

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511061220 A

(19) INDIA

(22) Date of filing of Application :26/06/2025

(43) Publication Date : 11/07/2025

(54) Title of the invention : AN IMPROVED SMART KEYBOARD WITH ADAPTIVE TACTILE FEEDBACK AND NOISE SUPPRESSION

(51) International classification :G06F0003010000, G06F0009451000, G06F0003020000, G10L0021021600, G05D0023190000

(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 :

An improved smart keyboard (100) integrates adaptive tactile feedback (108) using actuators (104) and real-time noise suppression (112) through AI-driven filtering and embedded microphones (110). The system uses sensors (106) to detect user identity and typing style, dynamically adjusting key resistance and acoustic output. The microcontroller (102) manages profile transitions and ergonomic optimization. With acoustic gel pads (118) and wireless module (116), the keyboard ensures comfort, silence, and personalization across diverse usage environments.

No. of Pages : 18 No. of Claims : 5