Building a fuzzy PID controller for the continuous hot rolling line of the Gia Sang steel rolling mill.

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Abstract: This topic aims to research and develop a fuzzy PID controller to optimize the continuous hot rolling process in a steel rolling mill. Through analyzing the current production situation, the context of the topic is determined from the need to improve the performance and stability of the rolling line. The method combines theory with experimentation to ensure the reliability and wide applicability of the control system. The expected result is that the implementation of the fuzzy PID controller will enhance product quality and reduce operating costs, contributing to the sustainable development of the steel industry.

Keywords: Fuzzy PID control, continuous hot rolling line, steel rolling plant