SHRI VAISHNAV VIDYAPEETH VISHWAVIDYALAYA INDORE

Report on
Two days Workshop on
"Hands-on Experience on FX5U PLC Training kit"

The Department of Electrical and Electronics SVITS successfully conducted a two days offline workshop on "**Hands-on Experience on FX5U PLC Training Kit**" for the students of SVITS, SVVV under factory automation lab of industry academia collaboration with Mitsubishi Electric India.

The details of the workshop are as follows-

Particulars	Details
Objective	The objective of the workshop is to do Hands-on experience on the FX5U PLC training kit in the Factory Automation Lab.
Date	26th-27th August 2022
Time	11:00am to 4:30 pm (First day) 11:00am to 4:30 pm (Second day)
Venue	EEE-201 ATC-FA LAB EEE Dept SVVV Campus
Topic	Hands-on experience on the FX5U PLC training kit
Speakers	Prof. Lalit Bhanwrela, Assistant Professor and Coordinator of ATC-FA Lab, EEE Dept. SVITS, SVVV
No. of students registered	35
No. of students attended	22

Summary

Prof. Lalit Bhanwrela (Incharge of Mitsubishi Factory Automation Lab at EEE Dept. SVITS) was the resource person of this two days workshop. As per the workshop agenda in the first module Prof. Lalit Bhanwrela, discussed the current trends in Factory Automation and highlighted the key products of Mitsubishi Electric India. He also pointed out the factory automation lab facilities available as an Authorised Training Center. In the 2nd module he talked about the technical configuration of Mitsubishi PLC products and their applications. In particular he covered the configuration of FX5U series PLC training kit and also discussed its Input Modules, hardware configuration and software requirements. In the 3rd module he talked about the basics of Boolean

Algebra, Number systems, Logic Gates and Combinational Circuits as this was a complete theoretical session, however various examples were included to help the participants in learning the key concepts. After this in the 4th module Prof. Lalit discussed the Ladder diagram for programming a PLC and also he demonstrated the working environment of GX Works3 for the implementation of basic PLC programs. Specific problems given to students and after that hands-on practice has been done by the students on the GXworks 3 tool and FX5U PLC trainer kit. During the workshop lab sessions have been taken by prof. Lalit Bhanwrela along with Prof. Jitendra Managre and Lab staff Mrs. Yamini Makasare. The day 2 started with a review of day 1 and therefore specific problems given to all the participants which they solved during the lab session. In the module 5, Prof. Lalit talked about the concepts of Timer in PLC and several examples discussed with participants, however some problems on timer were also given to the students. In the last module he discussed the concepts of Counter in PLC and several examples discussed with participants, however some problems on timer were also given to the students. The workshop was conducted in the FA Lab and specifically B.Tech 4th year students were considered for participation in view of major project selection for the current session. As per the registration, we had planned a two days workshop in such a way that on both days, theory sessions were covered in the first two hours of forenoon sessions and then hands-on sessions conducted in the afternoon session. The timing of the two days workshop on both days was from 11:00 AM to 4:30 PM. A total of 22 students out of 35 attended the session. Overall this workshop triggered our students to start their project work in FA Lab and all the modules were covered very well followed by the lab sessions. During all the workshop modules students asked various questions and all the questions were technically handled by the resource person and trained faculty members.

Glimpse of Workshop

Offline Session