RUSA 2.0

DEPARTMENT OF BOTANY

V.Y.T. PG AUTONOMOUS COLLEGE, DURG

Name of Programme/Activity, Allocated Amount, Expenditure, and Balance under RUSA 2.0

Academic Year: 2022-23

Name of Programme/ Activity	Allocated Amount	Expenditure	Balance	Justification for the Programme/ Activity	Benefits to the Institution or Students from the Programme
1.Educational Tour (Gariaband)	15000.00	15000.00	Nil	To provide field-based exposure to biodiversity and ecological systems.	Enhanced practical knowledge and real-world understanding of ecology for 50 students.
2. National Conference	100000.00	100000.00	Nil	To promote research awareness and academic networking among faculty and students	Academic enrichment and national-level exposure to 250 participants.
3. Chemical	145569.00	145569.00	Nil		

Academic Year 2023-24

Name of Programme/ Activity	Allocated Amount	Expenditure	Balance	Justification for the Programme/ Activity	Benefits to the Institution or Students from the Programme
1.Guest Lecture	25000.00	25000.00	Nil	To introduce students to subject experts and current advancements in Botany.	Broadened academic perspective for 50 students.
2. Career Counseling	10000.00	10000.00	Nil	To guide students regarding higher education and job opportunities in life sciences.	Improved awareness of career paths for 60 students.
3. Educational Trip (Kanger Vally, Bastar)	50000.00	50000.00	Nil	To study forest biodiversity and ecological conservation practices in tribal regions.	Experiential learning and deeper understanding of conservation among 47 students
4. Educational Research (Internship Programme) Marwari University, Gujarat.	50000.00	50000.00	Nil	To provide hands-on training and exposure to research methodologies.	Research skills development and practical training for students.

Name of Programme/ Activity	Allocated Amount	Expenditure	Balance	Justification for the Programme/ Activity	Benefits to the Institution or Students from the Programme
5. Lab maintenance (Bio-Resource Garden) All units like Green house, fertilizers, equipments, Fish culture, Vermi -composting, Mycorhizal units & others.	50000.00	50000.00	Nil	To strengthen infrastructure and support ongoing practical sessions and research activities.	|Better practical facilities and enhanced hands-on training for all students
6. Patent	20000.00	20000.00	Nil	For the registration of innovative research findings	Strengthens research culture and promotes scientific creativity.
7. Patent	11500.00	20000.00	Nil	For the registration of innovative research findings	Encourages innovation and intellectual property awareness among students and faculty.
8. Publication Works	36000.00	36000.00	Nil	For publishing departmental research and academic achievements.	Increases institutional visibility and academic documentation.
9. Chemicals	49994.00	49994.00	Nil		

Academic Year: 2024-25

Name of Programme/ Activity	Allocated Amount	Expenditure	Balance	Justification for the Programme/ Activity	Benefits to the Institution or Students from the Programme
1.Educational Tour (Amarkantak Hill Forest)	100000.00	74000.00	Nil	To explore medicinal flora and natural ecosystems in the Amarkantak region.	In-depth field experience and identification skills gained by participating students.
2. Guest Lecture	20000.00	17674.00	Nil	To introduce students to subject experts and current advancements in Botany	Broadened academic perspective for 50 students.
3. Chemical s	191612.00	191612.00	Nil		

CHEMICALS AND GLASSWARE

NATIONAL CONFERENCE

ON

INNOVATION AND EMERGING NOVEL RESEARCH IN PLANT SCIENCES

INNOVATION AND EMERGING NOVEL RESEARCH IN PLANT SCIENCES

- **Organized by:** Department of Botany, Govt. V.Y.T. PG Autonomous College, Durg
- **Venue:** Dr. Sarvepalli Radhakrishnan Hall, New Autonomous Building, Science College, Durg

Date: 17th – 18th January 2023

The Department of Botany, Govt. V.Y.T. PG Autonomous College, Durg, successfully organized a two-day **National Conference on "Innovation and Emerging Novel Research in Plant Sciences"** on 17th and 18th January 2023. The event was conducted under the esteemed guidance of:

- **Patron:** Dr. R.N. Singh (Principal)
- **Convenor:** Dr. Ranjana Shrivastava (Professor & Head, Department of Botany)
- **Organizing Secretary:** Dr. G.S. Thakur
- **Co-Convenor:** Professor Gayatri Pandey

Inaugural Session

- The conference commenced with the auspicious **Saraswati Vandana** and **lighting of the ceremonial lamp** by the dignitaries, followed by the **state song "Arpa Pairi Ke Dhar"**, beautifully rendered by M.Sc. Botany students.
- The welcome address was delivered by **Dr. Ranjana Shrivastava**, who in her inaugural remarks, emphasized the significance of plant sciences and its future prospects in sustainable development and biotechnology.

Day 1 Highlights – 17th January 2023

The first day featured four insightful **invited talks** by renowned professors and scientists from prestigious institutions, followed by **oral and poster presentations** from academicians, assistant professors, researchers, and undergraduate and postgraduate students.

Invited Talks:

1. **Dr. Sujoy Das Gupta** – A Decade of CRISPR-Cas9: Progress and Promise
2. **Dr. Amit Dubey** – IPR, Ethnopharmacology, and Bioprospecting of Medicinal Plants
3. **Dr. Gaurav S. Dave** – Smoke Water: A Green Approach for Agriculture and Ocean Farming
4. **Dr. M.P. Thakur** – Emerging Research on Mushroom Production Technology as a *Livelihood Option*

Oral Presentations:

Young researchers and scholars presented their work on various innovative themes in plant sciences. Selected papers were recognized and rewarded for their scientific merit and quality of presentation.

Poster Presentations:

Numerous UG and PG students showcased their research through posters on diverse and contemporary topics, demonstrating creativity and scientific inquiry.

1. **Day 2 Highlights – 18th January 2023**

The second day maintained the academic momentum with **five expert lectures** and additional **oral presentations**.

Invited Talks:

- **Dr. Ram Narayan Pandey**
- **Dr. Afaque Qurashi** – In vitro Elimination of Banana Bunchy Top Virus
- **Dr. Shiv Kumar Singh** – Importance of Traditional Medicinal Plants in Modern Healthcare
- **Dr. S.K. Shahi** – Bioresources for Bioprospecting, Product Development, and Sustainability
- **Dr. Neeraj Singh** – Hydroponic Screening of Ralstonia solanacearum in Chili Seedlings

Each session was followed by a lively **question and answer interaction**, promoting critical thinking and scientific exchange.

Valedictory Session and Acknowledgements

The conference concluded with the **distribution of prizes and certificates** to oral and poster presenters, encouraging them to continue contributing to scientific research and innovation. All invited speakers and guests were felicitated for their valuable contributions.

Participation and Impact

The event witnessed active participation from over **250 delegates** representing various institutions. The conference served as a platform for young scientists, students, and experienced researchers to discuss their findings, challenges, and future directions in the field of **plant sciences**. It successfully promoted interdisciplinary collaboration and inspired innovative approaches for sustainable research in plant biology.

BOTANICAL EXCURSION TOUR/ACADEMIC TOUR

BOTANICAL EXCURSION TO KANGER VALLEY NATIONAL PARK

Date: 04/01/2024 – 07/01/2024

Organized by: Department of Botany, Govt. V.Y.T. PG Autonomous College, Durg

A group of M.Sc. I and III Semester students, accompanied by Botanical Society members, participated in a botanical field visit to **Kanger Valley National Park, Bastar, Chhattisgarh**, under the guidance of **Dr. Satish Kumar Sen**.

Objectives and Activities:

Plant Biodiversity Study: Students explored and documented various plant species, including unique flora like *Durwa Dera*, contributing to biodiversity knowledge and conservation awareness.

Bamboo Rafting: A hands-on experience on the Kanger River provided insight into aquatic ecosystems and plant-water relationships.

Teerathgarh and Chitrakot Waterfalls: Visits to these sites offered a study of plant adaptations in moist, rocky environments.

Kailash Gufa Exploration: Observed rare plant habitats within ancient caves, blending ecological and historical learning.

Outcomes:

Enhanced understanding of plant diversity, ecology, and conservation.

Strengthened research and fieldwork skills through collaborative learning.

Encouraged environmental awareness and appreciation of nature.

Acknowledgements:

Special thanks to Principal Dr. M.A. Siddiqui, Dr. Ranjana Shrivastava, Prof. M.L. Nayak, DFO Dr. Dharmsheel Ganveer, Madam Suman, and the supporting team including Mr. Motiram Sahu, Ms. Asha, Mr. Danesh, Jyoti Damohe, B.Sc. III Year students, and lab assistant Mohit Kumar for their valuable contributions.

One-Day Botanical Excursion Report - Chinagara Pagar Waterfall

1. **Location:** Chinagara Pagar Waterfall, **19.11.2023**
2. **Organized by:** Department of Botany, Govt. V.Y.T. PG Autonomous College, Durg

The Department of Botany organized a one-day field visit to Chinagara Pagar Waterfall to study plant diversity and ecological interactions. The team departed at 6:30 AM and reached the site by 10:40 AM. Faculty members including Dr. G.S. Thakur, Dr. Shriram Kunjam, Miss Asha Soni, and Mr. Mohit Deshmukh guided the students throughout the excursion.

- During the 1.5 km nature trail, students observed and collected various plant types—trees, shrubs, herbs, epiphytes, bryophytes, lichens, and ferns. Notable species included *Sida cordifolia*, *Madhuca longifolia*, *Shorea robusta*, and *Diospyros melanoxylon*. Specimens such as leaves, roots, and fruits were collected for herbarium work.

Field activities included:

- **Algal sampling** from riverbeds and under-rock surfaces.
- **Plant identification** using field guides and mobile apps.
- **Ecological study** of moisture-loving species around the waterfall.
- The visit concluded with group photographs and a safe return to campus by 6:30 PM. The excursion successfully enhanced practical learning, biodiversity awareness, and conservation knowledge.

Collection of algal material from under waterfall rock

Group photograph at Chingra pagar waterfall

BOTANICAL EXCURSION TOUR AMARKANTAK HILL FOREST

Department of Botany, Govt. V.Y.T. PG Autonomous College, Durg

17-19 March 2025.

The Department of Botany, Govt. V.Y.T. PG Autonomous College, Durg, organised a botanical excursion for M.Sc. 2nd and 4th semester students and Research Scholars. This tour, sponsored by **Rashtriya Uchchatar Shiksha Abhiyan (RUSA 2.0)**, took place from 17th to 19th March 2025.

The primary aim was to provide practical exposure to plant diversity, ecological interactions, and the critical importance of biodiversity conservation in Amarkantak.

Key Objectives of the Tour

Document Plant Diversity

To study and document the diverse plant species of Amarkantak.

Understand Ecological Significance

To grasp the ecological importance of the region's ecosystems.

Analyse Riparian & Aquatic Vegetation

To study vegetation at the origins of major rivers like Narmada, Son, and Johila.

Explore Traditional Knowledge

To learn about medicinal plants used by local communities and their traditional applications

Promote Conservation

To raise awareness about the necessity of biodiversity conservation.

Field Observations and Key Findings

Students identified and documented diverse plant species during field visits:

Plant Species Documented

- **Trees:** *Terminalia arjuna, Shorea robusta, Bauhinia variegata*
- **Ferns and Pteridophytes:** Various species adapted to moist forest environments
- **Gymnosperms:** Notable species found in the region

Ecological Sites Visited

- **Narmada Kund:** Origin of the Narmada River, rich in riparian vegetation.
- **Kapil Dhara:** Waterfall ecosystem with diverse hydrophytes and moss species.
- **Sonmuda:** Origin of the Son River, offering insights into aquatic and semi-aquatic plant diversity.

Interaction with Local Communities

Students engaged with local communities to gain valuable ethnobotanical knowledge. This interaction provided insights into traditional medicinal plant usage, enhancing their understanding of plant-based remedies' practical applications.

This direct engagement highlighted the importance of indigenous knowledge in biodiversity conservation and sustainable resource management.

Expert Leadership and Study Area

Team Members

The excursion was led by **Dr. G.S. Thakur, Head of the Department**, with support from **Dr. Shriram Kunjam** and **Mr. Motiram Sahu, Assistant Professor**. Their expertise was crucial for the tour's academic success.

Amarkantak: A Biodiversity Hotspot

Amarkantak, in Anuppur district, Madhya Pradesh, is known for its rich biodiversity and as the origin of the **Narmada, Son, and Johila rivers**. It hosts various plant species, including medicinal, endemic, and rare ones.

Key Learning Outcomes

Plant Identification

Gained hands-on experience in plant identification and biodiversity assessment.

Ecological Documentation

Developed skills in ecological documentation and conservation studies.

Ecological Balance

Understood the ecological balance maintained by different plant species in various habitats.

Conservation Importance

Recognised the importance of conserving medicinal and rare plant species.

Conclusion and Acknowledgments

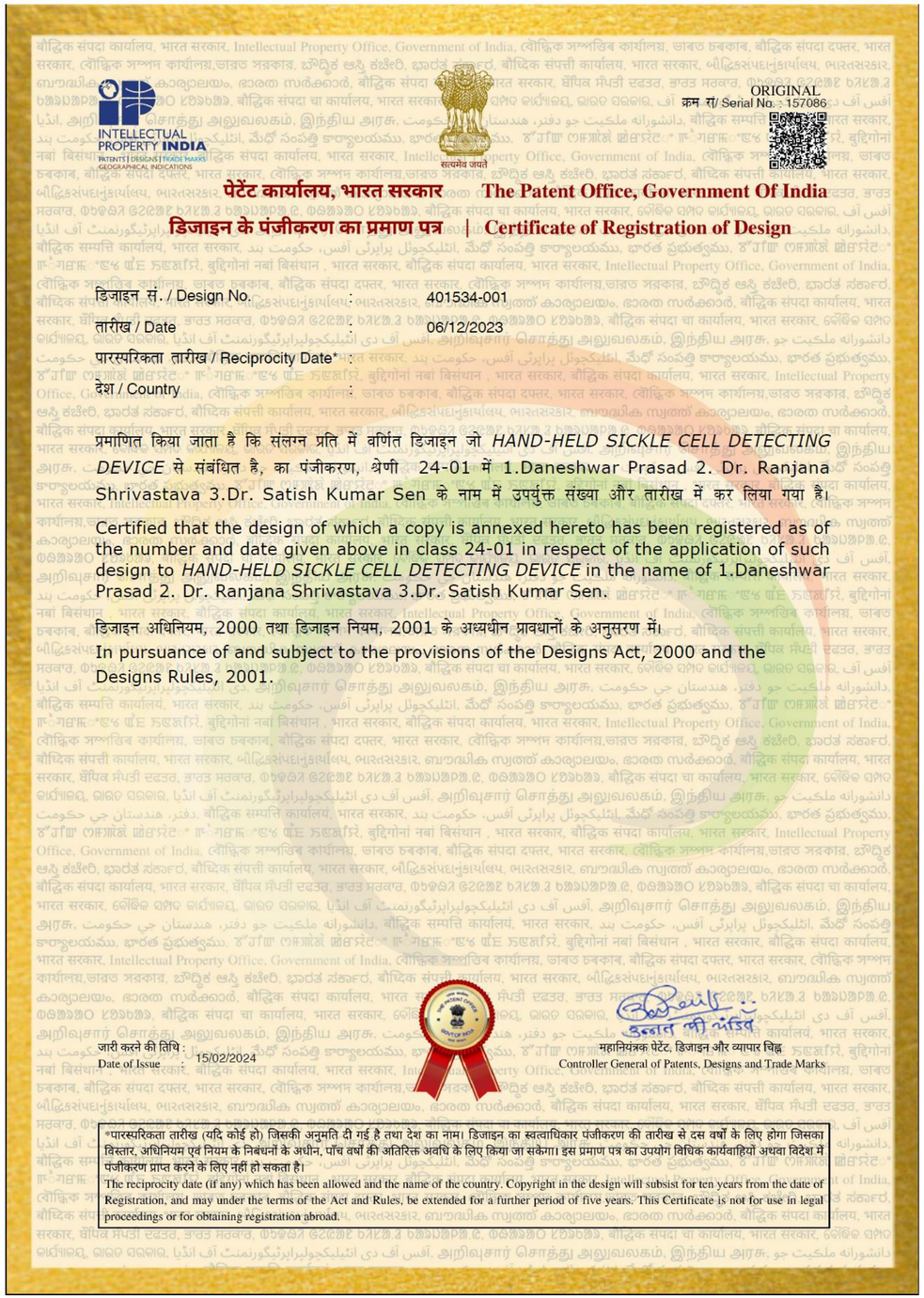
The botanical excursion to Amarkantak was a highly enriching experience, providing practical exposure that enhanced theoretical knowledge. The study of plant diversity and ecological interactions deepened students' appreciation for conservation efforts.

The Department of Botany extends heartfelt gratitude to **Dr. Ajaya Kumar Singh, Principal**, for his guidance and support. We also appreciate **Rashtriya Uchchatar Shiksha Abhiyan (RUSA)** for sponsorship, and faculty and students for their active participation.

Submitted by: Department of Botany, Govt. V.Y.T. PG Autonomous College, Durg **Date:** 20th March 2025

PATENT

PATENTS



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प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो *HAND-HELD SICKLE CELL DETECTING DEVICE* से संबंधित है, का पंजीकरण, श्रेणी 24-01 में 1.Daneshwar Prasad 2. Dr. Ranjana Shrivastava 3.Dr. Satish Kumar Sen के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

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In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि : Date of Issue : 15/02/2024

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डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।

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जारी करने की तिथि : Date of Issue : 13/09/2024

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INTERNSHIP: MARWADI UNIVERSITY RAJKOT GUJARAT

INTERNSHIP REPORT: MARWADI UNIVERSITY RAJKOT GUJARAT

Marwadi University
Marwadi Chandarana Group

Date: 11-01-2024

To,
Dr. Satish Sen
Assistant professor of Botany
Government V Y T PG autonomous College,
Durg, Chhattisgarh.

Subject: Approval letter for the 15 days internship at Marwadi University.

With reference to above-mentioned subject, we are pleased to inform you that the below mentioned students will be given 15 days internship at Department of Microbiology, Marwadi University, Rajkot. Students can start their internship from 17 January. Students will have to pay the charges of Hostel and other administrative charges as per rules of Marwadi University. In case of violating any rules of Hostel or University, students will not be entitled to carry out further Internship at University.

