



Central Instrumentation Center

Adamas University

List of Instruments



Application:

1. Determination of trace element in water.
2. Determination of metallic element in food industry
3. Determination of Ca, Mg, Na, K in serum.
4. Determination of lead in Petrol.
5. 13 elements can be detected (Na, K, Ca, Mg, Al, Zn, Hg, Sn, Sb, Cu, Fe, Cr, As)

Instrument Name: Atomic absorption spectrometer (including 13 Lamps)

Make: Perkin Elmer

Model Number: PinAAcle-500

Date of Purchase: 29-06-2017



Application:

1. Miscellaneous –analysis of food like carbohydrate, Proteins, lipids, Vitamins, Steroids, Drug and Pesticides residues, Trace elements.
2. Pollutant like Formaldehyde, Carbon monoxide, Benzene, DDT etc
3. Dairy Product analysis –rancidity
4. Separation and Identification of Volatile Materials, Plastics, natural and synthetic Polymers, Paint etc.
5. Inorganic compound analysis.

Instrument Name: Gas Chromatography

Make: Agilent

Model Number: Agilent-7890B

Date of Purchase: 19-04-2017



Application:

1. This double beam spectrophotometer offers variable spectral bandwidth, stable optics and excellent accuracy for photometrics, concentration, multi-wavelength, spectrum scanning, kinetics, quantitation, DNA/RNA and protein analysis.
2. For quality control, general research, pharmaceutical, biochemical and clinical laboratory applications.

Instrument Name: UV-VIS double beam spectrophotometer

Make: Hitachi, Japan

Model Number: U-2910

Date of Purchase: 03-07-2017



Application:

1. Laser induced fluorescence spectroscopy of human tissues for cancer diagnosis
2. Study of Marine Petroleum Pollutants
3. Accurate determination of glucose in biological system.
4. Measurements of fluorescence of any matter.

Instrument Name: Temperature variable
Fluorescence spectrophotometer

Make: Hitachi, Japan

Model Number: Hitachi F-7000

Date of Purchase: 03-07-2017



Instrument name: Time correlated single Photon counting system

Make: Pico Quant, Germany

Model Number: Fluotime 200

Date of Purchase: 07.01.2020

Application:

1. Time correlated single Photon counting system can be used to measure the time resolved fluorescence (TRF) Signal of fluorophore.
2. Explain how the TRF signal is measured by the TCSPC method.
3. Describe how the Population relaxation and orientational relaxation dynamics of the fluorophore can be separately measured by TCSPC method.



Instrument Name: Photochemical reactor

Model Number: Nexa-1223

Date of Purchase: 25-03-2019

Application:

1. Waste Water treatment.
2. Study of photochemical reaction
3. Photocatalytic reactions study.
4. Photo-degradation study of industrial waste.
5. Study of Photo-catalytic conversion of several organic molecules.
6. Phase transition study for photo responsive materials.



Application:

Precise & accurate measurement of viscosity of different types of fluid.

Instrument Name: Digital viscometer
Make: Brookfield , USA
Model Number:DV2TLV-GEC-P40502
Date of Purchase: 15-02-2019



Application:

1. Miscellaneous –analysis of food like carbohydrate, Proteins, lipids, Vitamins, Steroids, Drug and Pesticides residues, Trace elements.
2. Dairy Product analysis
3. Separation and Identification Organic
4. Compounds
5. Purification of compounds

Name of the instrument: HPLC

Make: Agilent Inc.

Model no: 1260 Infinity II Quaternary System



Name of the instrument: Laminar Air Flow
Make: Sarda Glass and Chemicals

Application:

1. Laminar flow cabinets are used in laboratories for contamination sensitive processes like plant tissue culture.
2. Other laboratory processes like media plate preparation and culture of organisms can be performed inside the cabinet.
3. Operations of particle sensitive electronic devices are performed inside the cabinet.
4. In the pharmaceutical industries, drug preparation techniques are also performed inside the cabinet to ensure a particulate-free environment during the operations.
5. Laminar flow cabinets can be made tailor-made for some specialized works and can also be used for general lab techniques in the microbiological as well as the industrial sectors.



