

Design of CNC machine control system

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Abstract: This topic focuses on the design and implementation of a new control system for CNC machines to improve performance and accuracy during the machining process. The research context is based on the increasing demand for product quality in modern manufacturing industries. The objective of the topic is to build and test an advanced control system, applying a combination of control engineering theory with experiments on a specific CNC machine. Through this process, it is expected to achieve higher performance and minimize errors in production. The expected results of the topic not only contribute to the development of automation technology but also provide practical solutions for factories needing to upgrade their existing control systems.

Keywords: CNC control system, Industrial automation, Quality control