VILASRAO DESHMUKII FOUNDATION GROUP OF INSTITUTIONS, LATUR

Plot No.165A, Additional MIDC, Near to Manjara Sugar, Barshi Road, Latur, Maharashtra 413531



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2. SCADA Programming and Hardware Online Webinar Report

Date: [11/11/2022]

On 11/11/2022 an online webinar on SCADA (Supervisory Control and Data Acquisition) programming and hardware was held by The World of Automation, Pune. More than 48 students participated this webinar. The webinar aimed to provide participants with valuable insights into the fundamentals of SCADA systems, programming techniques, and an overview of the associated hardware components. This report summarizes the key topics covered during the webinar and highlights the key takeaways.

Webinar Agenda:

Introduction to SCADA systems

SCADA architecture and components

SCADA programming languages and techniques

Overview of SCADA hardware

Real-world applications of SCADA systems

Q&A session

Summary of Key Topics Covered:

Introduction to SCADA systems: The webinar began with an introduction to SCADA systems, explaining their purpose and importance in various industries. The presenter discussed how SCADA systems enable remote monitoring and control of industrial processes and highlighted their role in enhancing efficiency, safety, and productivity.

SCADA architecture and components: The webinar provided an overview of the typical SCADA architecture and its components. The presenter explained the roles of various components such as RTUs (Remote Terminal Units), PLCs (Programmable Logic Controllers), HMI (Human-Machine Interface), communication networks, and data storage systems. The architecture's hierarchical structure and data flow between the components were also discussed.

SCADA programming languages and techniques: Participants were introduced to the programming languages commonly used in SCADA systems, such as ladder logic, function block diagrams, and structured text. The webinar covered basic programming concepts and techniques, including creating alarms, trends, and data logging. Best practices for developing robust and maintainable SCADA programs were also shared.

Overview of SCADA hardware: The webinar provided an overview of the hardware components involved in SCADA systems. Topics covered included sensor types, actuators, various types of communication

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protocols (such as Modbus, Profibus, and DNP3), and the selection criteria for different hardware components based on application requirements.

Real-world applications of SCADA systems: The presenter discussed several real-world applications of SCADA systems across industries, including manufacturing, energy, water treatment, and transportation. Examples of how SCADA systems improved operational efficiency, fault detection, and maintenance processes were provided. Case studies showcasing successful implementations were also shared.

Q&A Session: The webinar concluded with an interactive Q&A session where participants had the opportunity to ask questions related to SCADA programming and hardware. The presenter addressed queries regarding specific programming techniques, hardware integration challenges, and emerging trends in SCADA technology.

Key Takeaways:

SCADA systems play a critical role in remote monitoring and control of industrial processes.

Understanding the architecture and components of SCADA systems is essential for effective design and implementation.

Programming languages such as ladder logic, function block diagrams, and structured text are commonly used in SCADA programming.

Knowledge of SCADA hardware components and communication protocols is crucial for system integration.

Real-world applications of SCADA systems span across industries and demonstrate their impact on operational efficiency and maintenance.

Continuous learning and staying updated with emerging trends in SCADA technology is important for professionals in the field.

Conclusion: The SCADA programming and hardware online webinar provided participants with a comprehensive overview of SCADA systems, programming techniques, and hardware components. By exploring real-world applications and addressing participant queries, the webinar successfully enhanced attendees' understanding of SCADA technology. Participants gained insights into the crucial role of SCADA systems in industrial automation and the importance of efficient programming and hardware integration.

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Vilasrao Deshmukh Foundation Group of Institutions, Latur Plot. No 165A, Add. MIDC, Near

PLC & SCADA programming & Hardware Webinar

| [11:36 am, 11/11/2022] Prof.Rajesh Ingale: Dear TE/BE /Final Year Students |
|--|
| Welcome to The World of Automation, Pune Greetings! |
| *The World of Automation,*brings, organizes a "Free Online PLC & SCADA programming & Hardware Webinar". |
| For BE (Electrical, E&TC, Instrumentation) Engineering students. |
| Webinar is Scheduled on at PM. The session will include the following points. |
| What is Automation Advantages of Automation History of Automation |
| 3 History of Automation 4 What is PLC? |
| Advantages of PLC 6 PLC Brands 7 PLC Block diagram 8 PLC Inputs/Outputs 9 PLC Programming Languages 10 Basic of Ladder Diagram |
| 11 Basic of N/O, N/C 12 Timer Basic 13 SCADA Introduction and Brands 14 Advantages of SCADA 15 Introduction of Drive and Types |

All students must attend this Webinar as it is for an opportunity to go National /International for higher Studies

Link for Registration

https://docs.google.com/forms/d/e/1FAlpQLSfl4zi43VUH8cz--R29fpNTQTMDNx9KNqTUAINLzLoCr0jmhA/viewform?usp=pp_url

Session in-Charge,

Irshad Ali Sir

Sr. Automation Engineer

[11:36 am, 11/11/2022] Prof.Rajesh Ingale: Industrial Automation (PLC SCADA) Seminar

