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Distribution of Traffic Volume at Fuel Station during Peak Hour Period on Arterial Road

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Abstract : Most of fuel station' customers, who drive on the major arterial road wants to use the stations to fill fuel to their vehicle during their journey to destinations. According to the survey of traffic volume of the vehicle using fuel stations by video cameras, automatic counting tools, or questionnaires, it was found that most users prefer to use fuel stations on holiday rather than on working day. They also prefer to use fuel stations in the morning rather than in the evening. When comparing the ratio of the distribution pattern of traffic volume of the vehicle using fuel stations by video cameras, automatic counting tools, there is no significant difference. However, when comparing the ratio of peak hour (peak hour rate) of the results from questionnaires at 13 to 14 percent with the results obtained by using the methods of the Institute of Transportation Engineering (ITE), it is found that the value is similar. However, it is different from a survey by video camera and automatic traffic counting at 6 to 7 percent of about half. So, this study suggests that in order to forecast trip generation of vehicle using fuel stations on major arterial road which is mostly characterized by Though Traffic, it is recommended to use the value of half of peak hour rate, which would make the forecast for trips generation to be more precise and accurate and compatible to surrounding environment.

Keywords : peak rate, trips generation, fuel station, arterial road
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