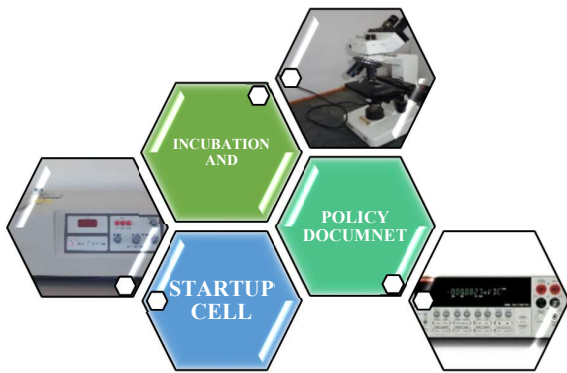




**AGASTI ARTS, COMMERCE AND DADASAHEB RUPWATE SCIENCE
COLLEGE, AKOLE, DIST. AHMEDNAGAR 422601**



**INCUBATION AND
START-UP CELL
POLICY DOCUMENT**

PRIN. DR. BHASKAR SHELKE

College has started Incubation and Start-up Cell to utilize the resources such as laboratory, infrastructure, experts to enhance their research project, develop the skills and employability of the students and social activities for the development of entrepreneurship culture and hence the benefit to the society.

INCUBATION AND START-UP CELL

“To start a start-up and start-up to stand up”

PRTEFACE

Incubation and Start-up Cell is created in the college with a motto from idea, **“To start a start-up and start up to stand-up”** which provides facilities to nurture young firms (start-up) during their early months or years of growth. Further, this collaborative program helps new start-ups to succeed. The list of the equipment, instruments, Survey reports, Maps, literatures, Computer facilities available in college is given below in the document. The services are offered by this centre to the teachers, researchers, students and society for their purpose. To assess the market conditions surveyors are made available within the students related to various fields so that the students can learn through and incubate the ideas in their mind. This will help to develop entrepreneurs from the students. The centre identifies the team of the students as per type of the work to be done and accordingly the service is provided. Collaboration and linkage with the Government and Non-Governmental Organizations (NGOs), industries, and firms are established for the students' progress. The main purpose of establishment of the centre is to attract, select, retain and manage start-ups. The ultimate outcome of the centre is to convert innovative ideas into start-ups.

College has established Academic and Research Committee which helps teachers for their short-term projects, completion of PhDs, publish research papers and file patents. Internship opportunities are made available to the students. They work as an internee for minimum 60 hours in the last year of their degree program. They get hands on experience through internship. Lectures of entrepreneurs on entrepreneurship development have been organised for students.

OBJECTIVES

- A. To provide laboratory, commerce support to the students and promote his/her ideas.
- B. To give/ provide Support Services to Community: The facility of laboratories, the services of the equipment in the departments, library support and other services such as internet facility, computer, support of commerce, service to file the patent etc. will be provided through the centre to the community.
- C. To build entrepreneurial ambience in the college.
- D. To nurture entrepreneurship spirit in students.
- E. To develop different skills in students.
- F. To promote research culture in college.

Following equipment and support is available in the college laboratories which can be used for developing, testing and incubating the ideas.

❖ Department: Wine, Brewing and Alcohol Technology



Bio-Reactor (Fermenter)

Fermenter is the device in which the substrate is utilized by living cells or enzymes to generate a product of higher value. During fermentation yeast transform sugars present in juice into ethanol and CO_2 . The process of fermentation in wine making turn's grapes juice into alcoholic beverage. Preparation of Red wine, White wine, Rose Wine,

Sparkling Wine from fruit juices of Grapes, Pomegranate.



Venturimeter

Venturimeter is the device in which the pressure energy is converted into kinetic energy. The principle is based on Bernoulli's equation. This device is used to measure the flow rates of fluid inside pipe – to calculate the velocity of the fluids running through pipeline. The principle is used to calculate the velocity of the wine to measure the flow rates.



Bacteriological Incubator

Bacteriological Incubator is used for storage of bacterial culture at 37° Celsius. By pressing the knob require temperature is set to 37°. The bacterial incubator is used for development and storage of bacterial cultures in the petridishes. It is most useful in various experiments of microbiology related to Wine technology.



