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DEPARTMENT OF COMPUTER SCIENCE

COURSEWORK: RESEARCH METHODOLOGY (BIT 2207)

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# **1 INTRODUCTION**

Traffic congestion is a condition on road networks that occurs as use increases, and is characterized by slower speeds, longer trip times, and increased vehicular queueing. The most common example is the physical use of roads by vehicles. Traffic congestion challenges traffic flow in urban area and is prevented smooth traffic. A growing urban area creates complex problems in daily life with traffic. Congestion phenomenon's can not be terminated only by applying physical constructing such as: build bridge, motorways and increasing road capacity. It is necessary to build technology system for transportation management which is used for control of the traffic phenomenon. Traffic control systems have direct influence on traffic problems which is help to improve traffic flow and reduce traffic congestion.

# **2 RESEARCH BACKGROUND**

Traffic congestion is complex phenomenon which is related to a number of cars on the road at the same times which is hinder motion and need extra time to reach destinations. In fact, traffic congestion is usually recurring or non recurring phenomenon. Always, recurring traffic congestion is appeared by daily event in a certain times which is solved reorganize suitable planning. On the other hand, non recurring traffic congestion is unexpected and unusual event cause by an incident which is suddenly reduced road capacity. In addition, road capacity is one of the main reason cause traffic congestion when the number of cars on the road increases than the road capacity.

# **3 PROBLEM STATEMENT**

To examine the possible causes of poor road network, effects of traffic congestion and possible Solution to solve the problem of congestion in Kampala City.

# **4 SPECIFIC OBJECTIVES**

To improve discipline and Law Implementation because drivers and other road users often are not trained suficiently to follow lane discipline.

To improve roads that cause congestion that results into accidents.Its not all accidents of automobile are resulted from drivers error, for stance over

speeding, texting while driving, drink and drive, inattentiveness, etc. but sometimes roads itself are to blame.

## **5 SCOPE**

Furthermore, Kampala, the capital city, dominated the study scopes. In this regard, so far 13 studies have been conducted mainly at Mulago National Referral hospital, which is close to Kampala. However, 2 studies were conducted at Gulu and Rukungiri in Northern and Western Uganda respectively. More, three studies compared RTIs in Uganda with other countries (United States of America, Norway, India, Iran, Ghana, Tanzania and Turkey).

## **6 METHODOLOGY**

A research design refers to systematic plan drawn by the research during the reserch study. Generally the kind of data used in the study was both quantitative and analytically.