

Y.A.GOV'T COLLEGE FOR WOMEN, CHIRALA

DEPARTMENT OF BOTANY



FROM OCTOBER 2021-JANUARY 2022

SUBMITTED BY

G.NIRMALA KUMARI

LECTURER IN BOTANY

Departmental Activities 2021-2022 from October 2021- 20th January 2022

S.No	Name of the Activity	Date/Year	Organiser/Guest/Incharge
1.	Two-day webinar	23 rd & 24 th November	Dr.Ch.Ramanamma G.Nirmala Kumari
2.	Field Trip	06/02/2022	G.Nirmala Kumari
3.	Student Seminars	10/12/2021 31/12/2021 06/01/2022 07/01/2022	G.Nrmala Kumari
4.	Group Discussion	29/10/2021 30/11/2021 30/12/2021	G.Nirmala Kumari

Activity No.: 01

Activity Name: Two-day National Webinar on “Recent Advances in Plant Sciences”.

Date: 23-11-2021 & 24-11-2021

Description: The two day webinar was organized by the Department of Botany, YAGC(W) Chirala on 23rd and 24th November, 2021 at 11.00AM in its endeavor to empower students and the faculty about the recent advances in plant sciences. On the first day the first session was started by our Principal and the convener of the webinar madam Dr.Ch.Ramanamma. Our principal has warmly welcomed the guests and the participants to get benefited from the lectures of the resource persons of the webinar. The first day of webinar took place on 23rd November, 2021. On the first day, Prof.N.Savitramma garu, Principal, College of Sciences, Tirupati and Dr.P.Ponmurugan, Associate Professor, Bharathiyar University delivered their lectures. The second day of webinar took place on the 24th November, 2021. Dr.P.Ponmurugan from Bharathiyar University, Dr.A.Sabitha Rani, Associate Professor, UCS, Osmania University, Telangana, Dr.V.Madhuri, Assistant professor, Krishna University, Machilipatnam participated in the webinar as resource persons for the second day.

67 participants registered their names using registration link. Out of them, 27 are students and 40 are faculty. 76 participants connected to the webinar. Many students viewed it virtually in their respective colleges. 63 members filled the feedback forms and got the certificates. All the participants benefited from the lectures delivered in the webinar. They appreciated the topics selected and gave positive feedback about the webinar.

Y. A. Government College for Women, Chirala
Prakasam Dist., Andhra Pradesh, India
Accredited with "B" Grade by NAAC
Affiliated to Acharya Nagarjuna University

Department of Botany cordially invites to a
Two Day National Webinar
on
"Recent Advances in Plant Sciences"
23rd & 24th November, 2021 | 11:00 AM to 01:00 PM

Invited Speakers

Prof. N. Savitramma
Principal,
College of Sciences,
S. V. University, Tirupati, A.P.

Dr. V. Madhuri
Assistant Professor,
Dept. of Biosciences & Biotechnology,
Krishna University

Dr. P. Ponmurugan
Associate Professor,
Department of Botany,
Bharathiar University, Coimbatore,
Tamilnadu, India

Dr. A. Sabitha Rani
Associate Professor,
Department of Botany,
UCS, Osmania University, Hyderabad,
Telangana, India

Dr. Ch. Ramanamma
Principal
Y. A. Govt. College for Women, Chirala

Organising Secretary

Dr. G. Nirmala Kumari
Y. A. Govt. College for Women,
Chirala
Contact No. : 9959016410
Email ID : gskacc@gmail.com

Registration Link :
<https://forms.gle/vaaqnyrHCiWjgVdz5>

Convener

Students play a vital role in our life. The study of plant science helps to know how the plants are used to produce food, alter environment, and improve the landscape, improve health and wellbeing, improve community environment and provide recreational and practical benefits to the public. Through the study of core topics provides us the knowledge of fundamental and natural phenomena, processes of plant life. The classification and description of plant diversity, the research in applied branches like Biotechnology, Horticulture, Ethnobotany, Micropropagation, Agronomy, Plant breeding etc., and Organizational aspects like Lichens, Agnology are helpful in providing economic benefits. Apart from traditional and conventional methods, a lot of new innovations in agriculture, tissue culture, medicinal botany etc., have come which are enabling the plant sciences more advanced. Agricultural Biotechnology is helpful to produce stronger crops, in creating new biopesticides to reduce the use of chemicals by farmers. Marine biotechnology helps in creating alternative sources of energy. Tissue culture allows large scale micropropagation applications to produce large number of plants with a comparable genotype. Genetic engineering made it possible to produce GMOs for better yield of crops, reduced need of pesticide, nutrient composition enhancement, pest resistance, medical benefits, etc. The agronomic application of biotechnology in plants has the potential to alter traditional plant production systems, allowing for the controlled release of phytochemicals and target specific delivery of biomolecules. With the advent of improved and automated phenotyping assays and high-throughput genomic studies, genomics is providing new foundations for plant breeding systems. Agriculture genomics help to improve the productivity and sustainability in crop and livestock production. Genomics helps to identify numerous proteins that play crucial role in plant growth and development, to analyze the mechanisms by which the pathogen attacks central crops, etc. Bioinformatics helps in development of new plant diagnostic tools to facilitate and analyze the data created by genomics and proteomics and in various fields. With the development of modern science, a number of drugs owe their discovery and development to ethnobotany.