Application:

- Many industries use BOD incubators such as pharmaceutical, agriculture, beverages and research laboratories.
- In manufacturers, it is employed in waste processing plants to define the performance of the treatment system.
- BOD incubator is employed in liquors to distinguish the nourishment in intended working situations.
- It is employed in the farming industry to define the germination of anaerobic bacteria.

Name of the instrument: B.O.D Incubator

Make: Sarda Glass and Chemicals



Application:

1. Stereo Microscopes are used to observed single crystal structure.
2. It is also used during micro surgery, biological and forensic research.
3. It is also used across all type of industry to check the quality of Products.
4. Pathologist used stereo microscope to examine skin conditions amongst other uses.

Name of the instrument: Stereo Microscope

Make: Magnus

Model no: Magnus MS13/MS24-20B1314

Date of Purchase: 17.03.2020



Name of the instrument: Phase Contrast
Microscope
Make: Carl Zeiss
Model No: 37081

Application:

1. It is used in biological research work to observe living cells in their natural state without previously killing, fixing, or staining them.
2. It is also used to observe single crystals in different views.



Application:

Generally, it is used as a thermostat to control the temperature. Their double walled insulation keeps the heat in and conserves energy, the inner layer being a poor conductor and outer layer being metallic.

Name of the instrument: Hot air oven

Make: Local

Model no: NA

Date of Purchase: 25.06.2019



Application:

Furnaces are permanently installed to provide heat to an interior space through intermediary fluid movement, which may be air, steam, or hot water.

Name of the instrument: Furnaces

Make: Local

Model no: NA

Date of Purchase: 17.05.2018



Application:

1. Thin films are generally used to improve the surface properties of solids.
2. Thin film coatings have been employed for corrosion protection of metal surfaces,
to make electrical appliances, solar cells, etc.

Instrument name: Vacuum Coating unit thin film

Model no: FL 400

Date of Purchase: 05.07.2017



Application:

It is widely used for quantitative analysis in various areas (e.g., chemistry, physics, biology, biochemistry, material and chemical engineering, clinical applications, industrial applications, etc). Any application that deals with chemical substances or materials can use this technique.

Name of the instrument: UV Vis single beam Spectrophotometer

Make: LabardInstruChem Pvt. Ltd.

Model No: Lim 330

Date of Purchase: 30.12.2016



Application:

UV/Vis spectroscopy is routinely used in analytical chemistry for the quantitative determination of different analytes, such as transition metal ions, highly conjugated organic compounds, and biological macromolecules.

Spectroscopic analysis is commonly carried out in solutions but solids and gases may also be studied.

Name of the instrument: UV Vis single beam Spectrophotometer

Make: Electronics India

Date of Purchase: 30.12.2016



Application:

1.The air sampler is used for microbiological examination of the air during the inspection of the microbiological contamination indoors in all rooms under the experts' supervision and in biology, in pharmaceutical industry, in hygienically sensitive production areas and equipment in the food industry .

2.Air sampler draws a large known volume of air through a pre-weighed filter for 24 hours. As shown in the illustration, the sampler filter traps the TSP particles as air passes through the instrument

Name of the instrument: Air Sampler

Make: Local

Model No: ENVIROTECH APM430

Date of Purchase: 10-09-2016



Application:

Echo sounding is a type of sonar used to determine the depth of water by transmitting sound waves into water. The time interval between emission and return of a pulse is recorded, which is used to determine the depth of water along with the speed of sound in water at the time.

Name of the instrument: Echo sounding
Model No: **Fishfinder 350C**
Date of Purchase: : 04-11-2016



Application:

Pulse oximeter is used to measure the oxygen level (oxygen saturation) of the blood.

It is an easy, painless measure of how well oxygen is being sent to parts of your body furthest from your heart, such as the arms and legs.

Name of the instrument: Pulse Oximeter

Make: RMS

Date of Purchase: 09.01.2017



Name of the instrument: ECG Monitor

Make: RMS

Model No:

Date of Purchase: 09.01.2017

Application:

1. A cardiac event monitor is a device that you control to record the electrical activity of your heart (ECG).
2. It records your heart rate and rhythm. ECG monitors are used when you need long-term monitoring of symptoms that occur less than daily



Application:

An audiometer is used to measure the ability of a patient to hear at specific frequencies. It helps medical professionals to determine proper treatments.

