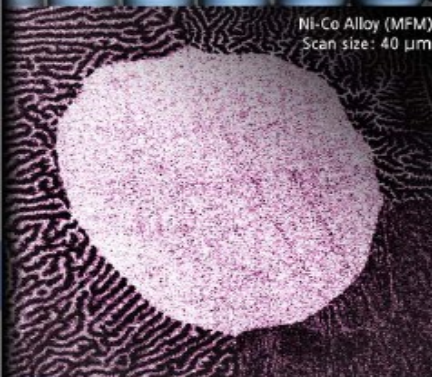


Non-Contact AFM
Polystyrene latex spheres
Scan size: 3 μm



Ni-Co Alloy (MFM)
Scan size: 40 μm

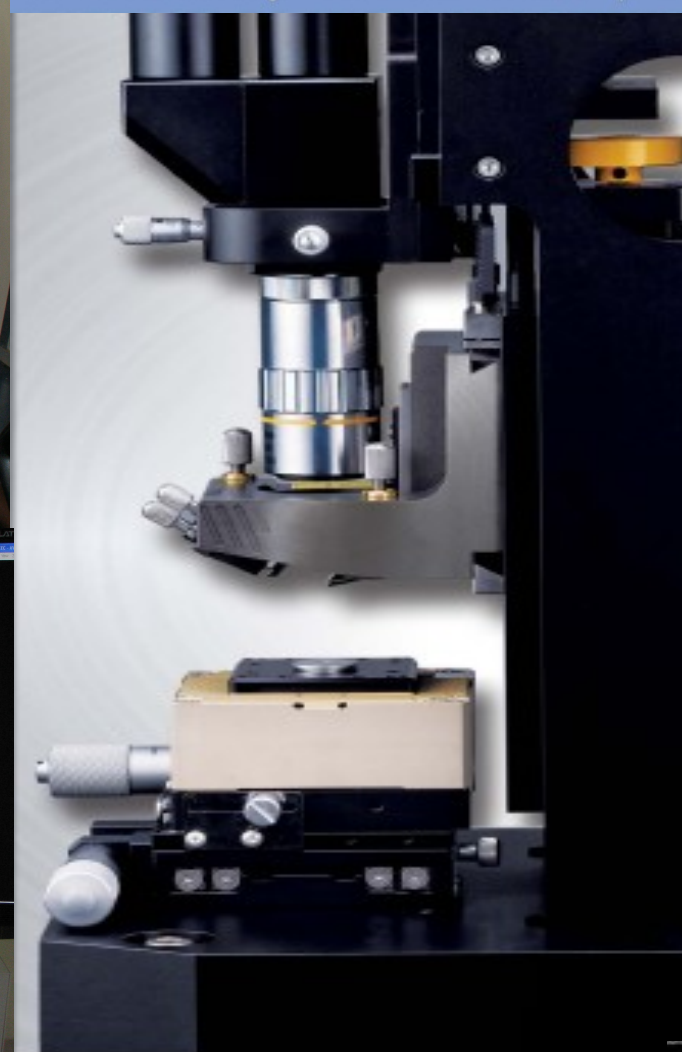


Non-Contact AFM
Polymer layer
imaged in liquid
Scan size: 10 μm



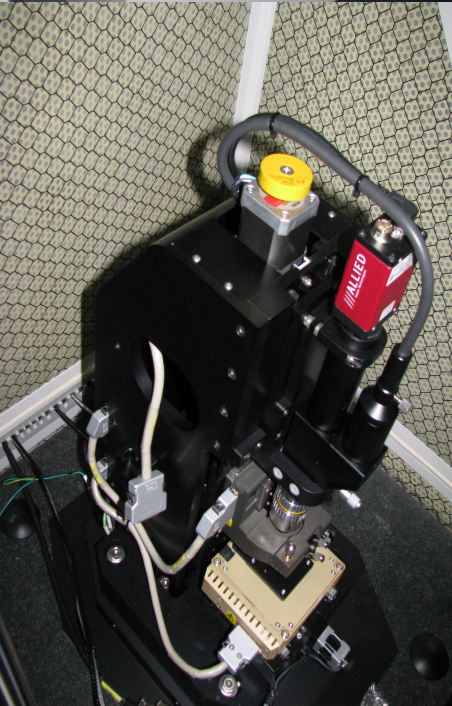
Scanning Probe Microscopy Centre

Versatile, Research-grade AFM with Motorized Optics



CONTACT DETAILS
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**National Institute of Technology Calicut**
Kozhikode, Kerala 673601



SPM CENTRE

The centre is equipped with Park XE-100 Atomic Force Microscopy (AFM).

Specifications:

- Decoupled XY & Z Scanners
- Scan range of XY-scanner: 5 μm and 100 μm
- Working distance of Z-scanner: 12 μm or 25 μm
- Sample size: Up to 100 mm \times 100mm, 20 mm thick, and up to 500 g

➤ Supported Modes

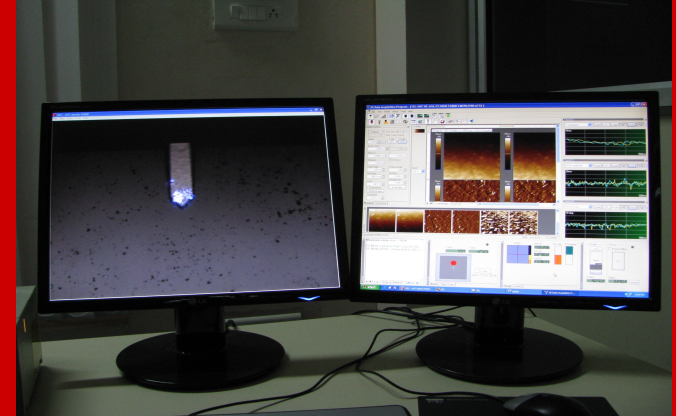
- ✓ True Non-Contact Mode
- ✓ Contact Mode
- ✓ Force - distance Spectroscopy/F-d volume imaging
- ✓ Phase imaging of True Non-Contact, FMM, MFM and EFM
- ✓ Conductive AFM
- ✓ Scanning Tunneling Microscopy
- ✓ Magnetic Force Microscopy
- ✓ Electric Force Microscopy
- ✓ Scanning Thermal Microscopy
- ✓ Nanolithography
- ✓ Nanoindentation

➤ Accessories

- ✓ Electrochemistry Cell
- ✓ Universal Liquid Cell with heating/cooling stage
- ✓ Heating/Cooling sample stage
- ✓ Magnetic Field Generator

Hands-on AFM training programs

The institute will be launching hands-on training programs and workshops on the applications of Atomic Force Microscopy



Set in a picturesque landscape at the foothills of the Western Ghats, National Institute of Technology Calicut (NITC) is located about 22 kilometers north-east of Calicut City. National Institute of Technology Calicut is a Technical Institution of national importance. NITC is reputed for its top-rated standing among educational institutions in the country, up-to date research in cutting edge technologies, and its excellent infrastructural facilities. The School of Nano Science and Technology at National Institute of Technology Calicut offers higher degree programs at the Master's and Doctoral levels, in various academic streams related to Nanoscience and Nanotechnology. The SEM centre in this department is equipped with Hitachi SU6600 Variable Pressure Field Emission Scanning Electron Microscope (FESEM). The Park XE-100 is the ultimate AFM/SPM solution for the True Non-Contact nanoscale metrology of small samples in data storage, semiconductors, nano science, materials science, polymers, and electrochemistry. The capabilities of this centre are open for consultancy services also.