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IIT-D's Exoskeleton Device heads for international footprint

04 September 2023 | News

A transformative Robotic Exoskeleton device for upper limb rehabilitation

Stroke is a debilitating condition that severely impacts the brain functions of the patient, making him/her paralysed for the rest of the life. This life-altering affliction has found a revolutionary and powerful solution in the world of medical technology. The Indian Institute of Technology Delhi (IIT-D) has unveiled a groundbreaking human-computer interface hand-exoskeleton device named RoboExo SMART.

The device has undergone various stages of evaluation and is currently in its pivotal stage of national clinical validation under the leadership of Dr M.V. Padma Srivastava, Head of Neurology and Chief of CN Center at AIIMS, New Delhi.

Exoskeleton device RoboExo SMART is now poised for its next significant phase—clinical trial studies for international acceptability in collaboration with Proxmed- an Australian entity, with the support of global expert Prof. Mark Parsons, Department of Medicine and Neurology, Liverpool Hospital, University of New South Wales, Australia.

The exoskeleton synchronises wrist and finger joint movements, significantly enhancing daily functions and minimising muscle rigidity. Its muscle activity-controlled interface, adaptable settings, and real-time performance feedback promise a journey toward swifter recovery.

This trailblazing device uniquely addresses size and cost concerns plaguing conventional robotic solutions. Portable, lightweight, and cost-effective, it opens doors for widespread accessibility, especially in resource-restricted regions.