Name of the instrument: Audiometer

Make: RMS

Date of Purchase: 09.01.2017



Application:

1. It is used for brain mapping .
2. An EEG machine is a device that records the electrical activity of the brain. It contain electrodes that can detect brain activity when placed on a subject's scalp. The electrodes record the brain wave patterns and the EEG machine sends the data to a computer or cloud server.

Name of the instrument: 24 channel EEG

Make: RMS

Model No:

Date of Purchase: 09.01.2017



| Type | Degree | DMS |
|-----------|------------|-------------|
| Latitude | 22.7367843 | 22°44'12" N |
| Longitude | 88.4562603 | 88°27'23" E |

25 Mar 2021, 10:08 am

Name of the instrument: UV Vis single beam Spectrophotometer

Make: LabardInstruchemPvt. Ltd.

Model No: Lim 330

Date of Purchase: 30.12.2016



Name of the instrument: UV Vis single beam Spectrophotometer

Make: Electronics India

Model No:

Date of Purchase: 30.12.2016



Instrument Name: UV-VIS double beam spectrophotometer

Make: Hitachi, Japan

Model Number: U-2910

Date of Purchase: 03-07-2017



Instrument Name: Atomic absorption spectrophotometer (including 13 Lamps)

Make: Perkin Elmer

Model Number: PinAAcle-500

Date of Purchase: 29-06-2017



Instrument Name: Temperature variable
Fluorescence spectrophotometer
Make: Hitachi, Japan
Model Number: Hitachi F-7000
Date of Purchase: 03-07-2017



Instrument name: Time correlated single Photon counting system

Make: Pico Quant, Germany

Model Number: Fluotime 200

Date of Purchase: 07.01.2020



Instrument Name: Gas Chromatography

Make: Agilent

Model Number: Agilent-7890B

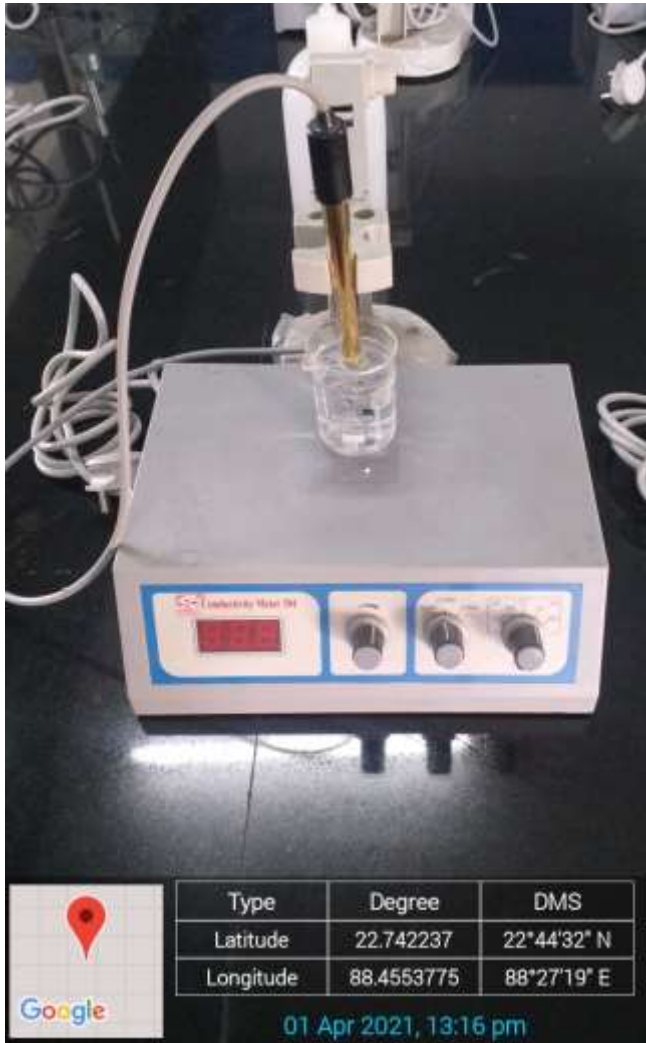
Date of Purchase: 19-04-2017



Instrument name: Vacuum Coating unit thin film

Model no: FL 400

Date of Purchase: 5.7.2017



Instrument name: Digital Conductivity meter
Model no: Systronics tipe304
Date of Purchase: 12.11.2018



