

Investigation of distribution of pedestrian crossings along the circular bus route of the University of Tsukuba

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1. Research background

The main function of a pedestrian crossing is to cater the needs of walk traffic while not to affect the flow of vehicle on the roads. The circular buses are one of the main means of transport for students and faculties of the University of Tuskuba.

2. Study area

This study considered the roads that are along the circular bus route of the University of Tuskuba as the research area. It includes the Matsumi road, Keyaki road, Yurinoki road and so on.

3. Methodology

At first, use the GPS instrument to record the position of each pedestrian crossing on the research area and record the number and distribution of the pavements. Then use ArcGIS to analyze the data and drafting the map, to analyze the distance between the various pedestrians and the distance between the pedestrians and the nearest bus stop.

4. Result and Discussion

This research collected total of 96 point data in the road of about 8400 meters along the route of circular bus. It includes 23 bus stops and 73 pedestrian crossings. On average, there is a pedestrian crossing every 115 meters. From the result of investigation, it can be seen that the most of the bus stops have a pedestrian crossing within

30 meters of the range. The pedestrian line distribution is the most intensive in southern region of the research area. In the northern region-like Ichinoya and the Agri & Forestry Center with few flow of population, the distribution of pedestrian crossing is relatively sparse, and this research set the distance of 30 meters from each bus stop to the appropriate distance.

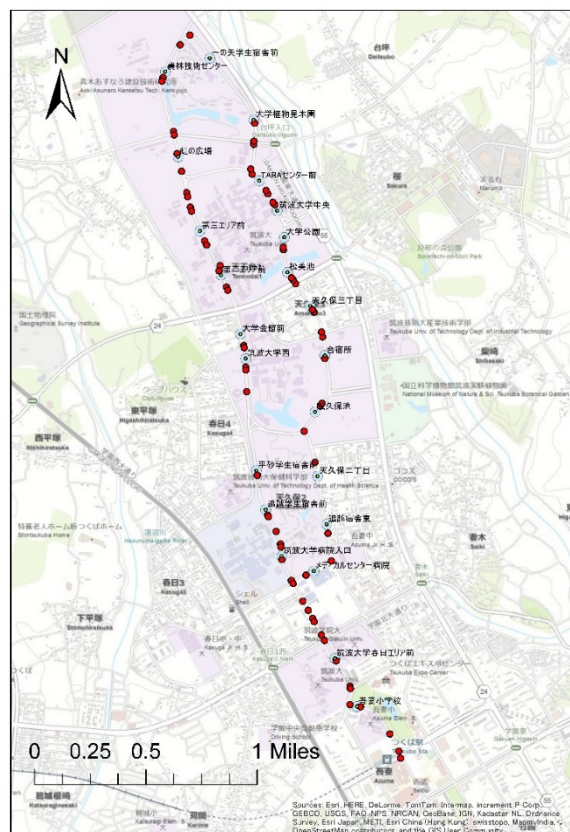


Figure 1. 30m buffers of bus stop