Name of students

1. Anil Kumar Khare - M. Sc. IV Semester (Botany)
2. Samashti Adeel -M. Sc. IV Semester (Botany)
3. Annnie Jesleen Ekka - M. Sc. IV Semester (Botany)
4. Neha Jogi - M. Sc. IV Semester (Botany)
5. Anjali Sharma - M. Sc. IV Semester (Botany)
6. Kajal Sudhakar - M. Sc. IV Semester (Botany)

In case of any queries, feel free to contact Dr. Gaurav Sanghvi, Head of Microbiology department.

Thanking you

Dr. Gaurav Sanghvi
Head
Department of Microbiology
Marwadi University

MARWADI UNIVERSITY * RAJKOT *

Dr. Kantha D. Arunachalam
Dean
Faculty of Science
Marwadi University

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+91 89800 30090 | +91 281 7123456

Title: Isolation and Screening of Bacterial Strains with Antibiotic Potential from Marine Sediment of Narara Reef

Introduction:

Marine sediments are known to harbor diverse microbial communities, including bacteria with potential antibiotic properties. This study aimed to isolate bacterial strains from the marine sediment of Narara Reef and evaluate their antibiotic potential.

Methodology:

Marine sediment samples were collected from Narara Reef and subjected to bacterial isolation using standard microbiological techniques. The isolated strains were screened for antibiotic activity using the agar well diffusion method against a range of indicator organisms.

Results:

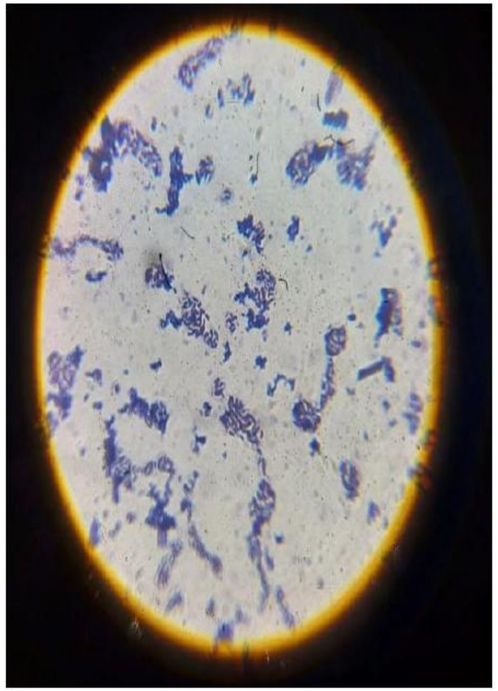
A total of 25 bacterial strains were isolated from the Narara Reef sediment. Of these, five strains demonstrated significant antibiotic activity against one or more test organisms. The antibiotic compounds produced were effective against both Gram-positive and Gram-negative bacteria.

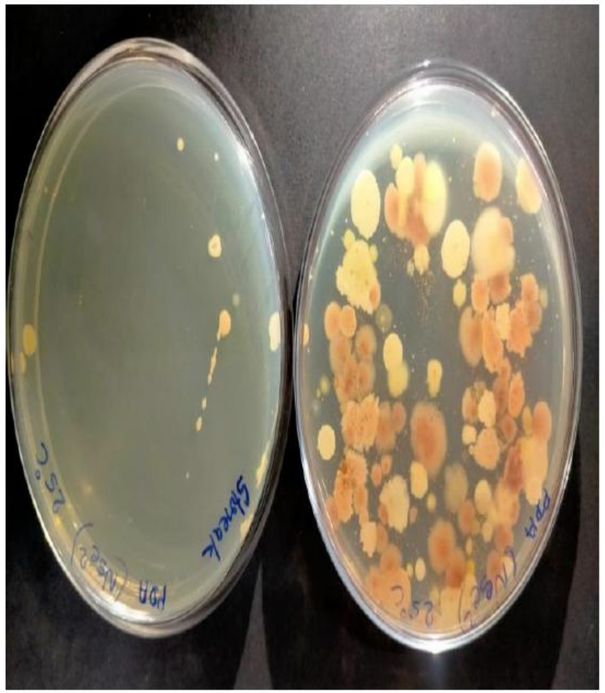
Discussion:

The successful isolation of antibiotic-producing bacterial strains from Narara Reef highlights the potential of marine ecosystems as sources of novel bioactive compounds. Further analysis of these strains and their metabolites could lead to the discovery of new antimicrobial agents.

Conclusion:

This study confirms the presence of antibiotic-producing bacteria in the marine sediment of Narara Reef. Future research should focus on identifying and characterizing the active compounds produced by these strains for their potential use in pharmaceuticals.





PUBLICATION

PUBLICATION BOOK: PRACTICAL BOOK OF PLANT PHYSIOLOGY AND BIOCHEMISTRY

- **Author – Dr. Satish Kumar Sen**
- **Designation:** Assistant Professor, Department of Botany
  Institution: Govt. V.Y.T. PG Autonomous College, Durg (C.G.), **Email:** satishsen8550@gmail.com

- **Published Titles (2024–2025):**
  Practical Book of Plant Physiology and Biochemistry
  Fundamentals of Ecology
- **Nature of the Publication:**
- Both books are academic textbooks tailored to undergraduate and postgraduate curricula in Botany and Environmental Science. They are designed to enhance both theoretical concepts and practical skills through structured content aligned with university syllabi.
- **Objectives and Highlights:**
  Provide clear guidance for practical experiments and conceptual understanding.
  Include examination-oriented content with illustrations, flowcharts, and tables.
  Promote scientific reasoning by bridging theory and practical applications.
- **Academic Impact:**
  Adopted as reference and lab manuals in various Botany courses.
  Helpful for competitive exams like NET, GATE, and PSCs.
  Encourages interdisciplinary integration of plant science, ecology, and biochemistry.
- **Outcomes and Benefits:**
  Strengthened curriculum support and practical learning.
  Boosted student engagement in fieldwork, lab exercises, and eco-awareness.
  Supported self-learning and scientific curiosity.
- **Future Scope:**
  Annual updates to incorporate recent developments.
  Plans for regional language editions to increase accessibility.

