

## “Netravaad is for stroke patients and also those who’ve very severe speech issues or lost their speech”

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**T2HInnovations, a Kerala-based startup established under the AI and Robotics research center, HuT Labs of Amrita University, specialises in biomedical and healthcare robotics is set to commence production of Netravaad, an innovative device designed to revolutionise patient care for individuals with speech impairments. In an interaction with BioSpectrum Dr Rajesh Kannan Megalingam, Founder, T2H Innovations and Director, HuT Labs, Amrita Vishwa Vidyapeetham shared more details about the future plans of the company.**



### **What are the USPs of Netravaad?**

Netravaad is a device developed and tested rigorously at Amrita Hospital in Kochi. It utilises innovative eye gesture-based technology to enable patients to communicate their needs effectively. The device consists of a camera, display, speaker, controller and a rechargeable battery that lasts for six hours on a single charge. The camera detects the eye sign of the user, which is converted into alphabet, word or a sentence by a customised AI algorithm called Sharani. The detected words and sentences are displayed on the screen. In addition, the voice through speakers helps the external world understand the patient's feelings, and the patient also gets a feel of speaking to others. Besides English, Netravaad is available in regional languages such as Malayalam and Hindi. Additionally, the user interface will be highly interactive, ensuring a comfortable experience for stroke patients.

### **How many trials have you done before entering the market?**

We have already tried on 65 patients at our Department of Physical Medicine & Rehabilitation at Amrita Hospital with 95 per cent efficacy. We are trying to improve this further.

**How do you wish to take this unique medical device to the masses?**

Besides testing at Amrita Hospital, we have an opportunity to visit the National Institute for Physical Medicine and Rehabilitation (NIPMR) at Thrissur and also showcase this device at the International Conclave on AI & Robotics for Enabling Healthcare Singularity in Thiruvananthapuram. We will be signing an agreement with NIPMR to conduct more tests. We are also working to showcase the device to biomedical experts, NGOs and various rehabilitation centres across the country.

**How do you plan to use the seed funds that you raised recently?**

We have raised seed funding of about Rs 8 crore through the Nidhi Prayas Scheme of the Department of Science and Technology from Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST)- TIMED, Thiruvananthapuram. We will use 60 per cent of the fund on growth, 20 per cent in operations, 10 per cent in product development and remaining 10 per cent in team building.

**How many more people will be added to the team in the coming months?**

We're now in the production phase of Netravaad and all set to bring this transformative technology to a wider audience. At present we have a team of 16 and we are looking at increasing the staff by 60 by this December so that more people in need of this device will be benefitted.

**What is the sales target for this year and for the next?**

We have already set up the manufacturing facility in Chennai. We are confident of touching 100 units during this financial year and 500 units for the next financial year.

**How do you see the market potential for this device in India?**

There is no other similar product available in the market. That is the advantage we have right now. We are looking at anybody, not just stroke patients, who are bedridden and not able to speak for various reasons. In that sense, the market is huge. Even if we get our target initially, we'll easily cross the 100 mark we had set for this year. But that is not our target. We wish to have at least 5 per cent of the market share soon. And our target for Netravaad is not only stroke patients but also those who have very severe speech issues and have lost their speech.

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