ST.XAVIER'S COLLEGE, MAPUSA GOA

Report of Activity conducted in the Academic Year 2024-25

Name of Activity	Field trip to Andrew an Amphenol Company located at Verna
Date/Duration	7/3/2025
Venue	Andrew an Amphenol Company located at Verna
Name of organizing Department/Cell	St. Xavier's College, Mapusa Department of Electronics
In collaboration with	
Name/s of Faculty Coordinator	Mrs. Vilma M. T. Fernandes, Mr. Daryl Gonsalves, Dr. Caje Pinto, Ms. Sneha Talekar, Ms. Viola Fernandes
Stratum of Event	Field Trip
Name & details of Resource Person/s If any	Mr. Sadik Mohammed Aga, Mr. Dilaja Dessai, Mr. Amrish Sawal, Mr. Pravin Gaonkar

Report	**42 students** attended the field trip On 7 March 2025, a group of 42 students from the FYBSc, SYBSc and TYBSc Electronics along with faculty members, Mrs. Vilma M. T. Fernandes, Mr. Daryl Gonsalves, Dr. Caje Francis Pinto, Ms. Sneha Talekar, Ms. Viola Fernandes and Ms. Santana Fernandes (Lab Assistant) attended a field trip to Andrew an Amphenol Company located at Verna. This trip provided the students with valuable insights into the practical aspects of communication technology. Upon arrival, all visitors were provided with visitor cards and safety eye glasses to ensure a safe and informative experience. Mr. Sadik Aga, Admin Manager briefed everyone on the company's decorum and safety guidelines. The group of 42 students were divided into two groups, each accompanied by 3 faculty members. The first area visited was the Base Station Antenna section. The trainer at the facility explained the process of manufacturing base station antennas, detailing their role in communication systems, the importance of minimizing PIM (Passive Intermodulation), and the types of cables used in these antennas. Next, was the Wave Soldering Machine, a process unfamiliar to most of the students. The trainer provided a detailed explanation of how the wave soldering machine operates and contrasted it with other soldering methods, giving a deeper understanding of the techniques involved in electronic assembly. The groups then proceeded to the Main Assembly Line, where the internal circuitry of the antennas was introduced,

	specifically focusing on the use of dipoles for both low-band and highband frequencies. The next stop was the Testing Area, where the trainer discussed various types of testing carried out in the company. One important aspect covered was Return Loss, which is required to be at least -40 dB (minimal), and the Sweep Test, which involves pattern generation. The students were also introduced to the PIM Testing Chambers, which detect noise interference in the antennas, ensuring the quality of the products. The groups then moved on to observe the Filters section, where they saw a wide variety of filters used in antennas. This session provided valuable insights into the critical components of antennas that help in optimizing communication signals. Following this, the groups visited the Microwave Antenna System area, where the trainer explained how microwave communication facilitates tower-to-tower communication. This technology plays a vital role in long-range communication, and the students gained a better understanding of its practical applications. The next stop was the Spinning Machine, used for creating reflectors that are placed at the top sections of communication towers. The process of making these reflectors was explained in detail, highlighting their importance in signal transmission. The students then witnessed the Powder Coating Process, where metal parts are coated with powder paint for durability and resistance to the elements. This process ensures that the antennas and other components maintain their performance over time. Finally, visited the Packing Section, where the students saw the finished products, such as reflectors and base station antennas, being carefully packed and prepared for shipment. Throughout the visit, students actively engaged with the trainers, asking questions regarding the functionality, scope, advantages, and disadvantages of communication systems. They were also curious about job opportunities in the field of communication. All their queries were answered thoroughly, giving them a comprehensive understanding of the industry. The visit was an enriching experience for all the students, as it provided them with a closer look at the field of communication technology. By observing real-world applications and interacting with industry professionals, the students gained practical knowledge that will enhance their academic pursuits. Overall, the field visit to Andrew and Amphenol Company was a success, offering students a unique opportunity to connect the theoretical knowledge with industrial practices.
Brochure/Poster	NA
Photographs	https://xavierscollegegoa.ac.in/wp-content/uploads/2025/03/IMG_20250311_132410.pdf
List of participants With signatures	https://xavierscollegegoa.ac.in/wp-content/uploads/2025/03/field-trip-attendance-sheet.pdf
Certificate	NA