MULTI-PURPOSE WIRELESS REMOTE CONTROL PLATFORM FOR ROBOTIC APPLICATION

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A project report submitted in partial fulfillment of the requirements for the award of the degree of Diploma of Electrical Engineering majoring in Instrumentation.

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"I declare that this report entitled "*Multi-Purpose Wireless Remote Control Platform For Robotic Application*" is the result of my own group research except as cited in the references. The report has not been accepted for any degree and is not concurrently submitted in candidature of any other degree."

Signature :. .....

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Date : .....

ACKNOWLEDGEMENT

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ABSTRACT

Wireless telecommunications refers to the transfer of information between two or more points that are not physically connected. Distances can be short, such as a few metres for television remote control, or as far as thousands or even millions of kilometres for deep-space radio communications. Our project is based on this application, nevertheless with enhanced features. Our project is based on two important components which is an XBee Pro module as its wireless transceiver and an Arduino Pro Mini as its main controller board. The basic operation of our project is that, the movement of the tank will be controlled by a remote controller at a distance within 1000m range of clear sight. In addition, other desired circuits or sensors may be allocated on the tank by connecting it to the microcontroller board base,the Arduino Pro Mini. The Arduino Pro Mini can be programmed to make certain that the additional circuit functions as it should. Examples of additional circuits that could be allocated together with the platform circuit are, smoke detectors,metal detectors,spy camera and etc.

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