Instrument name: Digital Potentiometer

Model no: Systronics tipe318

Date of Purchase: 12.11.2018



Instrument name: Turbidity meter
Make: LabardInstruChem Pvt. Ltd.
Date of Purchase: 12.11.2018



Instrument name: Digital pH meter

Model no: Systronics tipe335

Date of Purchase: 12.11.2018



Instrument name: Digital ultrasonic cleaner

Model no: Lmuc-3

Make: Labman

Date of Purchase: 12.11.2018



Instrument name: Digital colorimeter

Model no: Systronics tipe112

Date of Purchase: 12.11.2018



| Type | Degree | DMS |
|-----------|------------|-------------|
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25 Mar 2021, 09:48 am



Instrument name: UV cabinet

Model no:

Date of Purchase: 30.12.2016



Instrument name: Magnetic stirrer
(heating)

Make: Remi 2MLH

Date of Purchase: 12.11.2018



| Type | Degree | DMS |
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| Latitude | 22.7367843 | 22°44'12" N |
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25 Mar 2021, 10:01 am



Instrument name: Melting point apparatus

Make: LabardInstruchemPvt. Ltd.

Date of Purchase: 12.11.2018



Name of the instrument: ECG Monitor

Make: RMS

Model No:

Date of Purchase: 09.01.2017



| Type | Degree | DMS |
|-----------|------------|-------------|
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Name of the instrument: Pulse Oximeter

Make: RMS

Model No:

Date of Purchase: 09.01.2017



Name of the instrument: Phase Contrast
Microscope

Make: Carl Zeiss

Model No: 37081



| | | |
|-----------|------------|-------------|
| Type | Degree | DMS |
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30 Mar 2021, 15:48 pm

Name of the instrument: Hot air oven

Make:

Model no:

Date of Purchase: 25.06.2019



Name of the instrument: Furnaces
Make: Local
Model no: NA
Date of Purchase: 17.5.2018



| Type | Degree | DMS |
|-----------|------------------------|-------------|
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30 Mar 2021, 14:48 pm

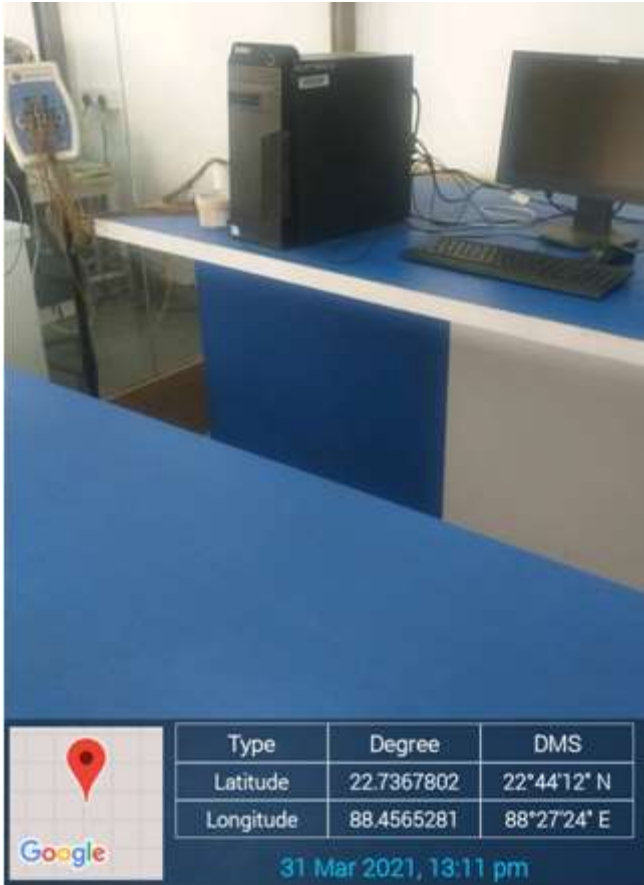


Name of the instrument: Audiometer

Make: RMS

Model No:

