

Zoological Association: Activities, 2024-2025

S. No.	Date	Theme	Activity	Resource Person	Beneficiaries
1.	12.08.2024	World Elephant Day	Knowledgeable Presentations by students	-faculty members of department	35
2.	13.08.2024	Induction program and inauguration of zoological Association	Lecture on 'Stress Management'	Dr. Ela Gupta and Mrs. Rameshwari Parganiha	40
3.	15.08.2024	Independence Day	Flag hoisting		
4.	20.08.2024	World Mosquito Day	Activity on prevention and control of mosquitoes. Identification of poisonous and non-poisonous snakes	Extension activity	38
5.	05.09.2024	Teacher's Day	Celebrated by zoological association stake holders	Some entertaining activities, acts done by association of students and teachers	
6.	12.09.2024	Ganesh utsav celebration	Poster making with material other than colors		
7.	12.09.2024 to 14.09.2024	Ganesh Utsav celebration	Spiritual, scientific reasons of Ganeshotsav and poetry recitation		
8.	01.10.2024	Gandhi Jayanti			
9.	04.10.2024	World wildlife day	Lecture on Biodiversity	Dr. B.AnjanPrusty	
10.	19.10.2024	Interdepartmental activity	Lecture on Protein metabolism	Mr. Padam Dilip	
11.	20.10.2024	No plastic campaign	Awareness program and cloth bag distribution	Mrs Shubhangi Apte and Sanjay Apte	
12.	31.10.2025	Diwali celebration	Compilation of video of regional celebration of Diwali		

13.	8.11.24 to 14.11.24	State level workshop on molecular techniques	Practicals on RFLP, Plasmid DNA isolation, electrophoresis, transformation and lecture	Dr. Deb Priya Rath Associate Professor MD Biochemistry Pt. JNM Medical College Raipur C.G.	
13.	02.12.2024	To enhance Differential learning levels in students	Briefed time management and writing skills to UG and PG students	Mrs. Gunjan Ojha	
14.	14.01.2025 to 20.01.2025	International workshop on techniques in hydrobiology	-Lectures of various national and international academicians. - Hands on training on each and every delivered lecture's topic	Dr. S.S.S Sarma Dr. Nandini Sarma from Mexico Dr. Sumona Guha from Canada Many eminent academicians from C.G.	
15.	23.01.2025	ICT-enabled tools including online resources for effective teaching and learning- Enrolling students in swayam Portal	Students got registered to swayam portal	Dr. Preeti Mishra Mrs. Gunjan Ojha	
16.	03.02.2025	Basant Panchami celebration	Restoration of Maa saraswati idol and celebration of Saraswati puja by students		
17.	04.02.2025	World Cancer Day	Poster making competition		
18.	10.02.2025	World Pulses Day	PPT Presentation by students		
19.	08.03.2025	International Women's Day	Slogan writing on theme for all women and girl: Rights, equality and empowerment		

20.	20.03.2025	World Sparrow Day	Slogan writing, sketching sparrow, nest hanging in college campus		
21.	22.03.2025	Inter-collegiate activity	Research activity		

1. World Elephant Day, 12 August 2024

OBJECTIVE OF THE EVENT- Theme 2024:** "Personifying Prehistoric Beauty, Theological Relevance, and Environmental Importance." This theme underscores the urgent necessity to preserve natural habitats to ensure the survival of elephants and highlights the critical need for habitat conservation in light of the declining elephant population.

ACTIVITIES- The program was hosted by Khileshwari Bani, a final-year student, who introduced World Elephant Day and discussed the importance of elephants in our ecosystem. The event began with an informative PowerPoint presentation by Shikha Dwivedi, a final-year student, on the phylogenetic evolution of elephants, noting that only two species remain today.

Following this, a group presentation was delivered by Priyanka Mishra, Rashmi Dewangan, Garima Sahu, and Hema Nishad, also from the final year. This presentation focused on the history of World Elephant Day, the 2024 theme, the ecological role of elephants, their mythological and tourism significance, and discussed potential solutions for their conservation.

Two presentations were given by previous-year students, Sakshi Dubey and Tanuja Sahu. The program concluded with a recitation of self-written poetry on elephants by Khileshwari Bani. A vote of thanks was presented by Rashmi Dewang

Beneficiaries:-

25 P.G. Students and Faculty Members and Non-teaching Staff of Zoology Department.

OUTCOME-To aware students to preserve natural habitats

To highlights the critical need for habitat conservation

To make attention the declining elephant population.

[illegible]



2.:Induction program and Inauguration of Zoological Associationon 13.08.2024

OBJECTIVE OF THE EVENT-

In Student Induction Program the incumbents learn about institutional policies, processes, practices, culture and values. This Program is designed to make the newly joined students feel comfortable, sensitize them towards exploring their academic interests and activities, reducing competition and inspire them work for excellence, promote bonding within them, build relations between teachers and students.

ACTIVITIES- For this program Resource person were Dr. Ila Gupta she is practicing psychologist and counsellor and Mrs. Rameshwari Parganiha she is a social worker. Today topic of lecture was 'Stress Management.'

Before lecture began a formal inauguration of Zoological Association 2024-25 was done by declaring President, Vice President, secretary and vice-secretary of association. Program began with welcome of Resource person Dr. Ila Gupta and Mrs. Rameshwari Parganiha by Dr. Kavita Das teacher incharge of zoological association and Head of Department Dr. Seema Gupta.

Information regarding department of zoology, resources and opportunities details about course were provided by Dr. Seema Gupta to fresher students.

Dr. Kavita Das provided information about zoological association and listed activities and workshops organized during last academic session under Association. She also mentioned this association is created for helping students in having all round development of their personality by inculcating various skills and make them a responsible citizen.

Mrs. Rameshwari Parganiha told their initiative social helping group named as 'BadhauSangwari' which began with few members and now a group of 125 persons.

Afterwards brief introduction of Dr. Ila Gupta presented by Dr. Pallavi Sinha ,She began with her lecture where she threw light on anxiety, depression and how to help a person in depression, how to read symptoms of person who is depressed. She also told about treatment through cognitive behavior therapy. It was a knowledgeable talk.

In later segment of program students of final yead Priyanka, khileshwari, Sakshi and _____ presented a motivational song and vote of thanks was presented by Mrs. Gunjan ojha.

OUTCOME-Information regarding department of zoology, resources and opportunities details about course were provided. Purpose of student induction program is to help a student adjust and feel comfortable in the new environment and to give knowledge about policies process, this practices, culture, academics and values of Department as well as College.

Beneficiaries-34 M.Sc students



3.INDEPENDENCE DAY 2024, 15th August 2024

OBJECTIVE OF THE EVENT-

To commemorate the sacrifices of our freedom fighters and remember the importance of the independence.

ACTIVITIES-

- Flag hoisting ceremony in college premise

PARTICIPANTS-

45 Students and Professors of various departments.

OUTCOME-

Students were encouraged to reflect on their responsibilities towards the nation's growth and prosperity.



4.Extension Activities performed in Pt. Ram Sahay Govt. English/Hindi Higher Secondary UtkrishtVidhyalay

OBJECTIVE OF THE EVENT-Awareness drive was organized on-

1. Mosquito prevention, control and awareness program.
2. Identification of poisonous and non-poisonous snakes.

Activity- On World Mosquito Day 20.08.2024 an awareness drive was organized by **Zoological Association of Zoology Department** in association with Red Cross Society of Government Nagarjun PG College of Science, Raipur. In this program school students of standard 9 and 10 gathered to acquire knowledge on above topics.

1. Students of science college prepared charts, power point presentations and poetries to raise awareness in easy, local and effective language to students of school. For Mosquito awareness Khileshwari presented - poem on malaria and prevention, Garima - types of mosquitoes and prevention, Priyanka- filariasis and prevention from Zoological Association and from Red cross society Divya Banchhor presented information regarding symptoms, prevention and control of Zika virus, Gunika Sahu on Dengue and Swajeeta Banerjee on Malaria.
2. Chhattisgarh is a state having lush greenery which supports lot of insects, worms and animals to maintain ecological balance. For this reason, this state is prone to appearance of lots of snakes may be poisonous or non-poisonous. During monsoon cases of snake bites rise, so a awareness for same was raised by students. For this Bhumika student of PG zoology presented difference between poisonous and non-poisonous snakes and Supriya student of PG zoology spoke on snakes of India and Chhattisgarh, snake bite and prevention.

Beneficiaries:- 38 students school and 15 students of M.Sc Zoology.



OUTCOME-1. Awareness initiative for diseases caused by mosquitoes and how to prevent them
2. Identification of venomous and non venomous snakes and protection measures to stop unnecessary killing of snakes and to conserve them.



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5. Teacher's Day celebration 05.09.2024

Objective: The theme for Teachers' Day 2024 is "Empowering Educators for a Sustainable Future". This theme highlights the importance of providing teachers with the tools and knowledge they need to help students become environmentally aware, socially responsible, and ready to face future challenges.

Activities: On 5th September 2024, Zoological Association of our college, Govt. Nagarjuna PG college of Science, celebrated Teacher's day. On this occasion Dr. Sarvpalli Radhakrishnan was remembered for his distinguished work as a philosopher, academician, and statesman. His birthday is celebrated as Teachers' Day in India, recognizing the importance of educators.

The programme began with the welcome of respected Principal Sir, Dr. A.K. Mishra, HoD Dr. Seema Gupta and all the honourable professors. Program proceeded with Saraswati Vandana, the goddess of wisdom and knowledge. Principal sir and all professors lit the lamp and offered prayers and flowers to goddess Saraswati. Host of the programme, Khileshwari, student MSc. Zoology, final year, recited a self-composed poem and invited Dr. Seema Gupta to venerate sir with a bouquet prepared by Ghanshyam, student MSc. Final. All teachers were welcomed by Students of MSc and PHD scholars by giving shreephal. Principal sir motivated students by his speech. He emphasized on importance of hard work and endurance needed to achieve the heights of success in life. He also encouraged students to learn new skills and focus on multi-dimensional progress.

After his words of wisdom students played a video of memories of students and teachers gathered during last session. Later Dr. Seema Gupta, was then invited to motivate students and share her experiences as a teacher. Following this, all the professors motivated and gave speech to encourage students for a great life ahead. In later section of program a self-composed poem recitation by Khileshwari and Sheetal Sinha, students, M.Sc. final was done.

- The programme proceeded with playing games with teachers; The programme ended with Vote of thanks by Khileshwari and serving of snacks.

Plantation was done on occasion of teacher,s day.

Outcome: Increase bonding between teachers and students

Beneficiaries:-43 students

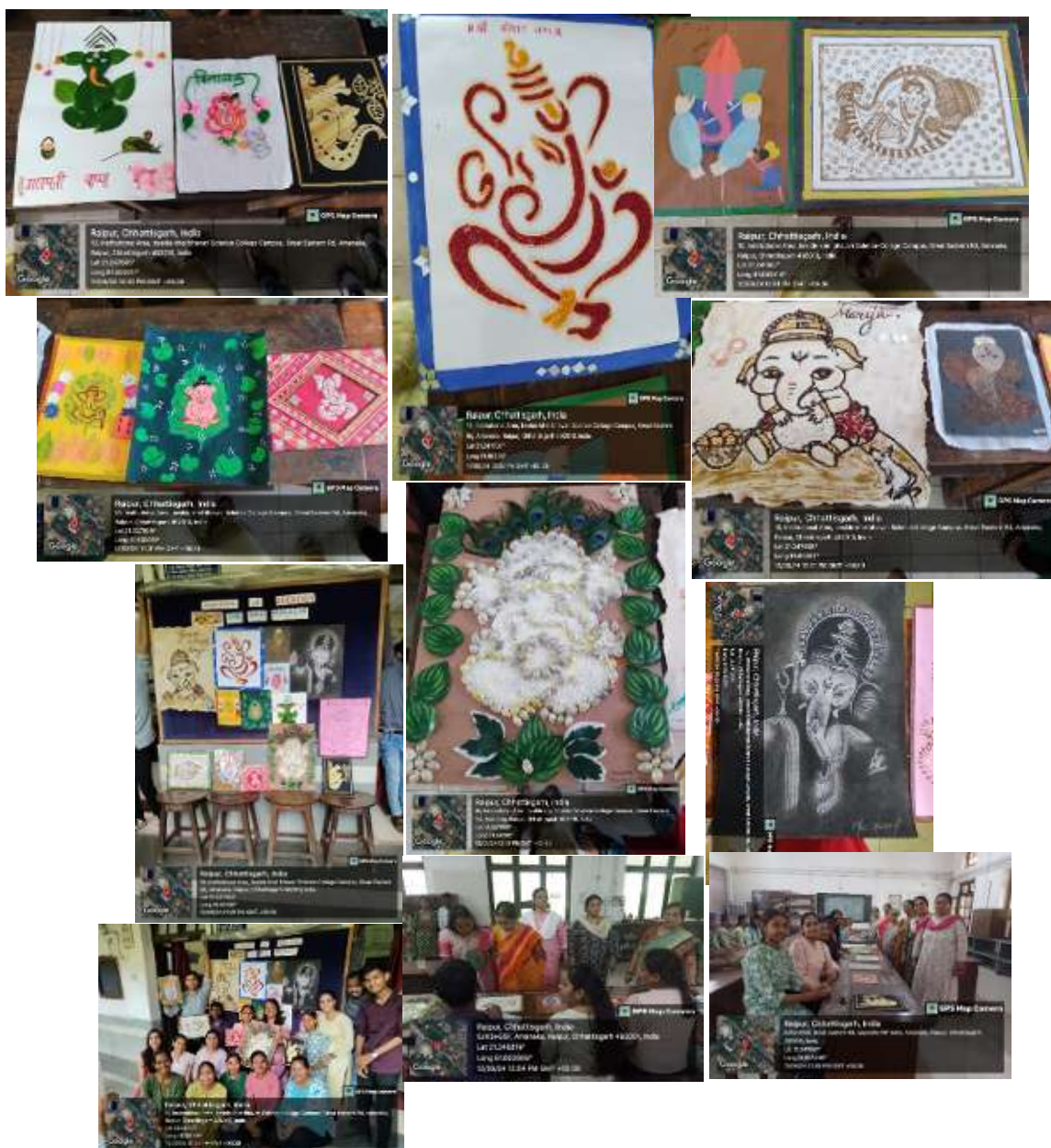


6.Ganesh utsava celebration on 12.09.2024 to 14.09 2024

OBJECTIVE OF THE EVENT

This festival is celebrated following the Hindu Mythology which says that Ganesh Chaturthi is the birthday of the Lord Ganesha. Zoological Association discussed history, spiritual and scientific significance of Ganesh chaturthi.

