



PRABODHAN SHIKSHAN PRASARAK SANSTHA'S (Regd.No. E-697 Ratnagiri)  
RAJENDRA MANE COLLEGE OF ENGINEERING AND TECHNOLOGY

Recognised by AICTE, Affiliated to Mumbai University

Office : At & Po – Ambav (Devrukh)- 415804 Tal: Sangmeshwar, Dist: Ratnagiri, (Maharashtra)

☎ : (02354) 260992 • Fax: (02354) 261501 • Email : info@rmcet.com • Website : www.rmcet.com

**Department of Electronics and Telecommunication Engineering**

*Report on workshop conducted:*

**Title: Industrial automation product (PLC, SCADA)**

Resource person: Mr. Adwitiya Saha (Automation Faculty & Kishor Belhekar (Installation Engineer) Prolific Systems & Technologies Pvt. Ltd.

Coordinator: Mrs. P.P.Kshirsagar

*About workshop:*

The four day intensive workshop on **Industrial automation product (PLC, SCADA)** by Prolific Systems & Technologies Pvt. Ltd. to involve students in a cohesive drive with the academia and industry towards excellence in automation product technology. This workshop is an attempt to cover material relevant to giving students necessary knowledge and skill set to appreciate the rapid changing scenario in automation systems and take advantage of this in furthering their career. Practical/laboratory sessions are held, which will supplement the knowledge disseminated during the lecture sessions with adequate hands on experience.

Workshops are instructor-led, lab-intensive courses focused on the practical application of technologies through the facilitation of a project-related lab. Most parts of workshop are designed around 80% lab-time.

*Duration*

It's a four day workshop from 12<sup>th</sup> January 2019 to 15<sup>th</sup> January 2019. In this 4-day course, student gained valuable hands-on experience.

*How many students have attended this workshop?*

39

*Software Tools:* Wonderware's in Touch



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*Skills Gained:* After completing this workshop, students are able to:

- Create and design new automation model by using PLC programming logic.
- Interface external peripheral by using SCADA software.
- Troubleshooting and fault diagnostics of PLC .

#### Course Contents

##### 1) Programmable Logic Controller (PLC)

###### Topics Covered

- Role of PLC in automation
- Introduction to PLC hardware
- Architectural Evolution of PLC
- PLC Fundamentals - (Block diagram of PLC's)
- Detail information about PLC components
- Various ranges available in PLCs
- Types of Inputs & outputs
- Source Sink Concept in PLC
- Concept of flags
- Scan cycle execution

###### Practical Exposure on PLC

- Introduction to PLC programming software
- Addressing concepts
- Introduction to bit, byte & word concept
- Programming instructions arithmetic and
- Logical
- Load /and /or/out / and Read / Write
- Compare / Add / Sub /And /Or – Blocks
- Leading edge / trailing edge instructions
- MOVE block application
- Timer Blocks programming
- Counter Block programming

###### Advanced instructions

###### File handling

###### Comment functions

###### Master control /set /reset function

###### Upload, download, Monitoring of programs

###### Forcing I/P & O/P

###### Monitoring / Modifying data table values

###### Troubleshooting

##### 2) Wonderware's In Touch (SCADA)

- Creating a new SCADA application
- Creating Database of Tags
- Creating & editing graphic display with
- Animation.
- Creating Real-time & Historical Trends
- Creating Alarms & Events
- Writing logic through script
- Connectivity with PLC
- Connectivity between software (Excel)
- Troubleshooting the application



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Felicitation of resource person



Resource person solving students doubts



Group Photo

*Kshirsagar*  
*/Kshirsagar P.P.*

*23/03/13*  
*(HOD EXT C)*