

**B.L.D.E. ASSOCIATION'S**

**COMMERCE, B.H.S. ARTS & T.G.P SCIENCE COLLEGE, JAMKHANDI - 587301**

**(DISTRICT: BAGALKOT)**

**NAAC 3<sup>rd</sup> Cycle Accredited with 'A' Grade (CGPA 3.32)**

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## **CRITERIA – III**

### **Research, Innovations and Extension**





*3.2.1 Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge*

## **SOPHISTICATED LABORATORY EQUIPMENTS**

In current scenario, research in basic sciences has given tremendous importance. Interdisciplinary research merged different areas especially Chemical Sciences, Life Sciences and Physical Sciences. Teaching staff and students from our college is also working in above area. Therefore it was need of time to set up sophisticated instrumentation facility at our college to support teaching staffs and students to carryout research related activities and to perform Major Research Projects (MRP).

The below mentioned are the sophisticated instruments we are using in the college both for the benefit of faculties as well as for the students to enhance their practical level skills and research related activities.

### **Objectives:**

- 1) To provide analysis facility for teachers and students.
- 2) Encourage students and teachers to initiate research in high priority areas.
- 3) To increase research collaborations, MOU and consultancy with other colleges.

## DEPARTMENT OF CHEMISTRY



Nitrogen analyzer



Nitrogen analyzer



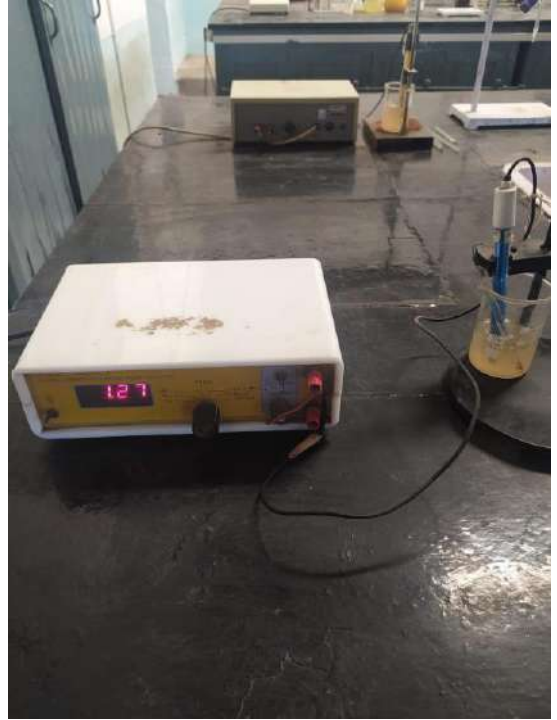
Balancer



Atomic spectrophotometer



TDS Analyser



Conductivity meter



Digital colorimeter



Conductivity meter



pH Meter



Scanning mini spectrophotometer



pH Meter



Digital colorimeter



**Government of Karnataka, Vision Group of Science and Technology (VGST) Sponsored Minor Research Project received by the National Research Professor Chairman, VGST, Prof. C.N.R Rao.**

