(43) Publication Date: 10/01/2025

(19) INDIA

(22) Date of filing of Application :31/12/2024

(51) International classification

Filing Date

Application Number

Filing Date

Filing Date

(61) Patent of Addition to

(86) International Application No

(87) International Publication No

(62) Divisional to Application

(54) Title of the invention: SMART GLOVES FOR TOUCHSCREEN INTERACTION

:NA

:NA

: NA

:NA

:NA

:NA

:NA

:G06F0003041000, G06F0003044000, A41D0019000000,

G06F0003010000, A41D0019015000

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## (57) Abstract

The present disclosure introduces a smart glove system for touchscreen interaction 100 designed for seamless use with iPhone devices in cold weather. The system comprises a conductive fiber array system 102 that provides touch sensitivity and multi-touch capability, enabling accurate interaction with capacitive screens. Driving layer 104 and sensing layer 106 work in conjunction to create and detect changes in capacitance, allowing precise touch recognition. A flexible circuit board 108 processes capacitance signals for enhanced gesture recognition and responsiveness. The glove's palm section incorporates pvc adhesive dots 110 for improved grip on devices, ensuring secure handling in slippery conditions. An insulating outer layer 112 protects internal components from environmental exposure, while a comfortable inner layer 114 provides warmth and comfort for extended use. This integration of advanced materials and components enables seamless, precise, and durable touchscreen interaction, even in harsh weather conditions. Reference Fig 1

No. of Pages: 19 No. of Claims: 10