



UGC RECOGNIZED

PDEU PANDIT
DEENDAYAL
ENERGY
UNIVERSITY

Formerly Pandit Deendayal Petroleum University (PDPU)

Research Facilities

Department of Physics

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Glove box (Mbraun)



Application: Synthesis and growth of environmental thin films under controlled environment.

<https://sites.google.com/view/ankursolanki/research-facilities>

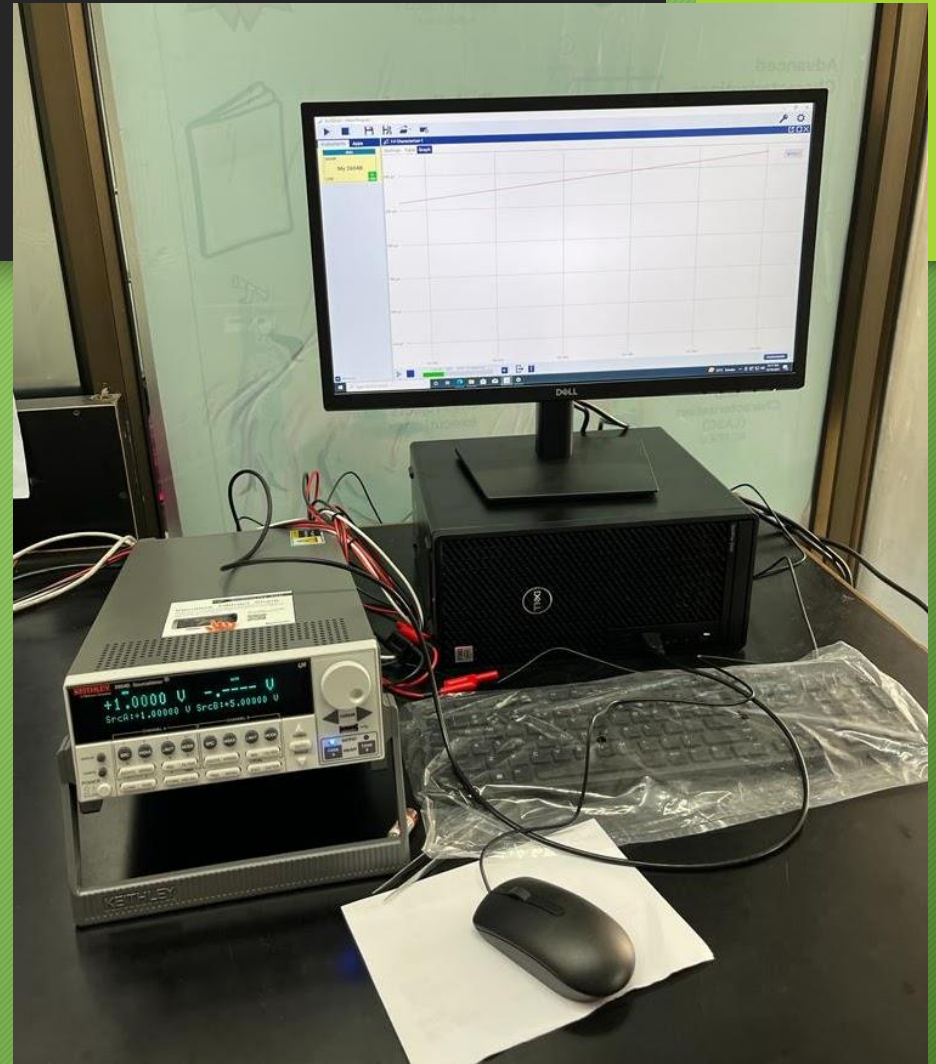
Thermal Evaporator + Glove box (APT)



Application: Growth of thin film of metals (Al, Ag, Au, etc.)

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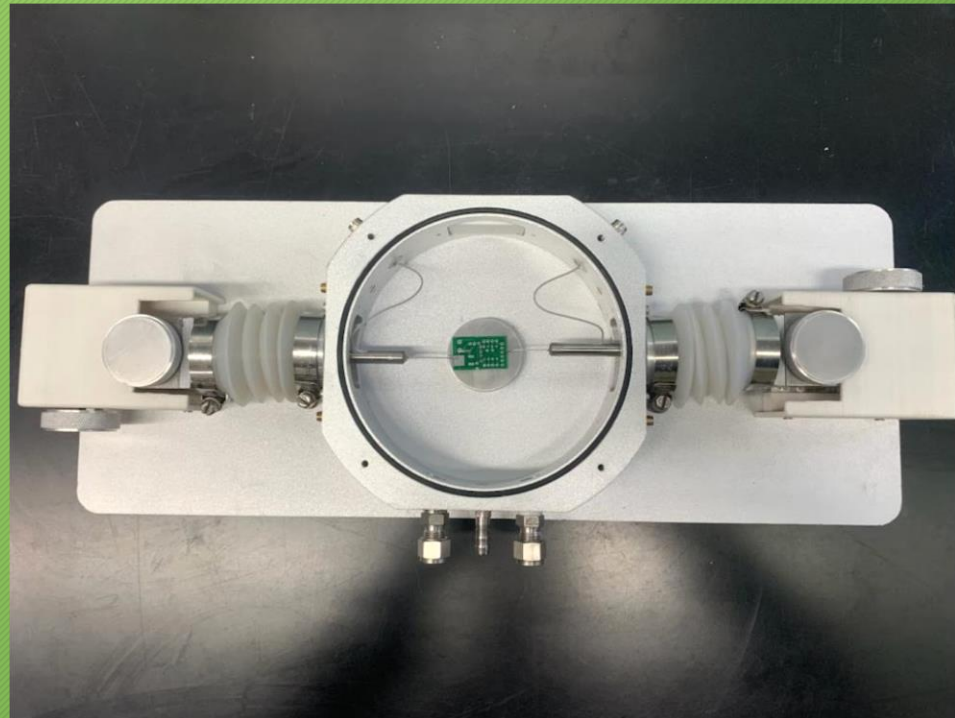
Keithley 2604B



