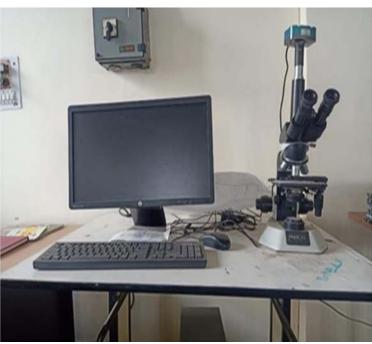


Centre for Energy and Environmental Engineering (CEEE) NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (HP) – 177005

Biofuel Laboratory Detail

S. No.	Brief Description of item	Quantity
1.	Analytical Balancer (Electronics) Model No: ABT220-5DM	01
2.	Auto Clave Portable PT-India (25 Ltr.) Pressure Cooker Type	01
3.	ECPH Tutor-1 Cyber Scan PH Tutor Meter	01
4.	Homogenizer H-500 equipped with S500 table stand	01
5.	Laboratory Centrifuge Eppendorf AG 22331 Hamburg	01
6.	Microscope (Radical RXL-4)	01
7.	Refrigerator (REF ECP 204SM- FFA-190 L)	01
8.	Servo Voltage Stabilizer	01
9.	Table Top Centrifuge (Multifuge X3R)	01
10.	Vertical Laminar Air Flow Cabinet	01
11.	B.O.D. Incubator	01
12.	Shaking Incubator	01
13.	Constant Temperature Bath	01
14.	Colony Counter Digital (3G2)	01
15.	Magnetic Stirrers	01
16.	Soxhlet Extraction Unit	01
17.	Muffle Furnace	01
18.	UV-VIS Spectrophoto Meter (Cary 100 UV-Vis)	01
19.	Trinocular Research Digital Microscope with Digital Camera (Magnus MLXi Plus) (ISH 500 5.0 MP)	01
20.	Constant Temperature Water Bath (WBRD-12)	01
21.	Autoclave Vertical (AV-50)	01
22.	Environmental Chamber (REMI CHM-10 Plus)	01

23.	Voltage Stabilizer	01
24.	Hot Air Oven (OF-02G JEIOTECH)	01
25.	Moisture Analyzer (MA 35M Sartorius)	01



Compound Microscope:

Uses and Applications:

- Identification of diseases.
- Study of bacteria and viruses.
- Detection of human fingerprints.
- A microscope with a high resolution and uses two sets of lenses providing a 2-dimensional image of the sample.



Microprocessor based pH meter:

Uses and Applications:

pH measurement

Temperature measurement

High performance instrument for accurate, reliable & precise pH & Temperature or mV & Temperature measurements simultaneously for water and wastewater



Vertical Laminar Air Flow

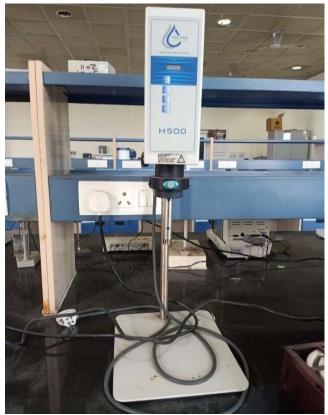


Shaker Incubator

Uses and Applications: Cell aeration

Cell aeration Studies of solubility Cell culturing

It has an ability to shake while maintaining optimal conditions for incubating microbes or DNA replications



Homogenizer H-500 equipped with S500 table stand

Uses and Applications:

The Waverly **H500 Homogenizer** is the most powerful rotor-stator **homogenizer** available; it can homogenize batches up to 5L.

The H500 has a maximum speed of 29,000rpm and reduces processing time significantly. The smooth motor drive provides safe and comfortable operation. An overload protection feature increases the life span of the motor. Smooth acceleration also prevents unnecessary spills. A flexible configuration of different generators and rotors make the H500 highly adaptive to most applications. The generator shaft is constructed of 316L stainless steel. Reliable results are assured with extremely high precision and speed. Assembly and disassembly of rotors requires no special tools.



Distillation Unit

Uses and Applications:

Distillation is used to separate liquids from nonvolatile solids, as in the separation of alcoholic liquors from fermented materials, or in the separation of two or more liquids having different boiling points, as in the separation of gasoline, kerosene, and lubricating oil from crude oil.

A water distiller is a machine that purifies water by removing more than 99.9% of contaminants, Including chemicals, heavy metals, microorganisms and sediment. While design may vary, a typical water distiller consists of a boiling chamber, a cooling system and a separate storage tank



Magnetic stirrer

A magnetic stirrer is a device widely used in laboratories and consists of a rotating magnet or a stationary electromagnet that creates a rotating magnetic field. This device is used to make a stir bar, immerse in a liquid, quickly spin, or stirring or mixing a solution, for example. A magnetic stirring system generally includes a coupled heating system for heating the liquid