# HEMCHANDRACHARYA
# NORTH GUJARAT UNIVERSITY, PATAN

## CENTRAL INSTRUMENTATION MENTAINANCE FACILITY CELL

# C.I.M.F.


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## ABOUT UNIVERSITY

The North Gujarat University was carved out of Gujarat University whose Head-quarter is at Ahmedabad. On bifurcation, the North Gujarat University inherited no physical assets from its parent University. It had, therefore, to start its existence ab-initio so far as its local habitation was concerned. PATAN, a historical town in northern part of Gujarat, was officially designated as the Head-Quarter town of the University. The town happens to have composite campus of four affiliated colleges. The managing council of the colleges was kind enough to put at the disposal of the infant University its two hostel buildings on rent to accommodate its offices. Thus began the University to operate and serve 41 colleges scattered over the three erst-while districts of Banaskantha, Mehsana and Sabarkantha allotted in its jurisdiction. Along with the two hostel buildings the University rented a hall, called the Gandhi Memorial hall, to house its library. The aim was to start building up a nucleus li-brary for the future post-graduate departments of the university. This was an act of foresight of the first functionaries of the University. The University simultaneously moved the State Government to acquire land admeasuring about 185 acres from farmers. It also requested the State Government to transfer its seed farm land ad-measuring about 35 acres to the University. However, this entailed considerable de-lay owing to litigation in the State High Court and then in the Supreme court. Fol-lowing the supreme court judgment acquisition of the land has been possible. As a result over the years the university has been able to get land as follows. Government land 35.00 acres Land acquired from the farmers 177.50 acres .The university will in due course acquire land admeasuring 7.50 acres from one farmer. Total land available = 212.50 acres. In addition to this the University has also received a prop-erty worth Rs.10/- lakhs by way of donation from the Gramodhyog Mandal, Patan. At present the University Employment Bureau is housed in that building. Our pro-posals to the State Government for further assistance in materializing plans for more constructions in phased manner, are under active consideration.

## ABOUT C.I.M.F

The CIMF Cell is equipped with high-end research instruments and has state-of-the -art research facilities. The basic objective of this CIMF cell at this university is to provide high-quality, necessary facilities in the university's own premises for stu-dents and especially researchers. The skills and expertise they gain from this expe-rience can enhance their career development and boost-up their skills in using these facilities. Additionally, CIMF provides these research facilities to researchers at other universities at concessionary rates to support the scientific community at large. CIMF also organizes open days for UG students, workshops and hands-on training programs for PG students, PhD scholars and faculties to improve their un-derstanding and skills while using the instruments.