ACTIVITIES



Zoological Association celebrated this utsav by organizing

1. Poster competition: competition of poster making without traditional poster colours or sketch colours. Students used their creativity and used grains, tea leaves, fresh leaves,

semolina, poha, para of rice, mehandi, shells, dried peepal leaves and lippan art to prepare beautiful posters and displayed in Wall magazine ZOOM.

2. Ganesh Chaturthi celebration

-Khileshwari, student, MSc. Zoology final, presented a brief history of Ganesh chaturthi celebration in India.

-**Shraddha Nishad**, student, MSc. Zoology emphasised on the teachings that must be inculcated in our lives from Ganesh ji's various forms(akruti)

-**Supriya Sahu** gave the information about the reasons of Ganesh Chaturthi celebration based on hindu mythologies.

-**Priyanka Mishra**, gave the scientific reasons of celebrating Ganesh chaturthi and how it helps in purification of both nature and human body.

Students also discussed how today, all are moving away from the authentic form of Ganesh chaturthi celebration and how in many ways our ecosystem is getting disturbed from our way of celebration.

Thus, we need to focus on moving towards sustainable ways of celebrating our festivals for a better future. At the last stage of program **Kunal**, recited a poem based on Ganesha ji.



Beneficiaries- 34

7. Gandhi Jayanti 1.10.2024

8.. TITLE OF THE EVENT: World wildlife day04.10.2024

Lecture on Biodiversity: Dr. B.Anjan Prusty



AIM: To aware importance of Biodiversity, the variety of life on Earth, which is crucial because it provides essential ecosystem services like clean air, water, and fertile soil; supplies food, medicine, and resources; maintains ecosystem stability,. Without it, ecosystems weaken, threatening human survival and well-being.

Activity: Dr Anjan Prusty, Professor Berhampur University, delivered a lecture on, Biodiversity at the crossword of the millennium: implications of environmental perturbations and diversity in 21st century. Enlightened the importance of biodiversity.



Outcome: students learn about importance of biodiversity and their role and responsibilities towards conservation methods

Beneficiaries: 111.

9. Interdepartmental Activity-1 on 19/10/2024

A Lecture on Protein metabolism delivered by Shri. Padam Dilip

Context: Interdepartmental lectures is one of the good practices of our Department is to break down traditional academic barriers and promote the integration of diverse knowledge and perspectives.



Activity: Mr. Padam Dilip, Assistant Professor Biochemistry delivered a lecture on Topic- 'Proteins- Composition and biological significance- Amino Acid:- Structure, classification and properties, essential and non-essential amino acids'

He explained about Structure (Primary, secondary, tertiary and quaternary) and function of proteins, Structure of amino acids, bond formed between them as peptide bond and protein metabolism by transamination and deamination along with Urea cycle.

Learning outcome: Students came to know about rDNA technology and its importance in detail

Beneficiaries: 56





10. No Plastic campaign 20.09.2024.

This activity was organized by zoological association in association with IQAC.

Activity-1. Lecture of social worker Mrs. Shubhangi Apte and Mr. Sanjay Apte. During this session She explained side effects of using plastic, how it affects general health of cows, buffaloes. In a unique initiative to combat plastic pollution in the state capital **social worker Shubhangi Apte** has installed a "Bag ATM". she got recognition in 2019 by distributing 35000 free bags, and her work was recorded in champion book of world Records.

2. Distribution of cloth bags to staff members of college. She also explained how she began preparing cloth bags, she use to collect pieces of cloths from tailors and use to distribute to public using plastics.

Outcome: students gain knowledge that the plastic is non-biodegradable which causes biomagnification of wastes.

-students also got motivated and inspired by her works and promised to make college premise plastic free.

Beneficiaries- 45 student



छत्तीसमढ़

पर्यावरण को जल, वायु और प्लास्टिक प्रदूषण से बचाएं तो आने वाली पीढ़ियां होंगी सुरक्षित-आप्टे



शास. नागार्जुन पीजी विज्ञान महावि. में नो प्लास्टिक कैंपेन

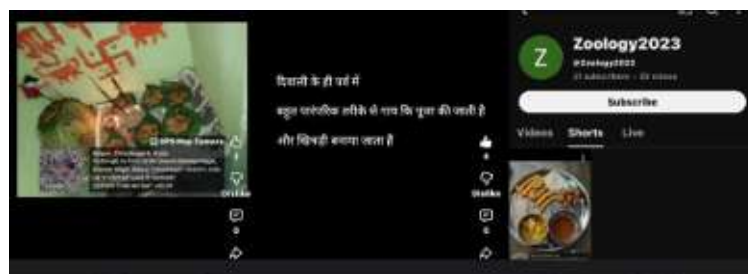
रायपुर, 23 सितंबर। शासकीय नागार्जुन स्नातकोत्तर विज्ञान महाविद्यालय ने बताया कि महाविद्यालय में नो प्लास्टिक कैंपेन का आयोजन किया गया जिसमें श्रीमती सुभांगी आप्टे, नो प्लास्टिक कैंपेन मोर रायपुर एवं स्वच्छता अभियान नगर निगम रायपुर को ब्रान्ड एम्बेसडर को आमंत्रित किया गया। उन्होंने अपने उद्घोषण में पर्यावरण को परिभाषित करते हुए पर्यावरण के दो प्रकार बताए, प्रथम प्रकृति निर्मित एवं दूसरा मानव निर्मित। पर्यावरण को तीन खण्ड जल, वायु एवं प्लास्टिक में बांटते हुए इस बात पर जोर दिया कि हमारे पर्यावरण को जल प्रदूषण, वायु प्रदूषण एवं प्लास्टिक प्रदूषण

से बचना होगा जिससे हमारी आने वाली पीढ़ियां सुरक्षित होंगी।

उन्होंने प्लास्टिक को जगह कपड़ों की थैलियों के उपयोग के लाभ पर जोर दिया जो कई बीमारियों से बचाता है। उन्होंने प्रचारार्थ डॉ. ए.के. मिश्रा के साथ महाविद्यालय के शैक्षणिक तथा अशैक्षणिक स्टाफ एवं छात्र-छात्राओं को कपड़ों से बनी थैलियों का वितरण किया। इस कार्यक्रम में अतिथि का परिचय डॉ. रेणु महेश्वरी, कार्यक्रम का संचालन डॉ. सुनीता पात्रा तथा अंत में धन्यवाद ज्ञापन डॉ. कविता दास के द्वारा किया गया।

11. Diwali celebration:31.10.2025

video of regional celebration of Diwali prepared by students.



12. State level workshop on molecular techniques 8.11.24 to 14.11.24

7 Days State Level Workshop on Molecular techniques from 08.11.2024 to 14.11.2025 was Organized by Department of Botany, Zoology & Biotechnology, Govt. N.P.G. College of Science, Raipur, C.G. in collaboration with Govt. J.Y. Chhattisgarh College, Raipur, C.G.



**Government N.P.G. College of Science,
Raipur C.G.**

**State level 7 Days Workshop
on
Molecular Techniques
08-14 November 2024**

**Organized by
Department of : Botany, Zoology, Biotechnology**

Dr. Deb Priya Rath
Associate Professor,
M.D. Biochemistry, Pt. J. N. M. Medical
College, Raipur, C.G.

INVITED SPEAKER

ORGANIZING COMMITTEE MEMBERS

ORGANIZING SECRETARY Dr. Suneeta Patra Dr. Kavita Das Mrs. Deepali Rajwade	CO-CONVENER Dr. Renu Maheshwari Dr. Preeti Mishra Dr. V. K. Kanungo Dr. N. B. Singh	CONVENER Dr. Seema Gupta Dr. Sangeeta Bajpai Dr. Sanjana Bhagat	PATRON <i>Principal</i> Dr. Arun Kumar Mishra
ADVISORY COMMITTEE Dr. S. K. Verma Mrs. Indu Mandrik Dr. Roopshikha Agarwal Mrs. Namrata Dubey	TECHNICAL COMMITTEE Dr. Pallavi Sinha Mrs. Gunjan Ojha Mr. Satish Kumar Ramteke Ms. Renuka Sinha Mr. Jagmohan Sahu	MEDIA COMMITTEE Dr. Shashi Gupta Dr. Diksha Khare Mrs. Kritika Jyoti Namdeo Mr. O. P. Meravi	

Understanding Molecular Techniques



State level 7 Days Workshop on
Molecular Techniques
08-14 November 2024

Topics Covered

- Genomic DNA Isolation
- Plasmid DNA isolation
- Agarose Gel Electrophoresis
- RFLP**
- Transformation

Features

Hands on Demonstration,
Interactive Sessions,
Result Interpretation
Invited Talks



Activities:

**Govt. N.P.G. College of Science,
Raipur, C.G.**
**Seven Days State
Level Workshop**
On
Molecular Techniques
08.11.2024 to 14.11.2025
Organized by
**Department of Botany, Zoology &
Biotechnology**
Program Schedule

Time	Program	Name of the Speakers / In Charge of the session
	08.11.2024 (Venue: Zoology Lab)	
	Practical Session I	In Charge
8.30 am – 9.00 am	Protocol Discussion	Dr. Kavita Das
9.00 am – 12.30 pm	Experiment on RFLP (Restriction Fragment length Polymorphism)	Dr. Preeti Mishra Dr. Kavita Das Dr. Pallavi Sinha Mrs. Gunjan ojha
08.11.2024, Inaugural Function (Venue: G-21)		
Programme conduction by Dr. Suneeta Patra		
12:30 pm to 12:35 pm	Welcome address.	Dr. Seema Gupta
12:35 pm to 12:45 pm	Inaugural Address	Dr. Arun K. Mishra (Principal)
12:45 pm to 12:55 pm	About Workshop	Dr. V.K. Kanungo
12:55 pm to 1:00 pm	Introduction of Speaker,	Dr. Sajana Bhagat
1:00 to 2:00 pm	Invited Lecture: DNA Fingerprinting	Dr. Deb Priya Rath Associate Professor, M.D. Biochemistry, Pt. J. N. M. Medical College, Raipur, C.G.
2:00 pm to 2:05 pm	Thanks to Speaker	Dr. N.B. Singh
09.11.2024 (Venue: Zoology Lab))		
08.30 am to 02:30 pm	Practical Session II	In Charge
	Protocol Discussion and Experiment on Plasmid DNA isolation from <i>E. coli</i>	Dr. Preeti Mishra

		Dr. Kavita Das Dr. Shashi Gupta Mr. Satish Kumar Ramteke
11.11.2024 (Venue:Biotechnology Lab)		
	Practical Session III	In Charge
08.30pmto02:30pm	Protocol Discussion and Experiment on DNA isolation from leaves and Blood sample	Dr. Sanjana Bhagat Mrs. Deepali Rajwade
	Protocol discussion and preparation for Transformation experiment	Dr. Suneeta Patra Dr. Diksha Khare Ms. Renuka Sinha
12.11.2024(Venue:Biotechnology Lab)		
	Practical Session IV	In Charge
08.30amto02:30am	Electrophoresis and Result Discussion	Dr. Sanjana Bhagat Mrs. Deepali Rajwade
	Experimental work -Transformation	Dr. Suneeta Patra Dr. Kritika Namdeo Mr. Jagmohan Sahu
13.11.2024 (Venue:BotanyLab)		
	Practical Session V	In Charge
08.30amto02:30am	Result discussion of Transformation	Dr. Suneeta Patra Dr. Kritika Namdeo Mr. Jagmohan Sahu
14.11.2024 (Venue:Botany Lab)		
08.30pmto 11:30pm	Result discussion of all the Experiments	Dr. Sanjana Bhagat
Valedictory function (G-21)		
Programme conduction by Dr. Renu Maheshwari		
11.30 - 2.30 pm	Welcome of Chief Guest Dr. Avinash Kumar Sharma	
	Summary of Workshop	Dr. Suneeta Patra
	Feed Back	Participants
	Speech of Chief Guest	Dr. Avinash Kumar Sharma
	Words of appreciation	Dr. Arun Kumar Mishra
	Vote of Thanks	Dr. Sangeeta Bajpai

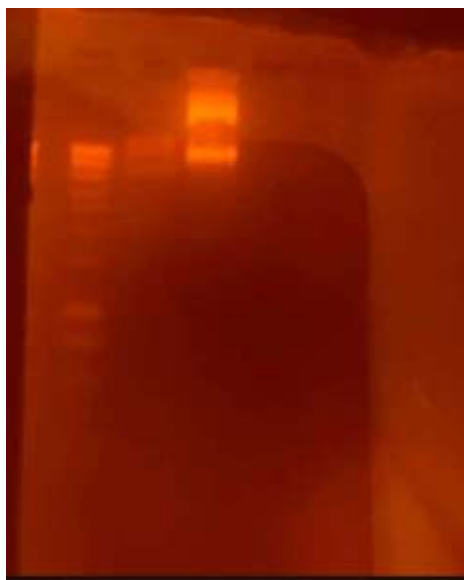
**7 DAYS STATE LEVEL WORKSHOP ON MOLECULAR TECHNIQUES FROM
08.11.2024 TO 14.11.2025**

7 Days State Level Workshop on Molecular techniques from 08.11.2024 to 14.11.2025

was Organized by Department of Botany, Zoology & Biotechnology, Govt. N.P.G. College of Science, Raipur, C.G. in collaboration with Govt. J.Y. Chhattisgarh College, Raipur, C.G.

The workshop started on **8 November 2024 at 8.30 am** with protocol discussion and hands on sessions on RFLP. Hands on sessions on 8 November 2024 were conducted by Dr Kavita Das organizing secretary Dept. of Zoology, Dr Pallavi Sinha, Mrs. Gunjan Ojha.





