# HEAT CAPACITY APPARATUS
## (FOR NANO FLUIDS)

The Specific Heat of nanofluids decreases as nanoparticle concentration increases. The specific Heat of nanofluids increases with temperature.
Thus future research are required to measure thermophysical properties of different nanofluids as a function of temperature and concentration.
Our Nanofluid specific Heat Apparatus is a good tool for Research and Laboratory experiment for Nanotech Labs.

This apparatus is designed to measure Heat Capacity of nanofluids from RT+5°C to 70°C.

The apparatus will consist of following parts-
1. Cooling system like fridge available in the lab. Thermally insulated chamber with heating arrangement and Temperature measurement system as per block diagram.
2. Data logger unit for measurement of Time, voltage, current and temperatures at regular intervals.

The power to system will be provided by D.C. power source with specially designed constant current supply to measure power vs temperature rise. The logged table on computer will be displayed as under.

Fluid required-250 ml.

| Sl No. | Time(hh:mm:ss) | V(volts) | I(amp) | T(°C) |
|---|---|---|---|---|
| | | | | |

A software will automatically log all parameter, i.e. Power, Temperature vs. time at set interval. Heat capacity within temperature range will be displayed on the apparatus.
System will be having USB interface where data can be recorded on a pen drive.
Due to continous upgradation, there may be change in the Specification and appearance of the Instrument.

*Manufactured by :*

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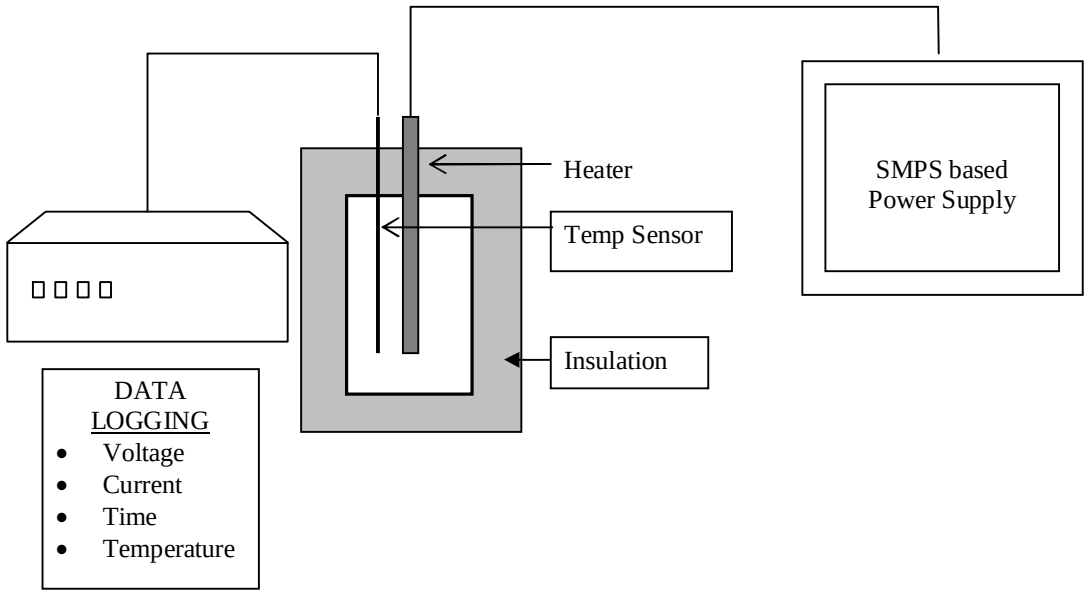


**BLOCK DIAGRAM : NANO FLUID HEAT CAPACITY APPARATUS**