

# Editors' Introduction

**W**ELCOME to the second issue of the Internetworking Indonesia Journal in 2013.

The first paper presents some recent work on an algorithm for detection and recognition of road lanes by small vehicles. The context of deployment is that of autonomous vehicles that seek to navigate itself an urban road environment, or within a large factory to automate components and tools deliveries. The environment where these vehicles operate typically imposes a number of constraints. For example, the position estimation regarding the vehicle must be computed in real-time and with a high degree of accuracy. The type of vehicle deployed may also place restrictions on computing resources available to the algorithm. In small mobile devices (e.g. autonomous vehicles on the factory floor) the vehicle may be running on battery power and may have limited processing power. The authors investigate an approach based on the probabilistic Hough transform and using the OpenCV library. The authors use an inverse perspective mapping to de-skew the lines, and assume a priori known color information of the lane markings in order to improve lane recognition accuracy.

The second paper presents research on de-noising algorithms in the context of image processing in robots. In related work the K-SVD algorithm was previously applied to projects that require denoising. The current work focuses on building an over complete dictionary system by enhancing K-SVD (EKSVD) for image denoising, as well as using this EKSVD algorithm to gain faster image denoising process than the ordinary K-SVD. Once conclusion of the reported work is that the time consuming process for dictionary learning was 40% faster in EKSVD method than in K-SVD method.

The last paper concerns a study on the impact on a GSM provider of deploying the Delivery Report (DR) feature for Short Message Services (SMS) within a GSM network. Within the GSM architecture the SMS user has the option to request a delivery report for the SMS message that he or she sends. The work in this paper was motivated by previous findings (by a CDMA operator in Indonesia) that more than 40% of SMS users were activating the delivery report feature when sending SMS messages. Thus, the authors were interested in discovering the true impact introducing the DR feature to the performance of SMS service.

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