

Application of image processing in counting steel bars at Nasteel Vina factory, Luu Xa, Thai Nguyen

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Abstract: In the context of the steel manufacturing industry increasingly demanding high efficiency and automation, this topic focuses on solving the problem of counting steel bars in factories through the application of image processing. The main objective of the research is to develop an AI-based system to automatically classify and count the number of steel bars in storage, thereby effectively supporting management and optimizing the production process. The approach includes both theoretical research on image processing algorithms and experimental deployment of the system at the Nasteel Vina Luu Xa Thai Nguyen factory. The expected results will bring significant contributions to improving productivity and minimizing errors in the steel bar counting process.

Keywords: AI application, Image processing, Steel bar counting, Nasteel Vina factory, Luu Xa Thai Nguyen