

SHRI RAM COLLEGE (AUTONOMOUS), MUZAFFARNAGAR

REPORT

WORKSHOP ON VIRTUAL LAB

Name of Institution: Shri Ram College (Autonomous), Muzaffarnagar

Department: Faculty of Biosciences

Academic Session: 2026–27

Activity: Implementation and Utilization of Virtual Lab

Date: 12/10/2026

Venue: Department of Biosciences



The banner for the 'Workshop on Virtual Labs' features the Shri Ram College (Autonomous) logo and name at the top left. It includes the 'Virtual Labs' logo, which is an initiative of the Ministry of Education under the National Mission on Education through ICT (NMEICT), and a NAAC A++ Accredited seal. The central text reads 'Workshop on Virtual Labs' with the tagline 'Bringing Real Lab Experience to Your Screen'. Below this, it lists the activities: 'Explore • Learn • Experiment • Innovate' and the date 'Date: 12/10/2026'. A laptop displays the Virtual Labs interface. The bottom section highlights five key benefits: 'Virtual Experiments' (Perform experiments anytime, anywhere), 'Safe & Cost Effective' (Learn without risk or high cost), 'Build Skills' (Develop scientific thinking & problem solving), 'For All Students' (B.Sc. / M.Sc. Biotechnology & Microbiology), and 'Support Research & Innovation' (Bridging academia, industry and real world). The banner concludes with the slogan 'Think Like a Scientist | Learn with Virtual Labs' and the phrase 'Explore Discover Grow'.

Introduction

Following the successful completion of the Faculty Orientation Programme on **Virtual Labs**, the Faculty of Biosciences initiated the practical implementation of Virtual Lab resources in academic teaching and learning.

The purpose of this workshop was to provide students with hands-on exposure to digital laboratory environments and to familiarize them with virtual experiments related to their respective subjects. The activity was conducted as a supplementary component of conventional laboratory teaching.

Objectives

The major objectives of the implementation activity were:

1. To provide students with practical exposure to Virtual Lab facilities.
2. To demonstrate the use of virtual experiments related to Bioscience subjects.
3. To familiarize students with online laboratory procedures and simulations.
4. To improve conceptual understanding of practical experiments.
5. To enable students to repeat experiments in a virtual environment.
6. To develop digital laboratory skills among students.
7. To use Virtual Labs as a pre-laboratory and post-laboratory learning tool.
8. To encourage self-learning and technology-enabled education.

Implementation Process

After the faculty orientation programme, faculty members identified suitable Virtual Lab experiments according to their respective courses. Students were first introduced to the Virtual Lab platform and were guided through the process of selecting the appropriate laboratory and experiment.

Faculty members demonstrated the experimental procedure and subsequently allowed students to perform the virtual experiment individually or in small groups.

Activities Conducted

During the implementation programme, students were guided through the following activities:

- Accessing the Virtual Lab platform.
- Selecting the appropriate laboratory.
- Searching for relevant experiments.
- Reading the theoretical background.
- Understanding the principle of the experiment.
- Following the experimental procedure.
- Performing the virtual simulation.
- Recording observations.
- Interpreting the experimental results.
- Attempting quizzes/assessment activities.
- Discussing experimental findings with the faculty members.

Participation

The activity was conducted for students of the Faculty of Biosciences (Biotechnology).

Details of participation:

Particular	Details
Programme	Virtual Lab Implementation
Department	Faculty of Biosciences
Classes/Courses	Biotechnology (UG&PG)
Number of Students	92
Date	12/10/2026
Venue	Department of Biosciences
Virtual Lab Experiments	05

Student Response

Students actively participated in the virtual experiments and showed interest in using digital laboratory resources. The interactive nature of the simulations helped students understand experimental procedures and scientific concepts.

The activity also provided students with an opportunity to revisit experiments and clarify concepts outside the regular practical class.

