

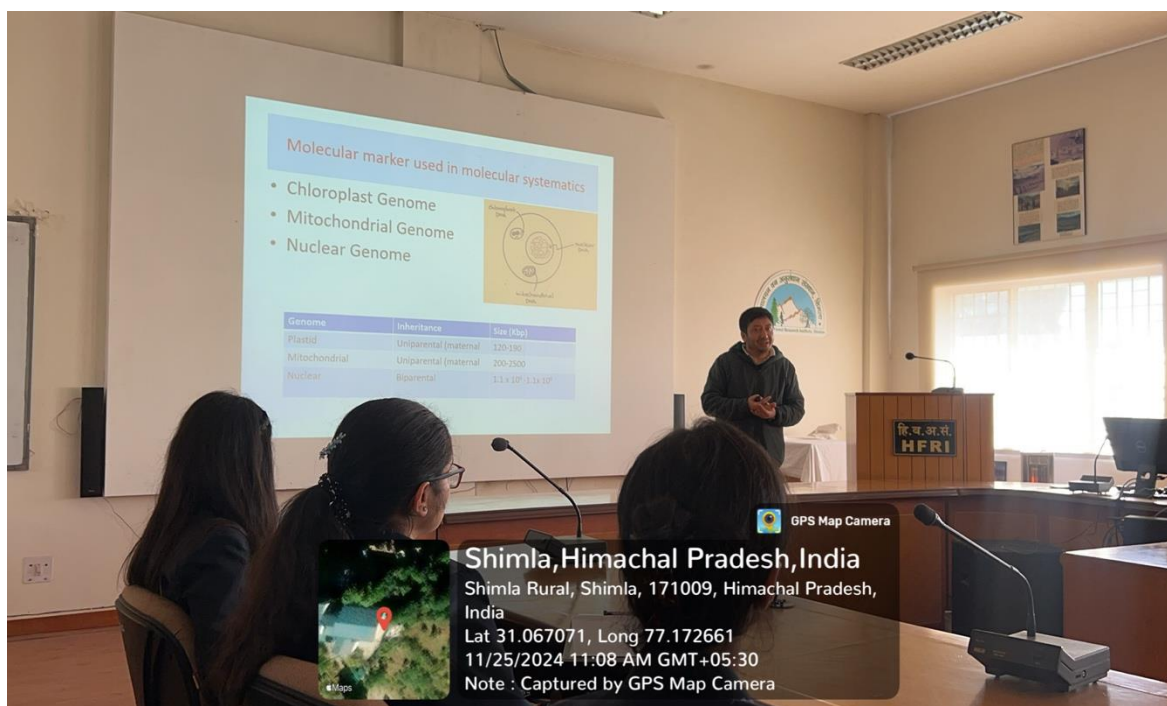


# A Report on Two days Workshop on Molecular Biology Techniques in Plant Systematics.



Venue:  
ICFRE- HIMALAYAN FOREST RESEARCH  
INSTITUTE  
Date:25,26November 2024

A two days workshop was conducted by **Department of Botany ,Centre of Excellence GC Sanjauli under DBT Star College Scheme in association with ICFRE-HFRI Panthagatti** on 25<sup>th</sup> and 26<sup>th</sup> November 2024. Workshop began with the inaugural address by Dr.Sandeep Sharma ,Director HFRI. He discussed the theme of the workshop and informed about the importance of such events.



