DEEP LEARNING-BASED CRACK DETECTION USING MASK R-CNN TECHNIQUE

The authors of this paper worked on Mask R-CNN with backbone Resnet-101 as the proposed method. They used a dataset consists of 352 crack images and divided them into training, validation, and testing data. Here, they tried to build an automatic crack detector using the state-of-art technique. In the paper, the obtained weights were from the pre-training model of the MSCOCO data set. The crack detection method in this paper was able to suppress noise and gave an excellent result in real-time on-site.

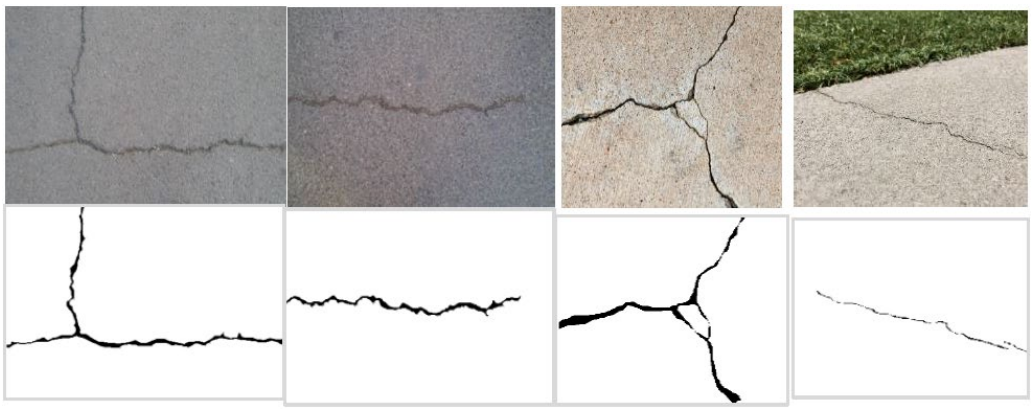

Figure 1. Examples of training images with crack ground truth

This method is used for crack detection, whether it's cracked or not, but our proposed method is to find different road damage types. In the case of large defect detection, the paper's approach may not work.

REFERENCES

[1] Tan, C., Uddin, N., & Mohammed, Y. M. (2019, August). Deep Learning-Based Crack Detection Using Mask R-CNN Technique. In 9 th International Conference on Structural Health Monitoring of Intelligent Infrastructure.