APPLYING GRAPH THEORY TO PROBLEMS IN TRAFFIC CONTROL

CHANUN LEWCHALERMVONGS

ABSTRACT. Graph theory is a branch in mathematics concerning the study of graphs, which are composed of vertices (nodes) and edges (curves) connecting two vertices together. It is also a tool for formulating problems and explaining basic interrelationships. The goals of traffic control are to have traffic move safely and efficiently. Nowadays, the latter goal is becoming more important because it would relieve wasted energy and air pollution. In this talk, we will discuss the application of graph theory to two problems in traffic control: the phasing of traffic lights and the one-way streets.

MATHEMATICS DEPARTMENT, MAHIDOL UNIVERSITY, BANGKOK, THAILAND *E-mail address*: chanun.lew@mahidol.ac.th