**DEPARTMENT OF BIOTECHNOLOGY**



Incubator



Ultra Centrifugator



Laminar Air Flow



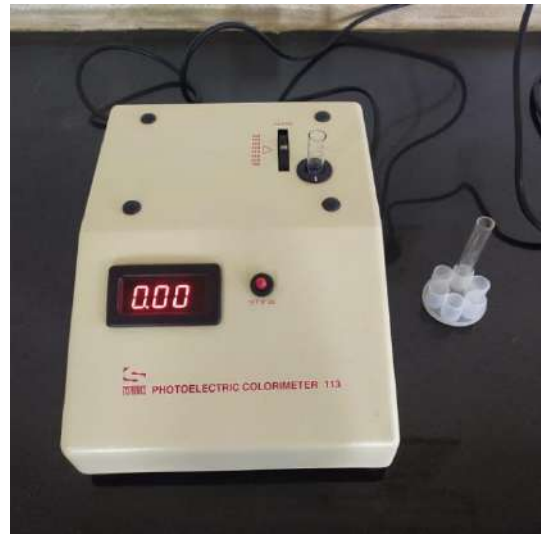
Rotatery Heavy Shaker



## DEPARTMENT OF ZOOLOGY



Microscopes with charts



Colorimeter



Spectrophotometer



Microtome



Stereosome



Binocular microscope



Stereosome



Colorimeter

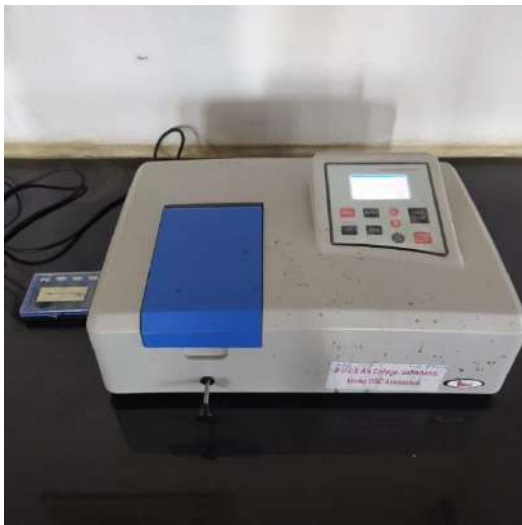
DEPARTMENT OF BOTANY



Microtome



Colorimeter



Spectrophotometer



Colorimeter



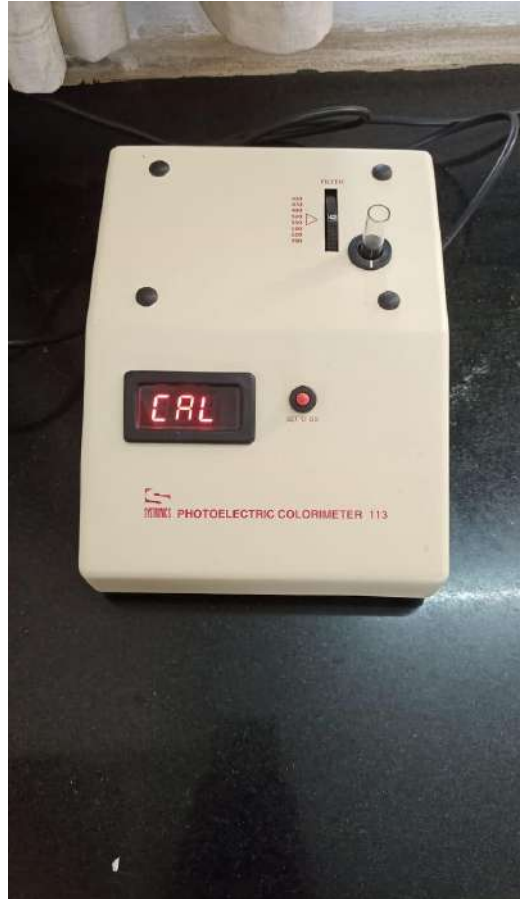
Stereosome



Binocular microscope



Stereoscope



Colorimeter



Ecological instruments

## MUSEUM



Entire view of the museum



Entire view of the museum



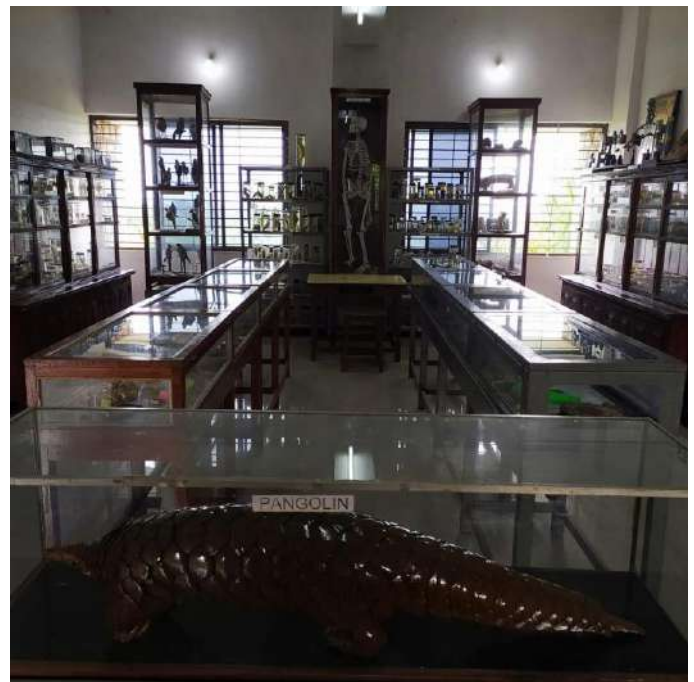
Human skeleton system



Different types of Aves



Different types of mammals



Entire view of the museum





Endoskeleton of Rabbit



Endoskeleton of Varanus



Endoskeleton of Aves



Wood anatomy



Gymnosperms



Rare plant collections



Nest collection of different animal species



Echinoderms



Different Types of seed collections



Specimen collections



Different types of Aves



Cryptogams collection with displayed model system



Specimen collections with displayed model system

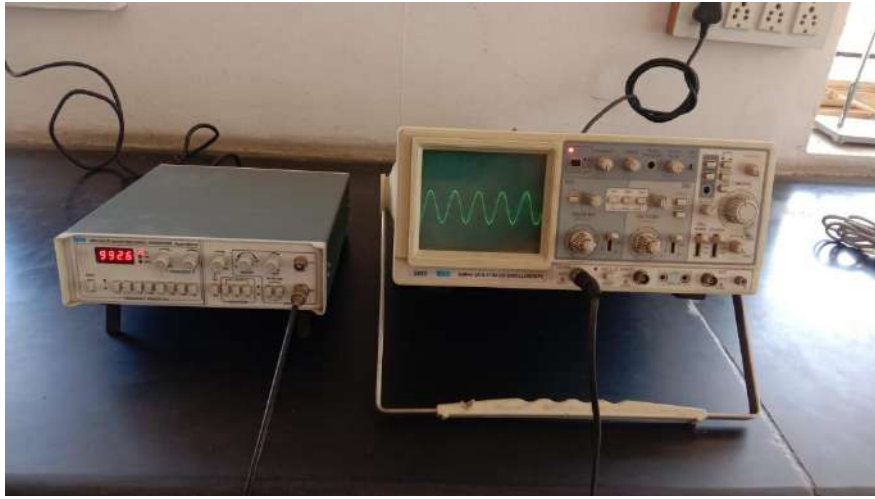


Preserved Crocodile



Modification in beak and feet of birds

**DEPARTMENT OF PHYSICS**



CRO and Signal Generator



Perpendicular axis Theorem



Digital Potentiometer



Solar Cell



DC Power Supply



Rheostats



AF Oscillator



Solid Divergence of Laser View





Helmholtz galvanometer



Thermo EMF Amplifier



Bar Pendulum



Micro Controller 8051



Microprocessor M/P 8085



Searl's Goniometer



Telescopes



Newton's rings experiment setup



Polarimeter



Ballistic galvanometer



Screw gauge and Vernier Callipers



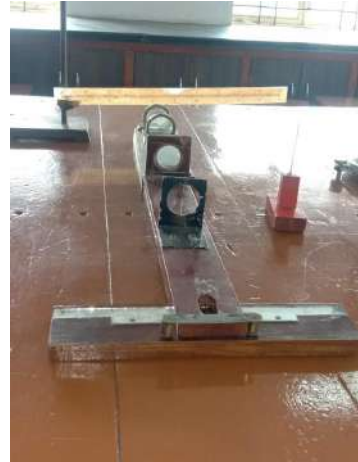
Spectrometer



Sonometer



Turn Table



Searl's Goniometer



Y-by Bending Experimental setup



Digital Stopwatch



Tuning forks



Reflecting galvanometer



Sodium lamp

## QR CODE FOR PLANT IDENTIFICATION

In an effort to save the local plant species around B.L.D.E.A's Commerce, BHS Arts & TGP Science College Campus of Jamkhandi, the Department of Life Sciences (Zoology, Botany and Biotechnology) has proposed tagging trees with QR codes under the Nature Club. The Department has already completed tagging trees in the college campus with the help of students.