Saturday, 12 November - 11:00am - 1:00pm

Google Meet joining info

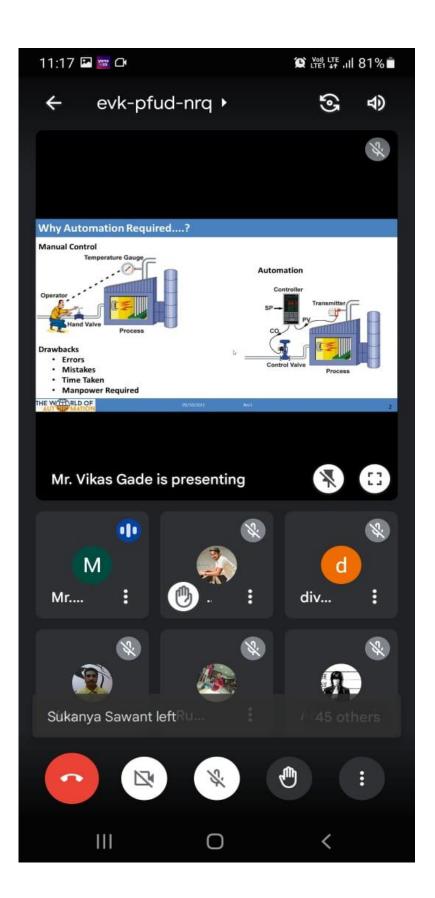
Video call link: https://meet.google.com/evk-pfud-nrq

[11:41 am, 11/11/2022] Prof.Rajesh Ingale: Link for Registration

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Certificate of Completion

This is to certify that Mr. SURAJ KAMBLE has successfully completed PLC (Programmable Logic Control) & SCADA (Supervisory Control & Data Acquisition) online Workshop jointly organized by The World of Automation in association department of Electrical Engineering and VDF School of Engineering & Technology, Latur, during 19th Feb. 2022 to 20th Feb. 2022.

AB PLC

☑ In touch SCADA

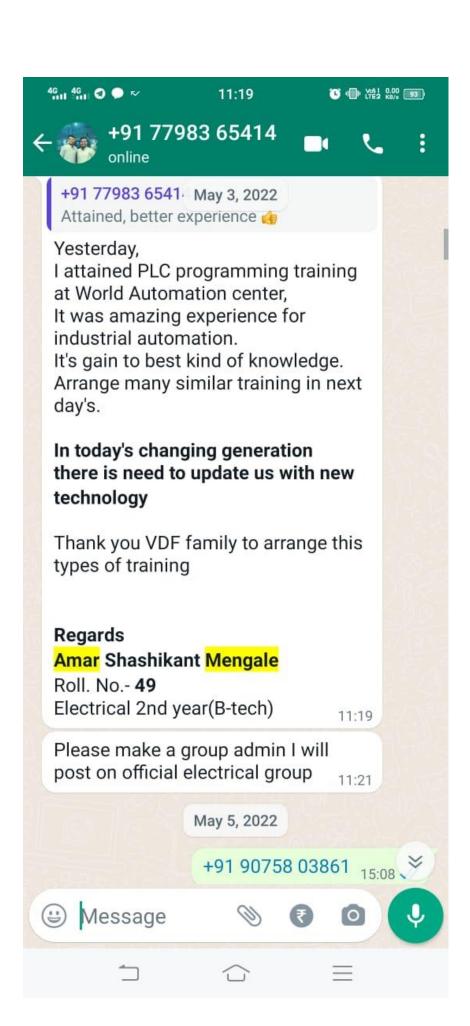


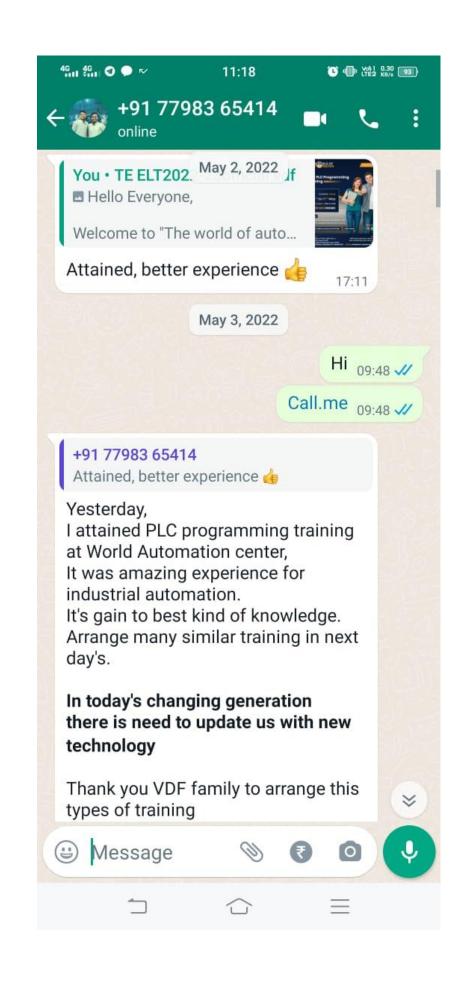
Manik Raj Park, 2nd Floor, Office no – 4, Opp. Elpro City Square Mall, PCMC Link Road, Chinchwad – 411033

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Prof. Anil Biradar

TPO VDF School of Engineering & Technology, Latur, Principal VDF School of Engineering & Technology, Latur, Authorised Signatory Mrs. Priyanka Oza





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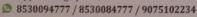
Certificate of Completion

This is to certify that Amar shashikant Mengale successfully completed One week workshop on PLC (Programmable Logic Control) organized by The World of Automation during 2nd Moy to 7th

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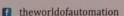
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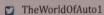
🙎 Balaji Niwas , (B) Wing, Office No -12, 3rd Floor, Near Chinchwadgaon Bus Stop, Opp Elpro Square Mall, Opp Heritage plaza, PCMC link Road, Chinchwad - 411033.



BRANCH: SHIVAJINAGAR

- 9 Office No.3, Riverview, Ekta Park Society, Beside Chatrapati WI UCXARihllgQgngl-6YdGduig Shivajinagar Bus Stand, Wakdewadi, Pune - 411005.
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