In view of all these advantages of plant science, a national seminar on "Recent advances in plant sciences" is being organized to acquire the current knowledge which will help us to understand the importance of plant sciences in our life.

Dr.P.Ponmurugan is lecturing on

“Energy Audit,Green Audit & their importance in Educational Institutions”

11:51

Zoom

Leave

Target Areas of Green Auditing

- ❖ Planting of oxygen producing and carbon dioxide absorbing plants
- ❖ Natural and planted vegetation
- ❖ Herbal, terrace and ornamental gardens,
- ❖ Campus and flora fauna
- ❖ Water use efficiency and water irrigation
- ❖ Energy use efficiency and energy conservation
- ❖ Solid, e-waste biomedical, food, sewage waste management
- ❖ Landscape management
- ❖ Topology
- ❖ Soil erosion control
- ❖ Carbon footprint due to use of vehicles, electricity and fossil fuels
- ❖ Drinking water quality supply
- ❖ Biogas plant
- ❖ Rain harvesting system
- ❖ Water reservoirs, percolation pond
- ❖ Conduction of awareness programmes management
- ❖ Organization's budget for greenery activities
- ❖ Campus facilities for disabled, special needs and or maternity care
- ❖ Security, safety and health infrastructure facilities for stakeholder's wellbeing.

Unmute Start Video Share Participants 76 More

Prof..N.Savitramma is lecturing on

“ Applications of Nanotechnology in Present Scenario”

13:05

REC

Combinations of nano and biotechnology for the development of nanomedicine

```
graph TD
    BIOTECHNOLOGY --> DRUG_DISCOVERY[DRUG DISCOVERY]
    BIOTECHNOLOGY --> DRUG_DELIVERY[DRUG DELIVERY]
    BIOTECHNOLOGY --> PHARMACEUTICAL_DEVELOPMENT[PHARMACEUTICAL DEVELOPMENT]
    NANOTECHNOLOGY --> LIFE_SCIENCES[LIFE SCIENCES]
    NANOTECHNOLOGY --> NANOARRAYS[NANOARRAYS]
    NANOTECHNOLOGY --> MOLECULAR_DIAGNOSTICS[MOLECULAR DIAGNOSTICS]
    DRUG_DISCOVERY --> NANO_BIOTECHNOLOGY((NANO BIOTECHNOLOGY))
    DRUG_DELIVERY --> NANO_BIOTECHNOLOGY
    PHARMACEUTICAL_DEVELOPMENT --> NANO_BIOTECHNOLOGY
    LIFE_SCIENCES --> NANO_BIOTECHNOLOGY
    NANOARRAYS --> NANO_BIOTECHNOLOGY
    MOLECULAR_DIAGNOSTICS --> NANO_BIOTECHNOLOGY
    NANO_BIOTECHNOLOGY --> NANOMEDICINE((NANOMEDICINE))
```

739053's screen

Dr.P.Ponmurugan is lecturing on

“Applications of Lichens”

The slide displays three petri dishes showing microbial growth. The first dish, labeled 'Bacteria', shows growth on Nutrient Agar after 24-48 hours at 35°C. The second dish, labeled 'Fungi', shows growth on Potato Dextrose Agar medium (PDA) after 3-5 days at 25°C. The third dish, labeled 'Actinomycetes', shows growth on Casein Nitrate Agar (CNA) after 3-5 days at 25°C. A table at the top right provides a framework for assessing microbial load.

Assessment of Microbial load	Number of Microorganisms (colony forming units)	High / Moderate / Low* (As per WHO Standards)
1. Number of Bacterial, fungal and actinomycetes in different places		
2. Dining Halls, Canteen, Seminar halls, Class rooms, Laboratories, Offices		

Bacteria
Nutrient Agar
24-48 H,
35°C

Fungi
Potato Dextrose Agar medium (PDA),
3-5 days
25°C

Actinomycetes
Casein Nitrate Agar (CNA)
3-5 days
25°C

nmurugan's screen

Dr.A.Sabitha Rani lecturing on

“Harnessing the Power of r DNA technology in Biotherapeutics”

The screenshot shows a Zoom lecture interface. The title of the lecture is 'Harnessing the Power of Recombinant DNA Technology in Biotherapeutics'. The lecturer is Dr. A. Sabitha Rani, Department of Botany, Osmania University Hyderabad. The slide also features a DNA double helix graphic and a small image of a laboratory setting. The Zoom interface includes a 'Leave' button, a 'REC' indicator, and a 'Participants' count of 54.

