2.3.1: Student centric methods, such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences using ICT tools

STUDY TOUR REPORT

I, III & V semester BSc Botany
I & III Semester MSc Botany
2021-22

PROVIDENCE WOMEN'S COLLEGE

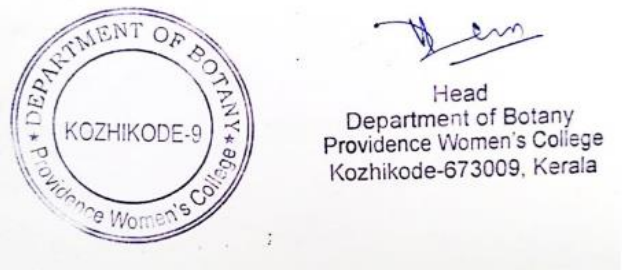
UGC-College with Potential for Excellence; Reaccredited by NAAC with A+ grade (GP 3.52)
Affiliated to the University of Calicut
KOZHIKODE, KERALA 673 009, INDIA
www.providencecollegecalicut.ac.in

DEPARTMENT OF BOTAY

PROVIDENCE WOMEN'S COLLEGE, KOZHIKODE-9,

CERTIFICATE

Certified that this is an authentic report of the field trips / study tours conducted by students of I & III Semester M.Sc. Botany and I, III & V Semester B.Sc. Botany, Providence Women's College, during the academic year 2021-22, as part of the curriculum of BSc and M.Sc. Botany Programmes of the University of Calicut.



REPORT OF FIELD VISITS TO STUDY THE ANGIOSPERM FLORA OF ECOLOGICALLY DIFFERENT LOCALITIES

INTRODUCTION

Study tour aims at providing travel experience with specific learning goals. The learning goals of each study tour varies, but are always spelled out in the course syllabus that is distributed to each learner. Study tour emphasizes experimental learning and offers both groups and self-directed activities, that enable learners to explore new territories, cultures, people while providing opportunities that lead to the development of a different and deeper level of understanding. Field study is a necessity as it gives us a firsthand knowledge of the highly variant vegetation as well as their natural habit and habitats. The distribution of diverse varieties of plants in different regions and a study based on their distribution is always quite interesting.

OBJECTIVES OF THE FIELD TRIP

1. To broaden student's horizons and knowledge through field observations
2. To impart training for direct observation of specimens in their habitat
3. To study different ecological habitats and the associated flora.
5. To explore the possibility of getting motivated to pursue research
6. To strengthen the healthy relationship among students, and between students and teachers.

Plant communities in different geographical areas of the world differ widely from each other. On the basis of climatic and geographical conditions the earth is generally divided in to four vegetation belts, as the climate and vegetation are inseparably interrelated. Due to temperature extremes and marked seasonal fluctuations throughout the year, climatic conditions of India become of much ecological interest. These make the vegetation of the country worthy of investigations and explorative studies.

VISITS TO ECOLOGICALLY DIFFERENT LOCALITIES

West coast tropical evergreen forests

- Wayanad
- Kakkayam

Wayanad

We were a group of 15 students guided by our teachers, Dr Archana ER, Dr veena and Sr Pilty Peter. Tour started on morning 7 am February 15th, 2022 from providence college campus. Wayanad stands

on the southern top part of the Deccan Plateau and its major attraction is the grand Western Ghats with the lofty ridges interspersed with dense forests and green valleys. The evergreen forests in Wayanad mark the transition zone between the northern and southern ecologic regions of the Western Ghats. The moist forests transition to the drier South Deccan Plateau dry deciduous forests, which lie in its rain shadow to the east. The Western Ghats being the separating barrier of the two geographical regions of Peninsular India namely, the Malabar Coast and the Deccan, has both the Deccan flora along the leeward side and Malabar Coast flora along the windward side. The most outstanding feature of the Western Ghats is the formation of tropical rainforests along the windward sides. Wayanad district is with a hilly terrain on the southern Western Ghats and located in the northeast part of Kerala.

We visited the border regions forest areas associated with Meppady, Kalpetta Periya and Manathavady forest ranges of Wayanad district on 15th February 2022. West-coast tropical evergreen forest type was the major vegetation in the Meppady, Kalpetta, Periya and Manathavady forest ranges at an altitude ranging from 600m to 1300m. These forests exhibit luxuriant growth, particularly of trees and woody climbers, and the canopy is closed. High humidity, shade and sheltered condition provide ideal habitat for epiphytic as well as terrestrial orchids, ferns, mosses and herbaceous flowering plants. Epiphytes and mosses tend to increase with altitude while woody climbers decrease. It has been observed that there is difference in the composition of species with altitude and latitude. The 'evergreen families' of Western Ghats namely, Clusiaceae, Dipterocarpaceae and Myristicaceae are well represented in this forest.

The major associations of trees in these areas are Mesua-Palaquium-Cullenia, Hopea-Dipterocarpus-Vateria and Polyalthia-Myristica-Calophyllum associations. The top canopy species are *Hopea parviflora, Dipterocarpus indicus, Polyalthia coffeoides, Palaquium ellipticum, Pterygota alata, Vateria indica, Calophyllum astroindicum, Antiaris toxicaria, Artocarpus hirsutus, Mesua thwaitesii, Holigarna grahamii, Lophopetalum wightianum, Mangifera indica, Myristica beddomei, Cynometra travancorica, Canarium strictum, Terminalia travancorensis, Kingiodendron pinnatum, Knema attenuata, Dysoxylum malabaricum, Elaeocarpus tuberculatus, Bischofia javanica, Cullenia exarillata, etc. Poeciloneuron indicum, Prunus zeylanica, Toona ciliata and Mesua ferreaare* also were seen in the upper stratum at an altitude above 800 m.