Application: Current-Voltage for electronic devices.

<https://sites.google.com/view/ankursolanki/research-facilities>

2-probe system



Application: Electrical measurements under vacuum and controlled gas environment

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Uv-vis Absorption Spectroscopy



Application: Absorption spectrum of thin film and liquid in Uv-vis range



Chemical Vapor Deposition (CVD)

Application: Developing the nanostructures using highly reactive gasses.

Solar Thermal Trainer

This is a small model of real time water heating system and can be used for the characterization and different heat transfer analysis. Different aspects like efficiency, overall heat loss coefficient and heat removal factor and their corresponding calculations can be demonstrated with the help of this system.





Solar PV Trainer

Application: To estimate the photovoltaic parameters of solar panel under illumination conditions



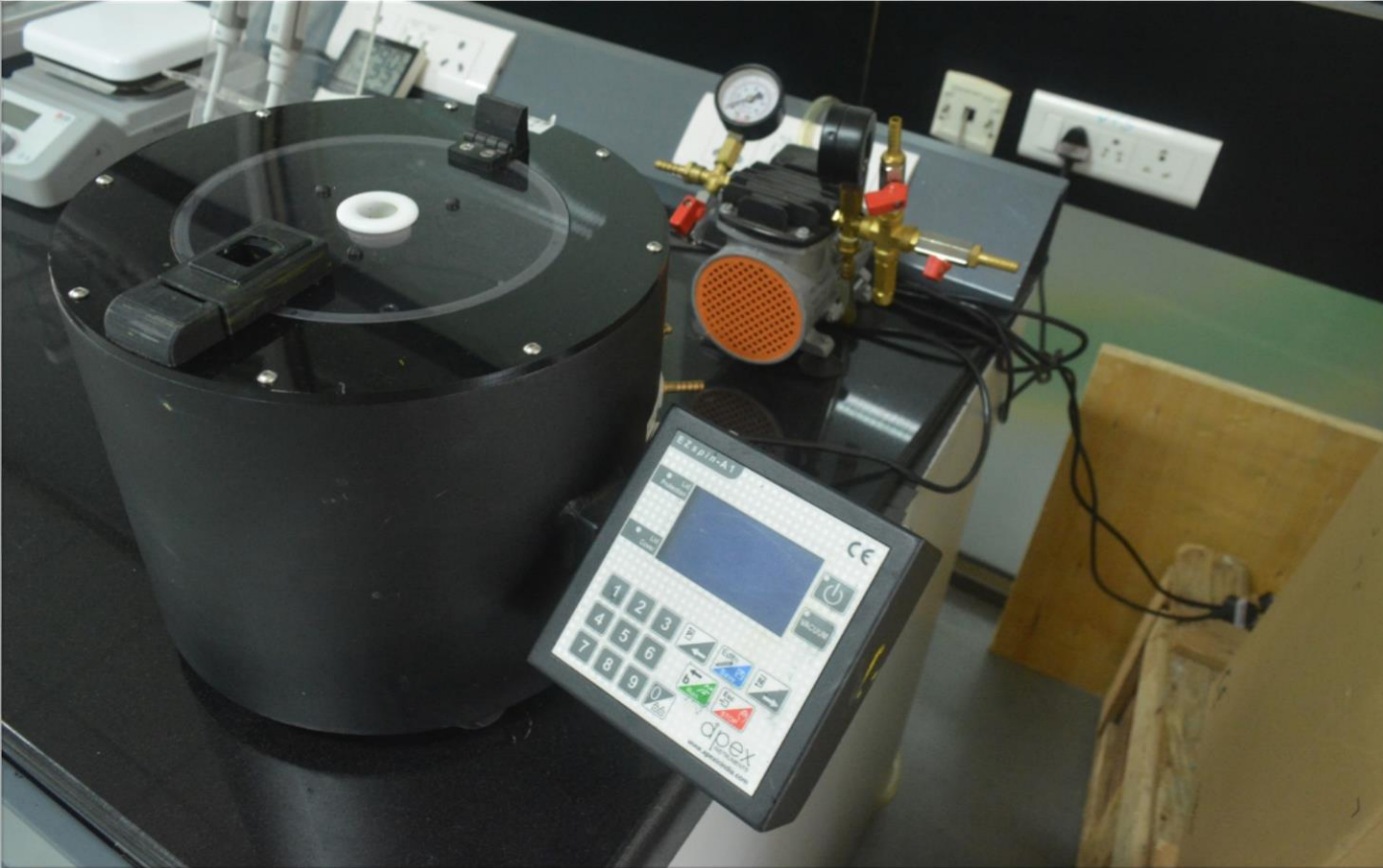
Fumehood

Application: Used for chemical synthesis under closed environment.

