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# Development of Intelligent Outdoor Camera Sabotage Detection System for Large Scale Camera Systems using Deep Learning

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## Abstract

The study presents a newly created camera-tampering detection system for outdoor cameras, aiming to overcome the boundaries of human monitoring. It is intended to be implemented in large scale camera systems to identify frequent tampering events like defocus, occlusion and changes in orientation, and provide real time alerts and visual feedback through a user friendly web portal designed especially for this purpose. The system can effectively recognize and categorize tampering instances by utilizing deep learning algorithms, which reduces dependency on human operators and lowers the risk of human mistake. To detect and categorize tampering, three algorithms are utilized, and the features of each algorithm are listed. Security staff can take the necessary measures to stop potential security breaches or the loss of important surveillance footage by quickly identifying tampering occurrences. The suggested method strengthens the monitoring process's dependability and efficiency, which in turn strengthens the security of the outdoor surveillance infrastructure.

**Keywords**: *Artificial Intelligence, Machine learning, Deep learning, Camera sabotage detection*