The trees of the middle canopy comprises medium sized trees which are adapted themselves to the more shady conditions and are dominated by *Aglaia malabarica, Cinnamomum malabatrum,Dimocarpus longan, Drypetes oblongifolia, Diospyros paniculata, Epiprunus mallotiformis, Garcinia morella, Gordonia obtusa, Syzygium laetum, Hydnocarpus pentandra, Baccaurea courtallensis, Otonephalium stipulaceum, Meliosma simplicifolia, Humboldtia brunonis,*

Syzygium cumini, Vepris bilocularis, Syzygium munronii, Symplocos macrophylla ssp. rosea, Turpinia malabarica etc.

The lower story trees are *Antidesma montanum, Antidesma menasu, Olea dioica, Memyecylon heyneanum, Casearia ovata, Meiogyne ramarowii, Turraea villosa, Ixora elongata, Orophea erythrocarpa, Phaeanthus malabarica*,etc. The shrubby plants are mainly Psychotria spp., *Aporusa acuminata, Gomphandra coriacea, Ligustrum robustum, Glycosmis macrocarpa, Strobilanthes* spp., etc. and the important herbs are *Begonia malabarica, Elatostema lineolatum, Girardinia diversifolia, Ophiorrhiza* spp., etc. Of the rhizomatous monocotyledons *Curcuma* spp., *Costus speciosus, Globba ophioglossa, Schumannianthus virgatus and Zingiber* spp. are important. Some of the lianas intertwining the trees are *Carissa inermis, Adenia hondala, Artabotrys zeylanica, Cissus spp., Derris brevipes, Entada rheedeii, Erythropalum populifolium, Caesalpinia spicata, Desmos lawii, Bauhinia phoenicea, Spatholobus purpureus, Ventilago bombaiensis, Salacia beddomei, Sarcostigma kleinii, Caesalpinia cucullata, Toddalia asiatica and Thunbergia mysorensis.* We collected many flowering plants such as Melastoma malabathricum (Menispermaceae), Chasalia curviflora (Rubiaceae), Clerodendrum infortunatum (Verbanaceae), Pilea melastomoides (Urticaceae) etc. Our teachers described detailed information of plant species like their taxonomic relevance, ecological significance, economic importance etc. There has an abundance of *Canscora diffusa* belongs to the family Gentianaceae is a much-branched annual herb erect to about 60cm height. We collected it in wet papers and plastic covers in order to avoid drying .We took photographs of each plant specimens.

We collected many flowering plants such as *Melastoma malabathricum* (Menispermaceae), *Chasalia curviflora* (Rubiaceae), *Clerodendrum infortunatum* (Verbanaceae), *Pilea melastomoides* (Urticaceae) *etc*. on the way rto the Botanical sanctuary. We could see an abundance of *Canscora diffusa* belonging to the family Gentianaceae. We packed the collected specimens in wet papers and plastic covers in order to avoid drying. Photographs of each plant specimens were taken. While returning back we could collect a few more specimens like *Cyclea peltate.* We got back to college at 8:00 pm. It was a great experience for all of us and it gave us a lot of knowledge and memories. This tour was really helpful to study more about the habitat ecology of different angiosperm species. It helped us improve plant identification skills and taxonomical knowledge.

Peruvannamuzhi - Janakikad, Kuttyady, Kozhikode

Janakikadu is an ecologically diverse and rich landscape located in the Maruthongara Panchayat of Kozhikode. It comes under the Kuttiyadi range of Kozhikode Forest division. It contains a strikingly diverse range of flora and fauna. It is an ecological hotspot in the Western Ghats, the eco-tourism destination of Peruvannamoozhy is home to over 680 species of rare plants.

We were a group of 15 students guided by our teachers, Dr Archana ER, Dr Veena and Sr. Pilty Peter. We started at 7 am February 12th, 2022 from Providence College campus. We reached by 10 am and obtained permission from the forest guards.We were guided by Mr Rajan (Guide) and Mr. T. Suresh (Section Forest officer). They gave us short description of the main characteristics and the medicinal or economical value of each plant. We could closely observe the different medicinal plants of Janakikadu like *Xylia xylocarpa (Irool), Holigarnaarnottiana* (Cheru), *Gmelina arborea (*Kumbil), *Strobilanthus pazhanienthus* (Kurinji) etc. Our guides helped us to identify many species and gave us valuable information about different aspects of them.

The flora of Janakikadu was predominated by many Angiosperms as well as a lot of Medicinal plants which are both economically and medicinally important. We collected many flowering plants such as *Bridella retusa (Euphorbiaceae, Cipadessa baccifera (Meliaceae* as well as *Cardiospermum helicacabum (Sapindacae), Melastoma malabathricum (Menispermaceae),Chasalia curviflora (Rubiaceae), Clerodendrum infortunatum (Verbanaceae), Premna glaberrima (Rhizophoraceae), Pilea melastomoides (Urticaceae)* etc. Our teachers described detailed information of plant species like their taxonomic relevance, ecological significance, economic importance etc. The twining herbs of Convolvulaceae members like *Merremia umbellate, Ipomoea purpurea, Merremia hederacea* were abundant there. Those are the main attraction of this area.

We also visited Kuttyadi forest area. We could see a good diversity of flora over these regions. Some of the plants available in this area were *Garcinia morella, Xanthophyllum arnottianum, Torenia hirsute, Canscora diffusa, Sonerila rheedei, Naravelia zeylanica, Elatostema lineolatum, Pouzolzia wightii, Murdannia semiteres* etc. We collected Echinostephia aculeata belongs to the family Menispermaceae on the way to Janakikkadu. We carried equipment required for taxonomic collections such as knife, preservatives, papers, blades, blotting paper, press etc. along with us. This forest has a huge diversity of flowering species, those bloomed flora gave as a good visual experience, we enjoyed that a lot.

This vegetation is besides the Kuttiady river, so we could see many mangrove habitats. We collected *Kandelia candel* species from Rhizophoracea family. It grows as a shrub having height approximately 11 cm. It has white-coloured flowers and elongated ovoid fruits. That was a new experience to us. That area was very attractive for tourists.

