

INSULIN MEASURING PUMP

A PROJECT REPORT

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ABSTRACT

Most diabetics are currently treated by injections of insulin two or three times a day but this leads to peaks and troughs in their level of insulin. A portable insulin pump measures the level of blood sugar at regular intervals and delivers doses of insulin depending on the actual level of sugar in the blood.

A personal insulin pump is an external device that mimics the function of the pancreas. This system measures the level of blood sugar and if this level is above a certain value and is increasing then the dose of insulin to counteract the increase is computed and injected into the diabetic. The system can also detect abnormally low levels of blood sugar and if these occur an alarm is sounded to warn the diabetic that they should take some action.

This software focuses on the control for the insulin pump which is concerned with reading the blood sugar (glucose) sensor, computing the insulin requirements and controlling the insulin micro pump which causes the insulin to be delivered.

The main features of the insulin measuring pump are it will be very useful for the blind people since it has mimic feature. User can create his own database, so that he can able to compare the last sugar level with the current one. By this more than one user can use this pump. It is able to provide the necessary suggestions according to the user's sugar level. It contains an alarm that will warn the user if there is any hypo or hyper condition. It acts as a reminder for the user, when the insulin taking time has been reached. On the whole it acts as a complete kit for blind people.