# List of Instruments in CIMF Cell

# Hemchandracharya North Gujarat University

## UV-VISIBLE SPECTROPHOTOMETER

**Model Name: Thermo Scientific**

**Application: To analyze the absorbance of sample**

## HIGH PERFOMANCE LIQUID CHOMETOGRAPHY

**Model Name: Prominence LPGE SIL**

**Application: To analyze purity of sample**

## TGA/DSC

**Model Name: Metteler Toledo**

**Application: To analyze thermal stability of polymer sample**

## GAS CHROMATOGRAPHY

**Model Name: 430-GC**

**Application: To analyze the purity of particular substance, or separating the different components of mixture.**

## HIGH PERFORMANCE MICROWAVE SYNTHESIZER

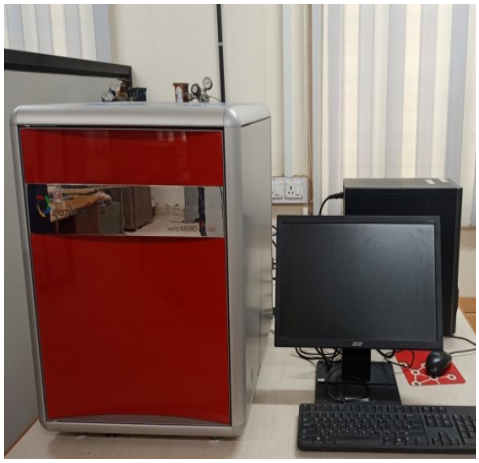
**Model Name: Monowave 400**

**Application: To synthesize the compounds under microwave irradiation**

## FT-IR

**Model Name : Bruker**

**Application: To analyze functional groups present in the compound**



## ELEMENTAL ANALYZER [CHNS]

**Model Name :Vario Micro Cube**

**Application: To analyze the percentage of C,H,N,S present in sample**

## DENSITY AND SOUND VELOCITY METER

**Model Name : DSA 5000M**

**Application: To determines the concentration of two- and three-component solutions using the most accurate density results in the market, measured with the Pulsed Excitation Method.**

## ATOMIC ABSORPTION SPECTROMETER

**Model Name: AA8000**

**Application: To analyze the different metal and its concentration from the sample.**

## HIGH SPEED REFRIGERATED CENTRIFUGE

**Model Name: Kubota**

**Application: To settle down nanoparticle from the sample at high speed with cooling.**

## REFRECTOMETER

**Model Name : LABMAN**

**Application: To determine the concentration of a particular substance in a liquid solution.**

## WATER PURIFICATION SYSTEM

**Model Name: EVOQUA**

**Application: To purify water**

## UV-VISIBLE SPECTROPHOTOMETER

**Model Name: UV-visible spectrophotometer -117**

**Application: To analyze the absorbance of sample**

## X-Ray Diffraction System

**Model Name: MiliFlex 600**

**Application: To analyze crystanility of sample**

**CENTRAL INSTRUMENT MAINTENANCE FACILITY (CIMF) CELL**
**Hemchandracharya North Gujarat University, Patan-384265**
**E-mail:cimf.hngu@gmail.com**

# SAMPLE REQUEST FORM

**Date: - / /**

## Personal Details: -

**Name:** ……..……..……

**University Name:** ……..……..

**Department Name:** …… **Class:** …… **Roll No** ……

**Contact No:** …… **E-mail:** …….

**Teacher/Guide Name:** …….

## Instrument Details:-

**Instrument Name:** ……..

## Sample Details:-

**Sample Name:** ……..……

**Quantity:** …… **No. of sample:** ……..……...

**Remarks**:-

(Set method and any other parameter AND anything important about sample kindly mention)
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**Note:-**

1) Correct information of sample & purity of chemical is needed because it may damage the working & effort result

2) For incorrect information regarding samples, the whole sole responsibility will be of the sample supplier.

**Student Signature** **Teacher/Guide Signature** **Coordinator Signature**

## SERVICE CHARGES

| Name of the Instrument | For HNGU Student | Other Uni Student | For Industry |
|---|---|---|---|
| FT-IR | **100** | **280** | **400** |
| X-Ray Diffraction System | **300** | **840** | **1200** |
| UV-Visible-Spectrophotometer | **75** | **210** | **300** |
| High Performance Liquid Chromatography | | | |
| 1 to 15 min | **150** | **420** | **600** |
| 1 to 30 min | **200** | **560** | **800** |
| Gas Chromatography (G.C.) | **150** | **420** | **600** |
| High Performance Microwave Synthesizer | **150** | **420** | **600** |
| TGA/DSC | | | |
| 50°C to 600°C | **300** | **840** | **1200** |
| 50°C to 1000°C | **375** | **1050** | **1500** |
| Elemental Analyzer [CHNS] | **400** | **1120** | **1600** |
| Density and Sound Velocity Meter | **100** | **280** | **400** |
| Atomic Absorption Spectrophotometer | **100** | **280** | **400** |
| High Speed Refrigerated Centrifuge | **100** | **280** | **400** |
| Refractometer | **50** | **140** | **200** |
| Water Purification System | | | |
| Type-1 | **37.5** | **105** | **150** |
| Type-2 | **25** | **70** | **100** |
| Magnetic Moment faraday Balance | **100** | **280** | **400** |