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IIT Kanpur to launch novel haptic smart watch for blind and visually impaired

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The Smartwatch variant indicates health parameters such as heart rate, step count, hydration reminder

The Indian Institute of Technology (IIT) Kanpur has entered into a technology transfer with New Delhi-based Ambrane India for mass manufacturing and sales of the “haptic smart watch for blind and visually impaired”. The breakthrough innovation of the novel touch sensitive haptic smart watch comes with two variants, and was developed by Prof. Siddhartha Panda and Vishwaraj Srivastava from the National Centre for Flexible Electronics at IIT Kanpur.

Prof. Abhay Karandikar, Director IIT Kanpur, said, “The development of the haptic smart watch for the visually impaired and the blind is a revolutionary innovation from the team of Prof. Siddhartha Panda and Vishwaraj Srivastava at NCFlexE, IIT Kanpur. We believe that this watch will make a great social impact by enabling the visually impaired and blind to make seamless use of this technology for everyday usage. The watch will soon be commercialised by Ambrane India and will be available in the market at an affordable price."

The smartwatch variant is equipped with smart features to indicate health parameters such as heart rate, step count, hydration reminder and smart timer to set short timer by using simple gesture.

The existing smartwatches for the blind and visually impaired use audio-based output and lacks privacy. The IIT Kanpur-developed smartwatch, which offers a tactile-haptic interface for display of time and health parameters, addresses these drawbacks. The use of innovative haptic icons makes it easy to navigate the menu and a simple gesture like the double-tap can open a particular health monitoring app. These numbers are communicated in a similar way as the time.

IIT Kanpur has been proactively working with an objective to develop more such technologies having societal impact especially in the assistive domain which can be transformed into a product.