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and Remote Computing
IJCA Journal

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IJCA Special Issue on Information Processing
© 2012 by

IPRC - Number 1

Year of Publication: 2012

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{bibtex}iprc1002.bib{/bibtex}

Abstract

The major technical challenge is to design the individual weight measuring point without using load cell or pressure sensor, since it will increase cost of the equipment. So our system incorporates low cost optical based weight measurement. In addition to this, we measure the severity of loss of sensation in the foot by introducing Vibro-tactile threshold sensation technique. By using this technique, the degree of loss of sensation can be determined for a diabetes patient. Our project has two foot plates in which one is designed with eight LED – LDR set up (sensor unit) and the other a dummy. Depending on the weight of the person, the intensity of light falling on the LDR from the LED varies. The detected signal is given to the ADC. The digital signal is processed by a microcontroller and the output

is displayed in computer monitor via serial communication.

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Index Terms

Computer Science

Applied Science

Keywords

Optical Weight Measurement Arch Foot Vibro-tactile Setup