Abstract

With the increasing growth of road infrastructure in recent decades, damage to the road surface is a problem that still often occurs. With technology that is also growing, many things can be done to help deal with this problem. One of the technologies that can be applied is the use of computer vision with semantic segmentation to identify road surface damage. Semantic segmentation in its implementation often sacrifices performance in terms of running time and speed. The lightweight encoder-decoder network model is here to overcome this performance problem, where this model can implement semantic segmentation well without having to sacrifices performance in terms of running time and speed. This study succeeded in applying semantic segmentation to identifying road surface damages more optimally in terms of running time and speed.

Keywords: semantic segmentation, road damage, lightweight network, encoder-decoder network