Freezer

The freezer plays a vital role in research, especially in fields such as biology, medicine, and chemistry. It provides a controlled environment with extremely low temperatures, allowing researchers to store and preserve various samples, reagents, and biological materials for future analysis and experimentation. The freezer's ability to maintain a consistent temperature is crucial for maintaining the integrity and viability of sensitive substances, such as cells, tissues, enzymes, and DNA. It enables long-term

storage, safeguards against degradation, and facilitates the replication of experiments over time. Overall, the freezer is an indispensable tool that contributes significantly to the success and progress of scientific research.

❖ Department of Botany



Binocular Light Microscope

Binocular Light Microscope is the important tool which employs the artificial visible light to detect and magnify small objects. Lenses with different magnifications increase the sharpness and clearness of the specimen. It is the most fundamental tool of the life sciences and useful in study of Cell biology, Anatomy, Pharmacognosy, Genetics, Pathology, Microbiology, etc.



Fruit Processing Machine

The fruit processor with motor is used to separate seeds from the fruits. The fruits passing through the machine are rolled in such a way that the seeds from the fruits are made seed free. The separated parts of the fruits are used for further processing. It saves time and labor. It is most important machine in Amla fruit industry used for preparation of Amla Candy.



Fruit Pulveriser Machine

The machine utilizes the high speed relative motion between moving tooth set and regular tooth set which makes material crushed through rubbing. Fruit Pulverisers are used to break, crush and grind the fruits having hard surface. It is suitable for making powder of medicinally important fruits, roots, tubers, seeds etc. Useful for preparation of ayurvedic formulations like Triphala Churna.



Autoclave

An autoclave is the machine that uses steam under pressure to sterilize instruments, harmful bacteria, virus, fungi and spores on the item placed inside a pressure vessel. The autoclave is used to sterilize culture medium equipments, glassware's for plant tissue culture experiments and microbial cultures, etc.



Shaker

The shaker is a valuable instrument widely used in research laboratories across various scientific disciplines. It provides controlled agitation and mixing of samples, allowing researchers to carry out numerous important tasks. The shaker's oscillating or orbital motion is particularly useful in a range of applications, including cell culture, fungal culture, bacterial culture, protein expression, chemical reactions, and enzyme assays. It ensures uniform distribution of substances, enhances reaction kinetics, and promotes efficient mixing of reagents. Additionally, the shaker's adjustable speed and temperature settings offer versatility and customization according to specific experimental requirements. With its ability to automate and standardize processes, the shaker greatly aids in reproducibility, data accuracy, and time efficiency. In summary, the shaker is an indispensable tool that facilitates various scientific procedures and contributes to the advancement of research.

❖ Department: Physics



Furnace (1200 °C)

Principle:

A furnace operates on the principle of controlled heating to achieve high temperatures. It consists of a heating element or a burner that produces intense heat, which is then contained within an enclosed space. The furnace is designed to efficiently transfer heat to the objects or materials placed inside, allowing them to reach and maintain high temperatures.

Applications:

1. Materials Testing: Furnaces are used to study how materials react and behave under different temperature conditions.
2. Crystal Growth: Furnaces aid in growing single crystals of materials like semiconductors for studying their properties.
3. Thermal Analysis: Furnaces help analyze the thermal properties and transformations of materials.
4. Materials Synthesis: Furnaces enable the controlled synthesis of nanoparticles, thin films, and ceramics.
5. High-Temperature Research: Furnaces are essential for studying materials that can withstand extreme heat and for investigating their properties under such conditions.



Magnetic Stirrer

Principle:

The principle of a magnetic stirrer involves utilizing a rotating magnetic field to induce the spinning motion of a magnetic stir bar, enabling efficient mixing and stirring of liquids in laboratory settings.

