



## Dr. V.S.KRISHNA GOVT. DEGREE COLLEGE

(An Autonomous Institution Affiliated to Andhra University)

Reaccredited by NAAC with 'A' Grade(3rd Cycle)

District Resource Centre & Center for Research Studies  
Maddilapalem, VISAKHAPATNAM 530 013, Andhra Pradesh



### Field Visit Report: Fishing Harbor, Visakhapatnam

**Date:** 15th December 2023

**Participants:** Students of III BSc (Physics), Lecturers of Department of Physics, Dr V. S. Krishan Government Degree College, Visakhapatnam

**Location:** Fishing Harbor, Visakhapatnam

**Objective:** The field visit to the Fishing Harbor in Visakhapatnam on December 15, 2023, aimed to provide the students of III BSc (Physics) from Dr V. S. Krishan Government Degree College with practical insights into the functioning of various maritime technologies. The focus was on observing the application of RADAR, Echo sounder, Anemometer, and navigational charts in the maritime industry.

#### Activities and Observations:

- RADAR Demonstration:** The students were given a comprehensive overview of the RADAR (Radio Detection and Ranging) system, which plays a crucial role in maritime navigation. The harbor authorities explained how RADAR uses radio waves to detect the position and distance of objects, including other vessels, land masses, and obstacles. The practical demonstration showcased the real-time tracking of vessels within the harbour, emphasizing the significance of RADAR in ensuring maritime safety.
- Echo Sounder Operation:** The field visit included a detailed session on the operation of an Echo sounder. Students were briefed on how Echo sounders use sound waves to measure water depth. The harbor staff demonstrated the deployment of the Echo sounder and interpreted the generated depth profiles. This hands-on experience allowed students to understand the importance of accurate depth measurements for safe navigation, especially in fishing activities.
- Anemometer Functionality:** The Anemometer session focused on wind speed and direction measurement, crucial for maritime operations. Students learned about the different types of Anemometers and their applications. Practical demonstrations involved deploying an Anemometer at various locations within the harbor, enabling students to grasp the impact of wind on maritime activities such as fishing and shipping.
- Navigational Chart Understanding:** The visit also included a detailed discussion on navigational charts. Students were given an overview of chart reading, symbols, and navigational aids. Harbor officials explained how sailors use navigational charts to plan routes, avoid hazards, and navigate safely. Students were encouraged to identify key elements on the charts, enhancing their understanding of practical navigation.

**Conclusion:** The field visit to the Fishing Harbor in Visakhapatnam proved to be an enriching experience for the students of III BSc (Physics). Witnessing the application of RADAR, Echo sounder, Anemometer, and navigational charts in a real-world setting enhanced their theoretical knowledge. The practical exposure provided valuable insights into the integration of physics principles in maritime technology. The visit not only broadened their understanding of marine instruments but also underscored the importance of physics in ensuring the safety and efficiency of maritime activities.

This field trip was a significant step towards bridging the gap between theoretical concepts learned in the classroom and their practical applications in the field of physics, particularly in the maritime industry. The students expressed gratitude for the opportunity and acknowledged the relevance of such experiences in their academic and professional development.

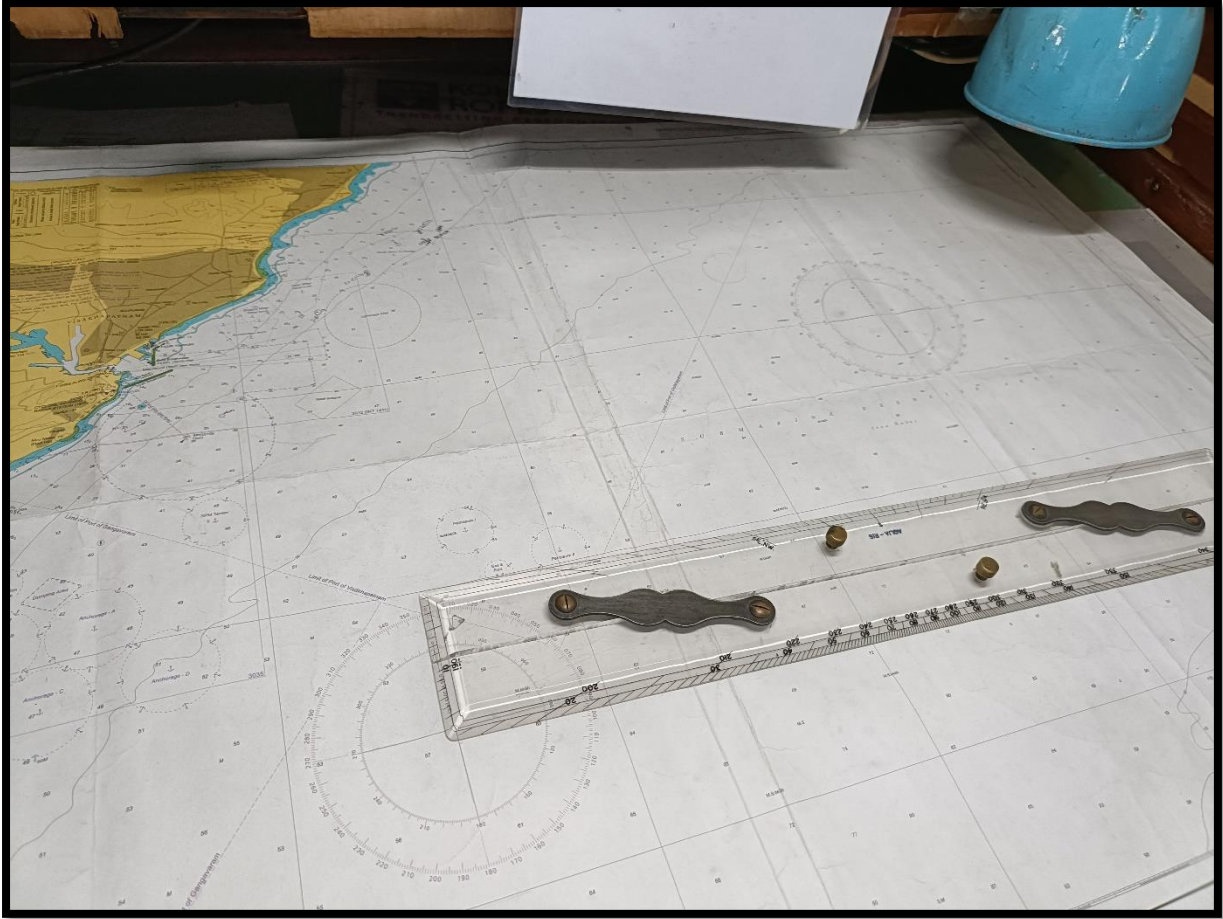
**Acknowledgments:** The students and faculty extend their gratitude to the officials and staff at the Fishing Harbor, Visakhapatnam, for their cooperation and valuable insights during the field visit. Special thanks to The mechanical marine engineer and other staff for their time and efforts in facilitating a successful and educational experience.











