

Achievements

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South Brunswick Student Varish Gahlot Files U.S. Patent Application and Receives VC Grant for AI-Powered Assistive Technology



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Varish Gahlot, a South Brunswick High School student, is combining his interests in artificial intelligence and engineering to explore technology designed to improve accessibility for people with visual impairments. His work has reached two important milestones: filing a U.S. nonprovisional utility patent application for an AI-powered assistive device and receiving a micro-grant from the Managing Partner of Wyser VC to support the development of an AI-powered haptic smart cane.

Filed with the U.S. Patent and Trademark Office on September 20, 2026, the application is titled *AI-Powered Multimodal Assistive Device for Enhanced Accessibility*. The proposed technology combines sensors, generative artificial intelligence and haptic feedback to interpret a user's surroundings and translate relevant information into structured vibration patterns. Potential implementations include a smart cane, smart glasses, a wristband or a glove, allowing environmental information to be communicated through touch.

To support the development of the smart cane concept, Varish was awarded a \$1,800 micro-grant by the Managing Partner of Wyser VC. The grant provides early support for his efforts to explore how AI can be applied to accessibility challenges.

The project reflects Varish's broader interest in using technology to solve practical problems. By exploring how AI systems can interact with physical devices, he is investigating applications that extend beyond software into engineering, accessibility and entrepreneurship.

Patent Details

- **Title:** AI-Powered Multimodal Assistive Device for Enhanced Accessibility
- **Filing date:** September 20, 2026
- **U.S. Patent Application No.:** 19/813,182
- **Filing basis:** 35 U.S.C. § 111(a)

Related Milestones