Applications:

1. Laboratory Experiments: Magnetic stirrers are widely used in labs for mixing liquids, solutions, and suspensions during chemical reactions, sample preparation, and cell culture.
2. Quality Control: Magnetic stirrers ensure uniformity in samples for testing and analysis, preventing settling or stratification of particles or components.
3. Education: Magnetic stirrers are used in educational settings to demonstrate the principles of mixing and stirring, helping students understand homogeneous mixture creation.



Pellet making hydraulic press machine and die

Principle:

It uses hydraulic pressure to compress and mold wood or other materials into pellets. The machine has a compression chamber with a mold where the material is placed. When hydraulic pressure is applied, the material gets compressed into the desired pellet shape.

Once the pressure is released, the mold can be opened, and the pellet is ready for further

processing. In summary, the machine uses hydraulic force to shape materials into pellets efficiently and accurately.

Application:

1. **Pellet Manufacturing:** The machine is used in industries to efficiently produce pellets for shipping, storage, and transportation purposes.
2. **Material Recycling:** Hydraulic press machines compress and shape recycled materials into pellets, reducing waste volume and facilitating handling and transportation.
3. **Customized Pellet Production:** The machine enables the production of tailored pellets with specific dimensions and load-bearing capacities.



Gas sensor testing setup

Principle:

Gas sensing apparatus detects and measures the presence of specific gases. It uses a gas sensor that reacts with the target gas. When the gas comes into contact with the sensor, it causes changes in the sensor's properties. These changes are converted into an electrical signal. The signal is processed and analyzed to determine the gas concentration.

The results are displayed or outputted for researchers to study and monitor gases in their research. This helps in applications such as environmental monitoring, industrial safety, and gas analysis.

Applications:

1. **Environmental Monitoring:** It helps measure and monitor pollutants in the environment, ensuring better air quality and understanding the impact of pollution.
2. **Industrial Safety:** It detects hazardous gases in industrial settings, ensuring worker safety and enabling timely interventions to prevent accidents.
3. **Gas Analysis and Research:** It aids in scientific research to analyze gases, study their interactions, and monitor gas production or consumption in chemical processes.

❖ **Department: Chemistry**



Micro synthesis Oven Model RG-31IR

Principle:

Microwave oven works on the principle of electromagnetic energy into thermal energy.

Applications:

1. To carry out reaction by green approach.
2. To reduce time, substrate of the reaction.
3. Microwave is used for drying, tempering, pasteurization, sterilization.
4. Microwave radiations are used for chemical reactions.



Digital Spectrophotometer EQ 820

Principle:

The basic principle is that each compound absorbs or transmits light over a certain range of wavelength. Spectrophotometry is a method to measure how much chemical substance absorbs light by measuring the intensity of light as a beam of light passes through sample solution.

Applications:

- 1) Detection of concentration of substance.
- 2) To measure the absorbance and transmittance of the sample solution.
- 3) Detection of impurities.
- 4) Structure elucidation of organic compounds.
- 5) Monitoring dissolved oxygen content in fresh water and marine ecosystem.
- 6) Characterization of proteins.
- 7) Detection of functional groups.
- 8) Respiratory gas analysis in hospitals.
- 9) Molecular weight determination of compounds.
- 10) It is used to identify classes of compounds in both pure state and biological preparation.



IKA Magnetic Stirrer with Heating

Principle:

A magnetic stirrer or magnetic mixer is a laboratory device that employs a rotating magnetic field to cause a stir bar (or flea) immersed in a liquid to spin very quickly, thus stirring it. The RT series of multi-position digital magnetic hotplate stirrers are ideal for synchronous heating and stirring applications. The wear-free magnetic coil technology provides consistent and noiseless stirring on all positions. The RT series of magnetic stirrers are available with 5, 10 and 15 stirring positions and can be used for volumes up to 6 l (H₂O).