There has an abundance of Poacea species like *Pennisetum polystaciyon and Poacea barnhart.* That was a beautiful view. Along with it we found a few *Oldenlandia corymbosa and Canscora diffusa species* belonging to Rubiacea and Gentianaceae family respectively.

There was an abundance of *Melastoma malabathricum* and *Chasalia curvifolia* species. We also found *Memicyclon malabaricum* (Kayampoo) of Melastomaceae, which we haven't seen anywhere before. It is large shrub, flowers are in peduncled cyme, bright blue in colour. While returning from Janakikkadu, we collected Verbanaceae member *Stachytarpheta jamaicensis* and Boraginaceae member *Heliotropium indicum* from roadsides. We collected it in wet papers and plastic covers in order to avoid drying. We also took photographs of each plant specimens.



DEPARTMENT OF CHEMISTRY

PROVIDENCE WOMEN'S COLLEGE

STUDY TOUR REPORT

Centre for Water Resources Development and Management (CWRDM), Kunnamangalam, Kozhikode
17/12/2021

B.Sc. Chemistry
2021-22

PROVIDENCE WOMEN'S COLLEGE

College with Potential for Excellence Re-accreditated with A+ grade

CARMEL HILL, MALAPARAMBA P.O. CALICUT 673009

Affiliated to University of Calicut

To,
The Registrar & Head
Ecology & Environment group
Centre for Water Resources Development and Management
Kunnamangalam, Kozhikode-673 571

Sub: Request to visit the research facility at CWRDM

Dear Sir,

As part of the curriculum, final year B.Sc. Chemistry students (38 students + 3 teachers) would like to visit the Centre for Water Resources Development and Management on 17th December, Friday.

It would be highly motivating for our students, if they could get a chance to visit and interact with the eminent scientists at CWRDM. So, kindly permit us to visit the institution on 17-12-2021.

Thanking you,
Yours sincerely,

Dr. Anu Jose

Calicut,
13-12-2021.

Forwarded by

Principal
Providence Women's College
Calicut - 9

PROVIDENCE WOMEN'S COLLEGE
CALICUT-9

KSCSTE - CENTRE FOR WATER RESOURCES DEVELOPMENT AND MANAGEMENT
ജലവിഭവ വികസന വിനിയോഗ കേന്ദ്രം
KSCSTE-CWRDM An Institution of Kerala State Council for Science, Technology & Environment, Govt. of Kerala
കേരള ശാസ്ത്ര സാങ്കേതിക പരിസ്ഥിതി കൗൺസിൽ സ്ഥാപനം, കേരള സർക്കാർ

17 December 2021

Dr P S Harikumar
Registrar i/c &
Senior Principal Scientist and Head
Ecology and Environment Research Group

To Whomsoever It May Concern

I hereby certify that final year B.Sc. Chemistry students of Providence Women's College visited the research facilities of Centre for Water Resources Development and Management (CWRDM) Calicut on 17th December, Friday.

CENTRE FOR WATER RESOURCES DEVELOPMENT AND MANAGEMENT CALICUT

Dr P S Harikumar

Kunnamangalam, Kozhikode-673571, Kerala, India | കുന്ദമംഗലം, കോഴിക്കോട്-673571, കേരളം, ഇന്ത്യ
E-mail: ed@cwrdm.org, registrar@cwrdm.org | Website: www.cwrdm.org
Phone: (91) 495 235 1800, 235 1801 | Fax: (91) 495 235 1808, 235 7827

DEPARTMENT OF CHEMISTRY
PROVIDENCE WOMEN'S COLLEGE, CALICUT

Affiliated to University of Calicut

CERTIFICATE

Certified that this is an authentic report of the study tour conducted by the students of BSc Chemistry, Providence Women's College, during the academic year 2021-22, as part of the curriculum of B.Sc. Programme of the University of Calicut.

Department of Chemistry
Providence Women's College

Sr. ASHA THOMAS
Assistant Professor & Head
Dept. of Chemistry
Providence Women's College
Calicut