Edition: First

Dr. Satish Kumar Sen
Dr. Ashish Bhui

A Practical Book on Plant Physiology & Biochemistry

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A Practical Book on Plant Physiology & Biochemistry

Dr. Sen has published 15 research papers in national and international journals and presented over 55 papers at conferences across India. He has supervised three Ph.D. students and numerous postgraduate projects. An editorial board member of the International Journal of Innovative Life Sciences, he collaborates with the Chemistry Department on interdisciplinary research. A member of SEED, SAPS, and Vigyan Bharati, he has earned awards from Vidyarthi Vigyan Manthan (2018, 2019). He has attended training at Panjab University and IISC Bangalore, served as Botany HoD, and contributed as a guest lecturer, FDP participant, and scientific congress organizer.

Dr. Ashish Kumar Bhui, a professor of chemistry and a distinguished researcher in environmental chemistry and material science, has published 20 research papers in Scopus and contributed three book chapters. His expertise extends to interdisciplinary research, including a collaborative effort with Dr. S. K. Sen in biological science. Their work offers systematic approaches beneficial to biochemistry students. This book highlights their joint contributions, reflecting their commitment to advancing scientific knowledge through research and academic excellence.

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CARRIER GUIDANCE

GOVT. V.Y.T. PG AUTONOMOUS COLLEGE, DURG (C.G.)

DEPARTMENT OF BOTANY

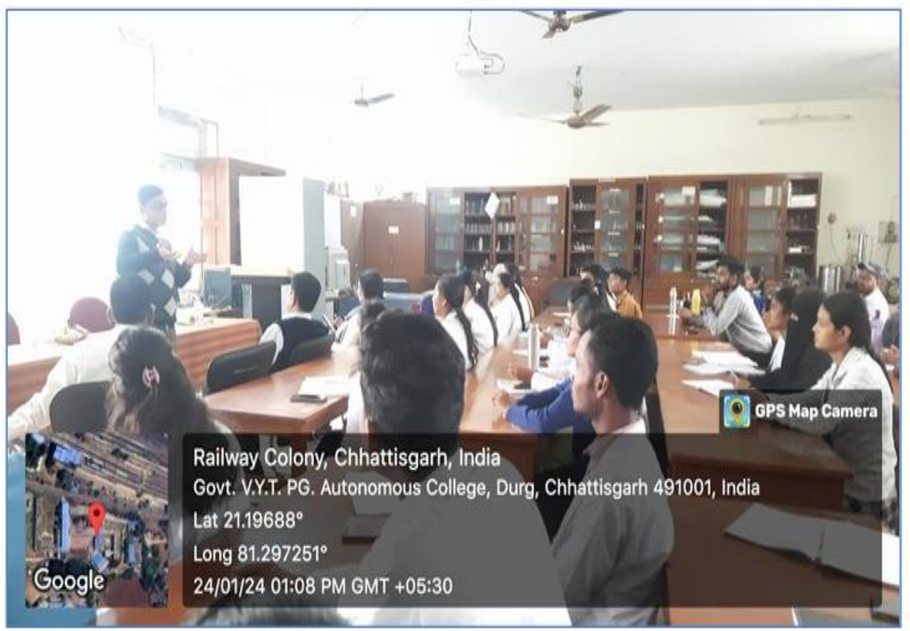
CAREER GUIDANCE ON JOINT CSIR – UGC NET EXAM PREPARATION & JOB OPPORTUNITIES IN LIFE SCIENCES

SPONSORED BY PM – USHA

Date: 24.01.2024

An Invited Talk on Career Guidance organized on the 24th of January 2024, organized by The Department of Botany at Govt. V.Y.T. PG Autonomous College in Durg (C.G.). The event was sponsored by PM - USHA and featured Dr. Ajay Kumar Manhar, an Assistant Professor in the Department of Microbiology at Indira Gandhi Govt. PG College, Vaishali Nagar, Bhilai, Durg, as the esteemed speaker.

Dr. Manhar's talk encompassed a wide array of topics aimed at providing valuable insights to the students. He delved into the intricacies of competitive exams such as NET (National Eligibility Test) and SET (State Eligibility Test) while shedding light on various job opportunities in the field of life sciences. His discourse extended to cover the significance of clearing these exams post M.Sc., positioning them as crucial milestones for aspiring professionals.



GOVT. V.Y.T. PG AUTONOMOUS COLLEGE, DURG (C.G.)

