

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY,
BELAGAVI**



**A PROJECT REPORT ON
“PROGRAMMABLE LOGICAL CONTROL
EMULATOR SOFTWARE”**

Submitted in partial fulfillment for the award of Degree of

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE & ENGINEERING

By

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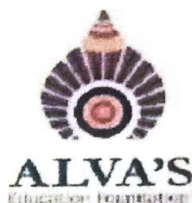
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Dr. Manjunath Kotari

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**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY**

MOODBIDRI-574225, KARNATAKA

2023-24

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY
MIJAR, MOODBIDRI D.K. -574225, KARNATAKA




DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
CERTIFICATE


This is to certify that the project entitled **"PROGRAMMABLE LOGICAL CONTROL EMULATOR SOFTWARE"** has been successfully completed by

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the bonafide students of **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING, ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2023-24. 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 prescribed for the Bachelor of Engineering Degree.


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DECLARATION

We,

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hereby declare that the dissertation entitled "**PROGRAMMABLE LOGICAL CONTROL EMULATOR SOFTWARE**" is completed and written by us under the supervision of our guide **Dr. Manjunath Kotari**, Professor and Head, **Department of Computer and Engineering**, **Alva's Institute of Engineering and Technology**, **Moodbidri**, in partial fulfillment of requirements for the award of the degree **BACHELOR OF ENGINEERING** in **DEPARTMENT OF COMPUTER AND ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**, **BELGAVI** during the **academic year 2023- 24**. The dissertation report is original and it has not been submitted for any other degree in any university.

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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.