Learning Outcomes

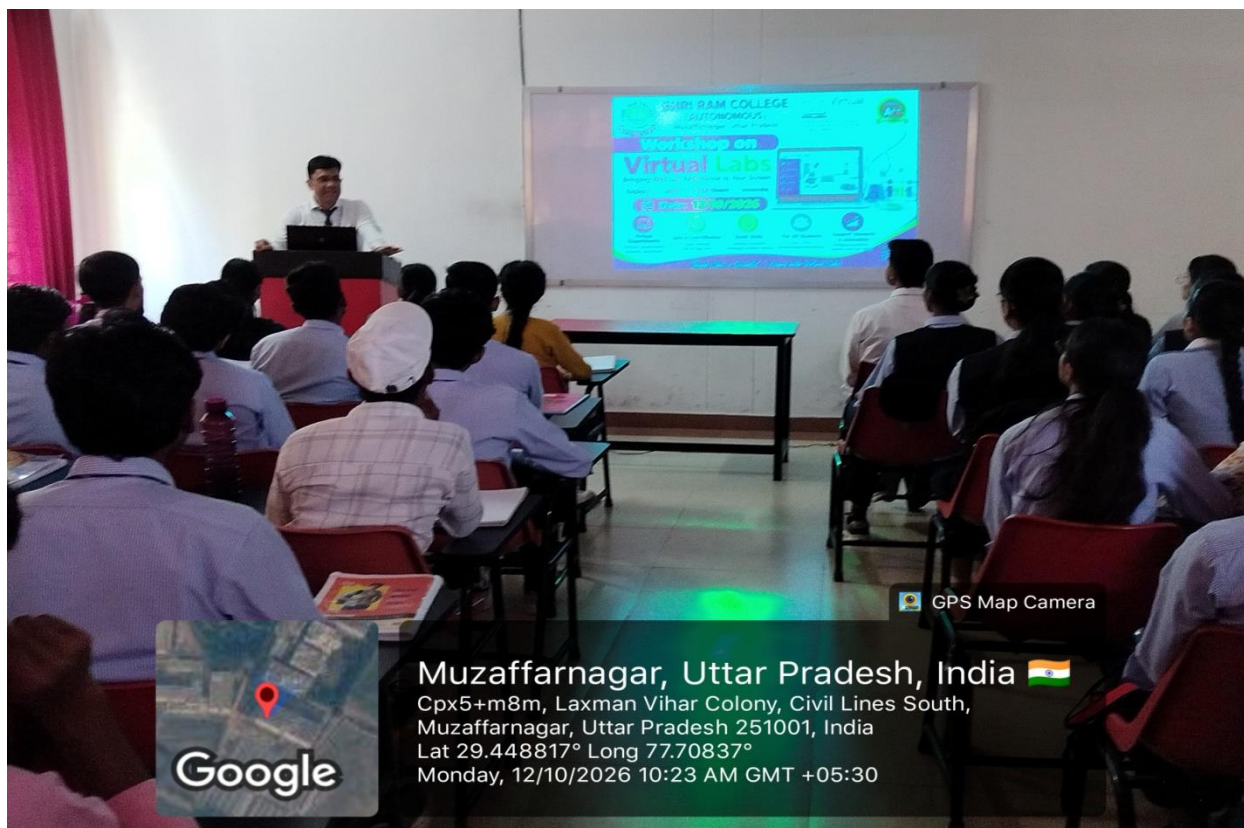
After completion of the activity, students were able to:

- Navigate the Virtual Lab platform.
- Identify relevant experiments.
- Understand the principles and procedures of selected experiments.
- Perform virtual laboratory simulations.
- Record and interpret observations.
- Relate theoretical concepts with practical applications.
- Develop confidence before performing physical laboratory experiments.
- Use digital resources for independent learning.

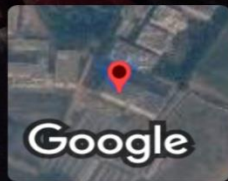
Conclusion

The post-orientation implementation of Virtual Lab was a useful academic initiative for strengthening practical and digital learning among students. The activity provided an additional platform for students to understand laboratory procedures, revise experiments and improve conceptual clarity.

The Faculty of Biosciences plans to continue the systematic utilization of Virtual Labs and encourage faculty members and students to use relevant virtual experiments as a complementary component of practical education.







Muzaffarnagar, Uttar Pradesh, India 🇮🇳
Cpx5+m8m, Laxman Vihar Colony, Civil Lines South,
Muzaffarnagar, Uttar Pradesh 251001, India
Lat 29.448806° Long 77.708432°
Monday, 12/10/2026 10:54 AM GMT +05:30

GPS Map Camera

SHRI RAM COLLEGE (AUTONOMOUS), MUZAFFARNAGAR

WORKSHOP ON VIRTUAL LAB

Attendance Sheet

Date: 12/10/2026

Time: 10:00 AM

Venue: Department of Biosciences

Participants: Biotechnology (UG & PG)

Academic Session: 2026-27

Organized by: Virtual Lab Coordinator, Shri Ram College, Muzaffarnagar

S. No.	Name of Students	Roll No. / ID Card No.	Signature
1	Riya	MSB25010	Riya
2	Himani Sharma	MSB25009	Himani
3	Muskan Singh	MSB25025	Muskan Singh
4	Aditya Tyagi	MSBT 260018	A Tyagi
5	Janya Sukralia	BB25010	Janya Sukralia
6	Bakshi Sharma	BB25032	Bakshi
7	Srishti Pal	BB25059	Srishti Pal
8	Eva Kaler	BB25009	Eva Kaler
9	Kanchan Kumari	BB025005	Ku
10	Supriya Kumari	BB025018	Supriya
11	Pranita	BSBT260077	Pranita
12	Tamanna Pawleen	BSBT 260065	Tamanna Pawleen
13	Khushi Rani	BSBT 260013	Khushi Rani
14	Vanshika Gupta	BSBT 260001	Dipta
15	Sumaiya	BSBT260002	Sumaiya
16	Nandani	BSBT260023	Nandani
17	Ruchi Kumari	BSBT 260028	Ruchi
18	Sharda Kumari	BSBT 260026	Sharda

