

7. CONCLUSION

By analyzing traffic images, we verified the applicability of the IPT device to traffic volume surveys in Indonesia and gained knowledge about the optimum camera settings for the most accurate measurement. The following results were obtained:

- The error ratio of traffic volume measured by the IPT device was on average 5.3% for cars and 13.1% for motorbikes.
- The error ratio for motorbikes tends to increase by 10.8% in congested traffic.
- No significant difference in the error ratio between “daytime” and “after dark” was observed.
- Installing the camera at a greater height (up to 8 m) makes it possible to capture a longer movement of vehicles in an image, which helps reduce the error ratio.
- An angle of 60 degrees from the vertical is optimum to measure traffic volume accurately under conditions where the camera is 8 m from the ground and the traffic is not congested in the daytime.

By examining the results obtained from the third field survey in 2013, we are going to identify challenges to overcome in introducing the IPT device to traffic surveys in Indonesia. In 2014 We will study how to place the IPT and the existing LPS devices at 16 traffic observations points on arterial roads so as to understand traffic volume at each point as well as traffic flows on the road networks in Indonesia the most efficiently.

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