

# Details of CARE Facility

**Name of CARE facility:** 1) Leica CM 1900 Cryostat.  
2) Polarization filter accessories(located within the confocal microscope at BSBE)

**Location:** Biomedical Optics and Spectroscopy Laboratory, SL-111, Southern Labs.

**Total cost of equipment/facility:** 15.7 Lakhs

**Year of CARE funding:** 2005 and **Operational since:** June 2006.

**Support provided by CARE:** 15.7 Lakhs

**Name of Principal Investigator:** Dr. Asima Pradhan ([asima@iitk.ac.in](mailto:asima@iitk.ac.in); Tel: 7691/7971)

**Participating departments:** Physics, CELT

**Brief description and capability of CARE facility:**  
(Please add a photograph of the facility)

Leica CM1900- configuration 4 with cryochamber and specimen cooling with specimen retraction and specimen orientation. Freestanding cryostat with encapsulated, splash proof microtome. Single-screw locking system for direct fitting of specimen discs. Twin Compressor cooling system for cryochamber and specimen head. Cryochamber temperature setting between 0 and -35 C.



## Technical Specifications:

1) Operating voltage 230V\50Hz, Section thickness continuously adjustable from 1 to 60 micrometers, total vertical stroke approx. 60mm, total horizontal specimen feed approx. 25mm, motorized coarse feed at 0.8mm/s speed, LED display for cryochamber and specimen head temperature, actual time, defrost time, visual indication of specimen stop position, Cryochamber temperature setting between 0 and -35 C, specimen temperature control between -10 and -50C.

2) 360° manually rotatable  $\lambda/2$  plate achromatic for wavelength 450 to 700nm, Polarization filter wheel for X1 port.

## Utilization of the facility:

**Others:** Prof. Pradip Sinha, BSBE-IITK, Dr. Dharendra S. Katti, BSBE-IITK, Dr. Jonaki Sen, BSBE-IITK.

**Mechanism of time sharing:** System is available for users outside the lab once in a week with prior booking.

**Charging mechanisms:** Free

**Any difficulties, that you faced in running CARE facility:** I don't have any full time technical personnel to look after this CARE facility. My PhD students help the users of this machine.

**Link to the website for the CARE facility, if any:** No link.