Date of Purchase: 09.01.2017



Name of the instrument: 24 channel EEG

Make: RMS

Model No:

Date of Purchase: 09.01.2017



Name of the instrument: Echo sounding
Model No: Fishfinder 350C
Date of Purchase: : 04-11-2016

| Type | Degree | DMS |
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01 Apr 2021, 10:53 am



Name of the instrument: Air Sampler
Make:
Model No: ENVIROTECH APM430
Date of Purchase: 10-09-2016

| Type | Degree | DMS |
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01 Apr 2021, 10:55 am



Instrument Name: Digital viscometer
Make: Brookfield , USA
Model Number:DV2TLV-GEC-P40502
Date of Purchase: 15-02-2019

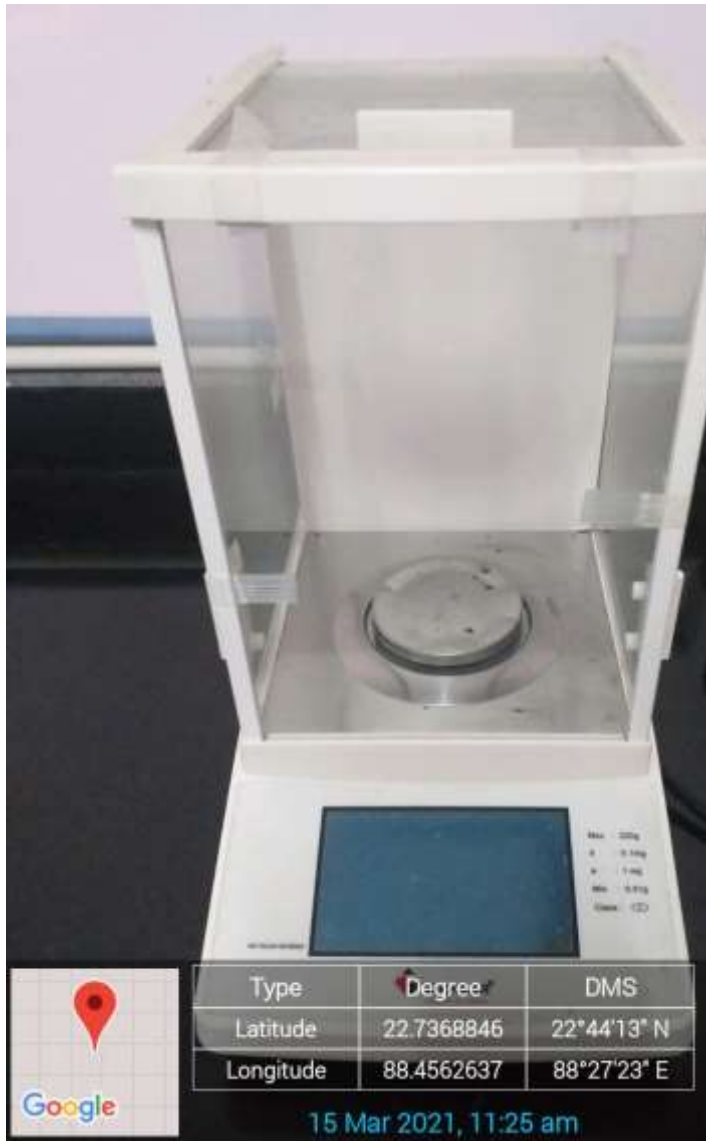


Name of the instrument: Stereo Microscope

Make: Magnus

Model no: Magnus MS13/MS24-20B1314

Date of Purchase: 17.03.2020



Name of the instrument: 4 Digit balance

Make: Wensar

Model No:72439

Date of Purchase:03.02.2019



Instrument Name: Photochemical reactor
Model Number: Nexa-1223
Date of Purchase: 25-03-2019

| Type | Degree | DMS |
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01 Apr 2021, 13:05 pm