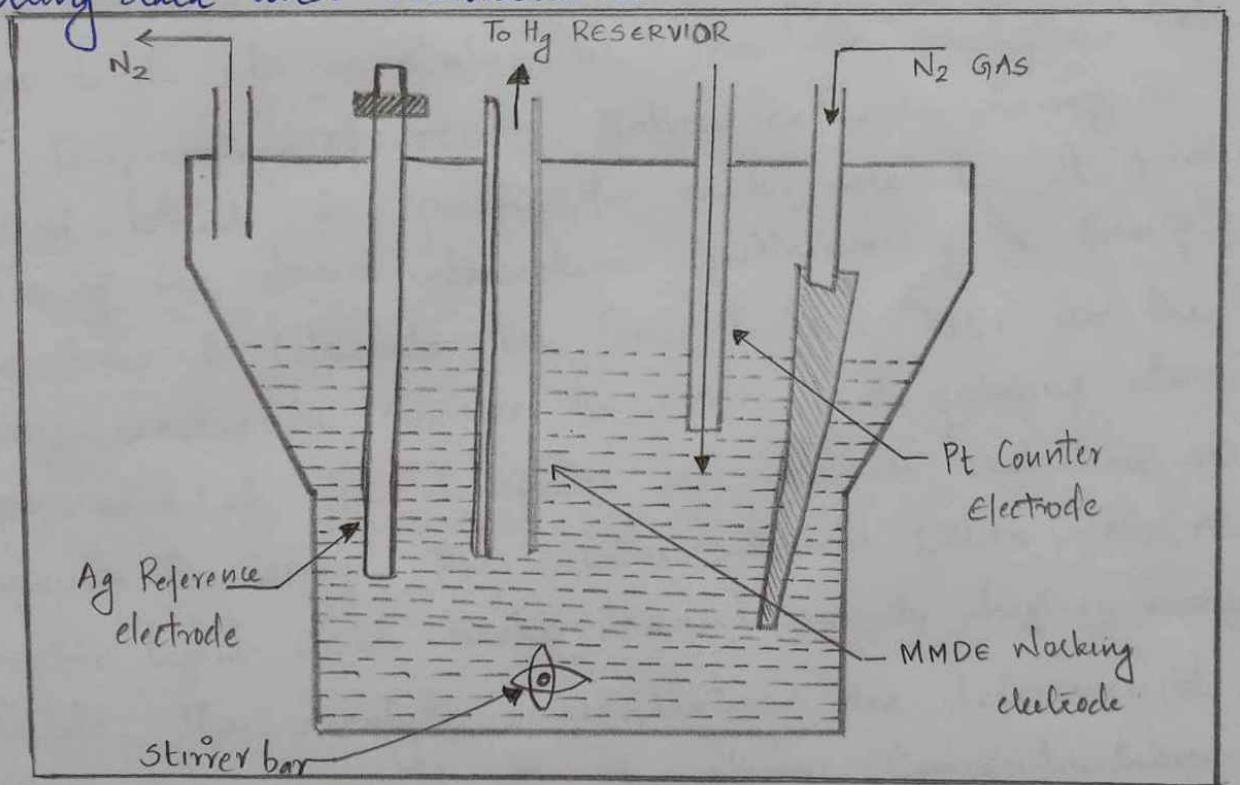
INTRODUCTION

Centre for Water Resources Development and Management (CWRDM) is a premier R & D Institution in the water sector established by the government of Kerala. On 17th December, an IV was Conducted to CWRDM from one college. Their mission is to enhance the quality of life by ensuring water security for all by providing necessary research and development inputs with special emphasis on the humid tropics. They functions with 9 Scientific divisions and carry out research programmes in the area of surface water hydrology, ground water development and management, water quality, climate change and environment. Isotope Hydrology laboratory and NABL accredited water quality laboratory are equipped with high precision equipments. There are Seveveral Activities like research, development, Consultancy and training in water resources and allied Subject, so as to enhance the quality of life by ensuring water security. The present executive chairman of CWRDM is Dr. Manoj. P. Samuel

INSTRUMENTATIONS

1) 797 VA Computrace

This is a PC Controlled System for Voltammetry, Polarographic and Voltametric analysis methods particularly for trace analysis in the Chemical analysis mainly for heavy metal. The PC Software provided Controls the measurements, records the measuring data and ellaluates it.



Computrace Consist of 3 electrode System: Working electrode (Hg, Pt, Au, Ag), Reference electrode (SCE / Ag / AgCl) and Auxillary electrode (Pt wire, C). A potential is applied to an electro chemical cell and the current flowing through the cell is measured as a function of that potential. Various Applications of this

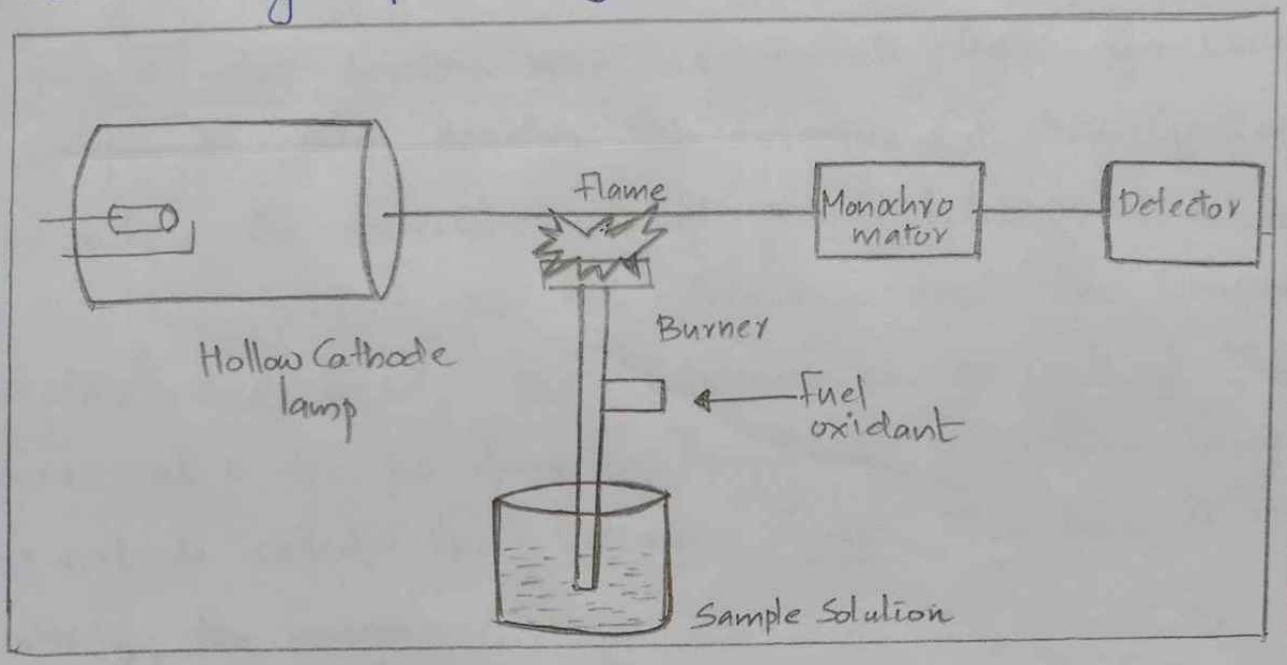
Compliance is stripping voltammetry and Cyclic Voltammetric stripping.

2) Atomic Absorption Spectrophotometer (AAS)

it is a spectroanalytical procedure for the quantitative determination of chemical elements using the absorption of optical radiation by free atoms in the gaseous state.