## List of Students participated

List of III B.Sc (Physics) Students participated	
1	A. DURGA PRASAD
2	A. GOPALA RAO
3	B. DURGA PRASAD
4	B.KIRAN KUMAR
5	CH.LOKESH
6	G.DEVI VARA PRASAD
7	K. CHANDRA SEKHAR
8	K. APPLARAJU
9	K. ROHINI
10	K. MAHESH
11	K. TARAKESH
12	M.DEVA
13	M. DURGA BHAVANI
14	M.SATHISH
15	N. NAIDU
16	P.SRINU
17	R. GANESH
18	S. PAVITRA
19	S. SATHISH
20	S. NANDINI
21	S. ASWANTH
22	V. VAMSI KRISHNA
23	Y.SWATHI
List of Lecturers Attended	
24	Sri. M.Rajeswara Rao, Lecturer in Physics
25	Sri. B.Nageswara Rao, Lecturer in Physics
26	Sri. Ch. Rambabu, Lecturer in Physics





भारत सरकार / Government of India  
मत्स्यपालन, पशुपालन और डेयरी मंत्रालय  
Ministry of Fisheries, Animal Husbandry & Dairying  
मत्स्यपालन विभाग / Dept. of Fisheries



भारतीय मात्स्यिकी सर्वेक्षण का विशाखपट्टणम क्षेत्रीय बेस

VISAKHAPATNAM ZONAL BASE OF FISHERY SURVEY OF INDIA

बीच रोड, विशाखपट्टणम - 530 001 / Beach Road, Visakhapatnam - 530 001

Phone No. 0891-2502105, 2562884, Fax No. 0891-2562884, E-mail: fsi\_vizag@yahoo.co.in

Website: <https://www.fsi.gov.in> @FisherySurveyOI @FisherySurveyOI @FisherySurveyOI

F.No.6-17/2023-FY.

Dated: 11.12.2023

प्रेषक: यांत्रिक समुद्री अभियंता  
From: The Mechanical Marine Engineer

सेवा मे / To: The Principal,  
Dr. V.S. Krishna Government Degree College,  
Bhanu Nagar, H B Colony,  
Visakhapatnam

Sub: Open House onboard the departmental vessels MFV Matsya Shikari and MFV Matsya Darshini at Jetty No. 6, Fishing Harbour, Visakhapatnam- reg.

Sir,

I wish to inform you that Fishery Survey of India, Visakhapatnam Base is one of the office functioning under the Ministry of Fisheries, Animal Husbandry & Dairying, Department of Fisheries, Government of India, New Delhi. The objective of this organization is the survey, monitoring and assessment of Marine Fishery Resources in the Indian EEZ. Two survey vessels MFV Matsya Shikari (OAL: 39.5 M. GRT: 352.00 T. BHP: 1740) and MFV Matsya Darshini (OAL: 36.5 M. GRT: 268.80 T, BHP: 1100) are attached to this Base for the demersal and pelagic fishery resources survey and the results so obtained is being disseminated to the local fishermen belonging to Andhra Pradesh, Odisha and West Bengal by means of conducting several extension programmes. As a part of the extension programme, it is proposed to organize an "OPEN HOUSE" onboard our departmental survey vessels MFV Matsya Shikari and MFV Matsya Darshini at 1000-1600 hrs on 15.12.2023 (Friday) for the benefit of local fishers, students, researchers and faculties from various schools and colleges of Visakhapatnam and general public. During this occasion diversified fishing techniques and fishing accessories, sophisticated Navigational, Electronic, Engineering, Oceanographic and Meteorological equipments will be displayed and demonstrated to the visitors. The programme will be highly informative for the youth to explore the vast opportunity available in marine fishery sector.

I therefore request you to kindly allow your students for visiting the OPEN HOUSE programme on the above said day. This office will approach the port authorities at fishing harbour to facilitate the entry of your vehicle with the students to the fishing harbour jetty.

Your kind cooperation in this regard is highly solicited.

भवदीय / Yours faithfully,

मास्मि ईडी 11/12/23

यांत्रिक समुद्री अभियंता  
Mechanical Marine Engineer