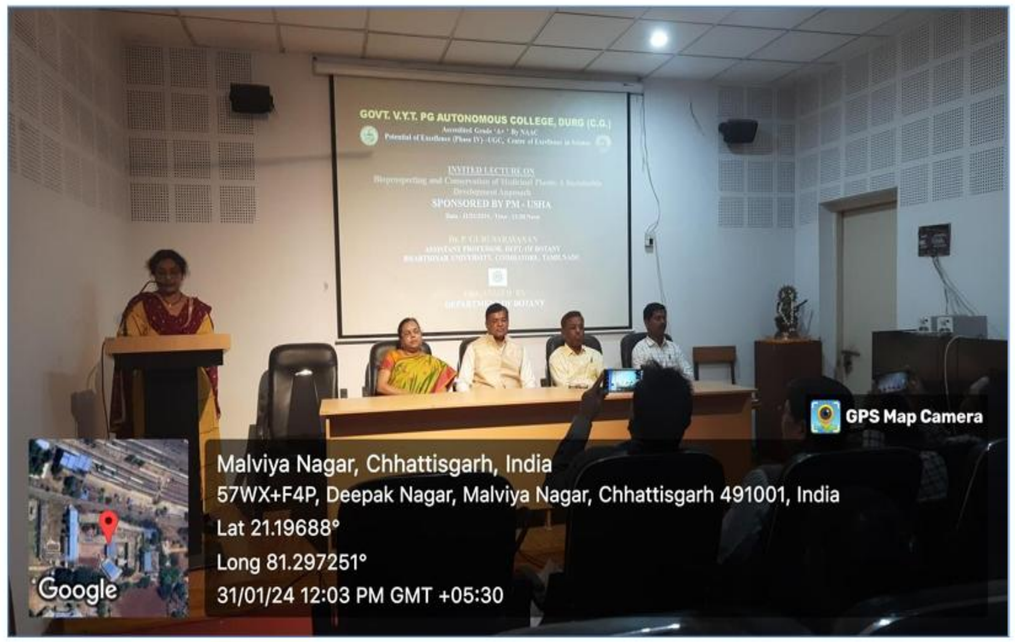
DEPARTMENT OF BOTANY

CAREER GUIDANCE ON JOINT CSIR – UGC NET EXAM PREPARATION & JOB OPPORTUNITIES IN LIFE SCIENCES

SPONSORED BY PM – USHA

Date: 31.01.2023

The invited lecture organized by the Botany Department of Government VYT PG Autonomous College, Durg, held on January 31, 2023, was a comprehensive exploration of crucial topics in the field of botanical sciences. Sponsored by PM - USHA, the event featured Dr. P. Gurusaravann, an esteemed Assistant Professor from Bharathiyar University, Coimbatore, TamilNadu, as the distinguished speaker. Dr. Gurusaravann's lecture delved into two significant and interrelated themes: "Bioprospecting and Conservation of Medicinal Plants: A Sustainable Development Approach" and "Plant Tissue Culture Techniques: Recent Advances and Perspectives of Metabolites Production."



GOVT. V.Y.T. PG AUTONOMOUS COLLEGE, DURG (C.G.)

DEPARTMENT OF BOTANY

INVITED LECTURE ON IMPORTANCE OF RNA AND FOOD PROCESSING

SPONSORED BY PM – USHA

Date: 23.01.2024

On the 23rd of January 2024, the Department of Botany at Govt. V.Y.T. PG Autonomous College in Durg (C.G.) organized an Invited Lecture on the "Importance of RNA and Food Processing," specifically highlighting the intricate process of isolating protein from rice. The event was graciously sponsored by PM - USHA, and the featured speaker was Dr. Satish Verulkar, a Professor in the Department of Molecular Biology and Biotechnology at Indira Gandhi Agriculture University.

The Head of the Department, Dr. Ranjana Shrivastava, motivated the students with words of encouragement, setting an optimistic tone for the event and highlighted the need for the invited lecture. The objectives of the invited lecture on RNA in food processing include understanding its biological role, showcasing its impact on quality, introducing RNA-based technologies, addressing challenges, promoting sustainable practices, encouraging collaboration, and highlighting its role in nutritional enhancement. The aim is to provide practical insights for innovation and foster continuous learning among industry professionals and academia.

GOVT. V.Y.T. PG AUTONOMOUS COLLEGE, DURG (C.G.)

DEPARTMENT OF BOTANY

CAREER GUIDANCE

SPONSORED BY PM – USHA

Date: 31.01.2023

The Career Guidance Talk, organized by the Botany Department at Government VYT PG Autonomous College, Durg, on January 31, 2023, emerged as a significant and insightful event sponsored by PM - USHA. The featured speaker for the occasion was Dr. Varaprasad Kolla, a distinguished Professor and Director of Biotechnology at Amity University, Raipur, Chhattisgarh. The meticulous orchestration of the program was carried out by Dr. Vijay Laxmi Naidu, who not only ensured the smooth flow of the event but also provided a detailed and engaging introduction to Dr. Varaprasad Kolla, accentuating his rich biodata and extending a warm welcome to the eager audience.

THE SCIENCE SPOTLIGHT SERIES

GUEST LECTURE SERIES

"Antiviral Strategies Against HIV1 and HSV2"

Date: 03.01.2023

Venue: Dept. of Botany, Govt. V.Y.T. PG Autonomous College, Durg (C.G.)

Resource Person: Dr. D. Kalai Wani, Former Principal, Madras Presidency College, Chennai, Tamil Nadu

Topic: Antiviral Strategies Against HIV1 and HSV2

- **Highlights:**
- The session was formally hosted by **Dr. Vijay Laxmi Naidu** with a welcome address.
- **Dr. Ranjana Shrivastava**, HoD, emphasized the relevance of the topic to Botany.
- Faculty members, including **Dr. G.S. Thakur, Dr. Shriram Kunjam, Motiram Sahu, Ms. Asha Soni,** and **Daneshwar Prasad**, participated actively.
- Over **40 PG Botany students** attended and engaged in interactive discussions.
- The lecture provided **valuable insights into modern antiviral strategies**.
- **Dr. Satish Kumar Sen** delivered the **vote of thanks**, appreciating the speaker and organizers.
- **Outcome:**
- The lecture was highly informative, fostering enhanced academic understanding among students.
- It enriched the **academic environment** of the department through expert knowledge and active engagement.

