

# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

JNANA SANGAMA CAMPUS, BELGAVI-590018



## **PROJECT REPORT**

**ON**

## **“PLC EMULATOR FOR WAREHOUSE AUTOMATION”**

**Submitted in partial fulfilment of the award of degree in**

**BACHELOR OF ENGINEERING**

**IN**

**INFORMATION SCIENCE & ENGINEERING**

**By**

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**ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY**  
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**CERTIFICATE**

This is to certify that the Project entitled **"PLC Emulator for Warehouse Automation"** has been successfully completed by

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the bonafide students of the **Information Science & Engineering Department, Alva's Institute of Engineering and Technology, Moodubidire**, in partial fulfillment of 8<sup>th</sup> Semester, **BACHELOR OF ENGINEERING**, affiliated to **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**, during the year 2023–2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of Project work Phase-2 -18CSP83 prescribed for the Bachelor of Engineering Degree.

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29/5/24  
  
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## **ABSTRACT**

This project introduces a novel use of Programmable Logic Controllers (PLCs) in industrial automation, aiming for precise control of various machines with minimal human intervention. It includes practical exercises and computer-based simulations to enhance student learning about PLC applications. The project covers model design, simulation, and stability analysis, offering a comprehensive approach to exploring and validating industrial automation models. The proposed PLC emulator is cost-effective and versatile, aiding in testing and validating warehouse control systems for increased efficiency and reliability. The insights presented contribute significantly to the discourse on simulation and emulation methodologies in warehouse automation, paving the way for advancements in the field.

## **INTRODUCTION**