Flames are used to change the elements to its atomic state. Most of the transition metals changes to its atomic state in the presence of air acetylene at a Temperature of 2000 K. Hollow cathode lamp is used which is specific for each metal. it make use of the atomic absorption spectrum of a sample in order to Calculate the Concentration. HCL are the major radiation sources for AAS. Free gaseous atom generated in the atomiser can absorb radiation at specific frequency. The atoms absorb Ultra violet or visible light and make transitions to higher energy levels. The analyte Concentration are determined from the amount of absorption. Concentration are usually determined from a working curve after Calibrating the instrument with standard of known Concentration. Various applications of. of AAS are, used as the analysis of metal elements in any sample, eg: Environmental science, Agri

culture, Nanomaterials, Petrochemicals and for Hair analysis for heavy metal poisons.



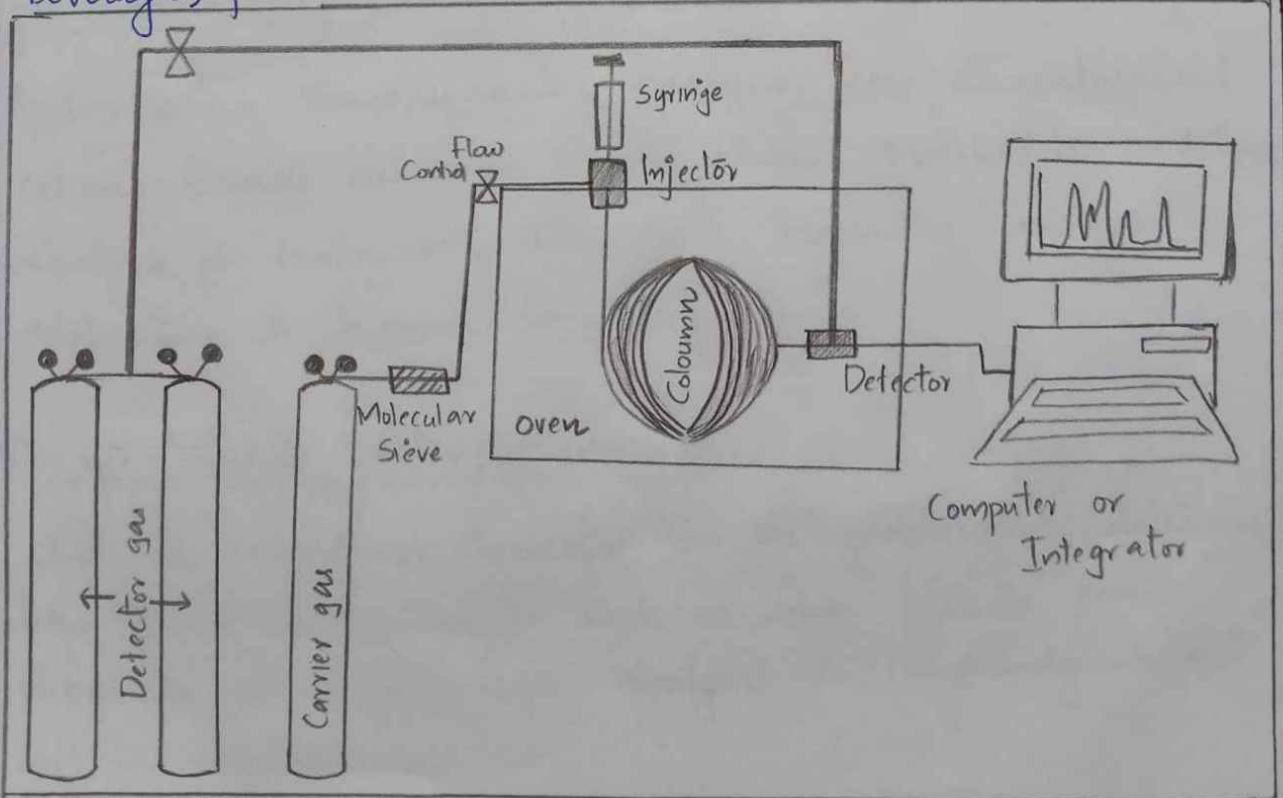
3) Gas Chromatography

Gas chromatography is used to seperate organic Compounds that are volatile. it Consists of a flowing mobile phase, an injection port, a seperation Column Containing the stationary phase, a detector and a data recording system. Compounds are Seperated due to differences in their partition behaviours between the mobile gas phase and the stationary phase in the Column.

Working: they are used for the Detection and Quantification of Organic Compounds. In CWRDM, they are mainly using pesticides as the Compound. the Compound is extracted to a Organic Solvent (Hexane) using a funnel. Using a Syringe it is injected to the port. Compound

then reaches the oven, where the temperature changes the Compound to its gaseous form, it is then Carried by the Carrier gas (Inert gas such as He, Ar) is used. This Carrier gas is also known as the mobile phase. Gas Carries the Compounds and reaches the Coloumn (a thin Capillary tube) where the Seperation takes place. Interaction between the substance present in the Coloumn and the Compound takes place; And finally the substance comes out of the coloumn at a specefic time. The time at which Compound comes out is called the Retention Time. This time is used to identify the Compound.

Electron Capture Detector [ECD] is used to calculate the Concentration of the Compound. Applications are to identify and quantify the Components present in food of beverages, petroleum ...



4) Gas-Chromatography - Mass Spectrometry (GC-MS)

it is an analytical method that combines the features of gas chromatography and mass spectrometry to identify different substance within a test sample.

The Gas Chromatography / Mass Spectrometry (GC/MS) instrument seperates chemical mixtures (the GC Component) and identifies the Components at a molecular level. (the MS Component). The GC Works on the principle that a mixture will seperate into Individual substance when heated. GC-MS has been regarded as a "gold standard" for forensic substance identification because it is used as a 100% specific test, which identifies the presence of a particular substance

It is Composed of two major building blocks: the gas chromatograph and the mass spectrometer.