Applications:

1. The primary use of magnetic stirrer or hot plate with magnetic stirrer is to conduct biological and chemical experiments by mixing two components.
2. It is equally suitable for solids or liquid samples to obtain a consistent liquid mixture. Examples include media for bacterial growth and chemical synthesis.
3. For mixing of miscible liquid.
4. Homogenization of liquids in magnetic stirring Homogenization is an operation of transformation of two liquid/liquid or liquid/solid phases into an emulsion that prevents the phases.
5. A hot plate is a self-contained electrical warmer where temperature control is done via heating components. Hot plates are commonly used in science to heat materials in glass beakers, flasks, vials, bottles, and other containers. They are tiny enough to fit on laboratory tabletops and have a modest footprint. Electronic hot plates are usually more constant and reliable than gas burners.
6. Magnetic stirrers are used to mix fluids of various viscosities using a fast-spinning stir. They are commonly used in biology labs, chemistry labs, and pharmacy labs for sample preparation and analysis, as well as for organic synthesis, oil analysis, soil suspension extraction, dialysis, pH monitoring, producing buffer solutions, among other laboratory tasks to get homogenous mixtures.



pH Meter

Principle:

A pH meter is a scientific instrument that measures the hydrogen-ion activity in solutions, indicating its acidity or basicity (alkalinity) expressed as pH value. The principle of pH meter is the concentration of hydrogen ions in the solution e.g. it is the negative logarithm of an hydrogen ion. The pH range of solutions varies between 1 to 14, where 1 is the highest in acidic nature, and 14 is the highest in alkalinity.

Applications:

1. pH Measurement is very crucial in Agriculture industry for soil evaluation. Major crops require alkaline environment and hence pH Measurement becomes necessary.
2. It is also used in Food industry especially for dairy products like cheese, curds, yogurts, etc.
3. It becomes mandatory for chemical and pharmaceutical industries.
4. It becomes a significant factor in the production of detergents.
5. pH level monitoring is essential in water treatment plants and RO water purifiers.



Digital Melting Point App.

Principle:

A melting point apparatus typically works on the principle of reflectance and transmittance of light falling on and passing through the sample. The change in light transmission is easily visible; therefore, the working of a melting point apparatus is not much complicated. The melting process of a substance can be categorized into five stages, namely, moistening, sintering, collapse, meniscus, and clear point. The moistening point is the initial stage of melting an element. In the collapse stage, the substance is mostly solid and contains a small amount of molten material. At the meniscus point, a major portion of the sample gets melted, but it still contains some of the solid particles. The substance is said to be fully melted once it reaches the clear point or clear stage. The intensity of light passing through the sample varies throughout the stages of the melting process of the substance and is easy to notice. The percentage of light intensity shining through the capillary tubes containing the sample is recorded and compared to determine the difference in optical properties, thereby allowing the user to estimate the melting point of the sample substance.

Applications:

1. Melting point apparatus is typically used in the research and development domain to study the structure and characteristics of certain solid substances.
2. Melting point apparatus tells about the purity of a substance, which is why it is prominently used by the quality control department of various industries.
3. It is used by the pharmaceutical and medical industries for drug testing.
4. Perfume industries make use of melting point apparatus to manufacture scents having different fragrances.

**UV Chamber****Principle:**

Ultraviolet germicidal irradiation (UVGI) is a disinfection method that uses short-wavelength ultraviolet (ultraviolet C or UV-C) light to kill or inactivate microorganisms by destroying nucleic acids and disrupting their DNA, leaving them unable to perform vital cellular functions.

Applications:

1. UV polymerization in dental and research labs
2. UV sterilization of surfaces
3. UV drying of lacquered or printed surfaces
4. UV hardening of glued parts (UV curing)
5. Polymerization of UV sensitive synthetics
6. EPROM deletion using UV irradiation
7. UV Chambers are mainly used in most of the dental clinics and are used to store sterilized dental instruments to avoid recontamination from dental operator

**UV- Visible Spectrophotometer****Principle:**

Ultraviolet-visible spectroscopy is considered an important tool in analytical chemistry. In fact, this is one of the most commonly used techniques in clinical as well as chemical laboratories. This tool is used for the qualitative analysis and identification of chemicals. However, its main use is for the quantitative determination of different organic and inorganic compounds in solution. Basically, spectroscopy is related to the interaction of light with matter. As light is absorbed by matter, the result is an increase in the energy content of the atoms or molecules. The absorption of visible light or ultraviolet light by a chemical compound will produce a distinct spectrum.

