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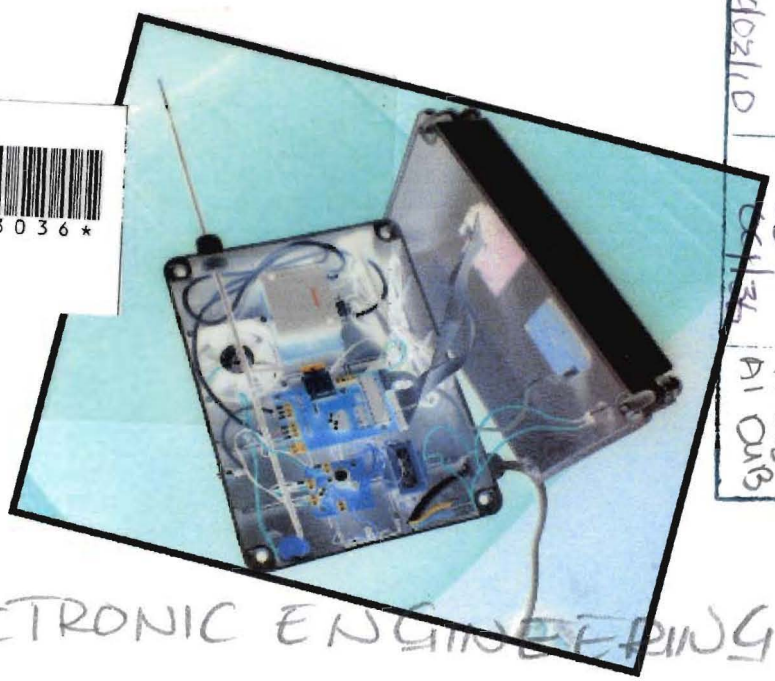

ELECTRONIC ENGINEERING

THE ELECTRONIC POSTAGE SYSTEM

NATIONAL UNIVERSITY OF SCIENCE & TECHNOLOGY

SUPERVISOR: MR. R. GONYE **SUBJECT:** TEE5003 – HONOURS PROJECT

EXECUTIVE SUMMARY'

The following report details the development and implementation of an electronic system that alerts subscribers of satellite post boxes that they have received mail, upon reception of a letter or any package in their post box. The system is known as The Electronic Postman.

The project attempts to revive the current postal service globally, as the use of email is rapidly overshadowing the use of physical mail. It uses a strategy of satisfying both the service provider and the client.

Firstly, the client is to be satisfied by the system in that the frustrations of traversing to their satellite post box to find it empty are to be eliminated by the alerting part of the design. They (the clients) will know if there is mail in their post box before making their way there.

Secondly, the service provider is also to be satisfied in that this system will create another means of income, namely, by SMS and possibly by email. The Mobile Telecommunications industry is the fastest growing industry in the world today and the Postal Service, usually run by the government is one of the many business sectors facing financial losses almost annually since the year 2000. This system seeks to merge these two huge industries together in order to get postal service providers to be part of this rapidly growing technology.

In the system, RF (Radio Frequency) Communications using Amplitude Shift Keying (ASK) is implemented as a link between each post box and the GSM (Global System for Mobile Communications) engine. A Multimedia Card (MMC) or Secure Digital Card (SDC) is used as a generic storage device to store all subscribers' details required by the system to perform its functions. As an additional feature, an RS-232 link between the main control box and front end computer is provided for database manipulation and printing of monthly statements showing each subscribers' SMS log.

A portable stand is also provided for ergonomics, as a means of catering for the operators (postman) physical height.