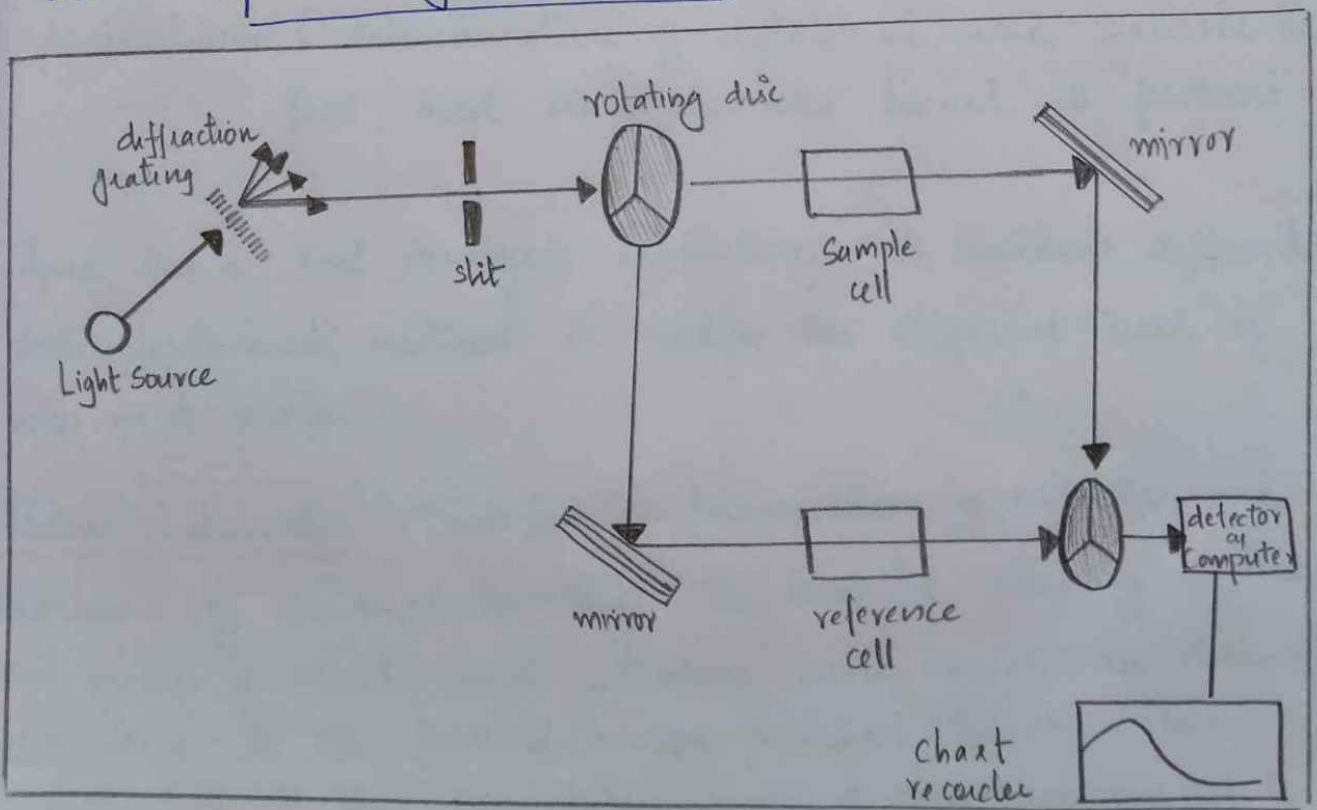
Applications: Environmental analysis, Trace elements, Identification, forensic substance identification, Metabolite profiling analysis of biologically important aromatic amines, Application to human dosimetry...

5) UV- Visible Spectrophotometer

Used in analytical Chemistry for the quantitative determination of different analytes such as Iron, Nitrate and phosphate etc.. Spectroscopic analysis is Commonly Carried out in solutions.

U.V spectroscopy is the measurement of the attenuation of a beam of light after it passes through a sample or after a reflection from a sample surface. Absorption measurements can be at a single wavelength or over an extended spectral range. Molecules typically absorb ultraviolet or visible light. Absorbance of a solution will increase as the incoming light is attenuated. Absorbence is directly proportional to the path length and the concentration of the absorbing molecule. This relationship is known as Beer-Lambert's law. Concentration of analytes can be taken from references or more accurately, determined from a Calibration Curve. In this region of the spectrum, atoms and molecules undergo electronic transitions

Absorbance; $A = -\log (\%T/100)$ T- Transmittance.



6) ICP-OES [Inductively Coupled plasma atomic emission Spectroscopy].

ICP-OES is an analytical technique used for the detection of elements. it is a type of emission spectroscopy that uses the inductively coupled plasma to produce excited atoms and ions that emit electromagnetic radiation at wave lengths characteristic of a particular element. The plasma is a high temperature source of ionised source gas (eg: Argon) The plasma is sustained and maintained by inductive Coupling from cooled electrical coils at megahertz frequencies. The source temperature is in the range from 6000 K to 10,000 K. The intensity of the emissions from various wavelength of light are proportional to the Concentrations of elements within the sample.

Applications : determination of metals in urine, arsenic in food, and trace elements bound to proteins

There was a Soil Analysis laboratory, it Contains different instruments and methods to analyse the different kind of soils and water.

Flame photometer : Used for the determination of sodium and Potassium by flamephotometry. The basis of working is that the species of alkali and alkaline earth metals are dissociated due to the thermal energy provided by the flame source. Due to this excitation, some of them are excited to

a higher energy level where they are not stable. The absorbance of light due to electrons excitation can be measured by direct absorption techniques and emitting radiation intensity is measured by emission techniques. The wavelengths of emitted light is specific for specific elements.

Water Quality Management :-

Entech Water Analyser.

There are various parameters to asess the quality of our water.

