

Title	EYElectric-Pole: A Deep Inference Vision Approach using Google Street View Images for Electric Utility Pole Detection
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ABSTRACT	
<p>Electric utility poles are vital parts of electric distribution system. These poles are prone to natural calamities and therefore needs regular maintenance. Inspection and locating particular poles are tedious job for foot patrols and electricians if they do it manually. In the Philippines, automation of these works has not seen in the industry yet especially those in rural areas. This paper introduced a simple electric pole detection that can be the foundation of fully automated inspection and mapping of electric utility poles in the Philippines. This paper discussed a method for electrical utility pole detection in an image, video, and live feed input. The actual testing and deployment for the study yields 87.5% accuracy on image testing. The training accuracy and validation accuracy of the selected model generates an accuracy of 94.73% and 94.50% respectively. On the other hand, the mean average precision of the model exhibits a rating of 89.55%. The study utilizes a graphical user interface for the ease of use. YOLO v3 architecture on neural network has been utilized on this study.</p>	
Keywords – <i>Deep Learning, Google Street View, Neural Networks, YOLO v3</i>	