12:12

Zoom

Leave

REC

Harnessing the Power of Recombinant DNA Technology in Biotherapeutics

Dr. A. Sabitha Rani
Department of Botany
Osmania University Hyderabad

November 24, 2021

Unmute Start Video Share Participants 54 More

Dr.V.Madhuri is lecturing on
“Plant cell cultures-Phytochemical factories of secondary metabolites”

The screenshot displays a Zoom mobile application interface during a lecture. At the top, the status bar shows the time as 1:48, signal strength, and a 76% battery level. The Zoom header includes a speaker icon, the Zoom logo with a dropdown arrow, and a red 'Leave' button. Below the header, a 'REC' indicator is visible on the left, and a video thumbnail of the lecturer, Dr. V. Madhuri, is on the right. The main screen shows a presentation slide titled 'Immobilization of plant cells for the production of secondary metabolites'. The slide lists 'Cath. roseus', 'Cathenamine', 'Almalicine', and 'Agarose' as examples. It states that plant cells immobilized by entrapment in alginate, agarose, agar, or carrageenan are fully viable and that the ability of plant cells to transform and synthesize complex compounds is of commercial interest. The slide also lists 'Drosera', 'Sedum', 'Thiobactera', 'Thiobactera', and 'Sedum' as examples. The bottom of the screen features a navigation bar with icons for 'Unmute', 'Start Video', 'Share', 'Participants' (39), and 'More' (1). The Android navigation bar is visible at the very bottom.

1:48 76%

Zoom

Leave

REC

Immobilization of plant cells for the production of secondary metabolites

Cath. roseus Cathenamine Almalicine Agarose

Plant cells immobilized by entrapment in alginate, agarose, agar, or carrageenan are fully viable. The ability of plant cells to transform and synthesize very complex compounds of commercial interest is considered very important from the biotechnological point of view.

Drosera Sedum Thiobactera Thiobactera Sedum

Unmute Start Video Share Participants 39 More 1

Activity No.:02

Name of the Activity : Field Trip to Home Herbal Garden,Akkai palem,Chirala

Date : 06-01-2022

Description : As a part of curriculum,dept.of Botany and Horticulture organised the field trip to Home herbal garden.Home herbal garden is maintained by S.Chandra Reddy,Protect NGO,working under National Biodiversity Board,Chirala.He is conserving 17 types of medicinal plants.II BHC & IIBZC students attended.They are accompanied by G,Nirmala Kumari(Botany lecture), Vedasri(Horticulture),Santhoshi Kumari (former Botany lecturer).S.Chandra Reddy explained briefly about conservation of biodiversity in general and of medicinal plants by telling the names of plants and their medicinal properties.

IIBHC & IIBZC students with Mr.S.Chandra Reddy,lecturers G.Nirmala Kumari,Vedasri and Santhoshi Kumari



Activity No.:03

Name of the Activity : Student seminars

Dates :10-12-2021;16-12-2021;31-12-2021;06-01-2022;07-12-2022.

Description: G. Nirmala Kumari conducted seminars for IIIBZC students. They enthusiastically participated in class seminars. They gave seminars on different topics.

On 10-12-2021

K. Sailaza gave seminar on “Growth Curves “



M. Neelima is giving seminar on Griffith & Hershey Chase experiment



On 16-12-2021

N. Vijaya kumari is giving seminar on Structure of DNA



On 30-12-2021

M. Mounika is giving seminar on Structure & function of Chromosome



On 07-01-2022

G. Lavanya is giving seminar on Dihybrid cross



Md. Fahimidha begum is giving seminar on Plasma Membrane



Y. Joy angel is giving seminar on Biodiversity hotspots



Sk. Karishma is giving seminar on Selection



On 06-01-2022

Y. Sailaja is giving seminar on Role of Light



T. Ribka is giving seminar on Soil Profile



On 07-01-2022

D.Himaja is giving seminar on Monohybrid cross



N.Siva Tulasi is giving seminar on Seedbank



V. Maheshwari is giving seminar on



D. Ruthi is giving seminar on Types of RNA



Activity:04

On 30-11-2021

3 Groups of III BZC students are discussing about Pure Line selections in Group discussion



On 29-10-2021

5 Groups of I BZC students are involved in Group discussions



On 30-12-2021

4 Groups of IIBZC students are involved in Group discussion

