



**DCT's
Dhempe College of Arts and Science
Panaji, Goa**

Report on talk on the Aspects of Physics in Shipbuilding

Objective: The primary objective of the talk on 'Aspects of Physics in Shipbuilding' was to introduce students to the fundamental principles of physics that are integral to shipbuilding and naval architecture. The session aimed to enhance understanding of the practical applications of Physics in the design, stability, and movement of ships, while also providing insights into career opportunities in the shipbuilding industry.

No. of Beneficiaries: 54 Students, 4 faculty

Proceedings:

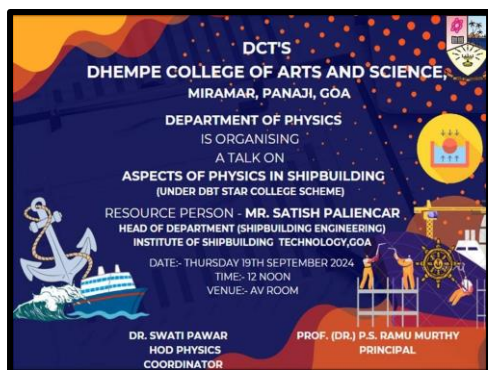
Talk on the Aspect of Physics in Shipbuilding was organised by Quarks Club, Department of Physics under DBT Star College Scheme on 19th September 2024. Mr. Satish Paliencar, Head of Department of Shipbuilding Engineering at the Institute of Shipbuilding Technology, Goa was invited as the chief guest. Mr. Paliencar began his talk by highlighting the vital role of ships in global transportation and provided an overview of the various types of ships used worldwide, such as cargo ships, tankers, container ships, and passenger vessels. He then delved into the essential physics principles that underpin shipbuilding, including Archimedes' Principle, Bernoulli's Theorem, and the laws of buoyancy, explaining how these laws govern the ability of ships to float and remain stable at sea. Through practical examples, he demonstrated their relevance in ensuring ship stability, especially under varying conditions like load changes and rough seas.

The session further explored key elements of naval architecture, with a focus on stability reference points such as the center of gravity and buoyancy, the strategic design of compartments to enhance safety, and the mechanics of propeller movement for efficient propulsion. Additionally, he discussed the role of radar systems in navigation and the Squat Effect, which impacts a ship's draft and speed in shallow waters. Each topic highlighted how the application of physics is integral to modern shipbuilding and the safe operation of vessels.

Dr. Swati Pawar, Head of Department of Physics, Vice Principal coordinator of the event of the college was instrumental in getting the resource person. Dr. Kapil Salkar Compered the session. Dr. Miskil Naik & Ms. Siddhi parsekar co-coordinated the session

Outcome

The audience gained a comprehensive understanding of how the application of physics principles is integral to the design, stability, propulsion, and safe operation of ships.

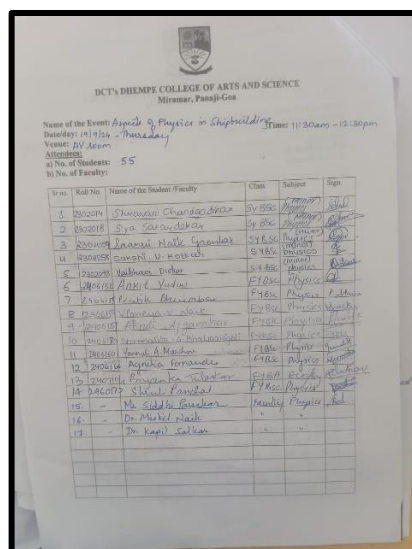
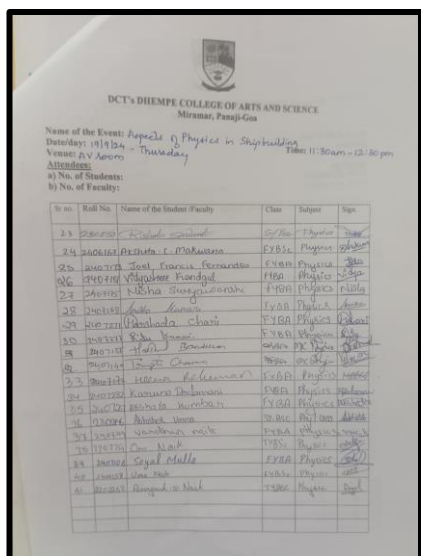


DCT'S DHEMPE COLLEGE OF ARTS AND SCIENCE
Miramar, Panaji-Goa

Name of the Event: Aspects of Physics in Shipbuilding
Date/day: 19/09/2024 - Thursday
Venue: AV Room
Time: 11:30 am - 12:30 pm

Attendees:
a) No. of Students:
b) No. of Faculty:

Sr.no.	Roll No.	Name of the Student / Faculty	Class	Subject	Sign.
01	2302069	Gayatri Satardesai	SVBSc	Physics	
2	2302077	Sonal Rane	SVBSc	Physics	
3	2302152	Ranit Haj	SVBSc	Physics	
4	2302151	Prabab Jivani	SVBSc	Physics	
5	2202249	Aniudh Neupane	TVBSc	Physics	
6	2202114	Gopal Haladkar	TVBSc	Physics	
7	2404044	Tanushka Veenekha	FYBA	MC Physics	
8	2403004	Uchita Konkarni	FYBA	MC Physics	
9	2407221	Gaithra Neuphan	FYBA	MC Physics	
10	2407229	Shreya Borkar	FYBA	MC Physics	
11	2302246	Ramona Resanwar	TVBSc	Physics	
12	2202135	Jayraj Gurekar	TVBSc	Physics	
13	2202176	Satishkumar Xic	TVBSc	Physics	
14	2202177	Shamika Zambhakar	TVBSc	Physics	
15	2202159	Ayde De Armas	TVBSc	Physics	
16	2407130	Nikhil Sarwat	FYBA	Physics	
17	2407237	Sameeksha Gamas	FYBA	Physics	
18	2302149	Omkar Dhuri	SVBSc	Physics	
19	2302198	Gajula Subhakar	SVBSc	Physics	
20	2302099	Prachi Chaudhkar	SVBSc	Physics	
21	2302094	Charita Karmale	SVBSc	Physics	
22	2302090	Hemant Kulkarni	SVBSc	Physics	



Dr. Swati Pawar

Vice Principal

&

Head, Department of Physics

Prof. P. S. Ramu Murthy

Principal

Dr. Miskil Naik

Quarks Club- Coordinator