

## Master 2015

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Implementation of an Energy Efficient Wireless Body Area Network.

## ABSTRACT - Masterthesis

A Wireless Body Area Network (WBAN) consists of small, intelligent devices attached on or implanted in the body which are capable of establishing a wireless communication link. These devices provide continuous health monitoring and real-time feedback to the user or medical personnel. Now it is very important to consider the energy issue for this type of environment. Research interest has grown on to implement the communication protocols to optimize the energy consumption and reliability of devices by energy harvesting.

In this project Low Power Listening-based (LPL) Medium Access Control (MAC) protocol is considered where devices will sleep most of the time and will wake up when a packet called 'Preamble' is generated which intern possess longer lifetime and energy saving. Through the harvester, packet of energy arrival patterns are generated and an optimum communication protocol will be designed in order to exploit such energy considering one Coordinator and two End-device.