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### **Abstract**

This paper presents an automatic vehicle identification and classification system to be able to estimate the volume of vehicular traffic from video sequences. The two primary goals of this research is (1) to be able to classify vehicles commonly found in the Philippines into six classifications: sedan, bus, jeep, truck, SUV, and others; and (2) to be able to estimate the number of vehicles that pass the road. The video processing is done offline (i.e. not in real-time) and relies on manual calibration of lane dividing lines. The primary reference (technical paper) of this automatic traffic surveillance system used two features: size and linearity. The results will be evaluated based on actual and the detected number of vehicles counted, and the actual and the detected number of vehicles per classes. This research also reports design challenges of automatic traffic surveillance systems in the Philippine context and offers its recommendations and opportunities for future work.

### **Deliverables**

Technical paper discussing methodology, results, design issues, and conclusion

### **References**

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- [4] Antoine Manzanera and Julien C. Richefeu. A new motion detection algorithm based on - background estimation. Pattern Recognition Lett. 28, 3 (February 2007), p. 320-328.

*An email was sent to [joel.ilao@delasalle.ph](mailto:joel.ilao@delasalle.ph) on March 21, 2016 (Monday) including this abstract.*