Deep Learning-Based Crack Detection Using Mask R-CNN Technique

This paper has also worked on the mask R-CNN with backbone Resnet-101 as the proposed method. This work got the data set of 352 crack images and divided the training, validation, and testing data. Here, the paper tried to build an automatic crack detector using the state-of-art technique. In the article, 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 give an excellent result in real-time on-site.

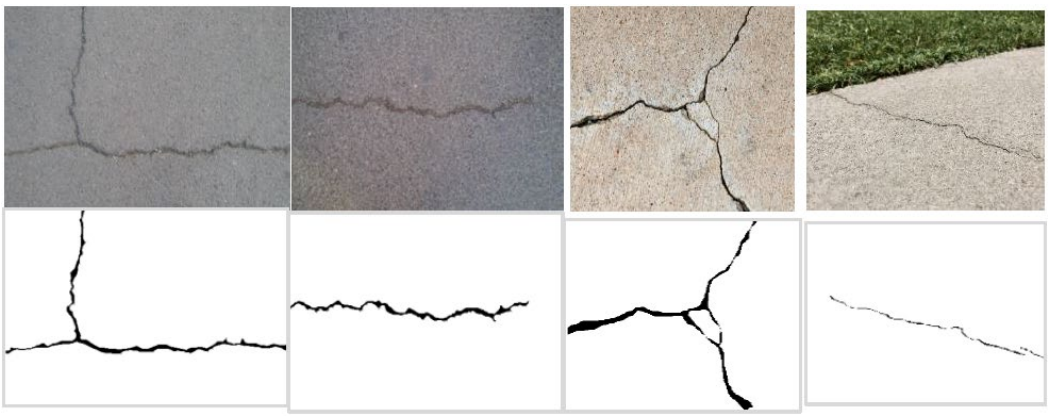

Figure 1. Examples of training images with crack ground truth

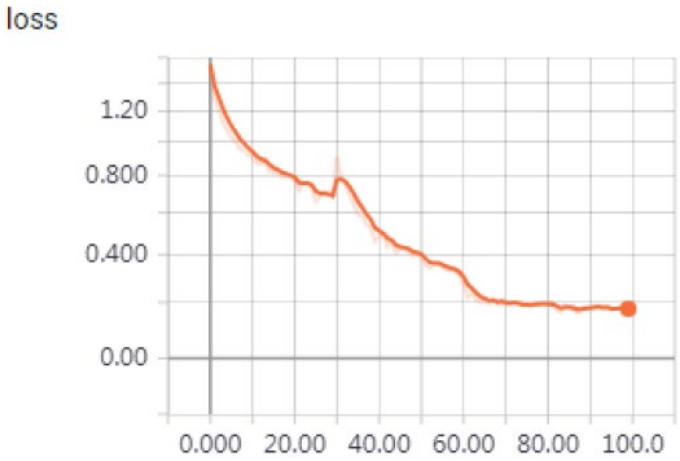

Figure 1. The total loss function versus each epoch (x axis represents epoch; y axis represents function)

As this one only is for crack detection in many things like whether it's cracked or not but our proposed method is to find different types of damages of road. So, things needed to change in order to do so.

Reference:

[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.