

#### PHYSICS ACTIVITIES 2023-24

Visit to Archive Section of College Library

Date: August 29, 2023

**Objective:** To enhance students' understanding of historical and academic resources, fostering a deeper appreciation for the institution's rich heritage and intellectual evolution.

On August 29, 2023, students from the Department of Physics visited the archive section of the college library. This particular section houses an impressive collection, including rare and ancient books, back volumes of national and international journals, historical exhibitions depicted through digital posters, visual charts, maps, and a globe.

During the immersive exploration of the Archive and ancient book section, students found themselves transported into a realm of historical knowledge and literary wonders.

#### **Outcome:**

This excursion provided them with valuable insights into the evolution of language, writing styles, and cultural perspectives. Through the examination of various texts, they gained a deeper appreciation for how societies and knowledge have undergone transformation over the course of time. The visit underscored the importance of preserving our literary heritage and emphasized the value of tangible artifacts in an increasingly digital world.







Talk on "Exploring Physics with Scilab"

Speaker: Dr. Lalit

Date: September 22, 2023 Venue: Seminar Room

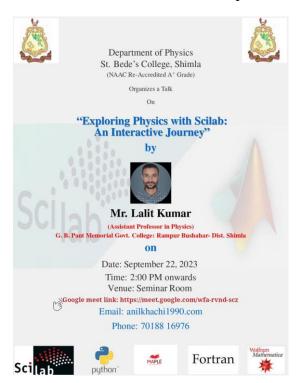
**Objective: To** provide an overview of Scilab as a robust computational tool for scientific and engineering applications.

On the 22 of September 2023, physics department organized a talk by Dr. Lalit, Assistant Professor, G. B. Pant Memorial Govt. College, Rampur Bushahar.

In his talk Dr. Lalit deliberated on how Scilab can be employed to solve complex physics problems across various domains, including mechanics, electromagnetism, thermodynamics, and quantum physics. He illustrated the application of numerical methods within Scilab for solving differential equations, integral transforms, and other mathematical challenges commonly encountered in physics research.

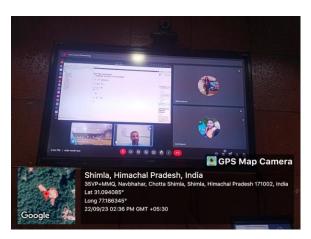
He provided students with practical, hands-on examples to reinforce the concepts discussed during the talk. Encourage participants to actively engage with Scilab, solving physics problems in real-time to enhance their proficiency with the software.

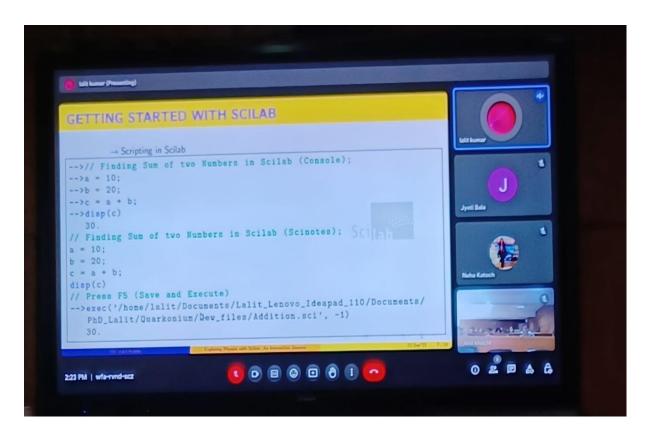
**Outcome:** The students should gain a comprehensive understanding of how Scilab can serve as a valuable tool in exploring and solving complex physics problems, ultimately empowering them to leverage computational methods in their educational pursuits.











(Talk on Scilab September 22, 2023)



#### Workshop on Quantum Physics Simulations using Spread sheet

Speaker: Prof. O. S. K. S. Sastri

Date: September 29, 2023

Venue: Department of Physics (Room: C5), St. Bede's College

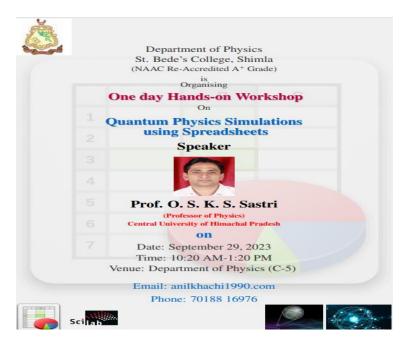
Date: September 29, 2023

**Objective: To** provide students with a unique opportunity to delve into the fascinating world of quantum mechanics through basic understanding of key quantum physics concepts.

On the 29 of September 2023, Physics department of St. Bede's College hosted a one-day workshop on *Quantum Physics Simulations using Spreadsheets*. The workshop was tailored to benefit the 3rd-year BSc and 2nd-year BSc students, offering them a unique opportunity to delve into the fascinating world of quantum mechanics. Prof. O. S. K. S. Sastri Professor, Department of Physics and Astronomical Science, Central University Dharamshala H.P, took the participants through the mathematical foundations and explained the significance of some fundamental problems like **Infinite Square Well Problem, Harmonic Oscillator Problem** in quantum physics. Students were given hands-on experience using spread sheets to simulate the behaviour of a particle to visualize the energy levels and wavefunction in both the problems. This practical approach allowed the participants to gain a deeper understanding of quantum wave functions and energy quantization.

**Outcome:** The workshop equipped the students with practical skills in utilizing spreadsheets for quantum physics simulations, making theoretical concepts more tangible. Participants left the workshop with a deeper appreciation for the world of quantum physics and its applications.





#### **Brochure**



(Quantum Physics Simulations (September 29, 2023)



#### Attendance Sheet

### Date:29/08/2023

# Attendance Sheet Visit to Archive section of library

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S. No. 01 Dated: 22/09/2023

#### **Attendance Sheet**

## Online talk by Mr. Lalit Kumar on "Exploring Physics with Scilab: An Interactive Journey"

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Date: 29/9/2023

### Attendance Sheet

## One Day Hands-on Workshop on Quantum Physics Simulations using Spreadsheet

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	3.	Arushika	212008	Aditi
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	18.	Kritika	55 6008	Kritika
	19.	Varunika	212042.	Murunita
<b>B.Sc-II</b>	20.	Arushi	229011	(WE
	21.	Manpreet		