The college grounds also has an herbal garden with up to 100 different varieties of plants in that we also have collections of medicinal plants and ornamental plants. Other than these, there are more than 60 different types of plants, like flowering plants from the genus Terminalia, Ficus plants, different types of palms, bamboo, and others.





Bagalkot, Karnataka, India

Maigur colony 1st Main, Karnataka 587301, India

Lat 16.507015°

Long 75.275948°

28/07/21 11:59 AM

## VERMICOMPOST UNIT

The Vermicompost unit is created by the Zoology Department of BLDEA's Commerce, BHS Arts and TGP Science College, Jamkhandi with the end goal of profiting neighbourhood network and Garden of College Campus. In our institution we have developed two beds for Vermicompost in the garden. The Size of each bed is 8X4X4 We have brought worms of *Eisenia fetida* species in November 2020 and started the Vermiculture unit. We have used dung from domestic animals as feed for earthworms in beds in early days for their growth. The material of Biomass for example overabundance leaf, litter just as biomass of plants present in garden for example leaf, stem, blossom litter and so on will get degraded gradually and later on it was moved to compost sacks first, following they incompletely deteriorated squander material then it was studied and observed by the students in the live condition and figured out how to form Vermicompost beds. After at regular intervals, beds were watered with the assistance of sprayer, overabundance water inside beds was gathered and utilized as Vermiwash for plants present in our garden. Significance of this Vermicompost bed for our UG Students of Zoology is to find out about arrangement and utilization of Vermicompost in cultivation of crops. Rather than burning waste material (for example Biomass of Plants) we converted it into Vermicompost beds on account of this we could stay away from contamination occurring in nature and make use of this dried litter leaves and turn into Vermicompost.