When ultraviolet radiations are absorbed, this results in the excitation of the electrons from the ground state towards a higher energy state. The theory revolving around this concept states that the energy from the absorbed ultraviolet radiation is actually equal to the energy difference between the higher energy state and the ground state.

Applications:

1. The concept and principle of UV spectrophotometer have several applications. For instance, this is used to detect a functional group. It can be used to detect the absence or the presence of chromophore in a complex compound.
2. This can also be used to detect the extent of conjugation in polyenes. When there is an increase in double bonds, the absorption shifts to the longer wavelength. In addition, UV spectroscopy may be used to identify unknown compounds. The spectrum of an unknown compound is going to be compared with the spectrum of a reference compound. If both spectrums coincide, this unknown compound will be successfully identified.
3. UV spectroscopy can also help determine the configurations of a geometrical isomer. It has been established that cis-alkenes are absorbed at a different wavelength compared to trans-alkenes. If one of the isomers comes with non-coplanar structure, it can still be determined by UV spectroscopy.



Rotary Vacuum Evaporator

Principle:

Rotary vacuum evaporator users tend to generally want to know the principle behind this complex and brilliant piece of laboratory instrument that they are using. Shortened to the rotovap, these are widely used in both biology and chemical laboratories across the globe. The rotovap has one main purpose and that is to efficiently and effectively allow the evaporation of solvents. So read on as we dive into the principle of the rotary vacuum evaporator.

From a simpler point of view, the system features a rotating flask and a condenser that has its own collecting flask. The principle involved revolves around reducing the boiling points of the liquids while there is a decrease in pressure. In essence, this allows vaporization to occur at significantly lower boiling point temperatures while maintaining normal pressure.

Applications:

1. Distillation (Continuous and Discontinuous)
2. Concentration
3. Solvent Recycling
4. Solvent Evaporation and Recycling

5. Reflux Process Reactions
6. Component Drying
7. Component Purification
8. Fine Chemical Synthesis
9. Crystallization
10. Molecular Cooking



Digital water bath

Principle:

Laboratory water bath has a Cu50 temperature sensor, which transfers water temperature to resistance value, and amplified and compared by an integrated amplifier. Then output the control signal, and efficiently control the average heating power of the electric heating tube and maintain water in constant temperature.

Applications:

1. Used for incubation of cell culture.
2. Water Bath also used as a heat source for flammable chemicals.
3. It is used to facilitates chemical reactions.
4. Used to heat up chemical reagents.
5. Used for the melting of some substance.
6. It is used to increase the solubility of some insoluble substances.



Incubator/ Hot Air Oven

Principle:

Sterilization by dry heat is performed by conduction. The temperature is consumed by the surface of the objects, then moves towards the core of the object, coating by coating. The whole object will ultimately attain the temperature needed for sterilization to take place.

Dry heat causes most of the injury by oxidizing particles. The primary cell components are damaged and the organism dies. The temperature is kept for about an hour to eliminate the most ambitious of the resistant spores.

Applications:

1. It is used to dry glassware, sterilize N95 masks, general instruments, and packaging items in life science, microbiology laboratory.
2. It is also used in chemical and pharmaceutical industries, food and beverage industries, textile industries.
3. It helps in the elimination of moisture from the material thus it is used in curing, drying, baking, and annealing.
4. It is also used for the Measurement of mixed liquor suspended solids (MLSS).
5. In certain laboratories and hospitals, it is used to store materials at a constant temperature.

**Deep Freezer****Principle:**

The working principle of a deep freezer is that **the coils absorb heat from the surrounding air**, but they can't do this if they're covered with ice or frost. It melts the ice on the coils and the water goes through a system of drainage pipes to a pan from where it can evaporate. The basic working principle of a freezer is evaporation. When a liquid evaporates it causes the surrounding area to

cool. A vapor compression cycle is used in most freezers. In this cycle, a circulating refrigerant enters a compressor as low-pressure vapor at or slightly above the temperature of the freezer interior.