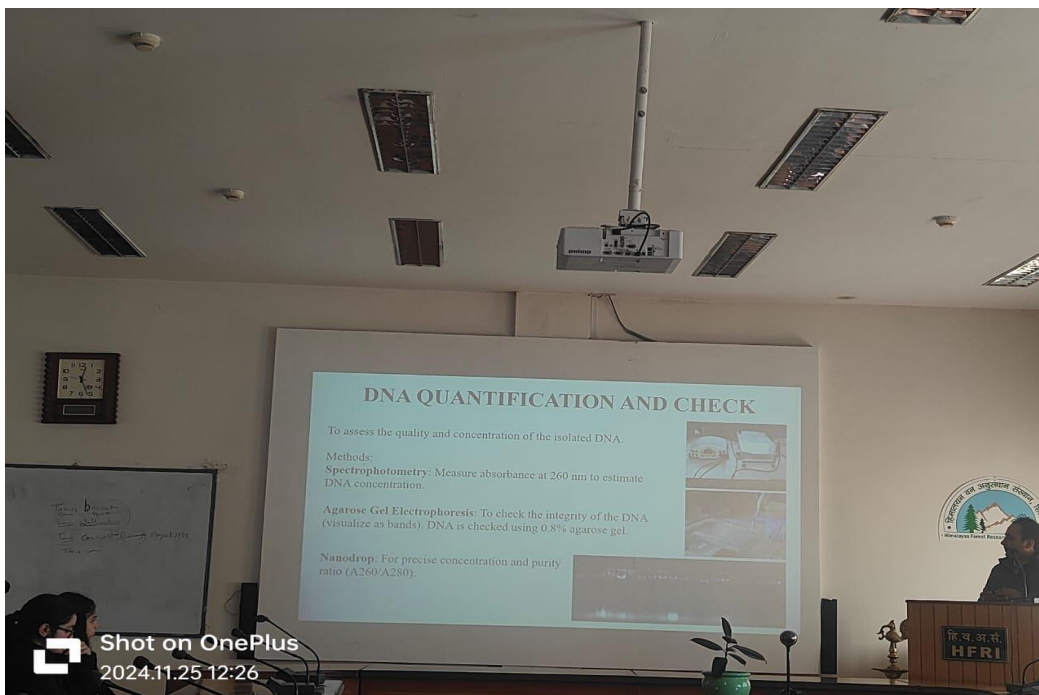
After that the workshop began with lectures prepared by eminent resource persons. First lecture was given by Dr. M. Ibrahim on “Introduction to Molecular Systematics in Plants”. This was followed by second lecture by Dr. Bal Krishan Tiwari who shared his expertise on “Steps and Principles of DNA Extraction for Plant Samples”. Following lunch, students were taken to lab for practical demonstration on “ DNA Extraction from plant samples” which was performed by scientists and students of our College. It was an enriching and curious experience to learn to isolate DNA from plant samples .

Hands on Training was a very valuable experience for the students

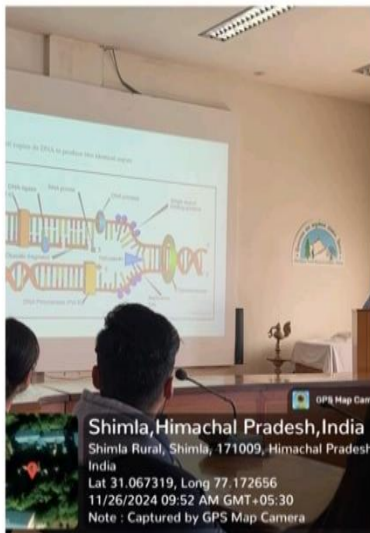


## Day:2

Day 2 of the workshop conducted by the Department of Botany was a comprehensive and enriching experience, focusing on advanced molecular biology techniques. The day commenced with an insightful lecture by Dr. Bal Krishan Tiwari on the “Polymerase Chain Reaction (PCR) technique for DNA amplification”, which provided participants with a deep understanding of the principles and applications of PCR in molecular biology.

