

PRESS RELEASE FROM THE INDIAN INSTITUTE OF TECHNOLOGY DELHI
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“Smart Cane” developed jointly by IIT Delhi, Phoenix Medical Systems and Saksham Trust with Wellcome Trust support is ready for product launch

The Indian Institute of Technology Delhi along with Phoenix Medical Systems (P) Ltd., Chennai and Saksham Trust, New Delhi has developed a novel mobility aid for the visually impaired. This project was funded by Wellcome Trust under their initiative of R&D for Affordable Healthcare in India.

A white cane is currently the most commonly used visual mobility aid. However, it can only detect limited types of obstacles and has a short distance range. Likewise, it cannot detect obstacles that are above knee height, for example a metal barrier on the road, or those that protrude in the natural environment, such as a tree branch or a window air-conditioner protruding in the corridor.

The "Smart Cane" is an innovative device that can be mounted onto a traditional white cane. It uses ultrasonic sensors to detect obstacles at up to three metres outdoors and 180 cms indoors. The range of the detected obstacles is conveyed to the user using vibratory signals with distance differentiated characteristics. It is designed as a user-detachable unit and is powered by a rechargeable lithium-ion battery, such as those commonly found in mobile phones and digital cameras.

The funding from Wellcome Trust has been used to optimise the design of the device based on user feedback from a range of field trials conducted at multiple locations within India. Extensive trials have been conducted with more than 150 users in Delhi, Mumbai, Dehradun, Ahmedabad, Bangalore and Jalandar. Each of these users used the device for more than a month and gave detailed feedback. As the test devices have been given to them, a significant fraction of them have become regular smart cane users. Objective of these trials were not only to test the efficacy of the device but also the range of support material that accompanies the device. This includes manuals in various languages including Braille, training programmes, packaging etc

The key objective of the project was to bring out an affordable device. The product is expected to be launched at the price point of Rs 3000/- in India. The product launch is expected in late March/early April timeframe. Phoenix Medical Systems would be manufacturing as well as providing after sales support. Saksham Trust along with their partner welfare organizations spread across the country would be distributing the product as well as providing orientation training to the end users.

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