

RGB Color Based Real Time Traffic Sign Detection and Feature Extraction System

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Abstract : In an intelligent transport system and advanced driver assistance system, the developing of real-time traffic sign detection and recognition (TSDR) system plays an important part in recent research field. There are many challenges for developing real-time TSDR system due to motion artifacts, variable lighting and weather conditions and situations of traffic signs. Researchers have already proposed various methods to minimize the challenges problem. The aim of the proposed research is to develop an efficient and effective TSDR in real time. This system proposes an adaptive thresholding method based on RGB color for traffic signs detection and new features for traffic signs recognition. In this system, the RGB color thresholding is used to detect the blue and yellow color traffic signs regions. The system performs the shape identify to decide whether the output candidate region is traffic sign or not. Lastly, new features such as termination points, bifurcation points, and 90' angles are extracted from validated image. This system uses Myanmar Traffic Sign dataset.

Keywords : adaptive thresholding based on RGB color, blue color detection, feature extraction, yellow color detection

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