



Shri Shivaji Education Society Amravati's
Shri Shivaji Science & Arts College
Chikhli, Dist. Buldana- 443201(MS).



DEPARTMENT OF PHYSICS

Bridge Course for B.Sc. Students

1) Title of the Practice: Induction program (Bridge Course) for B.Sc.-I Students.

2) Objectives of the Practice:

- i) To bridge the educational gap between 10+2 and B.Sc. system.
- ii) To prepare students ready to perform the practicals in the laboratory.
- iii) To facilitate students with basic knowledge and training to calculate least counts of various instruments.

3) The Context:

Students opting for B.Sc. Physics come from various educational backgrounds. They are expected to know some of the basic things e.g., calculation of least count of various instruments, error calculations, significant digits, etc. But they lack these understandings due to various reasons. In view of this, our department provides students an opportunity to learn the basics of experiments from the beginning. Students are given this course for approximately one month before the starting of actual experiments in the laboratory.

4) The Practice:

Bridge Course for B.Sc. - I (Sem. -I) students is being conducted every year. Lectures were delivered using power point presentations based on; Measurements, Errors in Measurements, Significant Digits, Calculate Least Counts of Various Instruments (i.e., Vernier Caliper, Screw Gauge and Travelling Microscope etc.), and Measurements of Dimensions of Objects.

After power point presentation, measurements of dimensions of various objects (e.g., Diameter & length of cylinder, breadth & thickness of iron block, Diameter of sphere, thin wire, thickness of glass plate etc.) using Vernier Calliper & Screw Gauge are explained by using simulations on 'Amrita University Virtual Lab' (A project is an initiative of Ministry of Human Resource Department under National Mission on Education through ICT.). Hands on training was also arranged for the students. Different modules were prepared in order to bridge the gap between 10+2 system and university education system.

5) Evidence of Success:

- i) This practice helped students to understand measurements, errors in measurements.
- ii) This practice helps students to calculate Least counts of various instruments and error analysis.

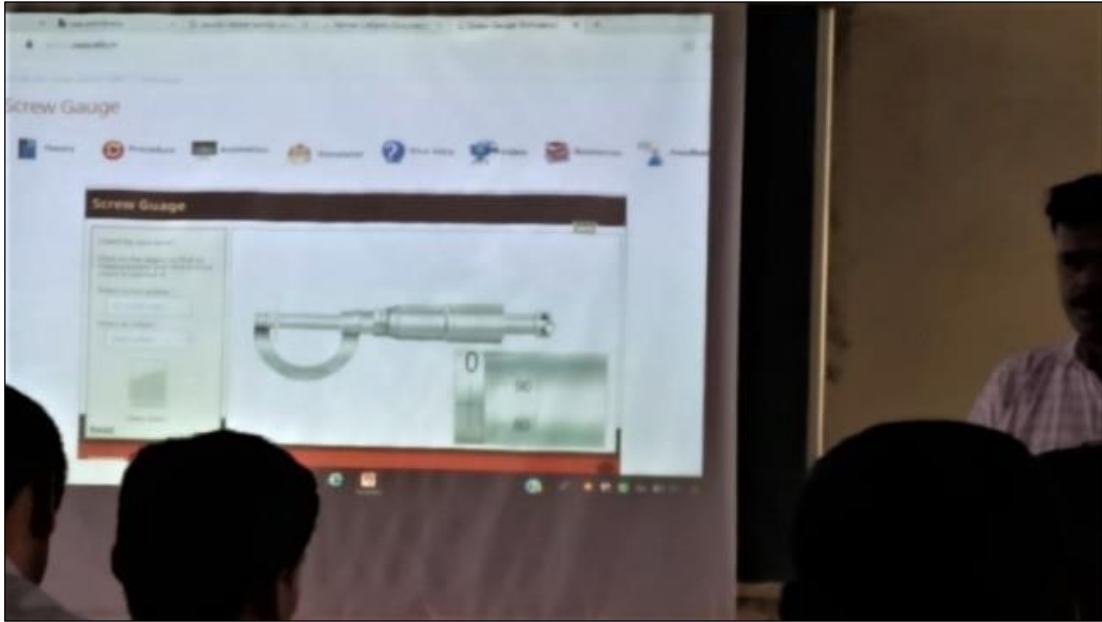
- iii) Hands on training gave students a real-life experience about measurements of dimensions of various objects.
- iv) When students actually perform experiments in laboratory then most of the students themselves take measurements of dimensions (i.e., breadth & thickness of a beam, radius of a wire etc.) of various objects.

