



SUPPORTING DOCUMENTS

3.2.2

**NUMBER OF WORKSHOPS/SEMINARS CONDUCTED ON RESEARCH
METHODOLOGY, INTELLECTUAL PROPERTY RIGHTS (IPR) AND
ENTREPRENEURSHIP DURING THE YEAR**



Webinar on Sir Jagadish Chandra Bose

Vigyan Bharti, a prominent science communication organization, organized an insightful webinar on the life and contributions of one of India's greatest scientists, Sir Jagadish Chandra Bose (J.C. Bose) on 03.12.2024. The students of physics & other science department participated in this talk.

Objectives: The main objectives of the webinar were

- i. To Promote Awareness of J.C. Bose's Scientific Legacy
- ii. To Highlight Bose's Pioneering Work in Biophysics.
- iii. To Inspire Students with Bose's Interdisciplinary Approach.
- iv. To Foster Scientific Curiosity and Critical Thinking
- v. To Celebrate Bose's Role in the Global Scientific Community

Description:

The talk highlighted Bose's pioneering work in various fields, from plant physiology to radio waves, and his profound impact on the development of modern science. The talk was delivered by Dr. Amarjeet Singh a renowned physicist and science communicator from Himachal Pradesh University. The speaker began by emphasizing the importance of understanding the contributions of Indian scientists like J.C. Bose, whose work laid the foundation for several breakthroughs in both the natural and physical sciences. The speaker started by discussing Bose's early life, including his upbringing in a Bengali family with a deep respect for education. He was born on November 30, 1858, in Mymensingh, which is now in Bangladesh. Despite facing early obstacles in his educational journey, Bose was determined to pursue his passion for science. He first studied at the University of Calcutta and later went to England to pursue higher education at the University of Cambridge.

The speaker highlighted Bose's experiment in which he measured plant responses to stimuli using a mechanical device known as the "crescent-shaped leaf bending apparatus," which could measure the response of plants to light, touch, and sound. His work on plant communication and

sensitivity laid the foundation for what would later become known as "plant neurobiology." One of Bose's most significant inventions was the **Crescograph**, a device that could measure the growth of plants with great precision. This instrument allowed Bose to prove that plants not only



respond to stimuli but also grow in response to emotional and physical factors, such as sound and light. The Crescograph revolutionized the study of plant life, enabling future research into plant growth and behaviour.

The talk also covered J.C. Bose's contributions to the field of physics, particularly his pioneering work on radio waves. Bose was one of the first scientists to demonstrate the ability to generate and detect electromagnetic waves, long before the likes of Guglielmo Marconi. His experiments in the late 19th century showed that wireless communication was possible, an area that Marconi later popularized. Bose's work on the properties of radio waves, including their reflection and transmission, laid the groundwork for the development of wireless telegraphy.

The event ended on a positive note, with many attendees expressing their renewed admiration for J.C. Bose's groundbreaking work.

Outcome:

Students gained a deeper understanding of Sir Jagadish Chandra Bose's pioneering research and his contributions to the fields of physics, biology, and plant science, leading to greater respect for his scientific legacy. They were inspired to think beyond traditional academic boundaries, recognizing the importance of interdisciplinary approaches to scientific research, as exemplified by J.C. Bose's work in biophysics and plant physiology.



A WEBINAR on

Innovations in Science by Sir J C Bose

A tribute to Sir J C Bose on his 166th Birthday

Organized by: विज्ञान भारती हिमाचल प्रदेश (VIBHA-HP)

Dept. of Physics

Date 3-12-24

Time 11:00 AM

About Sir J. C. Bose: Sir Jagadish Chandra Bose (30 November 1858 – 23 November 1937) was an Indian polymath with interests in biology, physics, botany and writing science fiction. He was a pioneer in the investigation of radio microwave optics, made significant contributions to botany, and was a major force behind the expansion of experimental science on the Indian subcontinent. Bose is considered the father of Bengali science fiction. A crater on the Moon was named in his honour. He founded the Bose Institute, a premier research institute in India and also one of its oldest. Established in 1917, the institute was the first interdisciplinary research centre in Asia. He served as the Director of Bose Institute from its inception until his death.

Sir J. C. Bose

Speaker
Dr. Amarjeet Singh
Treasurer VIBHA-HP

Webinar Link: meet.google.com/bfv-rwnx-tqw

Convener
Dr. Rakesh Kumar
Secretary VIBHA-HP

Brochure



Webinar on Sir Jagadish Chandra Bose (December 12, 2024)



Webinar on Sir Jagadish Chandra Bose (December 12, 2024)



Attendance Sheet

Webinar on

Innovations in Science by Sir Jagadish Chandra Bose

Dated : December 3, 2024

S.No.	Name	Class	Signature
1.	Sunidhi Sharma	BSC II nd year	
2.	Amanya Khoond	BSC II nd year	
3.	Aditi Sharma	BSC - II nd year	
4.	Kritika	BSC III rd year	
5.	Yufal Sharma	BSC III rd year	
6.	Aditi Singh	BSC II nd year	
7.	Umareshwar	BSC II nd year	
8.	Reshma	BSC II nd year	
9.	Manpreet	BSC II nd year	
10.	Payal	BSC III rd year	
11.	Payal	BSC II nd year	
12.	Niharika	BSC III rd year	
13.	Sania	BSC III rd year	
14.	Nancy	BSC III rd year	
15.	Anushka Thakur	BSC III rd year	
16.	Roopanchi Gupta	BSC III rd year	
17.	Aishani Kanwar	BSC III rd year	
18.	Varunika	BSC 3 rd year	
19.	Priyekshi	BSC 3 rd year	
20.	Shital	BSC 3 rd year	
21.	Himani	BSC 3 rd year	
22.	Simran Thakur	BSC 1 st year	
23.	Neetha Verma	BSc. 1 st year	
24.	Rakshita Kamal	BSc 1 st year	
25.	Pooja Sharma	B.Sc I st year	
26.	Anushi	B.Sc I st year	
27.	Archika	BSc 1 st year	
28.	Jessica Sharma	BSc 1 st year	
29.	Tajminal Kaliya	BSc 1 st year	

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