and design
- Reliability evaluation of micro/nano devices
- AFM probe fabrication
- MEMS probe design & fabrication

Design, simulation & characterization tools

- AFM & Interferometry
- Micro-tensile/fatigue tester
- Bulge/resonance system
- Nanoindentation/Nano UTM
- PI Laser dopper vibrometer
- MEMS probe tester
- Parallel computing machine
- Parallelized FEM and MD codes

KOREA INSTITUTE OF

MACHINERY & MATERIALS

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