6) Problems Encountered and Resources Required:

- i) Students database regarding their previous educational background are to be collected to implement this practice efficiently.
- ii) Students taking admission late in the college miss this course and separate methodology is to be adopted for such students.

Photos:

j 2019-20:



ii) 2021-22:



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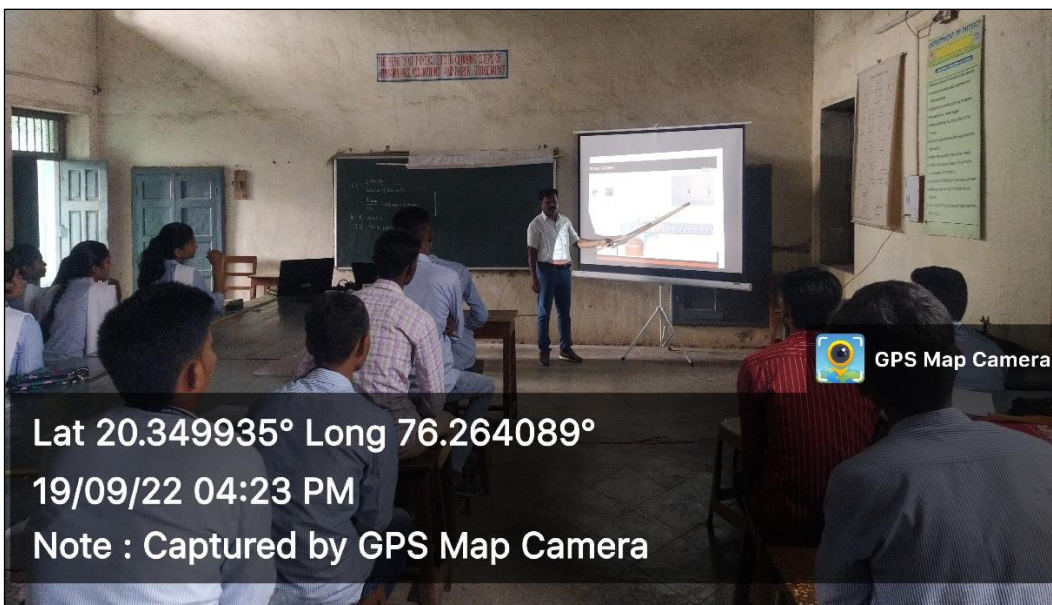
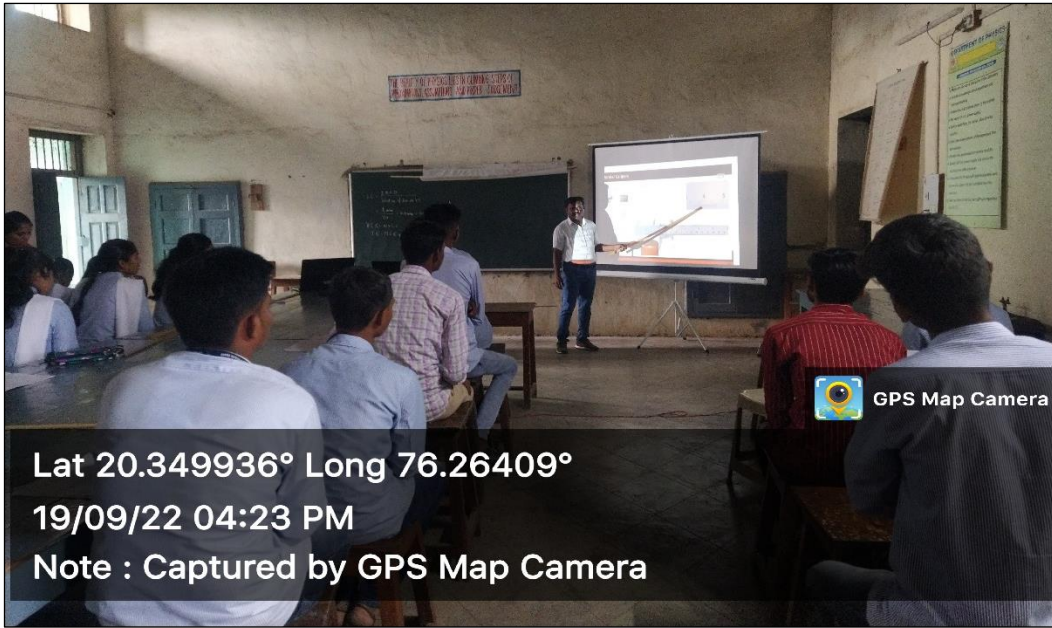
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iii) 2022-23:



List of Participants:

Shri Shivaji Science & Arts College, Chikhli, Dist. Buldana

Department of Physics

Bridge Course in Practical Physics for B.Sc.-Students

Date:

S. N.	Name of Student	Signature	Remark
1	Pavan Vilas Bachate	P Bachate	
2)	Ku. Komal Anil Sawale	K Sawale	
3)	Ku. Gayatri Dhananjay Rajput	G Rajput	
4)	Ku. Pratiksha Pralhad Misal	P Misal	
5)	Ku. Vaishnavi Madhao Jogle	V Jogle	
6)	Ku. Vaishnavi Umesh Dikar	V Dikar	
7)	Ku. Shital Ravindra Bhutekar	S Bhutekar	
8)	Ku. Bhagyashri Devidas Kendhale	B Kendhale	
9)	Ku. Pallavi Ghanashyam Deshmukh	P Deshmukh	
10)	Ku. Priti Girishwar Deshmukh	P. G. Deshmukh	
11)	Ku. Mohini Vishnu Belokar	M Belokar	
12)	Ku. Priyanka Shrikrushna Bhutekar	P Bhutekar	
13)	Ku. Pallavi Dnyaneshwar Gyaki	P Gyaki	
14)	Ku. Saksbi Raju Muzhe	S Muzhe	
15)	Ku. Mohini Vinod Belokar	M Belokar	
16)	Ku. Rutuja Bhagwan Pawar.	R Pawar	
17)	Ku. Sakshi Dattatray Kachade	S Kachade	
18)	Ku. Rutuja Baban Shelke	R. B. Shelke	
19)	Ku. Aarti Ananta Shingne	A Shingne	
20)	Ku. Vaishnavi Bhagwanrao Deshmukh	V Deshmukh	
21)	Ku. Tejaswini Sunil Nagpure	T Nagpure	
22)	Amit Gangasing Thakur	A Thakur	
23)	Pavan Vilas Bachate	P Bachate	
24)	Gopal Govindrao Mohite	G Mohite	
25)	Ganesh Vithoba Solanki	G Solanki	

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Department of Physics

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Date:

S. N.	Name of Student	Signature	Remark
26)	Mohammad Saad Sk-Sajid		
27)	Tabish Raza Shaikh		
28)	Siddheshwar Sanjay Kothole		
29)	Sagar Dnyaneshwar Suradkar		
30)	Dhananjay M. Sanap		
31)	Gopal S. Tidke		
32)	Sanjay V. Kherke		
33)	Nagesh Achutrao Bhagat		
34)	Harshal Sunil Kalkonde		
35)	Vishal Dattatray Karkde		
36)	Nikhil Anil Kulkonde		
37)	Vaibhav V. Vishnu Shete		
38)	Harshad Raju Ingle		
39)	Taufik Shaikh		
40)	Aditya Suresh Hasee		
41)	Amol Anil Zalte		
42)	Abhijeet Bharat Pawar		
43)	Gopal Subhash Solanki		
44)	Sagar Kailas Pawar		
45)	Shantanu Ramchandra Golankar		
46)	Darshan Wahurwagh		