The formal inauguration was done by Dr Arun Mishra Principal and Patron of the workshop on 12.30 pm. In his speech he gave words of encouragement and best wishes to the participants and organizers. The invited talk was given by Dr Debpriya Rath associate professor Biochemistry, Pt J, N, M, medical College, Raipur, C.G. on DNA fingerprinting. The inaugural programme was conducted by Dr Suneeta Patra, organizing secretary, Dept. of Botany, welcome address was given by Dr Preeti Mishra convenor, Dr V. K. Kanungo, co convenor, elaborated the aims and objective of organizing this workshop. Dr N. B. Singh co convenor gave vote of thanks in the inaugural session.

The manual of protocols of the experiments was released on the inaugural session.







On 9 November the hands-on session was of Isolation of plasmid DNA from E. coli. Conducted by Dr Shashi Gupta, Mr. Satish Kumar Ramteke,. Protocol discussion was done by Dr Preeti Mishra convenor Dept. of Zoology, Govt. N.P.G. College of Science, Raipur, C.G. Technical assistance was provided by Aditi Shivhare ,Akansha Chandrakar, Vishnu Prasadin Sahoo and Akash Upadhayay research scholars from Dept. of Zoology.





On 11 November protocol Discussion and hands on session on DNA isolation from leaves and Blood sample was conducted by Dr Sanjana Bhagat Convener and guest faculty Ms Smruti Adil Dept. Of Biotechnology. Govt. N.P.G. College of Science, Raipur, C.G.





The hands-on sessions on Transformation experiment started simultaneously from 9 – 13 November 2024 in research lab of Botany Department. The protocol discussion and hands on sessions were conducted by Dr Suneeta Patra, organizing secretary, Dept. of Botany, Dr Sangeeta Bajpai covenor, Dr. Diksha Khare, Ms. Renuka Sinha Dr. Kritika Namdeo, Mr. Jagmohan Sahu and Omprakash Meravi faculties of Dept. of Botany, Govt. N.P.G. College of Science, Raipur, C.G. The technical assistance was provided by Ms. Hemshikha, Ms. Shubhangi and Mr. Dev Narayan research scholars Dept, of Botany.



On 14 November 2024 result discussion of Transformation and all the experiments conducted in the workshop was done. There was question answer and doubt clearing session in which all the faculty members and research scholars of Botany, Zoology and Biotechnology were present.



The valedictory function was organized on 14 November 2024. The chief guest of this session was Dr Avinash Kumar Sharma assistant professor Botany, Govt. K. H. P.G. College Abhanpur, Raipur, C.G., and Dr Rajeev Guhe Patron and Principal of Govt. N.P.G. College of Science, Raipur, C.G.

In the valedictory function the summary of activities held on all the days from 8-14 November 2024 was given by Dr Suneeta Patra followed by feedback session of participants. Words of appreciation was given by chief guest and patron of the workshop. Vote of thanks was given by Dr Sangeeta Bajpai, convener of workshop. This program was conducted by Dr Kavita Das.

The workshop was organized for P.G. students of Botany, Zoology and Biotechnology of Govt. N.P.G. College of Science, Raipur, C.G. and P.G. Students of Botany, Govt. J. Y. Chhattisgarh College, Raipur, C.G. Total 126 students registered and were benefitted by the workshop. Students were given assignment which they had to submit on the completion of the workshop. They were given certificates of participation.

The participants also visited museum of zoology and Botany department, Botanical Garden and got knowledge of principal and working of instruments used in the experiments. They also visited Botany, zoology and Biotechnology laboratory.



The members of Organizing committee were Patron and Principal Dr Arun Mishra and Dr Rajeev Guhe, Convener Dr. Preeti Mishra, Dr. Sangeeta Bajpai, Dr. Sanjana Bhagat, Co-convener, Dr. V. K. Kanungo, Dr. N. B. Singh, organizing secretary Dr. Suneeta Patra, Dr. Kavita Das, Mrs. Deepali Rajwade, Advisory committee Dr. S. K. Verma, Mrs. Indu Mandrik, Mrs. Gunjan Ojha, Mrs. Namrata Dubey, Technical committee, Dr. Pallavi Sinha, Mr. Satish Kumar Ramteke, Ms. Renuka Sinha, Mr. Jagmohan Sahu, Media committee Dr. Shashi Gupta, Dr. Diksha Khare, Mrs. Kritika Jyoti Namdeo, Mr. O. P. Meravi.







[यववाहक अध्यक्ष [गरधारा नायक न साजन्य भट का।

साइंस कॉलेज रायपुर में आज से होगा सात दिवसीय कार्यशाला का आयोजन

दरबंग रवट

रायपुर। शासकीय नागार्जुन स्नातकोत्तर विज्ञान महाविद्यालय रायपुर (छ. ग.) के वनस्पति शास्त्र विभाग, प्राणीशास्त्र विभाग एवं जैव प्रौद्योगिकी विभाग के संयुक्त तत्वाधान में रमोलिक्युलर तकनीकरपर सात दिवसीय कार्यशाला का आयोजन दिनांक 08 नवंबर 2024 से 14 नवम्बर 2024 तक किया जा रहा है जिसमें डॉ. देवप्रिया रथ, एसोसिएट प्रोफेसर, एमडी, बायोकेमिस्ट्री, पं. जवाहर लाल नेहरू, चिकित्सा महाविद्यालय रायपुर (छ. ग.) वक्ता के रूप में उपस्थित होंगे। इस कार्यशाला में डीएनए फिंगर प्रिंट, पौधों एवं जानतुओं से डीएनए अलग करने की विधि एवं इस विधि में उपयोग में लाए जाने वाले उपकरणों के बारे में कार्यशाला में उपस्थित प्रतिभागियों को अवगत कराया जाएगा।

साइंस कॉलेज में सात दिवसीय कार्यशाला का समापन मॉलिक्युलर तकनीक, डीएनए, फिंगर प्रिंट की दी जानकारी

रायपुर @ पत्रिका. शासकीय नागार्जुन स्नातकोत्तर विज्ञान महाविद्यालय (साइंस कॉलेज) में वनस्पति शास्त्र विभाग, प्राणीशास्त्र व जैव प्रौद्योगिकी विभाग के संयुक्त तत्वाधान में मॉलिक्युलर तकनीक विषय पर सात दिवसीय कार्यशाला का समापन गुरुवार को हुआ। इस दौरान जवाहरलाल नेहरू मेडिकल कॉलेज के डॉ. देव प्रिय रथ ने अतिथि व्याख्यान दिया। कार्यशाला



के पहले दिन डॉ. कविता दास, डॉ. पल्लवी सिन्हा, गुंजन ओझा ने डीएनए, फिंगरप्रिंट के बारे में विस्तार से जानकारी दी। दूसरे दिन डॉ. प्रीति

मिश्रा और डॉ. संजना भगत ने प्लास्मिड व रक्त से डीएनए के पृथक्करण तकनीक की विस्तार से जानकारी दी।

साइंस कॉलेज रायपुर में 'मॉलिक्युलर तकनीक' पर सात दिवसीय कार्यशाला का शुभारंभ



दशम स्टाफ

रायपुर। रायपुरीय जगदीश स्नातकोत्तर विद्यालय महाविद्यालय रायपुर में बनसोडी शास्त्र विभाग, प्राणीशास्त्र एवं जैवप्रौद्योगिकी विभाग के संयुक्त आयोजन में मॉलिक्युलर तकनीक/कार्य पर सात दिवसीय कार्यशाला का आयोजन किया गया। कार्यशाला के प्रथम दिन में डॉ. अश्विनी कुमार ने जी.एन.ए. प्रोटीन सिंट (आर. एफ. एफ.) तकनीक के विषय में विस्तृत से सम्बोधन एवं डॉ. पारसोती सिन्हा सहायक प्राध्यापक प्राणीशास्त्र ने विभिन्न तकनीकों एवं यंत्रों की सहायता से जी.एन.ए. प्रोटीन सिंट की

विधि की प्रायोगिक रूप से प्रविष्टिपूर्वक की शिक्षा दी।

कार्यशाला का विभिन्न सुधारों में छात्रों के छात्रावास पर वास्तविक एवं सार्वजनिक वृद्ध के साथ हुआ इस अवसर पर कार्यक्रम की अध्यक्षता कर रहे महाविद्यालय के प्राचार्य डॉ. ए. के. सिन्हा ने अपने उद्बोधन में बताया कि इस विभाग की लेकर कार्यशाला का आयोजन किया जा रहा है यह प्रायोगिक के लिए उपयोगी एवं मान्य जीवन के लिए बहुत उपयोगी सिद्ध होगी प्राणीशास्त्र विभाग के विभागध्यक्ष डॉ. प्रो. सिन्हा ने कार्यशाला के उद्देश्य पर प्रकाश डालते हुए विस्तृत से अवगत करवा सम्बन्धित शास्त्र

विभाग के सहायक प्राध्यापक डॉ. विमल कुमार कानुनी ने बताया कि इस कार्यशाला का आयोजन बनसोडी शास्त्र, प्राणीशास्त्र, जैवप्रौद्योगिकी, रसायन शास्त्र, जैविक विज्ञान से सम्बन्धित है, इसके माध्यम आर. एफ. ए. जी.एन.ए. प्रोटीन आदि का अध्ययन किया जात है। मोलेक्यूलर इन्जीनियरिंग के माध्यम से जानुओ एवं वीरों में रोगों का निदान किया जा सकता है। बायोटेक्नोलॉजी के विभागध्यक्ष डॉ. संजय चन्दा ने कार्यशाला के प्रमुख वक्ता डॉ. देव प्रिया राय, एसोसिएट प्रोफेसर, एमडी बायोटेक्नोलॉजी, पंडित जवाहरलाल नेहरू रायपुर का परिचय कराया। कार्यशाला के प्रमुख वक्ता

डॉ. राय ने जीएन.ए. की संरचना की बताते हुए जीएन.ए. प्रोटीन सिंट विधि का करने की विभिन्न विधियों से अवगत कराते हुए उसके उपयोगिता की विस्तृत सेवाप्रदान। प्रथम दिन कार्यशाला में महाविद्यालय के प्राध्यापक डॉ. एन. बी. सिंह, डॉ. उदय मोहन, डॉ. प्रो. राय, डॉ. सुनील नारायण गुंजन लोहा, प्रमुख शिक्षा, जवाहरलाल नेहरू बायोटेक्नोलॉजी, एमडी बायोटेक्नोलॉजी के एन. एफ. सी. के सहायक वक्ता डॉ. संजय चन्दा ने उपस्थित थे। कार्यक्रम का संचालन डॉ. सुनील पात्रा एवं आचार्य प्रदर्शन डॉ. शशीता कानुनी (विभागाध्यक्ष बनसोडी शास्त्र) ने किया।



साइंस कॉलेज रायपुर में 'मॉलिक्युलर तकनीक' विषय पर आधारित सात दिवसीय कार्यशाला का हुआ समापन

दबंग स्वर

रायपुर। शासकीय नागार्जुन स्नातकोत्तर विज्ञान महाविद्यालय रायपुर में वनस्पति शास्त्र, प्राणीशास्त्र एवं जैवप्रौद्योगिकी विभाग के संयुक्त तत्वाधान एवं छत्तीसगढ़ महाविद्यालय रायपुर के वनस्पति शास्त्र विभाग के सहयोग से 'मॉलिक्युलर तकनीक' विषय पर सात दिवसीय कार्यशाला का आयोजन किया गया। सात दिवसीय कार्यशाला का आयोजन दिनांक 08.11.2024 से 14.11.2024 तक प्राणिशास्त्र, वनस्पति शास्त्र, एवं जैवप्रौद्योगिकी विभाग के प्रयोगशालाओं में, मॉलिक्युलर तकनीक की विभिन्न विधियों का विस्तारपूर्वक अवगत कराया गया।

कार्यशाला के प्रथम एवम द्वितीय दिवस प्राणीशास्त्र विभाग द्वारा डीएनए फिंगर प्रिंट (आर.एफ.एल.टी.) तकनीक एवं ई.कोलाई बैक्टेरिया से प्लाज्मिड डीएनए को पृथक् करने की विभिन्न विधियों को डॉ. कविता दास, डॉ. प्रीति मिश्रा, डॉ. पल्लवी सिन्हा, गुंजन ओझा एवं सतीश कुमार रामटेके ने समझाया। उक्त प्रक्रिया में उपयोग में आने वाले उपकरणों, सामग्रीयों एवं विधियों को समझाते हुए प्रयोगात्मक अध्ययन किया गया। कार्यशाला के तृतीय दिवस जैवप्रौद्योगिकी विभाग के विभागाध्यक्ष डॉ. संजना



भगत एवं डॉ. स्मृति आडिल द्वारा पौधों की पत्तियों एवं ब्लड, सेम्पल से विभिन्न उपकरणों व रसायनिक प्रदार्थों की सहायता से डीएनए को पृथक्करण करके दिखया गया।

कार्यशाला के अगले दिवस वनस्पति शास्त्र विभाग के रिसर्च लेब में बैक्टेरियल डीएनए रूपांतरण की विधि का प्रयोग डॉक्टर सुनीता पात्रा एवं रिसर्च स्कॉलर द्वारा किया गया। कार्यशाला में उपस्थित प्रतिभागियों ने अलग-अलग विभाग के प्रयोगशालाओं में रखे हुए उपकरणों से रूबरू हुए। वनस्पति शास्त्र एवं प्राणीशास्त्र के म्यूजियम के अलावा बॉटनिकल गार्डन का भी भ्रमण किया गया।

कार्यशाला का समापन दिनांक 14.11.2014 को डॉ. अविनाश शर्मा (सहायक प्राध्यापक)

वनस्पति शास्त्र, शासकीय महाविद्यालय अभनपुर के मुख्य आतिथ्य में सम्पन्न हुआ। समापन अवसर में महाविद्यालय के प्राचार्य डॉ. राजीव गुहे ने बताया कि डीएनए फिंगरप्रिंट एक ऐसा तकनीक है, जिसके माध्यम से आपराधिक अनुसंधान में सहायक होता है, इसके अलावा किसी भी बच्चे के पालक की पहचान करने में भी इस तकनीक का उपयोग किया जा रहा है।

डॉ. सुनीता पात्रा ने सात दिवसीय कार्यशाला की विभिन्न गतिविधियों से अवगत कराया। कार्यशाला के आयोजन सचिव व विभागाध्यक्ष वनस्पति शास्त्र डॉ. संगीता बाजपेयी ने आभार प्रदर्शन एवं डॉ. कविता दास ने कार्यक्रम का संचालन किया। इस कार्यशाला को सफल बनाने में वरिष्ठ प्राध्यापक डॉ. विमलकुमार कानूनगो, डॉ. एनबी सिंह, डॉ. दीक्षा खरे, डॉ. कृतिका ज्योति नामदेव, जगमोहन साहू, छत्तीसगढ़ महाविद्यालय से डॉ. एस के वर्मा, डॉ. रितु कुंजाम रीसर्च स्कॉलर कु. हिमांशु, कु. शुभांगी, देवनारायण, आकांक्षा, विष्णुप्रिया, आकाश उपाध्याय, अदिति शिवहरे के अलावा विज्ञान महाविद्यालय एवं छत्तीसगढ़ महाविद्यालय के एमएससी छात्र-छात्राएं उपस्थित थे।

Workshop on 'Molecular Techniques' concludes

- Total 126 students registered and were benefitted by the workshop.
- Students were given assignment which they had to submit on the completion of the workshop

■ Staff Reporter
RAIPUR, Nov 14

A SEVEN-DAY state level workshop on 'Molecular Techniques' organised by Department of Botany, Zoology & Biotechnology, Government NPG College of Science, Raipur in collaboration with Government JY Chhattisgarh College Raipur in the state capital on Thursday. The workshop was held from November 8 to 11. The workshop started on November 8 with protocol discussion and hands on sessions on RFLP.

