

BAB V CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

After conducting research and obtaining results and data analysis that has been carried out, we found that:

1. There is a positive relationship between the accuracy of deep learning-based CCTV sensor systems and the ability to identify anomalies in crowds. This hypothesis is basically not appropriate because the research results show that the resolution used for training data is relatively low, namely 640 pixels and produces a high accuracy of 81%.
2. There are significant differences in the accuracy of deep learning-based CCTV sensor systems between different lighting conditions. This hypothesis is not completely correct because there are prediction results where the training data on certain images is in daylight conditions and only 1 event, and when predicted it has 2 events
3. There are significant differences in the accuracy of deep learning-based CCTV sensor systems between crowds of different sizes and densities. This hypothesis is correct because when testing videos of clashes during demonstrations, the system can detect triggers originating from the demonstration period which caused chaos and ended in a fight. In contrast to crowds which are not very significant, the implementation of this application is very difficult to detect the trigger for the initial clash.

5.2 Recommendations

The effectiveness of the model in classifying can be improved by reviewing the training data, resetting the model parameters, or using techniques such as data augmentation or class balancing to improve the model's performance on the 'background' class.