1) **pH**

it is a numeric scale used to specify the acidic or alkaline nature of an aqueous solution

$$pH = -\log [H^+].$$

The range goes from 0-14, with 7 being neutral, pH of less than 7 indicates acidic nature, whereas pH greater than 7 indicates alkaline nature.

Limit of pH in drinking water is 6.5 to 8.5

2) **Total dissolved Solids (TDS)**

it is a measure of all inorganic and organic substance contained in a liquid. TDS is measured in ppm. of mg/L.

Limit of TDS in drinking water is 500 ppm

measure can be find out using the method of gravimetry or electrode method.

Hardness of water is due to Calcium or Magnesium salts. it can be about 200 ppm. Calcium is about 75 ppm and Magnesium is about 30 ppm. Hardness can be reduced by boiling

or by ion exchange method.

3) Salinity

Measure of all the salts dissolved in water. Usually measured in ppt. Average ocean salinity is 35 ppt.

4) Colour

Usually the colour of water is colourless. If the presence of yellow colour for water is due to Fe. Drinking water can have upto 5 Hazen. We could find out the colour of water either by Visual Comparison or U.V visible Spectro photometer.

If the water Conatins greater than 5 Hazen units, it can be treated by purifying with Activated Charcoal [Adsorption of the colour].

5) Alkalinity

Alkalinity of water is due to the presence of Carbonates, bicarbonates and hydroxide salts. If alkalinity increases, the pH of water will increase. Limit of alkalinity in water is upto 200 ppm. it can be measured by Acidimetry

6) Chloride

If chloride is present more in the water, it can be removed by distillation or by reverse Osmosis.

7) Sulphate

Limit of Sulphate in water is about 200 ppm. Can be measured by Gravimetry

⑧ Iron

Yellow colour for water indicates the presence of iron. If decayed Organic matter is present in water, Colour will intensify. Limit of Fe in water is 1 ppm. To remove iron from water, various methods like Aeration, chlorination using bleaching powder can be done.

⑨ Turbidity

- measured by using Nephlo Turbidity meter. Principle behind is Tyndall effect. Acceptable limit of Turbidity in water as per IS is 1 NTU (Nephlo Turbidity unit)

Radioactive Isotope Laboratory

This laboratory Contains studies regarding radioactive isotopes. As per the rule of Atomic energy regulatory Board, no radioactive substance is present there. There occurs the detection of radioactive substance which is naturally Occuring in the water mainly Tritium, one of the isotope of Hydrogen. H_2O, formula of water. The hydrogen present may be either Tritium or Deuterium. Liquid Scintillation Counter is used to detect the presence of Tritium in a sample of water. We could Calculate the age of water by their half life.

High pressure liquid Chromatography System is used to detect the presence of pesticides or insecticides in water. Presence of Organic substance like fipdan, endosulfan ... can be.

found out using this system.

Radioactive survey monitors are present to detect the presence of β or γ radiation. it cannot detect the presence of Alpha particles since it is a short range fore. it works on Geiger Muller principle.

To detect the presence of Colonies of bacteria or presence of e.coli in water, we use the method of membra ne filtration. if colliform bacteria is present in a sample of water, pink pigments will be there as colonies. The result will be based upon the no. of pigments.

Conclusion

This visit to CWRDM gives me a wonderful experience about the water quality management technique, about different instrumentational methods for isolation of radioactive isotopes etc... Made me more enthusiastic to know more about water quality management methods.

Department of Economics

Report on Field Visit to Tribal Colony at Kumizhi Village, Wayanad

The field visit was organized on 2nd July 2022 by Department of Economics under the coordination of Dr. Sr. Sheeba Andrews, Dr. Vidya K.T and Gopika Unni K for the second year students to study about the socio-economic conditions and livelihood of tribal community. A tribal colony consisting of 62 households which belongs to Kaatunayakan tribe at Kumizhi village, Wayanad was identified as the study area. The study focused on the tribal health status, socio-economic profile, education attainment, health care facilities and its utilization, living conditions and challenges faced by tribal. Students were divided into groups assisted by one faculty. Structured questionnaire was prepared by the students and an Inclusive survey was conducted by students directly with the tribal households. It helped the students to develop practical experience than theoretical knowledge which solidifies their learning. The data collected from the survey was critically analyzed and consolidated by the students with the guidance of faculties of the department.

No of Students Participated: 62

No: of faculties: 3

Signature of HOD
Assistant Professor &
Head of the Department
Providence Women's College
Calicut - 673009

DEPARTMENT OF POLITICS AND INTERNATIONAL RELATIONS

Experiential Learning through Field work

COVID-19 AND THE FUNCTIONING OF PANCHAYAT RAJ INSTITUTIONS:

A CASE STUDY ON KURUVATTOOR GRAMA PANCHAYAT

Introduction:

Ministry of Human Resource Management (MHRD) under Government of India has initiated Unnat Bharat Abhiyan in 2014 to enable Higher Educational Institutions (HEIs) to work with the rural people and identify the challenges they face and come up with solutions for their sustainable development. As part of Unnat Bharat Abhiyan, on 05/08/2022, the second-year students of Department of Politics and International Relations have visited KURUVATTOOR GRAMA PANCHAYAT, in Kunnamangalam Block to understand the challenges faced by the Village during the Covid – 19 Pandemic and how it had affected the proper functioning of the Village Administration.

Objectives:

1. To understand the ill effects of Covid-19 in the day-to-day functioning of the Grama Panchayat Administration
2. To understand the role played by the Local Self-Government institutions during Covid-19 Pandemic
3. To help the Grama Panchayat in Rearranging the Files that got stuck during the Covid-19 Pandemic
4. To Analyse the awareness of officers in the Grama Panchayat about the Unnat Bharat Abhiyan scheme of Ministry of Human Resource Development

Methodology:

Students have used the Interview method and their Field experiments they gained from the Panchayat visits to reach the objectives of the Project. They have taken time to talk with the officers in the Grama Panchayat and analysed the working of the panchayat in detail especially during the 2019- 2021.

