AN ASPHALT DAMAGE DATASET AND DETECTION SYSTEM BASED ON RETINANET FOR ROAD CONDITIONS ASSESSMENT

Transfer learning is the use of the knowledge gained while solving one problem and applying it to a different but related problem. This paper introduced a new and very large asphalt dataset containing damages that are not present in previous studies. For object detection, different types of models were trained for mobile implementation. In this work, the RetinaNet object detector was used. This system can detect different asphalt structural damages from video with high accuracy and low inference time. An additional advantage of RetinaNet is that it presents less jitter in the detection, owing to improved non-maximum suppression strategies and better performance.

Here, RetinaNet is used mainly for smartphones. It can detect damaged objects on the asphalt road, but our proposed method detects any road damage.

REFERENCES

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