The formal inauguration was done by Dr Arun Mishra, Principal and Patron of the workshop. In his speech, he gave words of encouragement and best wishes to the participants



The guests during the programme.

and organisers. The invited talk was given by Dr Debpriya Rath, Associate Professor Biochemistry, Pt J NM, medical College, Raipur, on DNA fingerprinting. The inaugural programme was conducted by Dr Suneeta Patra, organising secretary, Dept. of Botany, the welcome address was delivered by Dr Preeti Mishra, convener.

Dr V K Kanungo, co-convenor, elaborated the aims and objective of organising this workshop. Dr N B Singh, co-convenor, the proposed the vote of thanks in the inaugural session. The manual of protocols of the experi-

ments was released on the inaugural session.

On the second day of the workshop, the hands-on session was of Isolation of plasmid DNA from E coli. Hands on sessions were conducted by Dr Kavita Das, organising secretary Dept of Zoology, Dr Pallavi Sinha, Dr Shashi Gupta, Satish Kumar Ramteke, Gunjan Ojha. Protocol discussion was done by Dr Preeti Mishra convener, faculties from Dept of Zoology, Government NPG College of Science, Raipur, CG Technical assistance was provided by Akansha Chandrakar, Vishnu Prasadini Sahoo, Akash

Upadhyay and Aditi Shivhare research scholars from Dept of Zoology

On November 11, protocol discussion and hands on session on DNA isolation from leaves and Blood sample was conducted by Dr Sanjana Bhagat Convener and guest faculty Smruti Adil Dept. Of Biotechnology, Govt NPG College of Science, Raipur.

The hands-on sessions on Transformation experiment started simultaneously from November 9 to 13 in research lab of Botany Department. The protocol discussion and hands on sessions were conducted by Dr Suneeta Patra, organising secretary, Dept. of Botany, Dr Sangeeta Bajpai convener, Dr Diksha Khare, Renuka Sinha, Dr Kritika Namdeo, Jagmohan Sahu and Omprakash Meravi faculties of Dept. of Botany, Govt. N.P.G. College of Science, Raipur. The technical assistance was provided by Hemshikha, Shubhangi and Dev Narayan, research scholars Dept. of Botany.

On Thursday, result discussion of transformation and all the experiments conducted in the workshop was done. There was

question answer and doubt clearing session in which all the faculty members and research scholars of Botany, Zoology and Biotechnology were present.

Dr Avinash Kumar Sharma assistant professor Botany, Government KHPG College Abhanpur, Raipur, was the Chief guest at the valedictory function. Dr Rajeev Guhe, Patron and Principal of Government NPG College of Science, Raipur,

Dr Suneeta Patra highlighted the activities of the workshop. A vote of thanks was proposed by Dr Sangeeta Bajpai, convener of workshop. Dr Kavita Das conducted the proceedings of the programme.

Total 126 students registered and were benefitted by the workshop. Students were given assignment which they had to submit on the completion of the workshop. They were given certificates of participation.

The participants also visited museum of zoology and Botany department, Botanical Garden and got knowledge of principal and working of instruments used in the experiments. They also visited Botany, zoology and Biotechnology laboratory.

Sl. No.	Name of the Student	Roll No.	Grade	Signature
1	Aditi Shivhare	101	B	
2	Akash Upadhyay	102	B	
3	Akansha Chandrakar	103	B	
4	Arjun Mishra	104	B	
5	Avinash Kumar Sharma	105	B	
6	Bhagat Sanjana	106	B	
7	Bhaskar Singh	107	B	
8	Bhaskar Singh	108	B	
9	Bhaskar Singh	109	B	
10	Bhaskar Singh	110	B	
11	Bhaskar Singh	111	B	
12	Bhaskar Singh	112	B	
13	Bhaskar Singh	113	B	
14	Bhaskar Singh	114	B	
15	Bhaskar Singh	115	B	
16	Bhaskar Singh	116	B	
17	Bhaskar Singh	117	B	
18	Bhaskar Singh	118	B	
19	Bhaskar Singh	119	B	
20	Bhaskar Singh	120	B	

Sl. No.	Name of the Student	Roll No.	Grade	Signature
21	Bhaskar Singh	121	B	
22	Bhaskar Singh	122	B	
23	Bhaskar Singh	123	B	
24	Bhaskar Singh	124	B	
25	Bhaskar Singh	125	B	
26	Bhaskar Singh	126	B	
27	Bhaskar Singh	127	B	
28	Bhaskar Singh	128	B	
29	Bhaskar Singh	129	B	
30	Bhaskar Singh	130	B	
31	Bhaskar Singh	131	B	
32	Bhaskar Singh	132	B	
33	Bhaskar Singh	133	B	
34	Bhaskar Singh	134	B	
35	Bhaskar Singh	135	B	
36	Bhaskar Singh	136	B	
37	Bhaskar Singh	137	B	
38	Bhaskar Singh	138	B	
39	Bhaskar Singh	139	B	
40	Bhaskar Singh	140	B	

12.To enhance Differential learning levels in students

Activity- Students were made aware about answer writing pattern, about time management in answer writing during exam time, making strategy to extract maximum marks by writing answers in points, underlining key points, drawing well informative diagrams to UG and PG students.



Outcome: Students learn about writing style on exam to gain numbers and how to make their answers more attractive and knowlegable.

Beneficiaries: 34

**13. International workshop on techniques in hydrobiologyon Techniques in
Hydrobiology from 14th to 20th January, 2025**

**INTERNATIONAL 7 Days WORKSHOP
On**

**TECHNIQUES IN HYDROBIOLOGY
(HYBRID MODE)**

14th to 20th January 2025

Organized by



DEPARTMENT of ZOOLOGY & BOTANY

Government N.P.G. College of Science, Raipur, C.G.

Eminent Speakers



Dr. S.S.S. Sarma
Aquatic Zoology
Laboratory, Research and
Post Graduate Division,
National Autonomous
University of Mexico.



Dr. Nandini Sarma
Aquatic Zoology Laboratory,
Research and Post Graduate
Division, National
Autonomous University of
Mexico.



Dr. M.L. Naik
Retd. HoD, School of
Life Science
R. S. University
Raipur, C.G.



Dr. Sumona
CEO ISO/IEC 17025
Laboratory Quality
Consultant Canadian
Incorporated Company
based in Toronto



Prashant Kawishwar
Senior Scientist
Chhattisgarh Council of
Science and Technology,
Raipur.



Dr. Renu Maheshwari
Principal
Govt. College, Tamasani
Raipur, C.G.



Dr. Pragya Kulkarni
Asstt. Prof. Microbiology
Govt. VYTPG College
Durg, C.G.



Dr. A. K. Shrivastava
Asstt. Prof. Botany
Govt. College, Utai,
Durg



Dr. Sanju Sinha
Asstt. Prof. Zoology
Govt. VYTPG College
Durg, C.G.

About Chhattisgarh

Chhattisgarh, nestled in the Vindhyan hill regions and Deccan plateau of central India, boasts over 44% of its landscape covered by forests, making it a hub of rich biodiversity. The state is home to 1,23,261 rural ponds along with 1,770 irrigation reservoirs. This gives a total of 1.999 lakh hectares available for fisheries development. The main rivers, Mahanadi and Indravati, along with their tributaries, flow throughout the state, offering significant opportunities for fishery development activities. Plankton diversity in Chhattisgarh ponds is high, with many genera of phytoplankton and zooplankton found in the region which serves biological indicator of water resources.



About College



GOVT. NAGARJUNA POST GRADUATE COLLEGE OF SCIENCE, RAIPUR IS OLDEST AND PRESTIGIOUS COLLEGE OF CHHATTISGARH, ESTABLISHED IN 1948. IT IS CROWNED WITH COLLEGE WITH POTENTIAL FOR EXCELLENCE ON 2010-13., AND DECLARED AUTONOMOUS COLLEGE ON 1987. TOTAL LAND AREA OF COLLEGE IS 43.25 ACRES (APPROX.), STATUS: LEAD COLLEGE OF RAIPUR AND AFFILIATED FROM PT. RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR

About Workshop

Hydrobiology is the study of the biology of bodies of water. It is important for assessing the ecological state of waters, and evaluating the state of water management and treatment technologies.

Theme of Workshop:

- ❖ Biodiversity: Isolation, Preservation and Identification.,
- ❖ Ecology of water bodies
- ❖ Effects of anthropogenic stressors
- ❖ Aquatic ecosystem processes and functioning,
- ❖ Aquatic Microbial .
- ❖ Aquatic-terrestrial interactions
- ❖ Research writing and Patenting of research.
- ❖ Novel technology (Remote sensing, e DNA)
- ❖ Ecology modelling

Organizing Committee

CHIEF PATRON

Dr. Amitabh Banerjee
Principal

PATRON

Dr. Preeti Mishra,
H.o.D., Dept. of Zoology

Dr. Sangeeta Bajpai,
HoD, Dept. of Botany

CONVENER

Dr. N. B. Singh,
Asstt. Prof., Dept. of Botany

Dr. Suneeta Patra,
Asstt. Prof., Dept. of Botany

Mrs. Indu Mandrik,
Asstt. Prof., Dept. of Zoology

ORGANIZING SECRETARY

Dr. Vimal Kumar Kanungo,
Asstt. Prof. Dept. of Botany

Dr. Kavita Das,
Asstt. Prof., Dept. of Zoology

TECHNICAL COMMITTEE

Dr. Shashi Gupta
Asstt. Prof.,
Dept. of Zoology

Dr. Pallavi Sinha
Asstt. Prof.,
Dept. of Zoology

Dr. Diksha Khare
Asstt. Prof.,
Dept. of Botany

Dr. Kritika J. Namdev
Asstt. Prof.,
Dept. of Botany

Miss Renuka Sinha
Asstt. Prof.,
Dept. of Botany

MEDIA COMMITTEE

Mrs. Gunjan Ojha
Asstt. Prof., Dept. of Zoology

Mr. Om Prakash Meravi
Asstt. Prof., Dept. of Botany

REGISTRATION COMMITTEE

Mr. Jagmohan Sahu
Asstt. Prof., Dept. of Botany

Mr. Satish Kumar Ramteke
Asstt. Prof., Dept. of Zoology

Registration Fee
Faculty-500/-
Research Scholars-300/-
Students-200/-

On line Payment
Bank- SBI
Branch - NIT, Raipur
Ac No.-10071038197
IFSC Code- SBIN0002852

For off line

TREASURER

Dr. N. B. Singh, Dept. of Botany
Mrs. Indu Mandrik, Dept. of Zoology

[Click here for registration](#)

A certificate will be provided to all registered participants



9406017514, 9893159977

Organizing Committee



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Principal



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H.O.D., Dept. of Zoology



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Asstt. Prof., Botany



Mr. Satish Kumar Ramteke
Asstt. Prof., Zoology

Report on 7 Days' International Workshop on Hybrid mode on Techniques in Hydrobiology from 14th to 20th January, 2025

Objective - Hydrobiology is the science of life and life processes in water. Modern hydrobiology can be viewed as a sub-discipline of ecology but the sphere of hydrobiology includes taxonomy, economic and industrial biology, morphology, and physiology.

Study of Hydrobiology is import because it includes Study of water populations, their interrelations with habitat and importance for transformation of energy and matter and biological productivity of the ocean, seas, and inland waters, and as we all know that Chhattisgarh is the state of ponds therefore it is of much significance to draw attention of academicians, researchers and students for the conservation and sustainable use of water bodies.

Keeping this in view 7 Days' International Workshop on Hybrid mode on Techniques in Hydrobiology from 14th to 20th January, 2025 was organized by Department of Zoology & Botany, Govt. Nagarjuna P.G. College of Science, Raipur, Chhattisgarh. Principal Dr. Amitabh Banerjee was the chief patron of the workshop. Patrons were Dr Preeti Mishra and Dr Sangeeta Bajpai head of the department Zoology and Botany respectively. The convenors were Smt. Indu Mandrik, Dr N. B. Singh and Dr Suneeta Patra. The Organizing secretaries were Dr Vimal Kumar Kanungo and Dr Kavita Das. The members of different committees were Dr Shashi Gupta, Dr. Gunjan Ojha, Dr Pallavi Sinha and Mr. Satish Ramteke from dept. of Zoology and Dr Diksha Khare, Dr Kritika Jyoti Namdeo, Mr Om Prakash Meravi, Mr Jagmohan Sahu and Ms. Renuka Sinha from dept. of Botany.

Activities -The workshop started with the Inaugural function on 14 January in which Dr V K Kanungo highlighted the objectives of organizing Workshop on Hydrobiology. Dr. Kavita Das gave the detailed scheduled of 7 days' workshop. Principal Dr Amitabh Banerjee shared words of appreciation for organizing the workshop and good wishes for the grand success. The inaugural session was conducted by Dr Pallavi Sinha.