Applications:

1. **For storing Blood Samples and Medical samples:** - The **Ultra-Low Deep Freezers** are widely used in medical laboratories and for industrial purposes to store chemicals, bloods, tissue cultures, and other medical samples that can only be stored and preserved in low temperature range. It is quite obvious that no medical samples & chemicals can be stored in high-temperatures and chemicals. These freezers are totally different from the regular freezers as they do not maintain constant temperatures but these devices helps to set different temperatures as per the test requirement.

The temperature range of deep freezers can be set between 0 to -10 but the temperature of the freezers that are used in laboratories and medical industries can be set up to -60 degree Celsius.

2. **Helps to Preserve Medicines to prevent them from Spoilage:** - Apart from preserving blood samples, they are used to preserve medicines and prevent the medicines from spoilage. These deep freezers are also known as Medical Refrigerators that are used to preserve stem cells of newly born baby for many years that can be used to prevent them from diseases in future.

3. **Enhance the life of injections and Vaccines**

4. Ultra Low Temperature Deep Freezers are used to enhance the life of the vaccines and injections.
5. As to more specific examples of the above, ultra-low temperature freezers are used to store biological samples such as DNA/RNA, plant samples and insect artifacts, autopsy materials, blood, plasma and tissues, chemicals, drugs and antibiotics.
6. Manufacturing firms and performance testing labs use ultra-low temperature freezers to determine the ability of products and machinery to perform reliably under severe low temperature conditions such as found in Arctic and Antarctic regions.



Heating Mantle

Principle:

A heating mantle, or isomantle, is a piece of laboratory equipment used to apply heat to containers, as an alternative to other forms of heated bath. In contrast to other heating devices, such as hotplates or Bunsen burners, glassware containers may be placed in direct contact with the heating mantle without substantially increasing the risk of the

glassware shattering, because the heating element of a heating mantle is insulated from the container so as to prevent excessive temperature gradients. Heating mantles may have various forms. In a common arrangement, electric wires are embedded within a strip of fabric that can be wrapped around a flask. The current supplied to the device, and hence the temperature achieved, is regulated by a rheostat. This type of heating mantle is quite useful for maintaining an intended temperature within a separatory funnel, for example, after the contents of a reaction have been removed from a primary heat source.

Applications:

1. Chemical Synthesis: Heating mantles are used in chemistry labs to heat reaction vessels during chemical reactions, allowing controlled and uniform heating for synthesizing organic compounds.
2. Distillation and Purification: Heating mantles aid in distillation by heating the flask, causing the more volatile component to evaporate, separate, and condense, enabling purification of substances.
3. Solvent Evaporation: Heating mantles gently and precisely evaporate solvents from solutions to concentrate desired compounds or isolate specific substances.
4. Biological Sample Preparation: Heating mantles are used in biology research to denature, anneal, or incubate DNA or RNA samples at specific temperatures for experiments.



Fuming Chamber

Principle:

A fuming chamber is a safe enclosure used in labs to handle and contain dangerous fumes generated during chemical reactions.

Applications:

1. Chemical Reactions: Fuming chambers ensure safety when working with reactions that produce hazardous fumes.
2. Hazardous Material Handling: They are used for storing and handling volatile chemicals safely.
3. Fume Containment: Fuming chambers control fumes during sample preparation, minimizing exposure risks.
4. Forensic Analysis: They aid in fingerprint development using fuming techniques.



Water Distillation Plant

Principle:

A water distillation plant purifies water by heating it to create steam, which is then condensed into pure water, leaving impurities behind.

Applications:

1. Laboratory Use: Provides high-quality distilled water for experiments and preparing reagents.
2. Medical and Pharmaceutical Industries: Produces purified water for medications and sterile solutions.
3. Industrial Processes: Supplies pure water for electronics, cosmetics, and food processing.
4. Water Treatment: Produces clean drinking water in areas with limited access or during emergencies.



Hot Plate

Principle:

A hot plate is a flat, electrically heated surface used for heating substances in the lab.

