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(51) International classification	:A61B0005000000, A61B0005024000, A61B0005021000, A61B0005026000, A61B0005020500	(71)Name of Applicant : <b>1)Chitkara University</b> Address of Applicant :Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Rajpura Punjab India <b>2)Chitkara Innovation Incubator Foundation</b>
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(57) Abstract :

A wearable health tracking and support device, comprises of a wearable body 101 configured to be worn over the torso portion, a plurality of photoplethysmography sensors positioned at the collar line and chest region for capturing heart rate of the user, a blood pressure monitoring assembly integrated with a hand region of the body 101 for non-invasive blood pressure measurement, a Doppler ultrasonic sensor mounted at the wrist region and positioned using a motorized clipper 106 with extendable bar 107 and motorized ball-and-socket joint 108 for detecting blood flow, a plurality of electromyography sensors for detecting muscular strain and fatigue, a load monitoring module including load sensors and inertial measurement units at the shoulder and back region for posture and weight distribution, a processing unit for determining real-time health status, and a guidance unit for providing feedback, alerts, and interactive guidance.

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