



ST. XAVIER'S COLLEGE, MAPUSA GOA
Report of Activity conducted in the Academic Year 2024-25

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| Name of Activity | Value Added Course "One Day Workshop on Soldering Techniques" |
| Date/ Duration | 30th August 2024 - One Day Workshop |
| Venue | Physics laboratory , St. Xavier's College, Mapusa |
| Name of organizing Department/Cell | Department of Physics in association with DBT Star College Scheme. |
| In collaboration with | |
| Name/s of Faculty Co ordinator | Prof Bosco Lawrence (Coordinator) Prof Nelson Lobo (Jt. Coordinator) |
| Stratum of Event | College level |
| Name & details of Resource Person/s if any | Prof Nelson Lobo |
| Report | <p>The one day workshop on "Soldering Techniques" was conducted by the Department of Physics on 30th August 2024 fro 10:30am to 12:30pm in the Physics laboratory. The resource person of the day was Prof. Nelson Lobo.</p> <p>Course Objectives put forth by the resource person were:</p> <ol style="list-style-type: none"> 1. Understanding Soldering Basics: <ol style="list-style-type: none"> a. Learn about the importance of soldering. b. Understand how solder and flux work together. c. Explore safety considerations, including electrostatic discharge (ESD). 2. Hands-On Skills: <ol style="list-style-type: none"> a. Gain practical experience in both through-hole soldering techniques and surface mount soldering techniques. b. Practice using a soldering iron, soldering probe, and different soldering tips. c. Learn to use materials like solder and flux effectively. 3. Tools and Materials: <ol style="list-style-type: none"> a. Familiarize yourself with soldering equipment, including soldering irons, sponges, and tips. b. Understand the role of materials like solder, flux, and distilled water. c. Learn about desoldering tools (desoldering braid, desoldering pump, and flux remover). <p>The resource person stressed the importance of soldering in the field of electronics and electrical engineering. Learning how to solder or desolder is an essential skill for electronic hobbyist or enthusiast. Creating clean and</p> |

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| | <p>robust joints between electronic components provides a path of least resistance.</p> <p>The resource person, Prof Nelson Lobo then proceeded with a demonstration of various tools and equipment required for soldering and desoldering and how to use them. Some safety precautions in using the various instruments were also demonstrated.</p> <p>The students were then asked to solder various wires and electronic components as well as pcb soldering. The use of desoldering pump and desolder wick was then demonstrated and students were given the task of desoldering components from pcb. Advanced technique of desoldering using a hot air blower was demonstrated and students were encouraged to practise.</p> <p>At the end of the course, the students:</p> <ol style="list-style-type: none"> 1. had a thorough understanding of the requirements involved in soldering and desoldering. 2. Be able to create good soldered joints with good electrical contact. 3. Be able to desolder components effectively. 4. remove and replace solder joints and components on PCBs using: solder wick, soldering irons, heated tweezers and hot air rework stations 5. inspect PCBs to ensure compliance with industry standards. <p>A total of 30 students attended the course. Nine students provided the feedback. Feedback results: 1. Excellent – 7 students 2. Good -2 students</p> |
| Brochure/Poster | https://xavierscollegegoa.ac.in/wp-content/uploads/2024/11/brochure-1.pdf |
| Photographs | https://xavierscollegegoa.ac.in/wp-content/uploads/2024/11/pics-1.pdf |
| List of participants with signatures | https://xavierscollegegoa.ac.in/wp-content/uploads/2024/11/List-of-participants.pdf |
| Certificate | https://xavierscollegegoa.ac.in/wp-content/uploads/2024/11/cert.pdf |
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