The workshop was divided in two parts. Every day it started with the lecture of invited speakers and protocol discussion online and post lunch sessions were of hands-on techniques for the participants in off line mode. The workshop was organized in hybrid mode the e participants joined the workshop on online as well as offline mode. The practical sessions were in off line mode.

The inaugural session was followed by the talk of Keynote Speaker Dr. S.S.S. Sarma on Rotifer Taxonomy and Ecology. He was from Aquatic Zoology Laboratory, Research and Post Graduate Division, National Autonomous University of Mexico followed by lecture of Dr. Nandini Sarma on Zooplankton Bioindicators. She was also from Aquatic Zoology Laboratory, Research and Post Graduate Division, National Autonomous University of Mexico

The resource person for practical session and protocol discussion was Dr. Renu Maheshwari , Principal Govt. College seoni . She demonstrated the technique of Identification of Fish.

On DAY -2 i.e. on 15.01.2025 the Guest Speaker was Dr. Nandini Sarma. Her topic of lecture was -Species diversity of Rotifers: concepts and calculations. This was followed by guest lecture of Dr. S.S.S. Sarma his topic was -Identification of rotifers from different sites .

In the practical session, Dr. Pragya Kulkarni, Assistant professor Botany, Govt V.Y.T.P.G. college Durg discussed the protocol on Study of Aquatic microflora followed by practical session on fungal slide preparation and identification of fungus.

On DAY -3 i.e. on 16.01.2025 Guest speaker was Dr. Nandini Sarma, her Lecture was on : - Tips for writing a scientific manuscript. Followed by guest lecture of Dr. S.S.S. Sarma. His talk was on -How to avoid retraction of articles. Both the speakers were from Aquatic Zoology Laboratory, Research and Post Graduate Division, National Autonomous University of Mexico. Practical session started at 02.30 pm. The resource person for this session was Dr. Sadhana Jaiswal assistant professor Microbiology, Govt. N. P. G. College of Science, Raipur, C.G. Her topic was Microbiological Examination of Water. This was followed by hands on session where participants learned how to find out MPN and Coliform examination of water.

On DAY -4 i.e. on 17.01.2025 The guest speaker was Dr Prasant Kawishwar Senior scientist, CCOST Raipur. His talk was on remote sensing, GIS techniques wetlands of Chhattisgarh and Ramsar sites. Second invited lecture was on eDNA(environmental DNA) analysis for monitoring the distribution pattern of fish and macroinvertebrates in the Pranmati Stream, Uttarakhand, North- west Himalaya by Mr. Rishikesh Krishan Laxmi, Junior research fellow from New Delhi. He is working in the project titled Pranmati Basin Critical Zone Observatory Himalaya, funded by the ministry of Earth Science, Govt. of India, The major focus is to study the aquatic biodiversity of the Pranmati hill stream.

In the practical session participants did physiochemical analysis of water. The practicals were demonstrated by Dr Kavita Das .

On DAY -5 i.e. on 18.01.2025 The Guest Speaker was Dr. M.L. Naik, Retd. Ho D SOS life Sciences Pt. RSU Raipur, C.G. He talked on Identification of Phyto planktons and Aquatic Macrophytes. This was followed by invited talk of Dr Sanju Sinha, Assistant Professor Zoology Govt. V.Y.T.P.G. college Durg. Her lecture was on Calculations of diversity, abundance, micrometry of Zooplankton

Practical session started at 2.00pm. In this session students did collection, slides preparation and identification of Phytoplanktons and algae.

On Day 6 i.e. on 19.01. 2025 there was a field visit for participants they were taken to Dangania pond to learn the technique for measurement of pond area, plankton collection and other parameters and properties of pond study. All these techniques were demonstrated by Dr V K Kanungo.

On Day 7 i.e. on 20-1-2025 the Guest Speaker was Dr. Sumona Guha , Director of Business Development, Scientific Advisor, Consultant, ISO/IEC 17025 Lead and Technical Assessor, Ontario, Canada. She talked on E. coli outbreak – A worst scenario case study of Ontario, Canada.

The second invited talk was of Dr. A.K. Shrivastava, Assistant professor Botany, Govt. Danveer Tularam college Utai, Durg. He discussed on Cyanobacteria cultivation and identification. Practical session was on media preparation for culture of Cyanobacteria.

Beneficiaries -There were total 214 participants, from which 174 were from on line and 40 from off line mode. The participants included faculties, research scholars and post graduate students from different colleges belonging to different district of Chhattisgarh such as

Raipur, Durg, Bhilai, Rajnandgaon, Rajim, Ambikapur ,Raigarh, Korba, Abhanpur, Kurud, Surajpur, Gariyaband, Bemetara, Kanker, Jaspur, Janjgir, Mahasamund, Sarangarh, Ambagarh Chowki, Dhamtari, Bilaspur, Bhataprar, Bhanupratapur ,Katghora ,Jagdalpur ,Balod and other states such as Jhabua, M.P. ,Jharkand.

Outcome - students have gained knowledge about different aspects of hydrobiology such as culture and identification zooplaktons, phytoplanktons, algae , aquatic fungi, bacteria, cynobacteria ,colliform test, remote sensing, GIS, e DNA, physiochemical analysis of water.

Glimpses of workshop Date 14.01.2025 day 01 , INAGURATION





Raipur, Chhattisgarh, India
 A-7, Jivan Vihar, Raipur, Chhattisgarh
 Lat 21.247498° Long 81.6022°
 14/01/25 11:03 AM GMT +05:30



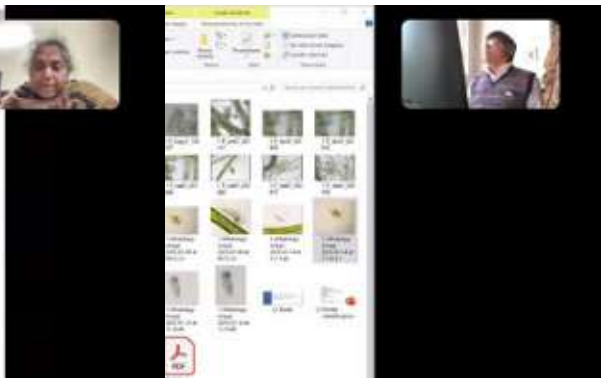
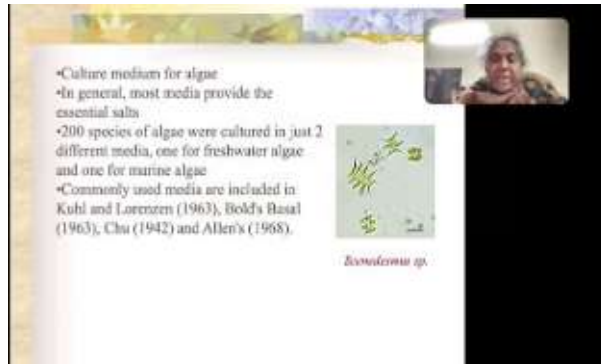




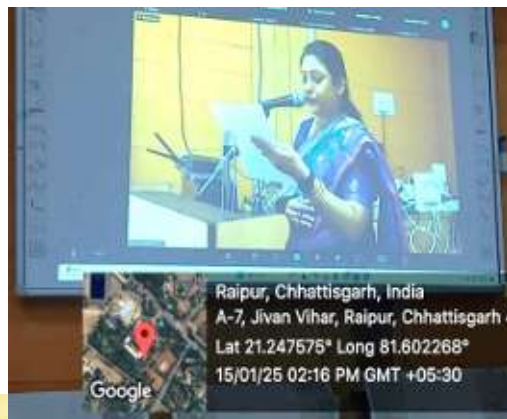
PRACTICAL SESSION



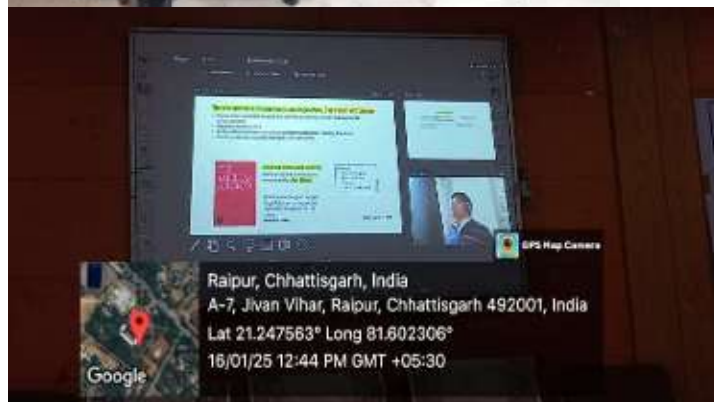
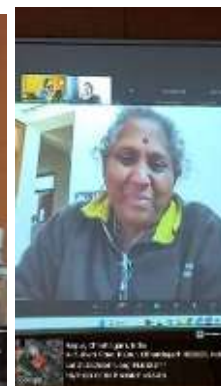
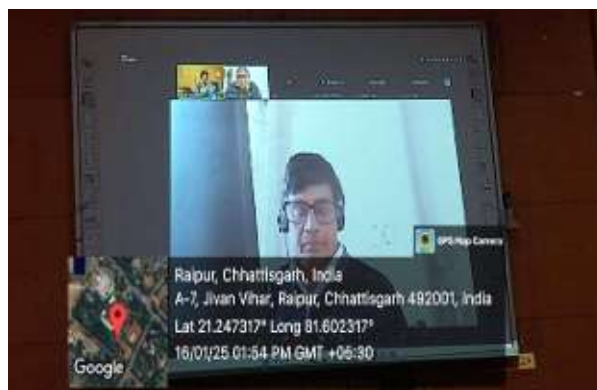
DAY-2 15.01.2025



Practical Session



DAY-3 16.01.2025



Practical Session



DAY-4, 17.01.2025



Practical Session



DAY-5, 18.01.2025

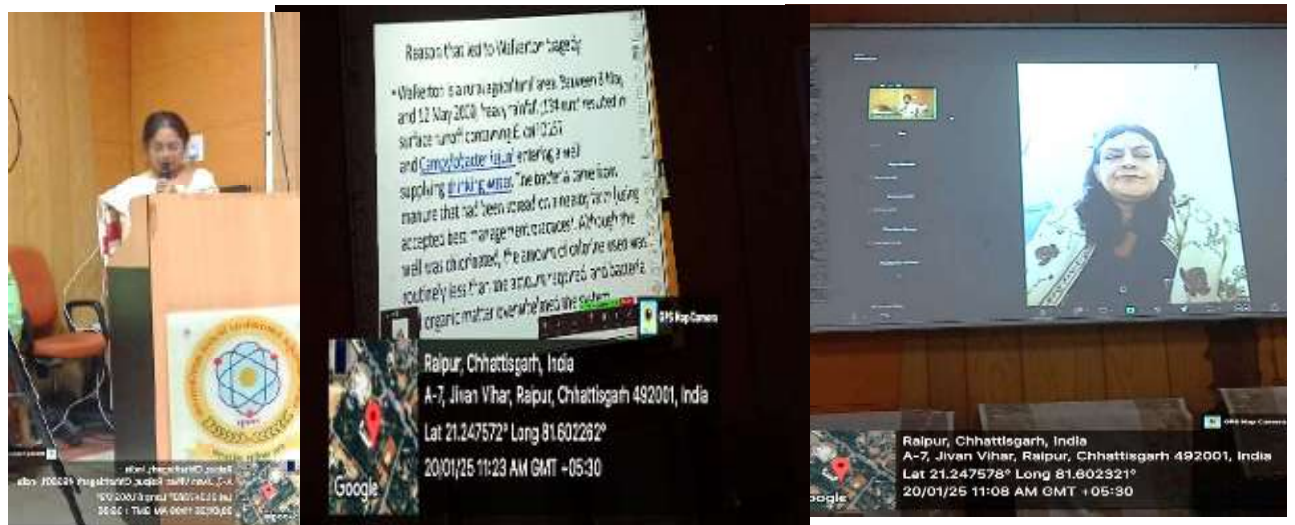


Practical Session

DAY-6, 19.01.2025 Field Visit



DAY-7,20.01.2025



Practical Session

Valedictory Function



MEDIA COVERAGE

'हाइड्रोबायोलॉजी तकनीक' पर

अपनी विशेषज्ञों ने जल प्रबंधन की तकनीक पर की चर्चा

विशेषज्ञों ने विद्यार्थियों को बताई हाइड्रोलॉजी की तकनीक

रायपुर। शासकीय नागार्जुन स्नातकोत्तर विज्ञान महाविद्यालय रायपुर में 14 से 20 जनवरी तक हाइड्रोलॉजी तकनीक पर सात दिवसीय अंतरराष्ट्रीय कार्यशाला आयोजित की गई। प्राणीशास्त्र एवं वनस्पति शास्त्र विभाग के संयुक्त तत्वावधान में हुई इस कार्यशाला में देश-विदेश से अनेक विशेषज्ञों ने ऑनलाइन व ऑफलाइन माध्यम से व्याख्यान प्रस्तुत किए। कार्यशाला में मैक्सिको से डॉ. एसएस शर्मा ने जलीय जंतु रोटीफर के वर्गीकरण, उसकी पहचान एवं शोधपत्र लेखन के साथ लेखन में बरती जाने वाली सावधानियों से अवगत कराया। वहीं डॉ. नंदनी शर्मा ने जैवसूचक के रूप में रोटीफर प्रजाति की भूमिका, जैवविविधता तथा शोधपत्र लिखने की वैज्ञानिक विधि बताई। इस कार्यशाला में लगभग 300 से अधिक प्राध्यापक, विद्यार्थी, रिसर्च स्कॉलर विभिन्न स्थानों से ऑनलाइन एवं ऑफलाइन मोड पर जुड़े।

डंगनिया तालाब का किया गया भ्रमण

इस दौरान रायपुर के डंगनिया तालाब का भ्रमण भी किया गया। डॉ. अवधेश कुमार श्रीवास्तव ने नीलहरित शैवाल की संरचना एवं उसकी उपयोगिता को विस्तार से बताया। कनाडा से डॉ.