Working Pattern:

The data collection involved the recurrent visit to the Grama Panchayat office and the personal interaction with the officers and staff of the Panchayat. The students have helped in the rearrangement of files of the Grama Panchayat which have been affected by the Covid-19 pandemic.

Major Findings:

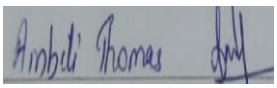
1. Covid-19 has disrupted the proper working of the Panchayath as the workers in the Gram Panchayat have been on the front lines throughout the pandemic, ensuring that residents of the Panchayat continue to receive essential services.
2. The file movement during the Covid-19 was limited. It has increased the workload of the Grama Panchayat and delayed the proper implementation of many welfare schemes such as MGNREGA
3. The officers and majority of the staff in Grama Panchayat are aware of the Unnat Bharat Abhiyan and many such schemes related to PRIs.
4. As the village has women reservation, many local women of the Grama Panchayat feel free to reach out to the Grama Panchayat office with their concerned Issues.

Limitations:

1. The comparative analysis of the functioning of different panchayats were not possible as the visit was restricted to only one Grama Panchayat.
2. The staffs couldn't share their opinions freely as they are confined with their daily tasks and higher officers were not available to talk due to their busy schedule.

Conclusion:

The real-life experience in a government office has helped the students to gain knowledge on the File movements in the departments and the delays a disaster could bring in the working of a public office. The visit has helped bring a clarity on how the PRIs have been empowered during the time of crisis in the district so that the citizens in the villages can be assured of continuity and smooth functioning of their activities.



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Calicut, Kerala


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Experiential learning-

Khalbaanu Kozhikode

A VISIT TO THE HERITAGE SITES IN CALICUT

DEPARTMENT OF TRAVEL AND TOURISM MANAGEMENT 2021-22

PROVIDENCE WOMEN'S COLLEGE CALICUT

SUMMARY

The Department of Travel and Tourism Management conducted a field trip for First year students in the heritage destinations of Calicut. In-addition to classroom learning, the practical exposure is needed for the students to gain knowledge in Tourism. For equipping students as professionals in Travel Industry, the Department of Travel and Tourism Management has organised an experiential learning platform "Khalbaanu Kozhikode". As part of Khalbaanu Kozhikode, students were engaged in visiting various heritage destinations in calicut. On 19th December 2021, 45 students from First year TTM were taken to Mizhkal mosque,Gujarathi street,SM street and various other heritage destinations in Calicut. This helped them to understand the culture and tradition of calicut .

SMITHA S
Head of the Department of Travel &
Tourism Management
Providence Women's College, Calicut

March 4 - 2022

Agenda:

1- Intenal Exam.
2. study leave
3. Submission of project report & Intenal Viva Exam.
4. study leave for final years.
5. study tour / field visit for 2 years.

We discussed the date of intenal exam and planned to conduct it as early as possible (for final years). They discussed about the project report submission date and viva date for final year students. After that we decided to conduct study tour before farewell. Planned to conduct field visit for 2 years on June 2022

Ms. Smitha
Ms. Ann Rose.
Ms. Aragha.
Ms. Sharon.

SMITHA S
Head of the Department of Travel & Tourism Management
Providence Women's College, Calicut

30/4/22


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Experiential learning

A VISIT TO THE BACK OFFICE OF AN OTA

DEPARTMENT OF TRAVEL AND TOURISM MANAGEMENT 2021-22

PROVIDENCE WOMEN'S COLLEGE CALICUT

A Visit to "SKYBOOK DIGITAL" Back Office of an Online Travel Agency

SUMMARY

The department of Travel and Tourism Management conducted a field trip for second year students . In-addition to classroom learning, the practical exposure to industry is needed for the students to gain knowledge in the industry . For equipping students as professionals in Travel Industry, the Department of Travel and Tourism Management has organised an Industrial visit to Skybook Digital on 25 June 2022 at Ul Cyberpark Kozhikode. The visit is intended to give exposure to the real-time activities of an online travel agency's back office. This field visit program for students is a practical session covering GDS, Front office reservation tools, Holiday Package building case study, Backoffice management tools, Bsp link tool, CRM and a practical version of what students will experience when they go for a job.This program helped them to generate idea on different types of travel and ticketing software in the travel agencies and tour operation companies. 45 students attended the program and they were able to understand the practical session of a travel agency.It was really an informative session for all who attended the program.

SMITHA S
Head of the Department of Travel &
Tourism Management
Providence Women's College, Calicut

March 4 - 2022

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Ms. Smitha
Ms. Ann Rose.
Ms. Aragha.
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SMITHA S
Head of the Department of Travel & Tourism Management
Providence Women's College, Calicut

30/4/22


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PROVIDENCE WOMEN'S COLLEGE
DEPARTMENT OF PSYCHOLOGY

INSTITUTIONAL VISIT

TO

LITTLE FLOWER INSTITUTE OF SOCIAL SCIENCES AND HEALTH (LISSAH)

26TH MILE, KAITHAPOYIL
CALICUT

CAMPUS TOUR	STUDENT INTERACTIONS	CASE PRESENTATIONS BY PG STUDENTS

ONE DAY STUDY TOUR

WEDNESDAY | 06 JULY 2022

Report

Institutional Visit

I DC students of Department of Psychology, Providence Women's College , visited Little Flower Institute of Social Science and Health (LISSAH), 26th Mile, Kaithapoyil, on July 6 Wednesday 2022, as a part of an institutional visit. Students attended a brief talk conducted by The Department of psychology, LISSAH. The PG students of the college presented cases which they have worked first hand, discussing about various disorders like GAD (generalized Anxiety Disorder), Kleptomania, OCD(Obsessive Compulsive Disorder), Gynophobia etc. It was followed by a campus tour and visit to the Psychology Lab. Students also visited a Rehabilitation Centre where they organized games and entertainment session for the inmates.


LISSAH


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