Applications:

1. Heating Reactions: Used in chemistry labs for controlled heating during chemical reactions.
2. Sample Preparation: Helps evaporate solvents and concentrate samples for analysis.
3. Melting and Thawing: Melts substances like agar or thaws frozen samples.
4. Temperature Control: Maintains a constant temperature for experiments or incubating samples.



Sonicator

Principle:

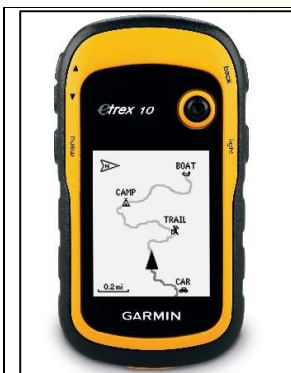
A sonicator uses high-frequency sound waves to clean objects immersed in a liquid.

Applications:

1. Sample Homogenization: Breaks down cells and releases biomolecules for analysis.
2. Cell Lysis: Disrupts cell membranes to extract proteins and nucleic acids.
3. Material Dispersion: Disperses particles in suspensions or solutions for uniform distribution.
4. Cleaning and Degassing: Cleans lab equipment by removing contaminants and air bubbles.

Akole, Dist. Ahmednagar 422601
(Maharashtra)

❖ Department of Geography



GPS

1. To determine the location
2. To navigate
3. To track movements
4. To prepare the cadastral maps
5. To set the precise time



Dumpy Level

1. To prepare the contour maps
2. To prepare the cross sectional profiles
3. To determine the difference between the heights of locations.



Theodolite

1. To prepare the contour maps.
2. To prepare the cross sectional profiles.
3. To determine the difference between the heights of locations.
4. To measure the angles and distance.



Plane Table

1. To survey and prepare land use maps.
2. To prepare the construction plans.
3. To reorient the plans for constructions.



Laboratory Oven

1. To dry the soil samples.
2. To determine the soil moisture.

Akole, Dist. Ahmednagar 422601
(Maharashtra)



Analytical Balance

1. To weight a soil samples.
2. To determine the soil moisture.



pH Meter

To measure the pH of soil and water.



Soil Sieving Machine

1. Obtain a test sample of all crushed, clean, durable aggregate with a relatively uniform size distribution over the range of sieves to be included.
2. Determine the total mass of the test sample and the tare mass of each sieve.
3. Separate the sample into its various sieve sizes using the mechanical shaker operated for a trial period.
4. At the end of the trial period, determine the amount of material retained on each sieve by weighing the sieves and retained material and subtracting the mass of the sieve.
5. Reassemble the sieves in the mechanical shaker, and shake for an additional period of time of not less than 1 min.



Electric Conductivity Meter

1. EC Meters are applicable for testing the conductivity of non-ferrous metals, including copper and aluminum.
2. They are also applicable for pre-anodizing conductivity tests for aluminum
3. The current resistance of a material is also

obtainable with an electrical conductivity meter

4. For material hardening and heat working processes for metals, an electrical conductivity meter is used to monitor the heat treatment process.
5. For alloys, an EC meter is used to determine the homogeneity of the alloy components.



Dual Beam Spectro Photo Meter

1. A photometer is an instrument that measures the strength of electromagnetic radiation in the range from ultraviolet to infrared and including the visible spectrum.
2. Most photometers convert light into an electric current using a photoresistor, photodiode, or photomultiplier.
3. A photometer is used to determine the Intensity of light.
4. Photometers measure illuminance, Irradiance, Light absorption, Scattering of light, Reflection of light, Fluorescence, Phosphorescence, Luminescence.



Water Distillation Plant

1. To distil the water for soil testing.



Computer Laboratory

1. To analyze the geospatial data.
2. To prepare maps
3. To present the results of data analysis and mapping



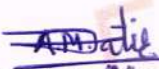
Satellite Images

1. To providing a base map for geographical reference
2. To prepare land use maps
3. To prepare the maps for disaster mitigation planning and recovery.
4. To prepare maps for planning and management.




Toposheet

1. To providing a base map for geographical reference
2. To prepare land use maps
3. To prepare the maps for disaster mitigation planning and recovery.
4. To prepare maps for planning and management.


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