A system and method for monitoring a person via an analog multi-zone pressure sensitive pad

Abstract Title: A system and method for monitoring a person via an analog multi-zone pressure sensitive pad

A pressure sensitive pad, generally planar in shape for placement underneath a mattress or cushion, capable of outputting a spectrum of signals depending on the pressure applied on the pad, comprising a plurality of sensitive zones, each zone being connected to a respective controller, configured to measure the pressure on each zone. The pressure sensitive pad comprising two electrically conductive layers; a variable conductive foam layer between the two conductive layers; and a non-conductive layer comprising a plurality of holes, disposed between a first of the two electrically conductive layers and the conductive foam layer. A system operable with the pad calibrates to detect absence and presence of a person for a range of mattress types and mattress weights and person weights; and determines a relative weight and position of the person while the person is on the mattress.