सुमोना गुहा ने बैक्टेरिया ई-कोलाई की संरचना एवं विशेषताओं को बताया। महाविद्यालय के प्राचार्य डॉ. अमिताभ बैनर्जी ने प्रतिभागियों को सलाह देते हुए कहा कि कार्यशाला की उपयोगिता को समझाया।



विभिन्न प्रजातियों की पहचान

डा. प्रमोद कुमरगुप्ता ने जलीय हाइड्रो फेरा को समझते हुए प्रयोगशाला में माइक्रो स्कोप की विभिन्न प्रजातियों की पहचान सुझावों से कराई।

कलाया उद्देश्य

कार्यशाला के प्राचार्य डॉ. अमिताभ बैनर्जी ने कहा कि कार्यशाला का उद्देश्य जलीय सिस्टम के जल की परिस्थितियों का अध्ययन, जल प्रबंधन और जल संचयन के तकनीकी के बारे में करना है। साथ ही जलीय जीव विज्ञानियों को प्रोत्साहित करना, उनकी पहचान एवं संरक्षण करना, जलीय एवं स्थलीय पर्यावरणिक क्षेत्रों के मध्य आने-जाने की अवधारणा करना था।

दूर। • अर्चना

आगत कराया। जंतु प्रत्यक्ष रूप में रोटीफर की पहचान की गई।

प्रजाति की पहचान, रोटीफर की जैव विविधता तथा शोधपत्र लिखने की विज्ञानी विधि बताई। डा. रेणु

मोहनगुप्ता ने महसूसों में पाए जाने वाले लक्षणों के आधार पर पहचान करने की विधियों के बारे में बताया।

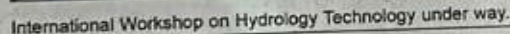
कार्यशाला त है। विषय प्राध्यापक एवं शोधपत्र लेखन के क्षेत्र में कार्य कर रहे हैं।

अंतर्गत छात्रों ने फंगल आइडेंटिफिकेशन समझा। बताया गया कि किस तरह से स्लाइड बनाकर हम अलग-अलग प्रकार के फंगस को पहचान सकते हैं। किस तरह से इनका वर्गीकरण कर सकते हैं। इसके तहत छात्र-छात्राओं को रायपुर स्थित वॉटरबॉडी विजिट के लिए भी-ले जाया जाएगा।

SCHEDULED FOR FEBRUARY 1998

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The workshop aimed to assess the ecology of aquatic bodies, explore water management and treatment techniques, focus on identifying, separating, and preserving aquatic biodiversity, and study the interactions between aquatic and terrestrial ecosystems. Dr S S Sharma (Mexico) gave presentation on Classification, identification, and research paper writing precautions for aquatic rotifers. Dr Nandani Sharma on the role of rotifer species as bioindicators of zooplankton, rotifer biodiversity, and scientific research



paper writing methods, Dr Renumaheshwari (Principal Naveen Maha Tamasavin) on Methods for identifying fish based on observed symptoms, Dr Pragna Kulkarni spoke about the Aquatic microflora, including laboratory identification of various species using microscopes and Dr M L Nayak on Collection, identification, and classification of micro and macrophytoplankton from Chhattisgarh's village and city ponds. Dr Nayak shared his work on 30 per cent of Chhattisgarh's pond phyto-

plankton and encouraged the workshop participants to continue the remaining 70 per cent.

Dr Sanju Sinha gave presentation on demonstration of zooplankton collection and identification methods, including microscopic observation. Dr Awadhesh Kumar Srivastava gave detailed explanation of the structure and utility of blue-green algae and Dr Sumona Guha (Canada) explained of the structure and characteristics of E coli bacteria.

A visit to Danganliya pond in

Raipur allowed participants to learn about phytoplankton sampling techniques and related equipment. College Principal Dr Amitabh Banerjee gathered feedback from participants and explained the workshop's practical applications. Dr R Dewan was a special guest at the closing ceremony. Dr Avinash Kumar Sharma, Dr Renumaheshwari, and Principal-in-charge Dr S K Patel presided over the workshop. Dr Sunita Patra presented a report summarising the seven-day event, and Dr V K Kanungo delivered a vote of thanks.

Over 300 professors, students, research scholars, and other participants connected online and offline from various locations, contributing to the workshop's success. College professors Dr Preeti Mishra, Dr Sangeeta Bajpai, Dr NB Singh, Dr Indumendrak, Dr Shashi Gupta, Gunjan Ojha, Dr Kritika Jyoti Namdev, Dr Diksha Khare, Satish Ramteke, Jagmohan Sahu, and Renuka Sinha made significant contributions to programme's organisation and execution.

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में उपस्थित यन्त्रों को करने व

साथ लेखन में बरती जाने वाली सावधानियों से अलगत करायें, डॉ. नंदन शर्मा ने जन्तुलोककों का जैवसूचक के रूप में सॉर्टफेम्स प्रजाति की भूमिका, रोटिफर की जैवविविधता तथा शोधपत्र लिखने की वैज्ञानिक विधि को बताया। डॉ. रेणुभाईश्वरी प्रभाय नवीन यम, ताम्रासिन्धवी ने गहलियों में पाए जाने वाले लक्षणों के आधार पर पहचान करने की विधियों से अवगत करवाया। डॉ. प्रज्ञा कुलकर्णी ने जलीय माइक्रोफ़्लोरा को समझने हुए प्रयोगशाला में माइक्रोफ़्लोरा की विभिन्न प्रजातियों की पहचान सूक्ष्मदर्शी से कराई। इस कार्यशाला में डॉ.एम.एल. नायक ने छत्तीसगढ़ के गांव और शहरों के विभिन्न तालाबों में पाए जाने वाले माइक्रो एवं मैक्रोसाइटोपैक्टिक की संरक्षण, पहचान एवं वर्गीकरण की विधि को समझाने हुए बताया कि उनके द्वारा छत्तीसगढ़ के विभिन्न तालाबों में 30% पादपपत्रवत्क एवं काम बिन्दी है तथा शोध बचे हुए 70% बर्तनों को कार्यशाला

में उपस्थित युवाओं को करने का आह्वान किया। डॉ. सुनील ने जन्तुप्लवक के संशोधन एवं पहचान करने की विधि के साथ सुसम्पन्न से अवलोकन कराया। अतिथि वक्ताओं ने उनके द्वारा पादप प्लवक एवं जन्तुप्लवकों में किए गए कार्यों को फोटोग्राफ प्रस्तुत किया जिससे देखकर प्रतिभागी प्रेरित हुए। इस दौरान रागपुर नगर में स्थित 'हार्मोनस तालाब का प्रयोग' भी किया गया जिसमें, तालाब से पादप प्लवक के सेमल निकालने के विधि एवं उपयोग में लाने वाले उपकरणों से अवगत कराया गया। डॉ. अवधेश कुमार श्रीवास्तव ने नीलहरित सैबाल की संरचना एवं उसकी उपयोगिता को चित्रारोपी बत्तया कनाटा से डॉ. सुमोना मुहां ने चौबटोरियाई कोलोराई के संरचना एवं विशेषताओं को बताया। महाविद्यालय के प्राचार्य डॉ. अमिताभ चौधरी ने प्रतिभागियों से फीडबैक लेकर कार्यप्रशंसा की उपयोगिता को समझाने का प्रयास किया।

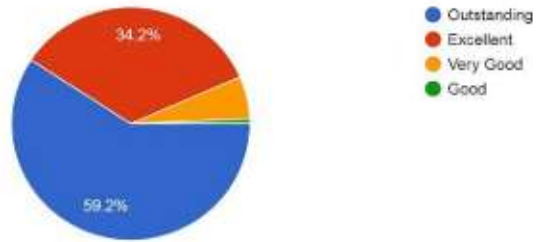
अन्तर में विशेष अतिथि के रूप में डॉ. आर. दीवान, डॉ. अविनाश कुमार शर्मा, डॉ. रंगमहेश्वरी, एवं कार्यशाला की अध्यक्षता रहे प्रभारी प्राचार्य डॉ. एस के पटेल उपस्थित थे। डॉ. सुनीता पांडे ने सात दिन चले कार्यशाला का प्रतिवेदन प्रस्तुत किया एवं डॉ. यों के कानूनी ने अक्षर प्रदर्शन किया। इस कार्यशाला में लगभग 300 से अधिक प्राध्यापक, विद्यार्थी, शिक्षक स्टाफ विभिन्न स्थानों से ऑनलाइन एवं ऑफलाइन मोड पर जुड़े विभिन्न प्रतिभागियों ने कार्यशाला को सफल बनाने में महत्वपूर्ण भूमिका निभायी। वहीं कार्यक्रम के दुरुआत ले लेकर कार्यक्रम के संकेत समारंभ में महाविद्यालय के प्राध्यापक डॉ. प्रीति मिश्रा, डॉ. रंगीता राजपेयी, डॉ. एस. बी. सिंह, डॉ. इंदु मेनिन्द्र, डॉ. शशि गुप्ता, गुजन ओझा, डॉ. कृतिका न्योति नामदेव, डॉ. दीक्षा तार, सलोश रामटेके, जगदीश नाह रेणुका सिन्हा आदि का विशेष योगदान रहा।

FEED BACK OF PARTICIPANTS

1

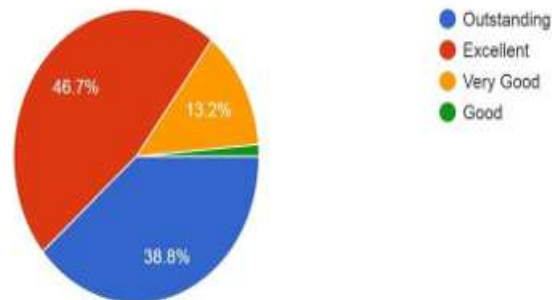
6. Resource Persons were

152 responses



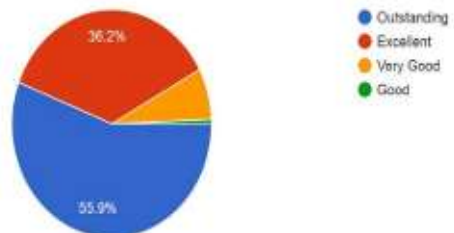
7. The Practical Sessions were

152 responses



8. Workshop was informative

152 responses



Certificate



GOVT. NAGARJUNA P.G. COLLEGE OF SCIENCE, RAIPUR (C.G.)

INTERNATIONAL 7 Days WORKSHOP

On

TECHNIQUES IN HYDROBIOLOGY

(HYBRID MODE)

14th to 20th January 2025

CERTIFICATE OF PARTICIPATION

This is to certify that Dr./Mr./Mrs./Miss-----
of-----participated in the 7 days
International Workshop on "TECHNIQUES IN HYDROBIOLOGY(Hybrid Mode) "held from 14th January to
20th January 2025, organized by the Department of Zoology and Botany, Govt. N.P.G. College of
Science, Raipur (C.G.)

ORGANIZING SECRETARY

Dr. Kavita Das

Dr. Vimal Kumar Kanungo

CHIEF PATRON

Dr. Preeti Mishra

Dr. Sangita Bajpai

CHIEF PATRON

Dr. Amitabh Banerjee

PRINCIPAL

You Tube Link

<https://www.youtube.com/live/Bu0jODWq1U4?si=G5SZcViBmSBkIzyq>

<https://youtu.be/IK6bqqNCvh0?feature=shared>

<https://www.youtube.com/live/D214vQjOXwY?si=CpZcBvk3qnp4kEqn>



Outcome: students gain knowledge about

-techniques in hydrobiology.

-Identification of planktons, fish

- Water quality assessment of ponds

Help in future research work and help society to gain knowledge about drinking water .

14. ICT-enabled tools including online resources for effective teaching and learning

Enrolling students in swayam Portal on 23.01.2025

Activity: Students of PG Zoology IV Sem and II sem registered on Swayam portal. Students got registered in course Cell – Biology by Prof. K. Sanatombi Department of Biotechnology, Manipur University. This course covers cells, its type, plasma membrane, other cell organelles, cytoskeletal system, nucleus, cell cycle, autophagy, introduction to lab safety etc. and also in course of genetics with title- Principles of Genetics By Prof. NB Ramachandra, University of Mysore.

Outcome : students got knowledge about their syllabus topics by subject experts of different universities and interact with subject experts.

Number of beneficiaries: 15



15. Basant Panchami celebration

Basant Panchami is the time that marks the preparation for the arrival of spring. Goddess Saraswati is worshipped during this auspicious day and symbolizes as the goddess of knowledge, language, music, arts, learning, speech, and wisdom. Vasant Panchami celebrations bring positive vibes, happiness, peace, prosperity.

Activity:

1. The programme started with puja of ma sarswati. The importance of the Day was highlighted by faculty members and its importance in the life of students.
2. Then followed the Saraswati Bhajans by Students.
3. Then Prasad was served to all.

and



Outcome: Students learn importance of knowledge learn about hindu mythology.

Beneficiaries: 32 students



16. World Cancer Day on 04/02/2025

Aim: To create awareness against disease and spreading wave of social responsibility in young budding minds.

Activity- awareness by poster making

On 4th February 2025, Zoological Association of Government Nagarjuna PG college of Science, Raipur (C.G.) celebrated World Cancer day with an impactful event aimed at raising awareness about cancer prevention, early detection, and treatment. The event featured a series of activities to engage students and faculty in the global fight against cancer.

Event Highlights:

- Posters on world cancer day theme: Students showcased their creativity by designing informative posters on cancer awareness. The best posters were displayed in the departmental wall magazine the posters are based on different types of cancer.

Outcome: The Cancer Day celebration by students inspired a sense of social responsibility.

Event made aware students about different cancers and inspired them to spread awareness in



the society.

Beneficiaries: 17

17.Celebration of World Pulses Day 10/02/2025

Aim: to raise awareness about the nutritional benefits of pulses promote sustainable agriculture, and encourage their consumption for food security and health.

Activity: Theme of World Pulses Day 2025 is Bringing diversity to agrifood systems. This theme suggests importance of pulses in enhancing variety of crops , promote sustainable agriculture and producing more protein rich nutrients for a crucial healthy diet.

The program started with the welcome of our respected HOD Dr. Preeti Mishra, Dr. Shashi Gupta and Dr. Indu Mandrik.

Presentation on “The Importance of Pulse and Fitness”- A PowerPoint presentation was delivered by Rashmi Dewangan, student of MSc. Final, on the importance of pulses and role in sustainable development, followed by Sakshi Dubey, Alka berma, and Kiran chandrakar student of MSc. Previous year.