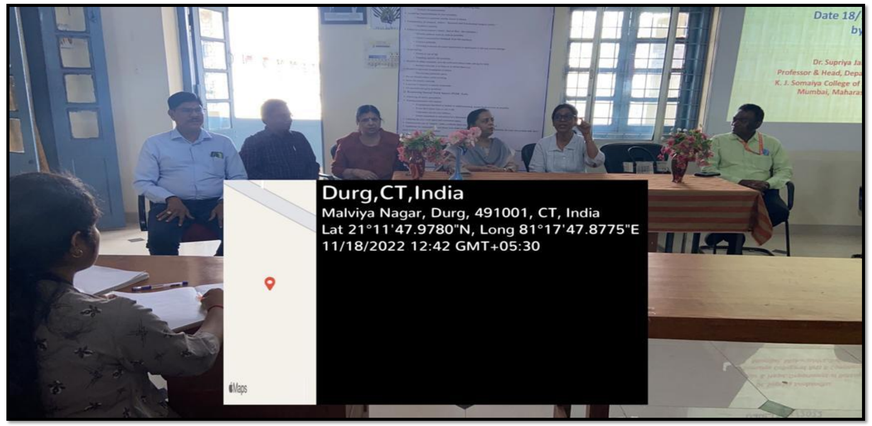
Speaker: Dr. Supriya Jain Bandhu

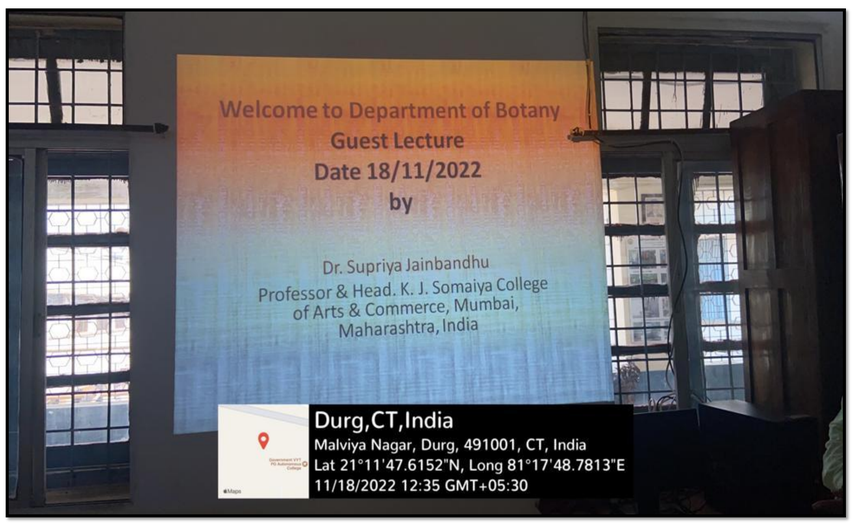
Designation: Professor & Head, Dept. of Botany, K.J. Somaiya College of Arts & Commerce, Mumbai, Maharashtra

Topic: Career Development and Scope in Botany

Date: 18.11.2022

- **Key Highlights:**
- The lecture was organized to guide students on career opportunities and the diverse scope in the field of Botany.
- **Dr. Vijay Laxmi Naidu** hosted the session and welcomed the guest speaker and participants.
- The session saw active involvement of **faculty members and postgraduate students**.
- Faculty members **Dr. G.S. Thakur, Dr. Shriram Kunjam, Motiram Sahu, Ms. Asha Soni, and Daneshwar Prasad** contributed through academic discussions.
- The event provided students with **valuable direction and motivation** for building careers in botanical sciences.
- **Dr. Satish Kumar Sen** delivered the **vote of thanks**, appreciating Dr. Jain Bandhu's insights and the collective efforts behind the event.
- **Outcome:**
- The lecture was **informative and career-oriented**, enhancing student awareness about professional opportunities in Botany.
- It fostered **academic enrichment and career planning** among the student community.





The Science Spotlight Series

Guest lecture series- Day 1

Date: 22/01/2025

Title: curricular Enhancement through series of guest lectures.

Objectives: -

Provide new perspectives

Guest lectures can offer alternative opinions and personal experience that can reinforce what the instructor has taught.

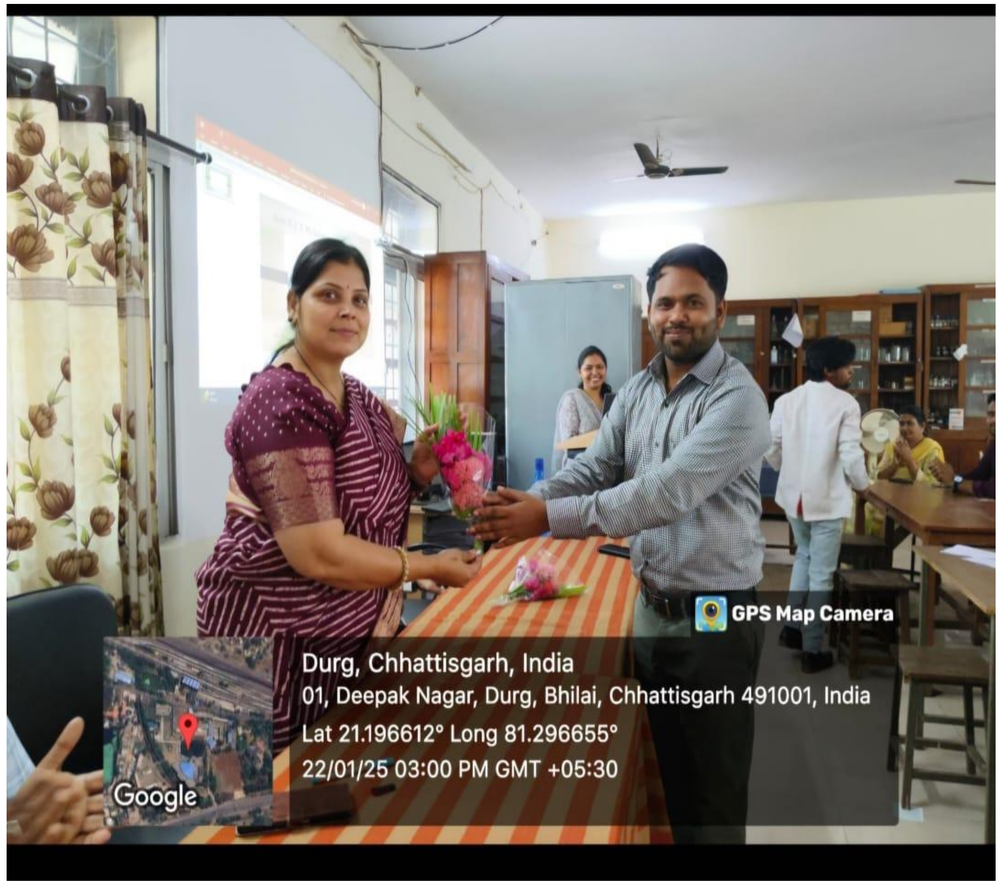
Share practical knowledge

Guest lecturers can share insider knowledge and real-world examples that can help students relate theory to practice.

Spark interest

Guest lectures can break up the monotony of courses and spark interest in subjects.

Guest lecturer **Dr. Sweta Dev** from **Late Bindeshwari Govt. college, Kumhari** presented Her presentation and Speech on the Topic **"MOLECULAR MARKERS(RFLP, RADP, AFLP)"** & celebration of one year anniversary of **Shree Ram Pratistha** made the day more auspicious.



