Goa University

School of Physical and Applied Sciences

University science and instrumentation centre

B.Voc in Electronics, Instrumentation and Computer Networking

Report on

"Field Visit to Verna Industrial Estate: IFB Industries Ltd. and Rosenberger Pvt. Ltd."

1. Title of the Event/Activity/program	**"Field Visit to Verna Industrial Estate: IFB Industries Ltd. and Rosenberger Pvt. Ltd."**
2. Date	12th March 2025
3. Mode of conduct (Physical/Online)	Physical
4. School/ Directorate/ Section	School of Physical and Applied Sciences
5. Number of Faculties attended/participated	4
6. Number of Students attended /participated	20
7. No. of external students/faculty/other participants	1
8. The objectives of the Program/activity/event	The course B. Voc. in Electronics, Instrumentation, and Computer Networking mainly focuses on the three aspects of the technology: Electronics, Networking and Home Appliances/ Gadgets. The main objective of the field visit was to create greater industrial awareness, thereby imparting a wealthy of knowledge to the students with respect to the manufacturing aspects of the electronic gadgets in the consumer electronics sector and processing/assembly of cables in the telecommunication and automotive sector. The valuable insights gained by the students during the course of visit to these companies will boost their fundamental concepts learned in their respective theory/practical classes as well as impart new knowledge pertaining to the manufacturing process. The field visit will inspire greater curiosity and engagement among the students as well as serve as a foundation for exploring their future academic and professional pursuits.
9. Description of the Program/activity/event	The field visit encompassed visits to two distinct establishments: **IFB Industries Ltd. and Rosenberger Pvt. Ltd.** **At IFB Industries Ltd.,** the production process for washing machines was observed to be systematically carried out. The entire process was explained by Mr.

	Siddhant. The process was initiated with metal fabrication, where CNC machines were used for precise cutting and shaping of metal components. Plastic injection molding was used to manufacture plastic parts, and 3D printing was employed for rapid prototyping and the production of specialized components. The students witnessed the assembly of key components, such as the drum, motor, and control panel, on a streamlined assembly line to ensure accuracy and consistency. Further, rigorous performance, safety, and quality tests were observed to be conducted on each washing machine to ensure reliability and compliance with industry standards. Finally, the students perceived the packaging process of the washing machines which then were ready for dispatch and distribution. **At Rosenberger Pvt. Ltd.**, the processing and assembly of fiber optic cables and automotive electric vehicle cables were observed to have been meticulously carried out. The students observed how the fiber optic cables (multi-mode and single-mode) were coated with protective layers and cured using ultraviolet light to ensure durability and resistance to environmental factors. After curing, the students witnessed the crimping of fibers into connectors and assembling into various cable configurations. The students experienced how the cables were further strengthened with protective sheaths and underwent rigorous optical signal transmission testing and stress tests to ensure quality. For electric vehicle cables, the students observed the extrusion of conductive cores, typically made of copper or aluminum followed by insulation with multiple layers of polymers and curing through heat treatment to ensure flexibility and durability. Shielding layers were then applied to protect against electromagnetic interference. The students perceived the process of crimping of cables and after which they were connected to terminals or connectors designed for electric vehicle systems. After assembly, the students also had the opportunity to witness how the cables underwent mechanical testing, electrical conductivity tests, heat resistance tests, and durability evaluations. Once the cables passed all quality checks, they were labeled, coiled, and securely packaged for delivery to automotive manufacturers.
10. Benefit/Key outcomes of the Program/activity/event	The students returned to their institution with a higher level of understanding of their previously learned concepts as well gained new knowledge

	pertaining to the manufacturing aspects of electronic gadgets such as washing machines, and processing and assembly of cables for telecommunication and automotive sectors. They experienced the intricate complexities involved in the industrial manufacturing, processing, and assembly process, thus, generating greater industry awareness. This field visit will serve as a great foundation for their future explorations, and academic and professional pursuits.
11. Enclosures with report	Geo-tag photos, Attendance of students/faculty

Signature
Dr. Marlon Sequeira
Coordinator

Signature
Dr. Jaya V. Gaitonde
Co-coordinator

Signature
Miss Saloni Naik
Co-coordinator

Signature
Dean
Seal of the School

School of Physical and Applied Sciences
Goa University

Annexure

IFB Industries Ltd.

IFB Industries Ltd.

Field Visit to IFB and Rosenberg, Verna Goa, on 12th March 2025 (Wednesday)

ATTENDANCE

Sr. No	Name	Student/ Faculty/NTS	SIGN
01.	Miss. Saloni S. Naik	Faculty	
02.	Dr. Jaya Gaitonde	Faculty	
03.	Ms. Delissa De Alaide	Faculty	
04.	Ms. Mayura Bhandari	Faculty	
05.	Mrs. Sarika Ghadi	NTS	
06.	Mr dorochdofles	Student	
07.	Mr. Main Shaikh	Student	
08.	Henray Dias	Student	
09.	Vasant S. Arolkar	Student	
10.	Fexson V Dias	Student	
11.	ADRON FERNANDES	Student	
12.	HINAZ KHAN	Student	
13.	Rahul Sawant	Student	
14.	Divyesh D. Lovekar	Student	
15.	Aayush U. Gaonkar	Student	
16.	Ansh N. Vernekar	Student	
17.	Abdul Sayyd	Student	
18.	Dutta Wikm	Student	
19.	Varun	Student	
20.	Vedang Pore	Student	
21.	Shreeraj Naik	Student	
22.	Nawaz Shenk	Student	
23.	Deepam Naik	Student	
24.	Yasar Sayd	Student	
25.	Jishant Jalmi	Student	

Total Students Present: 20

Total Faculties: 4

Total Non Teaching Staff: 1

Rosenberger Pvt. Ltd.