19	Arunshi Singhaniya	BSBT260079	~~Arunshi Singhaniya~~
20	Prachi Sharma	BB25035	Prachi Sharma
21	Khushi Saini	BB25039	Khushi Saini
22	Deepti	BB25034	~~Deepti~~
23	Afshun zehra	BSBT260008	~~Afshun zehra~~
24	Aastha	BSBT260100	~~Aastha~~
25	Vanshika Shuman	BST260078	~~Vanshika~~
26	Kajal	BSBT260056	~~Kajal~~
27	Gouri Tyagi	BSBT260011	~~Gourit Tyagi~~
28	Suhani	BSBT260092	~~Suhani~~
29	Iqra	BSBT260057	~~Iqra~~
30	Nilofar Imaan	BSBT260005	~~Nilofar~~
31	Muskan Sajid	BSBT260004	~~Muskan~~
32	Saniya	BSBT260060	~~Saniya~~
33	Khushi Thakur	BSBT260022	~~Khushi~~
34	Aiman nawaz rana	BSBT260066	~~Aiman~~
35	Mahi Chandel	BSBT260074	~~Mahi~~
36	Srashti Ruhela	BSBT260047	~~Srashti~~
37	Mahak	BSBT260075	~~Mahak~~
38	Mahi Pundir	BSBT260012	~~Mahi Pundir~~
39	Radhika	BSBT260080	~~Radhika~~
40	Vanshika	BB25015	~~Vanshika~~
41	Sapshi	BB25025	~~Sapshi~~
42	Naziya	BB24054	~~Naziya~~
43	Iqra Parveen	BB24033	~~Iqra~~
44	HASAN	MSBT260021	~~Hasan~~
45	Vaishali	MSM25003	~~Vaishali~~
46	Ayushi Pundir	MSM25009	~~Ayushi Pundir~~
47	Dolly Pundir	MSM25049	~~Dolly~~
48	Poojce Roshniya	BB25064	~~Poojce Roshniya~~

49	Mohd Rahil	BB25011	~~Rahil~~
50	Chirag Baliyan	BB25024	~~Chirag~~
51	Dayush	247422255014	~~Dayush~~
52	Mohd. Anas	BB24063	~~Anas~~
53	Lavisha	BB24019	~~Dusha~~
54	Aarti chaudhary	BB24041	Aarti chaudhary
55	Ronak Saini	BB24022	~~Ronak Saini~~
56	Lakshay priatap	BB24025	~~@priatap~~
57	Zaheer Hussain	BB24056	~~Zaheer Hussain~~
58	Mohd. Naved	BSBT 260042	~~Naved~~
59	Mandeep	BSBT 260091	Mandeep
60	Prashant Kumar .2(R.S)	BSBT 260029	Prashant
61	Mohd Jaleel	BB24007	~~Jaleel~~
62	Aman	BB24036	~~Aman~~
63	Abdus samad	BSBT 260030	~~Abdus Samad~~
64	Amresh Kumar	BSBT 260038	~~A~~
65	Priyanshu Kumar	BSBT 260040	Priyanshu Kumar
66	Karthik Kumar	BSBT 260104	~~Karthik~~
67	Anshul Kumar	BSBT 260095	~~Anshul~~
68	Harsh Panchal	BSBT 260017	~~Harsh Panchal~~
69	RAKESH KUMAR	BSBT 260062	~~Rakesh Kumar~~
70	Pawan Kumar	BSBT 260090	~~Pawan~~
71	Nitin Kumar	BSBT 260097	~~Nitin~~
72	Mohd Aamil	BSBT 260048	~~Aamil~~
73	Hanzala Saifi	BSBT 260083	Hanzala
74	Manish Kumar	BB025006	~~Manish~~
75	Sakir Alam	BB025015	~~Sakir~~
76	Majammil	BSBT 260009	Majammil
78	Priyanshu Kumar	BSBT 260105	Priyanshu Kumar
79	Abdul Rehman	BSBT 260059	~~A. Rehman~~

80	Vansh Deep.		Vansh Deep.
81	Durgesh Patel	BB025004	Danh.
82	Pawan Kumar	BB025010	Pawan Kumar
83	Aditya K. Manjhi	BB023001	Aditya Kumar
84	Mohammad Saif & 03.	BB025020	Mohad Saif & 03.
85	Shreuti	MSMB 260020	Shreuti
86	Anshika Singh	MSBT 260011	~~Anshika~~
87	Astha Saini	MSBT260006	~~Astha Saini~~
88	Zoya Naseem	MSBT260003	~~Zoya Naseem~~
89	Muskan Chaudhary	MSBT260001	Muskan Chaudhary
90	Angali Kumari	MSBT 260021	~~Ang~~
91	Shalu Kumari	MSBT 260023	~~Shalu~~
92	Pooja Kumari	MSBT 260025	~~Pooja~~
93			
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100			

Total Students Present: 92

Name of Faculty/Instructor: MR. VIKAS KUMAR

Vj.
Dr. Vipin Kumar Saini
 Nodal Coordinator, Virtual Lab
 Shri Ram College (Autonomous),
 Muzaffarnagar