The presentation covered topics:

- 1) Major Indian pulses
- 2) Nutritive value of pulses
- 3) Importance of pulses
- 4) Economic and environmental impact

At the end of the program, Shraddha Nishad of MSc final year concluded the event with a concise lecture on the importance of pulses, highlighting their nutritional benefits and role in a sustainable diet.



18. International Women's Day

Object: International Women's Day (IWD) is celebrated on 8 March, commemorating women's fight for equality and liberation along with the women's rights movement. International Women's Day gives focus to issues such as gender equality, reproductive rights, and violence and abuse against women.

Activity:Slogan writing on theme of 2025 that is International Women's Day (IWD) 2025, themed "**For ALL Women and Girls: Rights. Equality. Empowerment.,**"

Posters and slogan displayed in wall magazine of department” Zoom”.



Outcome:Aware students about gender equality, reproductive rights, and violence and abuse against women.

Beneficiaries: 12

19. World Sparrow Day on 20.3.2025

Object: World Sparrow Day (March 20) is significant for raising awareness about declining sparrow populations, highlighting their ecological role (insect control, seed dispersal), and promoting conservation through simple actions like planting trees and reducing pesticides to counter threats from urbanization and pollution, reminding us of the nature-human bond.

Activity: Slogan writing, sketching sparrow, nest hanging in college campus

Outcome: It serves as a platform to unite conservationists and educate the public on preserving urban biodiversity and the common birds that have long accompanied humans.

Beneficiaries: 16



20. Inter-collegiate activity on 22.03.2025

Object: Government science college is one of the renowned College of Chhattisgarh in education as well as a research center. Government DB Girls College research scholar Prachi Tiwari in studying **circadian rhythm in students of UG and PG** visited department for data collection and counselling of her research work.

Activity: Data collection and counselling

Outcome: Research scholar and M.Sc students learn about research techniques.





21. Interdepartmental- Activity on 25.04.2025

Activity - After introduction of NEP 2020 many courses have interdisciplinary topics, this has to be completed with co ordination of other departments. In this series some topics of parasitology are purely topics of zoology, for which students of B.Sc II sem NEP visited zoology lab and studied slides of phylum Protozoa.

Number of Beneficiaries- 08



22. SKILLBASED TRAINING PROGRAM

19-25 APRIL 2025

GARDENING-VERMICOMPOSTING & FLORICULTURE

Government Nagarjuna, P.G. College of Science, Raipur, C.G.

SKILL BASED TRAINING PROGRAMME
19 - 25 April 2025 (7 Days)

GARDENING & Floriculture
DEPARTMENT of BOTANY
CHIEF PATRON
Dr. Anilaksh Banerjee
Principal
PATRON
Dr. Preet Mishra,
H.O.D., Dept. of Zoology
Dr. Sangita Bapat,
H.O.D., Dept. of Botany
CONVENER
Dr. Vinod Kumar Koushik,
Asstt. Prof., Dept. of Botany
Mrs. Gunjan Ojha
Asstt. Prof., Dept. of Zoology
Dr. Dilisha Khare,
Asstt. Prof., Dept. of Botany
Co-CONVENER
Mrs. Indu Mandlik
Asstt. Prof., Dept. of Zoology
Dr. Sarita Patra
Asstt. Prof., Dept. of Botany
Dr. Kavita Das
Asstt. Prof., Dept. of Zoology

ON and
JOINTLY ORGANIZED BY

VERMICOMPOSTING
DEPARTMENT of ZOOLOGY
ORGANIZING SECRETARY
Mr. Satish Kumar Ramicki
Asstt. Prof., Dept. of Zoology
Mr. Om Prakash Morari
Asstt. Prof., Dept. of Botany
JOINT SECRETARY
Dr. Kritika J. Nandan
Asstt. Prof., Dept. of Botany
Dr. Pallavi Siroha
Asstt. Prof., Dept. of Zoology
Mrs. Renuka Sinha
Asstt. Prof., Dept. of Botany
Mr. Jagdish Saha
Asstt. Prof., Dept. of Botany

Programme schedule

S. No.	Date	Speakers
1.	19.4.25	Inauguration, Registration Dr. Vinayak Tiwari, Asstt. Prof. Zoology - Govt College Raipur
2.	20.4.25	Hostel assignment
3.	21.4.25	Mr. Bhadrachal Verma ICKV
4.	22.4.25	Dr. Pooja Gupta/ Asstt. Prof. Floriculture, ICKV
5.	23.4.25	Mr. Bhadrachal Verma ICKV
6.	24.4.25	Dr. G. L. Sharma Prof and Head, Plant Science, ICCV
7.	25.4.25	Valedictory Dr. Renu Mahendran, Principal, Govt. College, Tatanagar, Angamli Subdivision

Venue: G- 21
Time 10-11 am

Click here for Registration

Day-01 Date-19.04.2025

Guest Speaker-
Dr. Hit Narayan Tandon, Assistant Professor
Zoology Govt. College Kurud,
Dist.- Dhamtari (C.G.)

Title - Seven-Days Skill based Training Program on Vermicomposting, Gardening, and Floriculture at Science College Raipur (C.G.)

Objective - The objective of the seven-day training program is to provide students with practical, skill-based knowledge in vermicomposting, gardening, and floriculture in accordance with NEP 2020, enabling them to develop environmental awareness, sustainable practices, and employment-oriented skills for future livelihood opportunities.

Activity- A seven-day special training program on vermicomposting, gardening, and floriculture has commenced at Government Nagarjuna Postgraduate Science College, Raipur (Chhattisgarh). The program is being jointly organized by the Departments of Botany and Zoology.

In line with the National Education Policy (NEP) 2020 introduced by the Government of India, several skill-based courses have been incorporated into the curriculum. Under this initiative, vermicomposting, gardening, and floriculture have been included in the syllabus for B.Sc. second-semester biology students. These courses are designed to equip students with practical skills that can enhance their employment opportunities in the future.

On the first day of the program, Professor Dr. Hit Narayan Tandon from Government College, Kurud, delivered a comprehensive lecture. He explained the process of vermicompost preparation, the different species of earthworms used, ideal conditions required for composting, its environmental and social benefits, and its economic significance.

The program witnessed active participation from students as well as faculty members. Prominent attendees included Dr. Sangeeta Bajpai, Head of the Department of Botany; Dr. Preeti Mishra, Head of the Department of Zoology; and faculty members Dr. Vimal Kumar Kanungo, Dr. Kavita Das, Dr. Suneeta Patra, Dr. Diksha Khare, Dr. Indu Mandrunk

तीन तीन कक्षाओं पर किए जा रहे हैं। जिनमें से प्रत्येक कक्षा में 20-25 छात्रों के समूहों के लिए दो से अधिक बैठकें हैं।

वर्मीकम्पोस्टिंग, गार्डनिंग एवं पलोरीकल्चर की बारीकियों से रु-ब-रु हुए छात्र-छात्राएं, भविष्य में प्राप्त कर सकेंगे रोजगार के नए अवसर

द्वितीय संस्करण

रायपुर।

रायपुर-संसाधन विकास विभाग द्वारा आयोजित वर्मीकम्पोस्टिंग, गार्डनिंग एवं पलोरीकल्चर पर छात्र-छात्राओं के लिए प्रशिक्षण कार्यक्रम का आयोजन रायपुर में श्री गुरुदास विद्यालय में हुआ है। इस कार्यक्रम में 2020 में विद्यार्थियों के लिए नए रोजगार अवसर के अवसरों को हासिल किया गया है। जिसके अंतर्गत विभाग द्वारा आयोजित वर्मीकम्पोस्टिंग, गार्डनिंग एवं पलोरीकल्चर पर छात्र-छात्राओं के लिए प्रशिक्षण कार्यक्रम का आयोजन रायपुर में श्री गुरुदास विद्यालय में हुआ है। इस कार्यक्रम में 2020 में विद्यार्थियों के लिए नए रोजगार अवसर के अवसरों को हासिल किया गया है।



जिसमें विद्यार्थी इन कार्यक्रमों के माध्यम से इनकी बारीकियों को समझकर रोजगार के अवसर प्राप्त कर सकेंगे।

इस अवसर पर कार्यक्रम के आयोजक डॉ. विनोद कुमार ने बताया कि वर्मीकम्पोस्टिंग, गार्डनिंग एवं पलोरीकल्चर पर छात्र-छात्राओं के लिए प्रशिक्षण कार्यक्रम का आयोजन रायपुर में श्री गुरुदास विद्यालय में हुआ है। इस कार्यक्रम में 2020 में विद्यार्थियों के लिए नए रोजगार अवसर के अवसरों को हासिल किया गया है।

को विनोद, उपस्थित में छात्रों को यह बताया कि वर्मीकम्पोस्टिंग, गार्डनिंग एवं पलोरीकल्चर पर छात्र-छात्राओं के लिए प्रशिक्षण कार्यक्रम का आयोजन रायपुर में श्री गुरुदास विद्यालय में हुआ है। इस कार्यक्रम में 2020 में विद्यार्थियों के लिए नए रोजगार अवसर के अवसरों को हासिल किया गया है।



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Day-3 ,Date-21/04/2025

GuestSpeaker-KhubchandVermaSenior Technician
Indra Gandhi Krishi Vishvvidyalya Raipur (C.G.)

VermicompostingasaSimpleBusiness

On the third day of the training program, Mr. Khubchand Verma delivered a scientific and informative lecture on vermicomposting, highlighting it as a simple, cost-effective, and sustainable technique suitable for small-scale entrepreneurship and self-employment.

He explained that vermicomposting is a biological process in which organic waste materials are decomposed by specific species of earthworms, resulting in nutrient-rich organic manure. Emphasizing its simplicity, he stated that the process requires minimal infrastructure and can be easily adopted in both rural and urban settings.

Materials Required:

- Cow dung (as the primary organic substrate)
- Vermiculture (selected species of composting earthworms)

According to Mr. Verma, these two components are sufficient to initiate the process. The first step involves the preparation of a *vermibed*, a shallow bed that serves as the site for composting. Cow dung is placed in the bed, after which the earthworms are introduced. The setup is then covered with a gunny bag or jute sack to maintain optimal moisture and temperature conditions necessary for earthworm activity and microbial decomposition.

Harvesting and Economic Potential:

He further explained that under suitable environmental conditions, vermicompost becomes ready for harvesting within approximately 58–60 days. The finished compost can then be collected, packaged, and marketed. Mr. Verma shared that vermicompost has a market value of approximately ₹10–15 per kilogram. In addition, vermiculture (earthworms) used in the composting process also commands a high market price, contributing further to income generation.

Mr. Verma concluded by emphasizing that vermicomposting is an environmentally friendly practice that improves soil fertility while offering significant economic benefits. He encouraged students to view vermicomposting as a viable opportunity for sustainable entrepreneurship, requiring low initial investment with the potential for gradual expansion,



while simultaneously contributing to environmental conservation.

Day-4 Date-22.04.2025

Guest Speaker Dr. Pooja Gupta (Assistant Professor)

Dept. Of Floriculture, Landscape and Architect. IGKV, Raipur (C.G.)

Floriculture Can Create New Job Opportunities – Dr. Puja Gupta

On the fourth day of the training program, Dr. Puja Gupta from Indira Gandhi Agricultural University, Raipur, delivered a comprehensive and scientifically structured lecture on floriculture. Her session focused on the commercial, technical, and employment potential of flower cultivation and nursery management, with special reference to the agro-climatic conditions of Chhattisgarh.

Dr. Gupta informed the students that floriculture and plant nursery enterprises are emerging as significant income-generating sectors. The cultivation and marketing of ornamental and flowering plants offer substantial economic opportunities, particularly in urban and peri-urban areas.

Key Points Discussed:

- **Nursery Management and Commercial Potential:**

She explained that the nursery business is expanding rapidly, and income can be generated through the propagation and sale of diverse ornamental, flowering, and landscape plant species.

- **Urban Landscaping Demand:**

With increasing urbanization, housing colonies and cities are emphasizing green spaces. Consequently, ornamental trees such as *Amaltas* (*Cassia fistula*) and *Kachnar* (*Bauhinia* spp.) are in high demand for avenue and landscape planting.

- **Bonsai Cultivation:**

Dr. Gupta highlighted bonsai plants as a high-value ornamental product. Due to their aesthetic appeal and limited space requirement, bonsai cultivation offers good profit margins when produced and marketed systematically.

- **Urban and Indoor Gardening Trends:**

Due to space constraints in cities, practices such as terrace gardening, window gardening, and hanging gardens are becoming increasingly popular. This has created a growing market for indoor, decorative, and potted plants.

- **Floriculture in Social and Cultural Events:**

Flowers play an essential role in festivals, weddings, and social functions, resulting in high demand for cut flowers and ornamental floral products.

- **Value Addition and Processing:**

She further explained that large-scale flower cultivation enables additional income through value-added products such as dry flowers and aromatic oils obtained through processing techniques.

In addition, Dr Gupta discussed various types of flowering and cut flower crops, along with scientific cultivation practices, including propagation methods, nutrient management, and post-harvest handling. She encouraged students to consider floriculture as a viable career path and entrepreneurial venture.

On this occasion, the Principal of the college, Dr Amitabh Banerjee, emphasized that such skill-based training programs play a crucial role in enhancing students' practical knowledge and competencies, thereby creating new avenues for employment and entrepreneurship.

