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Patent Number(s): AU2015100780-A4; IN201501632-I3; CN106066687-A

Title: System for creating mental perception of surrounding for visually impaired user activates micro-motor on wearable glass based on interception and interpretation of visual matrix in smartphone for providing tactile feedback to user

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Derwent Primary Accession No.: 2015-44503K

Abstract: NOVELTY - The system has a smartphone (101) containing visual matrix of obstacle position and direction capture real-time images. Collision detection module which is installed on the smartphone and cloud server processes the captured images and maps the captured images to visual matrix. A wearable glass (103) which is worn by visually impaired user receives visual matrix from the smart phone wirelessly. Multiple micro-motors (104) are positioned on the glass for activation based on interception and interpretation of visual matrix and provide tactile feedback to the impaired user.

USE - System for creating mental perception of surrounding by capturing image through image capturing device such as smartphone camera (claimed) coupled to tactile feedback around eye sockets for visually impaired user.

ADVANTAGE - The provision of tactic feet to the object position and the movement in the surrounding enables navigational aid for the visually impaired user and thereby creates a mental perception of the objects in the vicinity. The use of wireless technology for giving tactile feedback to the visually impaired individuals renders the user hand free. Thus, the wearable system is made compact, light-weight, portable and handy. The use of smart phone as source of communication and additional navigational inputs using the feedback enhances the user experience.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method of providing tactile feedback to a visually impaired user.

DESCRIPTION OF DRAWING(S) - The drawing shows a block diagram explaining operation of a system for creating mental perception of surrounding by giving tactile feedback to visually impaired user.

Image capturing device (101)

Bluetooth wireless communication (102)

Wearable glass (103)

Micro-motors (104)

Technology Focus/Extension Abstract: TECHNOLOGY FOCUS - INDUSTRIAL STANDARDS - The system having image capturing device such as camera communicates with a cloud server through long term evolution (LTE), fourth generation (4G), wireless fidelity(Wi-Fi), Bluetooth, global positioning system (GPS).

Drawing:

Derwent Class Code(s): P32 (Dentistry, bandages, veterinary, prosthesis); T01 (Digital Computers); W01 (Telephone and Data Transmission Systems); W05 (Alarms, Signalling, Telemetry and Telecontrol)

Derwent Manual Code(s): T01-J10B2; T01-N01E; T01-N02A3C; W01-C01C3E; W01-C01D3C; W01-C01G8; W01-C01P2; W05-A01

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