ABSTRACT

A prerequisite for lift planning is a thorough knowledge of traffic patterns and peaks in various types of buildings with their individual needs. The objective is to achieve optimised lift bank arrangement and correct specification of each bank. In addition to proper planning, the success of the lift installation is also influenced by the efficiency of the lift group control and the door and drive systems, which must provide adequate handling capacity, short average waiting and journey times and low probability of long waiting time.

The lift traffic development process consists of lift control system development, lift performance calculations, lift traffic simulation and lift traffic surveys. The ability to make accurate predictions of a lift group’s performance before an order is placed and manufacturing begins is beneficial to both the customer and the supplier. However, the design of lift system in buildings in fact involves a complexity of problems. Computer program for computerised lift system is used to facilitate to design the lift system and also to help the architect in his overall planning of building.

In this dissertation traffic analysis has been carried out for two large office buildings in order to assess the overall performance and computer simulation has been used for lift system design of office buildings.