फलोरीकल्चर से बनेंगे रोजगार के नए नए अवसर - डॉ. पूजा गुप्ता

रायपुर। शासकीय माधवर्जुन ज्ञानचोतर विज्ञान महाविद्यालय रायपुर में साप्ताहिक विशेष शिक्षण कार्यक्रम आयोजित किया गया है जिसके चौथे दिन डॉ. पूजा गुप्ता, हरिद्वार गांधी कृषि विश्वविद्यालय रायपुर द्वारा छात्रों को फलोरीकल्चर के विभिन्न तकनीकों से अवगत कराया। उन्होंने बताया कि छत्तीसगढ़ राज्य में पुष्प उत्पादन के क्षेत्र में रोजगार के अनेक अवसर सृजित हो रहे हैं। नर्सरी में विभिन्न पौधों के बीघे तैयार कर त्पकर आग भी प्राप्त कर सकते हैं। आजकल बाहरों में बड़ी-बड़ी फलोरीकल्चर के निर्माण में हरियाली पर विशेष ध्यान दिया जा रहा है। जहाँ शाड़ियाँ पीछे जैसी-अमलताश, कचनार जैसी प्रजातियों की मांग बहुत-ज्यादा है। बीनसाई तैयार कर बेचने से भी अच्छा खास लाभ कमाया जा सकता है। आजकल लोग जगह के अभाव में टेरिफ गार्डन, बिंदी गार्डन, हैंसिंग गार्डन तैयार कर घर की सुंदरता को बढ़ा रहे हैं, ऐसे बीघे का उत्पादन किया जा सकता है। फूल के विभिन्न कला कृतिओं के माध्यम से घर ऑफिस, माल की सुंदरता बढ़ा रहे हैं विभिन्न त्यौहारों आदी विवाह, मांगलिक कार्यों आदि में फूलों को सांग लगातार बढ़ती जा रही है जिससे शो फ्लॉवर, फल फ्लॉवर की आवश्यकता होती है। इन फूलों का उत्पादन कर बाजार में अच्छा खासा पैसा कमाया जा सकता है। फूलों के



अधिक उत्पादन होने पर प्रोसेसिंग के माध्यम से ड्राई फ्लॉवर या विभिन्न सुगन्धित तेलों का उत्पादन भी किया जा सकता है। डॉ. पूजा गुप्ता ने पुष्पों एवम् फल फ्लॉवर की विभिन्न प्रजातियों एवं उत्पादन के विभिन्न विधियों को विस्तार से बताया। महाविद्यालय के प्राचार्य डॉ. अमिताभ बेनर्जी ने बताया कि इस तरह के आयोजन से छात्रों का कौशल विकास होता है तथा वे उद्यमिता के माध्यम से रोजगार के नए अवसर प्राप्त कर सकते हैं। इस अवसर पर महाविद्यालय के समस्त प्राध्यापक एवं छात्र-छात्राएं उपस्थित थे।

गार्डनिंग व फलोरीकल्चर की दी ट्रेनिंग

रायपुर @ पत्रिका। साइंस कॉलेज में वर्मीकम्पोस्टिंग, गार्डनिंग और फलोरीकल्चर विषय पर आयोजित 7 दिवसीय कौशल प्रशिक्षण कार्यक्रम का समापन हुआ। इस कार्यक्रम में बीएससी जीवविज्ञान समूह के विद्यार्थियों को राष्ट्रीय शिक्षा नीति 2020 के तहत संबंधित पाठ्यक्रमों के माध्यम से रोजगार एवं पर्यावरण संरक्षण के नए अवसरों पर मार्गदर्शन दिया गया। समापन समारोह में मुख्य अतिथि रेणु माहेश्वरी ने स्टार्टअप की दिशा में इन



कौशलों को महत्वपूर्ण बताया। आयोजन सचिव ओ.पी. मेरावी ने कार्यक्रम का प्रतिवेदन प्रस्तुत किया।



Day-05, Date-23.04.2025

GuestSpeaker-KhubchandVermaSeniorTechnician

IndraGandhiKrishiVishwvidyalyaRaipur(C.G.)

Hands on Practice on Vermicomposting

A seven-day skill-based training program on vermicomposting, gardening, and floriculture is being conducted at Government Nagarjuna Postgraduate Science College, Raipur (Chhattisgarh), under the joint organization of the Departments of Botany and Zoology.

On the fifth day of the program, Mr. Khubchand Verma, an expert from the Agriculture University, delivered a scientifically oriented practical session on vermicompost production. He demonstrated the preparation of vermicompost using cow dung and paddy straw, emphasizing that dung obtained from indigenous (native) cow breeds is most suitable due to its favorable microbial composition.

Mr. Verma explained the technical aspects of vermibed preparation, stating that the bed should allow 1–2 feet of free space on both sides to facilitate proper aeration and ease of harvesting. The composting bed must be covered with a jute sack or gunny bag to retain moisture, regulate temperature, and protect the earthworms from direct sunlight and predators.

He further instructed that water should be sprinkled twice daily—once in the morning and once in the evening—to maintain optimal moisture levels essential for earthworm activity and microbial decomposition. Under proper management, vermicompost becomes ready for harvesting within 50–60 days. After harvesting, the compost can be dried, packaged, and marketed, providing a sustainable source of income.

Mr. Verma also highlighted that vermicompost is an organic fertilizer produced through the biological action of earthworms on organic wastes such as cow dung, paddy straw, kitchen waste, and vegetable residues. It enhances soil structure, increases nutrient availability, and promotes healthy plant growth without the use of chemical fertilizers, thereby contributing to environmental safety and sustainable agriculture.

The session witnessed active participation from faculty members and students. Notable attendees included Dr. Sangeeta Bajpai, Dr. Preeti Mishra, Dr. Vimal Kumar Kanungo, Dr. N. B. Singh, Dr. Kavita Das, Dr. Sunita Patra, Dr. Diksha Khare, Dr. Indu Mandrunk, Dr. Kritika Jyoti Namdev, and students Gunjan Ojha, Pallavi Omprakash, Pallavi Sinha, Satish Ramteke, Jagmohan Sahu, Renuka Sinha, along with several other participants.



साईंस कॉलेज रायपुर में विद्यार्थियों को वर्मीकम्पोस्ट बनाने का दिया गया प्रशिक्षण



दरम्यान दृश्य

रायपुर। शासकीय नागार्जुन स्नातकोत्तर विज्ञान महाविद्यालय रायपुर (छ.ग.) में वनस्पति शास्त्र एवं प्राणीशास्त्र विभाग के संयुक्त तत्वाधान में वर्मीकम्पोस्टिंग, गार्डनिंग एवं फलोरीकल्चर पर सातदिनसीय कौशल आधारित प्रशिक्षण कार्यक्रम आयोजन किया जा रहा है। जिसमें पांचवें दिन कृषि विद्याविद्यालय के विशेषज्ञ खूबसूरत वर्मी ने गाय के गोबर एवं भान पौधा का उपयोग करते हुए वर्मीकम्पोस्टिंग बेड में केंचुए को रखकर वर्मीकम्पोस्ट बनाने की विधि को प्रयोगिक तौर से बताया। उन्होंने

बताया कि देशी गाय का गोबर केंचुआ खाद बनाने के लिए सबसे ज्यादा उपयोगी होता है, वर्मीबेड बनाने समय दोनों तरफ एक से दो फिट जगह छोड़ना चाहिए ताकि हार्मेटिंग में सहायक हो। वर्मीबेड को जूट के थोरे से ढंकने से नमी बनाए रखने एवं केंचुए को अन्य प्रजातियों से सुरक्षा मिलती है। वर्मी बेड को नमी बनाए रखने के लिए दिन में दो बार सुबह- शाम पानी का छिड़काव करते हैं। इस तरह 50 से 60 दिन में वर्मी कंपोस्ट तैयार हो जाता है। जिससे हार्मेटिंग एवं पैकेजिंग कर आसानी से बेचकर लाभ कमाया जा सकता है। वर्मीकम्पोस्ट एक प्रकार की जैविक



खाद है जिसे केंचुओं की मदद से तैयार किया जाता है। इसे केंचुआ खाद भी कहा जाता है। यह केंचुओं द्वारा अपघटन की प्रक्रिया के माध्यम से बनाया जाता है, जिसमें जैविक कचरे (जैसे रसोई का कचरा, फल और सब्जियों के छिलके) को केंचुओं द्वारा विघटित करके खाद बनाई जाती है। वर्मीकम्पोस्ट में पीछों के लिए आवश्यक पोषक तत्व होते हैं, जो उन्हें स्वस्थ और मजबूत बनाते हैं। साथ ही मिट्टी को बेहतर बनाता है, जिससे पौधों को बेहतर ढंग से बढ़ने में मदद मिलती है। वर्मीकम्पोस्ट बनाने में रासायनिक खाद का उपयोग नहीं किया

जाता है, जो इसे पर्यावरण के लिए सुरक्षित बनाता है। इस प्रशिक्षण कार्यक्रम में वनस्पति शास्त्र विभाग के विभागाध्यक्ष डॉ. संगीता बाजपेयी, प्राणीशास्त्र विभाग के विभागाध्यक्ष डॉ. प्रीति मिश्रा, डॉ. विमल कुमार कानूनगी, डॉ. एन बी सिंह, डॉ. कविता दोस, डॉ. सुनीता पात्रा, डॉ. दीक्षा खरे, डॉ. इंदू मैन्डिक, डॉ. कृतिका ज्योति नामदेव, गुंजन ओझा, परलवी ओमप्रकाश, परलवी सिन्हा, सतीश रामटेके, जगमोहन साहू, रेणुका सिन्हा आदि प्राध्यापकों के अलावा अनेक छात्र- छात्राएं सम्मिलित थे।

Date-24.04.2025

Day-06

Speaker-Dr.G.L.Sharma Professor and HOD Fruit Science IGKV Raipur (C.G.)

Topic-Hi-Tech Horticulture

As part of the ongoing seven-day skill-based training program at Government Nagarjuna Postgraduate Science College, Raipur (Chhattisgarh), Dr. G. L. Sharma, Professor and Head of the Department of Fruit Science, Indira Gandhi Agricultural University, Raipur, delivered an expert lecture on the sixth day of the program. His talk focused on the role of advanced technologies in modern agriculture and their importance in ensuring sustainable and profitable farming practices.

Dr. Sharma emphasized that contemporary agriculture is rapidly shifting from labour-intensive traditional methods to smart and technology-driven farming systems. These modern approaches reduce physical labour, increase efficiency, and improve crop productivity.

Key Highlights of the Lecture:

• Protected Cultivation:

He explained the use of polyhouses and net houses for the cultivation of fruits and vegetables. These structures protect crops from excessive sunlight, adverse weather conditions, and pest infestations, thereby improving yield and quality.

- **Multi-Cropping Systems:**

Within protected structures, multiple crops can be grown simultaneously, allowing efficient utilization of space and resources and enhancing overall productivity.

- **Automation in Agriculture:**

Due to increasing labour shortages, there is a rising demand for automated farming technologies. Dr. Sharma highlighted the use of automated systems that precisely deliver water and fertilizers at appropriate intervals, ensuring optimal plant growth and resource conservation.

- **Seedling Production and Nursery Management:**

He stressed that since high-quality seeds are costly, achieving near 100% germination is essential. This can be accomplished using pro trays under controlled temperature and humidity conditions. Successfully germinated seedlings can be marketed through nurseries, offering a profitable business opportunity.

- **Market-Oriented Crop Selection:**

Dr. Sharma advised farmers and entrepreneurs to cultivate only high-demand fruits and vegetables to minimize economic risk and avoid financial losses.

- **Trough Cultivation Technology:**

He introduced trough cultivation as an innovative technique that allows crop production on non-arable lands, including barren areas and rooftops, thereby expanding cultivation potential in urban environments.

- **Future Food Security:**

Concluding his address, Dr. Sharma emphasized that in the future, individuals will need to adopt partial self-sufficiency by growing their own fruits and vegetables to meet the increasing food demands of a growing population.

The session was attended by faculty members from the Departments of Botany and Zoology, along with a large number of students. Participants found the lecture highly informative and valuable for understanding the future scope of high-tech, sustainable agriculture and entrepreneurship.

Day-07ValedictoryFunction

ChiefGuest-Dr.RenuMaheshwari,

Principal

Govt.NavinCollegeTamaseoniDist-Raipur (C.G.)

A seven-day skill-based training program on *vermicomposting, gardening, and floriculture* was successfully organized from **19 to 25 April 2025 at Government Nagarjuna Postgraduate Science College, Raipur (Chhattisgarh)**. The program was conducted under the joint leadership of the **Department of Botany** and the **Department of Zoology**.

In accordance with the **National Education Policy (NEP) 2020** introduced by the Government of India, skill development-oriented courses have been incorporated into the academic curriculum. As part of this

initiative, courses on vermicomposting, gardening, and floriculture were introduced for **B.Sc. Second Semester Biology Group students**. The primary objective of the program was to equip students with practical knowledge and employable skills related to sustainable agriculture and horticulture.

Throughout the training program, subject experts delivered lectures and conducted hands-on sessions on various aspects of vermicomposting, nursery management, gardening practices, floriculture techniques, and modern agricultural technologies. Students actively participated and gained valuable practical exposure during the sessions.

The **valedictory (closing) ceremony** was graced by **Dr. Renu Maheshwari**, Principal of Government Naveen Mahavidyalaya, Tamasivani, as the **Chief Guest**. In her address, she emphasized that vermicomposting, gardening, and floriculture offer excellent opportunities for self-employment while also contributing to environmental conservation and sustainable development.

The **Organizing Secretary, Dr. O. P. Meravi**, presented a comprehensive report highlighting the activities and achievements of the seven-day training program. The program concluded with a **vote of thanks** proposed by **Organizing Secretary Mr. Satish Ramteke**, who expressed gratitude to the chief guest, resource persons, faculty members, students, and all contributors for their support and cooperation.

The program witnessed the presence of several faculty members and students, including **Dr. Sangeeta Bajpai** (Head, Department of Botany), **Dr. Preeti Mishra** (Head, Department of Zoology), **Dr. Vimal Kumar Kanungo**, **Dr. Kavita Das**, **Dr. Suneeta Patra**, **Dr. Diksha Khare**, **Dr. Indu Mandrunk**, **Dr. Kritika Jyoti Namdev**, along with students **Gunjan Ojha**, **Pallavi Sinha**, **Jagmohan Sahu**, **Renuka Sinha**, and many students from both the Botany and Zoology departments.

The successful completion of the training program reinforced the importance of skill-based education and encouraged students to explore sustainable and entrepreneurial career pathways in agriculture and allied fields.

Outcome of the Workshop:

The seven-day training workshop successfully enhanced students' practical knowledge and hands-on skills in vermicomposting, gardening, and floriculture. Participants gained an understanding of sustainable agricultural practices, modern cultivation techniques, and the economic potential of these activities. The program increased awareness about eco-friendly farming, encouraged entrepreneurial thinking, and equipped students with employable skills aligned with the National Education Policy 2020. Overall, the workshop motivated students to adopt self-employment opportunities while contributing to environmental conservation and sustainable development.