- **Date:**23/01/2025
  Speaker: Shri Pankaj Bharti (Govt. College, Somni)
- **Topic: Role of chromosome alteration in genetic disorders**
- Objectives: New perspectives, practical knowledge, career questions
- Highlights:
  - Subhash Chandra Bose Jayanti celebrated
  - Extension activity on Importance of Millets
- Benefits:
  - Understanding chromosomal aberrations in disorders
  - Career scope in genetics and research

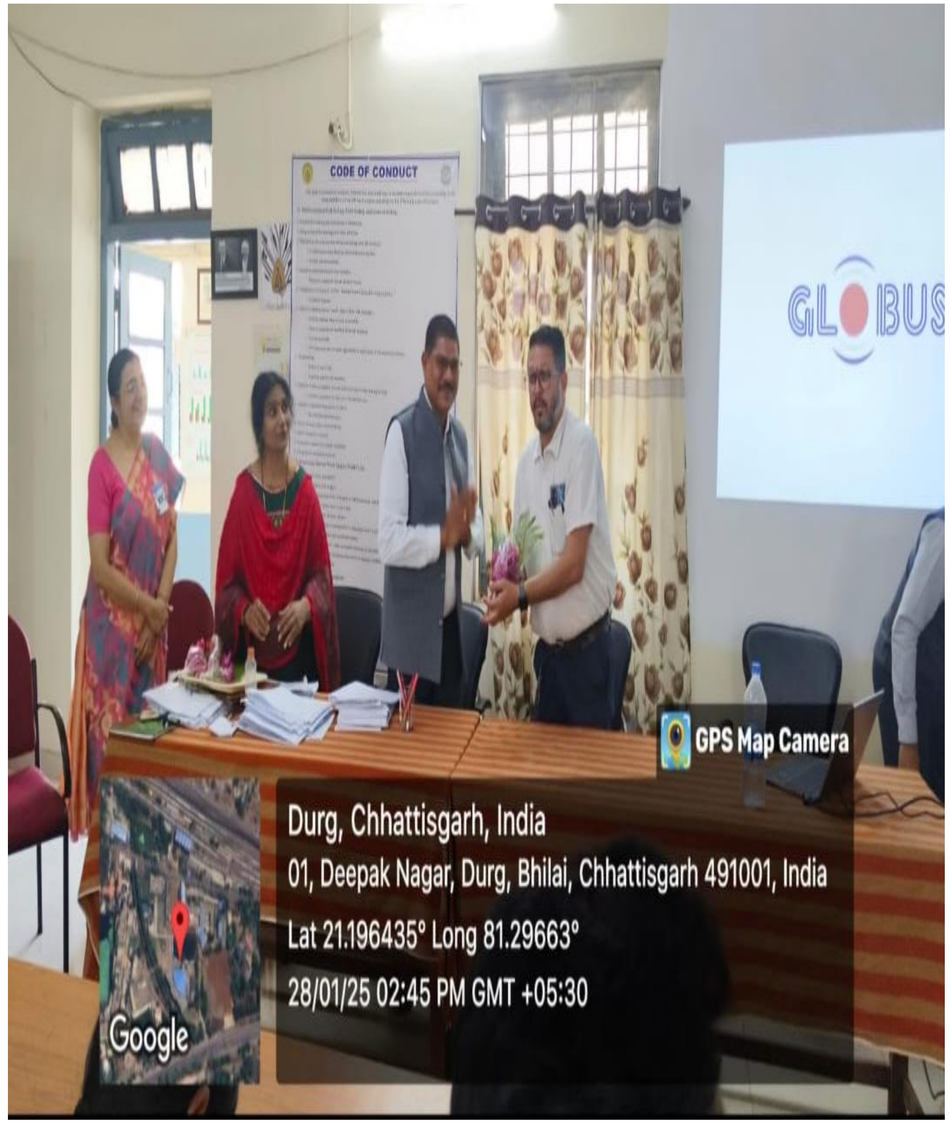
- **Date:** 25/01/2025
  Speaker: Dr. Jyoti Bakshi (Saint Thomas College, Bhilai)
- **Topic: Understanding Signal Transduction**
- Benefits:
  - Insights into cellular functions, disease mechanisms
  - Drug discovery, developmental biology
- Future Scope:
  - Targeted therapies, research opportunities

- **Date:** 27/01/2025
  Speaker: Shri Praveen Jain (Assistant Professor)
- Topic: Tissue Culture
- Benefits:
  - Conceptual learning: Cell growth, differentiation
  - Applications in agriculture: Micropropagation, disease-free plants
  - Industry use: Papaya, sugarcane, banana production
- Future Scope:
  - Agriculture, Medicine, Cellular Agriculture

- **Date:** 29/01/2025
- **Topic: Recombinant DNA Technology**
- **Speaker:** Dr. Purnima Seth (Mohanlal Jayant Govt. College, Khursipar)
- Benefits:
  - Medical: Drug/vaccine development, gene therapy
  - Agriculture: Improved crops, pest resistance
  - Environment: Bioremediation, biofuels
- Future Scope:
  - Personalized medicine
  - Gene editing, diagnostics

- **Date:** 30/01/2025
- **Topic: Protein Synthesis**
  Speaker: Dr. Awdhesh Srivastav (Govt. Danveer Tularam PG College, Utai)
- Benefits:
  - Disease mechanism understanding
  - Drug design, biotech applications
  - Cellular regulation, evolutionary perspective
- Future Scope:
  - Protein engineering
  - Personalized medicine
  - Biomanufacturing

- **Title: Importance of Intellectual Property Rights (IPR) in the Sciences**
- **Date: 28.01.2025**
- **Speaker: Dr. Amit Dubey, Scientist-D,** Chhattisgarh Council of Science and Technology, Raipur
- Dr. Amit Dubey explained the different forms of IPR: Patents, Copyrights, Trademarks, Geographical Indications, and Industrial Designs.
- Emphasized the **importance of patenting scientific innovations**, especially in the fields of **biotechnology, agriculture, pharmaceuticals, and environmental sciences**.



- Guest Lecture by Professor T. Srinivasu
- Date: March 11, 2025
- Organized by: Department of Botany, Govt. V.Y.T. PG Autonomous College, Durg
- A guest lecture was successfully organized on March 11, 2025, featuring Professor T. Srinivasu, Former Professor and Head, RTM University, Nagpur. The lecture focused on **"How to Prepare a Plant Database and Its Importance in DELTA (Descriptive Languages of Taxonomy) Software and E-Herbarium."** The event was attended by M.Sc. Second Semester, Fourth Semester students, and research scholars who actively participated and benefited from the insightful session.