

Control and monitoring of a 5-ton overhead crane system using PLC S7-300.

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Abstract: The study addresses the control and monitoring of a 5-ton overhead crane system using a PLC S7-300. The problem is posed to enhance the performance and reliability of industrial equipment operation. The project's objective is to design and implement an automation system, ensuring flexibility and safety during use. The research methodology includes analyzing technical requirements, selecting appropriate PLC modules, implementing source code, and conducting practical testing. The expected results will provide an effective solution for the industrial lifting sector, while also contributing to the data repository on automation using PLC systems.

Keywords: Industrial overhead crane, PLC S7-300, automation, operation monitoring, Industry 4.0 technology