An Evaluation Along With Vehicles Characteristics Of Non- Automobile Vehicles In Varied Passage

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Abstract: This work consists of two parts. The first is the experimental part and the second is the statistical test part. The first part of the study includes studying the basic plans and finding the capacity of the section and the side work of the section for the data obtained from the various points of the city. It has been observed that with the change in the percentage of NMV there is distress in parameters such as velocity, density and flow. In the side occupancy study, it was observed that in a way of segmented traffic flow, the maximum number of NMVs occupy the two left bars while the MVs occupy the most right lines since our traffic behaviour in India it is left-handed and it is easy. For medium sized vehicles to catch slow vehicles. In the case of undivided round-trip traffic, the maximum number of traffic is in the middle sections but a minimum is in the left and right bands in view of the fact that vehicles are in opposite directions.

Keywords: mixed traffic; NMT; NMV; lateral occupancy;

INTRODUCTION:

Non-motorized vehicles are vehicles that will act with the power of human or animal force. Non-motorized vehicles include bicycles, buggies, hand-drawn vehicles, traction cars, etc. Motor vehicles are those vehicles that run on engines. Motor vehicles are divided into light motor vehicles and heavy motor vehicles [1]. Light motorized vehicles consist of rickshaws, jeeps, taxis, SUVs, tricycles, etc. Motorcycles do not fall into this category. Heavy-duty motorized vehicles consist of vehicles with more than six wheels. These heavy vehicles consist of buses, trucks, trucks, etc. According to a World Bank survey, about 50 percent of non-motorized vehicles are found in South Asian countries such as India and the maximum number of trips generated during peak hours is due to non-motorized vehicles such as bicycles and rickshaws [2]. The presence of non-motorized vehicles affects the capacity of the section. In India, it is practically not possible to establish a separate pathway for non-motorized vehicles, so a proper study should be conducted on non-motorized vehicles and their properties along the mixed stream.

RELATED STUDY:

The aim of this article is to present an analytical procedure for traffic flow and to create models of bypass, bypass and lane usage for heterogeneous traffic flow. All data were collected in the intermediate mass sections located in Dhaka. Vehicle movements were recorded using a portable video camera and the data was decoded using time code reader software. Data were recorded at five minute intervals. The results are shown in velocity density, flow velocity, and flux density charts. As non-motor vehicles increase, velocity, density, and flow dramatically decrease at a certain rate [3]. Standard vehicles and non-standard vehicles. The model was devised to investigate the effect of different unconventional compounds on current performance, including path amplitude and saturation flow. The presence of heavy and non-standard vehicles affects the performance of the traffic flow due to the potential for velocity, poor acceleration, etc.; this document says that for heterogeneous traffic flows, the correlation potentials and saturation flows have reduced traffic flows that contain homogeneous flow of private cars. Just. This model was used to study flow velocity. The flows in this document are classified into intermittent and non-intermittent flows [4]. The data collection site was specified to consist of two marked intersections and an undistinguished intersection in the middle. They developed curves by plotting graphs between flight capabilities, flight time and velocity against flow rate so that the velocity drop due to traffic delay, free flow time and traffic delay is obtained respectively. The capacitance can be determined from the lagging flow curve as the point at which the supersaturated flow begins. Speed vs. The obtained flow rate is compared with the BPR velocity flow curves and is similar in shape. However, the curve obtained in this work more realistically predicts the performance of an urban network with heterogeneous traffic and choppy flow.

METHODOLOGY:

The collected video was played on the KM player. Cellophane was placed on the computer screen and the four corners were identified and joined with the help of a whiteboard marker. This was done because although the actual shape of the section is rectangular, when captured on camera; its shape is distorted; A bit trapezoidal depending on the
position of the camera. For each interval of 1 min, the flow (q) of the compounds is observed, that is, the number of compounds of each class that pass the line in both directions [5]. Also for each 10 s interval, the intensity (K) within the exposed area was determined for both motorized and non-motorized vehicles. The velocity was calculated using the relationship \( u = q / K \) and finally different base diagrams were drawn for different locations. If the data is obtained bi-directionally, the data for both directions will be decoded separately, that is, for upstream or downstream. To study the speed variation with respect to different parameters such as the number of PCUs in each strip, the number of PCUs in each of the adjacent strips and the distance of the test vehicle from the roadside, the area of the section it was divided into an equal number of stripes. Then, regarding the test vehicle (NMV), the number of vehicles of different class in the same class and both adjacent stripes that the test vehicle was in was observed [6]. This process begins when the test vehicle enters the section and ends when the test vehicle leaves the section. All vehicle classes have been converted into a unit, that is, PCU. The speed of the test vehicle was calculated by the relationship between the time spent in the section and the distance travelled (i.e. length of the section + the length of the test vehicle). Then plot a graph between the speed of the test vehicle and the three parameters. In traffic engineering, the speed of speech is defined as the distance travelled by a vehicle during a given period of time. It is not impossible to calculate the speed of each individual vehicle. So the average speed is taken into consideration and it can be calculated in two ways, that is, time means speed and space means speed. Average speed over time is defined as the average speed of vehicles crossing a certain section. Mean space velocity is defined as the ratio of the distance (length) of a given section to the average time spent by vehicles travelling that particular section. It is defined as the ratio between the numbers of vehicles that cross a certain point and the time it takes for the vehicle to cross that particular section.

and flat. Data are collected for a period of at least 30 minutes in each section with the help of video cameras and also using manual methods. The camera is placed in one corner of the section to cover the entire section. The span is 5 meters long and the span is fixed with markings at each end. Laveran paper is placed on screen and the section is transferred to cellophane paper. Video decoding is done with the help of KM driver. Cellophane is preserved because although the clip is rectangular, it will be distorted during recording. To reduce this warping effect, the clip was transferred onto paper with markers. Data is decoded at 25 fps as per requirement. For decoding, the video was played in KM player software. Cellophane (tracing paper) was attached to the screen and the clip was transferred to tracing paper using wide markers. The video was played and every minute the vehicle flow was recorded. For each 15-second interval, the clip density was taken and the process followed until the end of the video. The velocity of each vehicle is calculated from the basic relationship \( U = Q / K \). From the obtained velocity, density and flux, basic diagrams are drawn.

In the graph above, the maximum NMV flux is 0.05 PCU / s and the NMV density in this section is 0.1 PCU / m. In the case of MV, the maximum flow rate is 0.23 PCU / s and the density of MV is 0.09 CU / m. It indicates that in this section, the MV flow compares more with the NMV flow while the intensity increases for the MV. For total traffic, the axial flow is 0.28 PCU / s and the corresponding density is 0.15 PCU / meter.

**CONCLUSION:**

It can be seen from the occupancy side graph that NMVs occupy the left side of the road. As we follow the wheel on the left side in India and MVs try to overtake it from the right side of the road. Also on the left first.
The tape or 1 meter from the left edge there are no vehicles as vehicles try to move away from the edges of the road as much as possible and this is the psychological behavior of drivers, they try to avoid moving on the edge when there are no hard shoulders or high barriers. The roads in which the shoulders of the vehicle are located are also located in the first strip on the left side. From the basic diagrams, it can be seen that the traffic parameters of the section are greatly influenced by the proportion of non-motorized vehicles in the section. For both divided and non-divided lanes the pattern remains the same, that is The percentage of non-motorized vehicles decreased that increased parameters such as density, flow, and total section velocity. In split lanes, the effect is less compared to non-partition lanes, where there is influence of vehicles coming from the opposite direction.

REFERENCES:


