

An Automatic Highway Road Signal Detection by using Artificial Intelligence and Machine Learning Method.

In recent years, several Artificial Intelligence and machine Learning approaches perform precisely for the safe transportation system by analyzing automatic traffic sign detection and recognition (ATSDR). However, it is still a challenging task to recognize traffic signs because of the tiny scale of signs, lighting conditions, and grisly weather. An automatic traffic sign detection method is significant research in the development of autonomous vehicle driving assistance (AVDA). In this paper, we address the shortcomings of detecting US traffic signs and present a comprehensive research study of the detecting of US traffic signals. We adopt Ensemble techniques, combining Yolo V3, Yolo V4, Yolo V5, Yolo V6, Yolo V7, Faster-RCNN and Mask-RCNN for more accurate results than a single algorithm prediction. This research outcome is more exact for US Highway Road sign detection, which has not yet been considered in previous work. This advanced driver- assistance would safe humankind as well as the environment.