


# Intelligent Military Bases (IMB): Proposed Framework and Implementation

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## ***Abstract***

This paper presents an Intelligence Military Base (IMB) prototype which utilizes multi-sensors for detecting abnormalities. This proposed prototype is based on COTS (Commercial off-the-shelf) IoT (Internet of Things) technology which is applied for military. It is defined as IoBT (Internet of Battlefield Things). This proposed prototype provides an assistance and surveillance in military bases. The proposed system consists of a server and IoT-based sensors. The sensors are classified in two categories: long-range sensors and short-range sensors. LoRaWAN is used for communicating between the server and long-range sensors while WiFi is used for communicating between the server and short-range sensors. Simple data fusion algorithms are used to fuse data from multi sensors and machine learning events. To monitor the system, an android application and a web-based application were developed. Three prototypes of the proposed frameworks were delivered to use for the South Thailand insurgency.

***Keywords—IoT, IoBT, Military base, Surveillance, Security, Home Security***