



- Constituent College of JSS Science and Technology University
- Approved by A.I.C.T.E
- Governed by the Grant-in-Aid Rules of Government of Karnataka
- Identified as lead institution for World Bank Assistance under TEQIP Scheme



Department of Electronics and Communication Engineering

Nano Dielectrics and Devices Lab

Room No. EC 101

- **Staff In-Charge :** Dr. M G Veena
Professor

- **Supporting Staff:** Raju S
Instructor
Puneeth Kumar
Helper

Facilities Available :

- Programmable Climatic Chamber,
- High Frequency LCR meter - 20 Hz to 10 MHz
- Low Frequency LCR meter - 1 mHz to 100 kHz,
- Megohmmeter -
DC Voltage Range: 1 V to 1500V
Resistance Range: 100W to 2020 TW
Current Range: 0.01 pA to 20 mA
Measurement voltage: from 1 to 1500 volts DC by 1 volt step .
Accuracy : +/- (0.5%+ 0.5 V)
- Micro Ohmmeter -

Measuring range : 3 mΩ to 30 kΩ
Resolution : 100 n Ω
Current range : 10mA to 10A
High Accuracy 0.03%
Fast measuring capability of 50 measurements per second
- Contact Angle meter
Sessile drop method, Tilting +/- 2 degree provided for the Sample holder.
Angular displacement of +/- 10 degree for the Sample Holder.

- Vacuum Oven

Digital PID Temperature Controller, Accuracy: ± 3 °C, Required Vacuum: 500 mm Hg

- High voltage DC power supply

- Ultrasonic Liquid Processors

Frequency : 20 kHz

Wattage : 250W, 500W, 1500W

- Electrospraying

Operating Voltage 0 to 40kV

Syringe Size: 1 to 20 ml

Types: Infusion Pump

Number of Syringes: 1.0, 10

Features: Programmable

- HV Tester

Test method : ASTM D149-04.

The HV ac voltage (frequency of 50 Hz)

Input : 230 Volts

Output :60 KV (Max.), 100mA.

Control of voltage: Manual

Metering : 4 digit DPM to indicate current (mA)

- Spin Coater,

2 stages, 500 to 2000 rpm, 2000 to 8000 rpm.

Vacuum operation,

standard chuck up to 2" digital display for RPM

Digital display of time

PTFE coated S.S bowl

- Analytical Balance

Power Supply: AC Adapter 230V +/-20% , 50-60Hz

Type: Digital & Electronic Scales

Capacity: 220 gm

Net Weight: 5.2 kg

Operating Temperature: 10 - 40 ° C

Response Time: 2-3 sec

Pan Size (mm/inch): 90Ø / 3.5''Ø

Repeatability : 0.1 mg

Readability : 0.1 mg

Calibration : Motorised Internal Calibration

Housing Dimension : 340 x 212 x 340 mm

Display : Back Lite LCD Display

Linearity : 0.2 mg

- **Utilization:**

Research scholars and PG students carry out fabrication and characterization of developed nanocomposites. Consultancy is carried out for industries, academicians, in-house, and other universities.