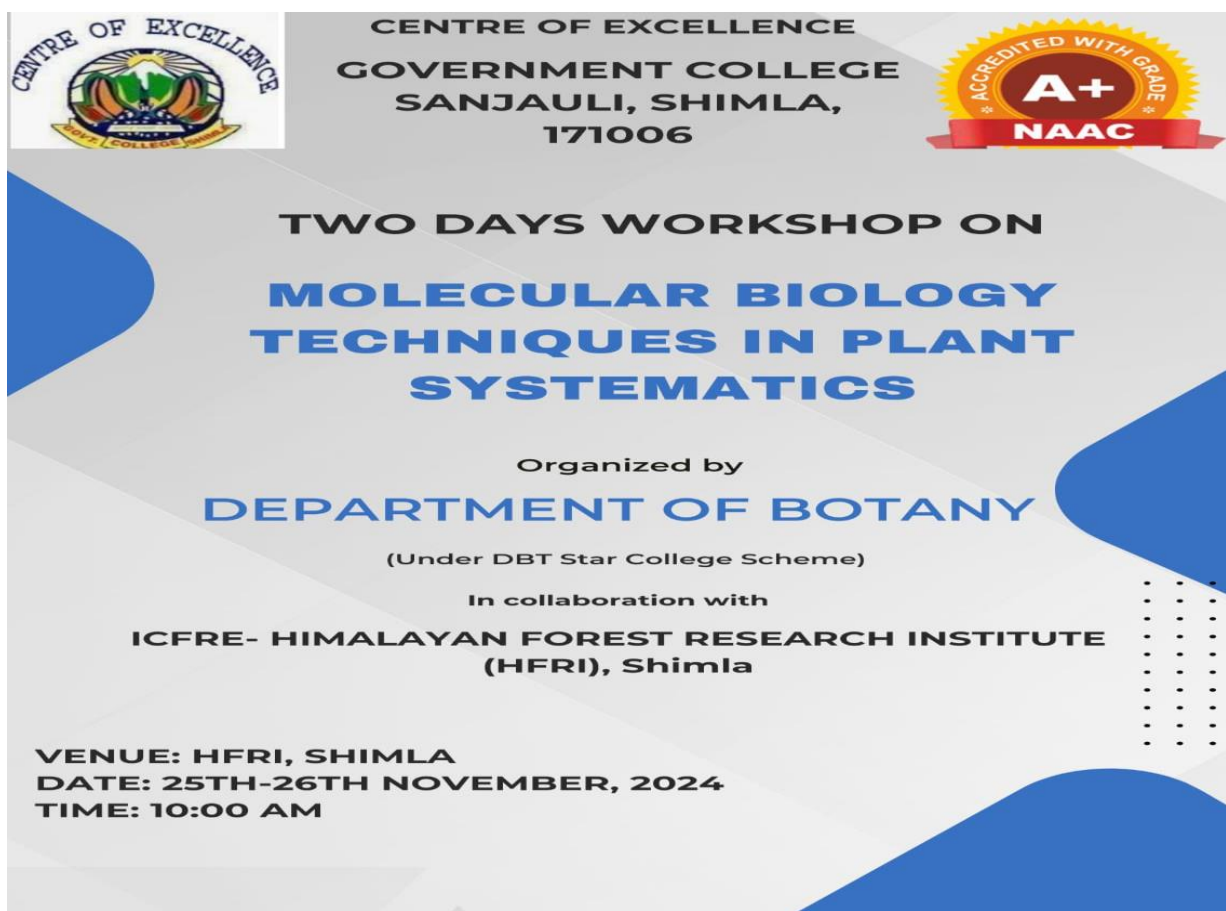


This was followed by a practical demonstration, allowing attendees to observe the PCR process in action and gain hands-on experience. The next session introduced the “Gel Electrophoresis technique” through a detailed lecture given by Dr Bal krishan Tiwari, explaining its significance in DNA analysis. After a refreshing lunch break, the practical demonstration continued, offering additional clarity and practice.



The final lecture of the day given by Dr Antra Tiwari focused on “DNA Sequencing and BLAST Analysis”, delving into the methods of DNA

sequencing and the use of BLAST for sequence analysis, highlighting their importance in modern biological research. The day concluded with a valedictory session, where participants reflected on the knowledge gained and the overall experience of the workshop and then the certificate were awarded to the students. Overall, the sessions provided a perfect blend of theoretical knowledge and practical skills, significantly enhancing the participants' understanding and expertise in molecular biology.



The poster features a light grey background with blue abstract shapes on the left and right sides. At the top left is the logo of the Centre of Excellence, Government College, Sanjauli, Shimla. At the top right is the NAAC A+ accreditation logo. The main title is centered in bold blue text. Below the title, the organizing department and collaborating institute are listed. The venue, date, and time are provided at the bottom left.