DC Sputtering System



Application: Solution-free thin film development technology.



Spin Coating System

Application: Developing high quality thin films via solution process.

<https://sites.google.com/view/ankursolanki/research-facilities>

UV-ozonization system



Application: To change the surface properties from hydrophobic to hydrophilic.

Weighing Balance



Application: Weighing of materials upto milligram with high precision.



Keithley 2450

Application: Current-voltage source meter for electronic measurements .

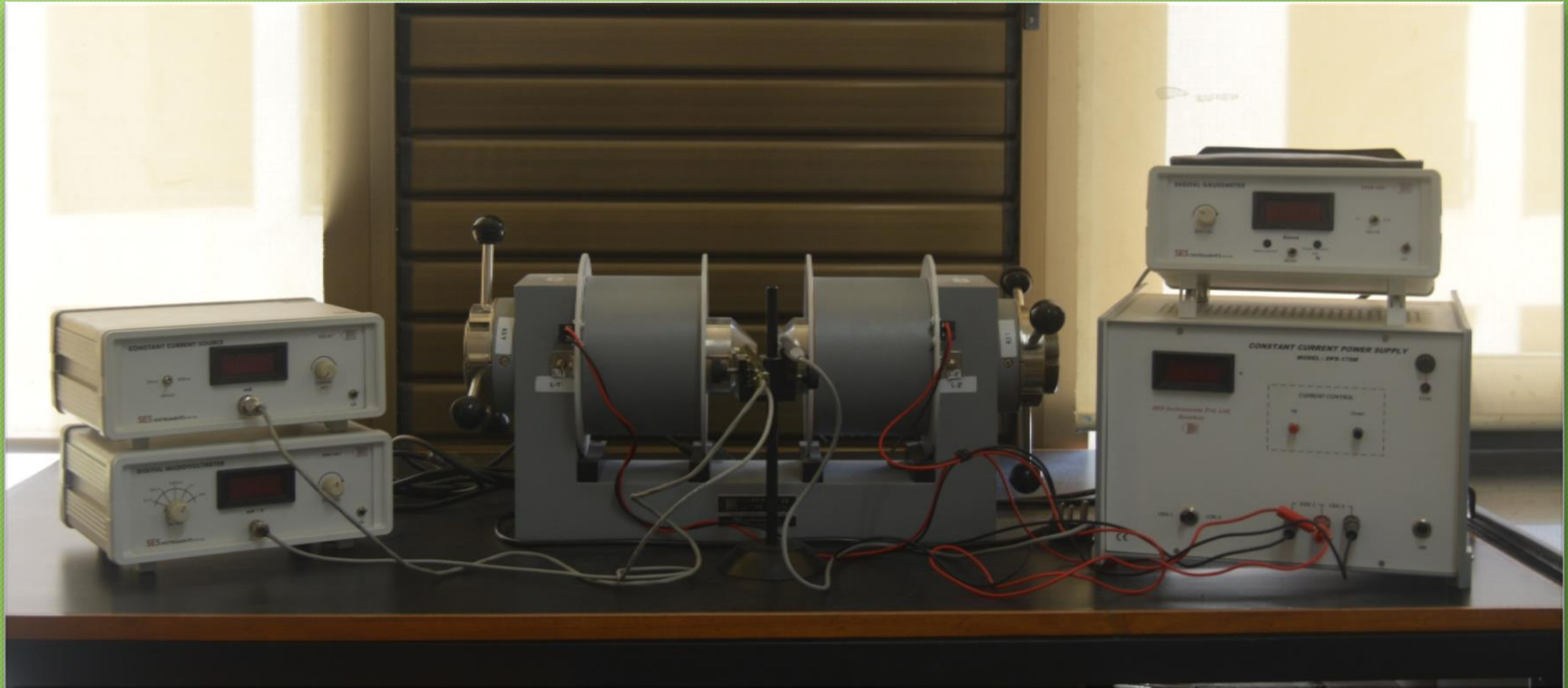
Micro positioners



Application: Electrical current-voltage measurements of micron size devices.

Magnetic Susceptibility Balance





MegResistance Meter

Application: It is used to measure the electrical resistance of insulators



Function Generator

Application: To generate the input signal waveform.

Digital Oscilloscope



Application: To capture output signal waveform in electronics experiments.



Central Facilities

Scanning Electron Microscopy



Application: To capture high resolution sample images.

X-Ray Diffraction System



Application: To determine the crystal orientation in thin film and powder samples.