

(12) PATENT APPLICATION PUBLICATION

(21) Application No.201611003236 A

(19) INDIA

(22) Date of filing of Application :29/01/2016

(43) Publication Date : 22/12/2017

(54) Title of the invention : MULTILEVEL HUMAN SIMULATOR BASED DEVICE FOR PREDICTION OF TYPE 2 DIABETES

(51) International classification	:G06F19/18
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA

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(57) Abstract :

The present invention discloses a multilevel human simulator based device consisting of a software component and a hardware component, for prediction of Type-2-Diabetes. The software component is based on genomic level biomarker data e.g mt-SNP responsible for amyloidosis in pancreas. Data used in algorithm is based on In-silico and In-vivo results which co relate specific markers with the onset of the disease. Data from various imaging techniques like Ultrasound, Magnetic Resonance Imaging and CT-Scan is used in computational modelling to enhance the accuracy of prediction. The invention eliminates the need of blood sample and helps in the fast, easy and non-invasive manner for predicting onset of diabetes which is not possible by existing methods which only diagnose diabetes once it has occurred. The simulator further eliminates error due to variation in assessment from clinician to clinician.

No. of Pages : 14 No. of Claims : 5