

# Transportation Management in Aobayama Campus

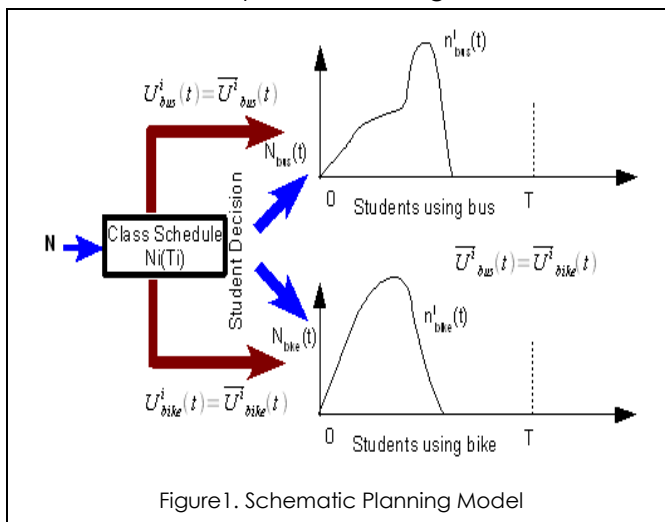
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Because of the construction of the subway line, the traffic composition changed on the way to Aobayama Campus. The number of Heavy Construction Vehicles increased and the mentioned Accident Risk is measured in terms of bikes and heavy vehicles flow encountered at any point in time. The objective of this research is to minimize the Accident Risk, while reflecting the students' travel decision to either use bikes or City Bus. In order to accomplish different types of solutions can be used. Modifying the temporal scale is assigning to the Construction Heavy Vehicles, restrictions on certain time of the day. This generates a Work Schedule Cost while reducing the Accident Cost. Meanwhile, modifying the bus capacity or the number of classes may change the students' decision of using either bike or bus. Such types of solutions require studying and analyzing the traffic patterns on the links to Aobayama, and its relationship to the starting time of each class.



The performance is measured by Total Bus Operation, Total Disutility of Students, Total Accident Risk and Work Schedule Cost. These elements conform the Social Cost function.

The decision process is represented by the Equilibrium Conditions. Therefore, the time for each class, preferred time of arrival and type of vehicle used (bus or bike), is measured by the (dis)utility function.