**CENTRE OF EXCELLENCE**  
**GOVERNMENT COLLEGE**  
**SANJAULI, SHIMLA,**  
**171006**

**ACCREDITED WITH GRADE**  
**A+**  
**NAAC**

**TWO DAYS WORKSHOP ON**  
**MOLECULAR BIOLOGY**  
**TECHNIQUES IN PLANT**  
**SYSTEMATICS**

Organized by  
**DEPARTMENT OF BOTANY**  
(Under DBT Star College Scheme)

In collaboration with  
**ICFRE- HIMALAYAN FOREST RESEARCH INSTITUTE**  
**(HFRI), Shimla**

**VENUE: HFRI, SHIMLA**  
**DATE: 25TH-26TH NOVEMBER, 2024**  
**TIME: 10:00 AM**

# Schedule of the workshop

## on

# Molecular Biology Techniques in Plant Systematics

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25-11-2024	<b>Time</b>	
	10:00 to 10: 30	Inaugural Session
	10:30-10:45	<b>Tea break</b>
	<b>Session 1</b>	
	10:45 to 11: 30	<b>Lecture 1:</b> Introduction to Molecular Systematics in Plants
	11:30 to 12: 15	<b>Lecture 2:</b> Steps and Principles of DNA Extraction for Plant Samples
	12:15-1:00	Practical Demonstration – DNA Extraction from Plant Samples
	1:00-1:30	<b>Lunch Break</b>
	<b>Session 2</b>	
	1:30-5:30	Practical Demonstration – DNA Extraction from Plant Samples
26-11-2024		Day 2 (26 November 2024)
	<b>Session 1</b>	
	10: 00-10:45	<b>Lecture 1:</b> Polymerase Chain Reaction (PCR) Technique for DNA Amplification
	10:45- 11:30	Practical demonstration of PCR
	11:30-11:45	<b>Tea break</b>
	11: 45-12:30	<b>Lecture 2:</b> Gel electrophoresis technique
	12:30-1:00	Practical demonstration of agarose gel electrophoresis technique
	1:00-1:30	<b>Lunch break</b>
	<b>Session 2</b>	
	1:30-2:00	Practical demonstration of agarose gel electrophoresis technique
	2:00- 3:00	Lecture: DNA Sequencing and BLAST Analysis
	3:00PM	Valedictory Session

## संजौली कालेज में हुई बॉटनी विभाग की कार्यशाला



शिमला। सेंटर ऑफ एक्सीलेंस संजौली कालेज के बॉटनी विभाग द्वारा सोमवार को एक कार्यशाला और व्यक्तिगत प्रशिक्षण का आयोजन किया गया। यह कार्यशाला हिमाचल वन अनुसंधान संस्थान के संग सहभागिता में मोलिक्यूलर बायोलॉजी टेक्निकस ऑन प्लांट सिस्टमएटिक्स पर आधारित रही। इस प्रशिक्षण में प्रो. दीप्ति गुप्ता और प्रो सुशील शर्मा संग 40 छात्रों ने भाग लिया। इस कार्यशाला में छात्रों को प्लांट सिस्टमएटिक्स से संबंधित मोलिक्यूलर बायोलॉजी टेक्निकस से वाकिफ व व्यक्तिगत प्रशिक्षण में प्रायोगिक माध्यम से डीएनए एक्सट्रैक्शन करवाया गया

## संजौली कॉलेज में करवाया जीवों पर अध्ययन

शिमला। सेंटर ऑफ एक्सीलेंस संजौली कॉलेज के बॉटनी विभाग ने हिमाचल प्रदेश वन अनुसंधान विभाग के साथ मिलकर सोमवार को कार्यशाला का आयोजन किया। मोलिक्यूलर बायोलॉजी टेक्निकस (जीवों का अध्ययन) ऑन प्लांट सिस्टम विषय पर आयोजित कार्यशाला और प्रशिक्षण कार्यक्रम में शिक्षक दीप्ति गुप्ता तथा सुशील शर्मा सहित 40 छात्र-छात्राओं ने भाग लिया। इसमें छात्र-छात्राओं को प्लांट सिस्टमएटिक्स से संबंधित मोलिक्यूलर बायोलॉजी टेक्निकस के बारे में बताया। उन्होंने प्रायोगिक माध्यम से डीएनए एक्सट्रैक्शन करना सिखाया गया। ब्यूरो





