SIDDHARTHA
ACADEMY OF HIGHER EDUCATION
DEEMED TO BE UNIVERSITY
(Under Section 3 of UGC Act, 1956)
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Brief Report on the Two-Day Training Program on **"PLC Programming & Applications"** Held on 8th & 9th January 2025 held at Automation Lab located in Siemens Centre of Excellence, Siddhartha Academy of Higher Education.

The resource person for the program was Mr. J. Raja Ram, Director, M/s. Hitech Automation, Vijayawada. The program coordinators were Dr.S.N.V.S.K. Chaitanya, Mr. P. Venkatesh, and Mr. V. Hari Vamsi.

Total number of technicians Attended:-26

Total number of students attended: - 10

Day-I

The training program commenced at 10:00 AM with an inaugural function presided over by the Vice-Chancellor, Dr. Venkateswara Rao Paruchuri, and the program convener, Dr. P.V.R.L. Narasimham.

THE VICE-CHANCELLOR, Dr. VENKATESWARA RAO PARUCHURI, DELIVERED A MESSAGE DURING THE INAUGURAL FUNCTION

Dr. P.V.R.L. NARASIMHAM ADDRESSED THE PARTICIPANTS

Morning Session:

Recent Trends in Industrial Automation

> ➢ Introduction To Automation
> ➢ Why We Need Automation

- Evolution In Industrial Automation (A Brief History)
- Introduction to PLCs & Role PLC in automation
- Block diagram PLC
- Various i/o devices of PLC
- Various programming languages used in PLC & PLC Advantages
- Concept of NO& NC contacts
- AND,OR,NOT logics using NO& NC contacts

Mr. J. RAJA RAM, DIRECTOR OF M/S. HITECH AUTOMATION, VIJAYAWADA, DELIVERING A LECTURE TO THE PARTICIPANTS.
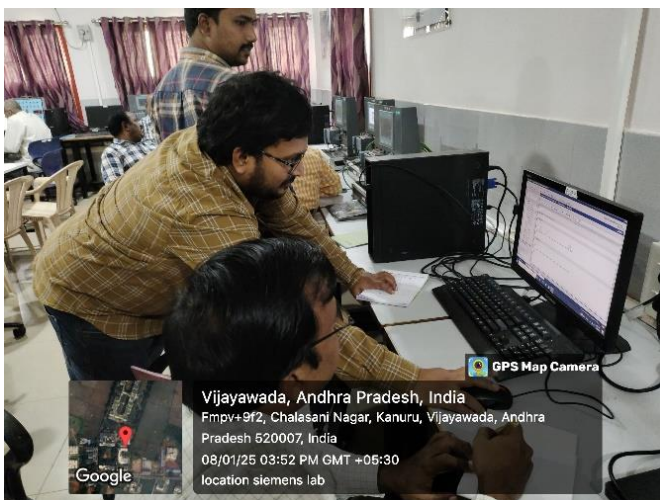
Afternoon session:

Detail study of PLC Basics instructions, Burning & Interfacing Concepts

- ➢ Memory organization in SIEMENS & Allen Bradley
- ➢ Addressing in SIEMENS & Allen Bradley PLCs

Dr. S.N.V.S.K. CHAITANYA CONDUCTED A DEMONSTRATION SESSION ON TIA SOFTWARE

PARTICIPANTS PRACTICED USING TIA SOFTWARE AND MR. J. RAJA RAM RESOURCE PERSON INTERACTING AND GUIDING THE PARTICIPANTS

- ➢ Interfacing of I/O devices with SIEMENS PLC
- ➢ Demonstration on TIA (Totally Integrated Automation) software
- ➢ Downloading a Ladder Program in PLC

Day 2:

Morning Session:

Hands on PLC Training Timer & counter instructions

- ➢ Timer instruction in SIEMENS & Allen Bradley PLC
- ➢ Development of programming using timers

- Counter instruction in SIEMENS & Allen Bradley PLC
- The conveyor belt bottle filling system was simulated using the SCADA screen, applying timer and counter instructions.

Afternoon session:

THE RESOURCE PERSON DEMONSTRATED THE REAL-TIME APPLICATION OF THE DOL STARTER AND CONVEYOR BELT KIT USING AN ALLEN BRADLEY PLC

- Real time application of DOL starter kit using Allen Bradley PLC
- Real time application of Conveyor belt kit using Allen Bradley PLC
- Hands-on real-time practice

THE RESOURCE PERSON WAS FELICITATED BY THE HEAD OF THE DEPARTMENT, Dr. P.V.R.L. NARASIMHAM

A GROUP PHOTO OF THE PARTICIPANTS, HEAD OF THE DEPARTMENT DR. P.V.R.L. NARASIMHAM, AND THE RESOURCE PERSON

(Dr. P V R L NARASIMHAM)

Professor & HOD