

IIT Guwahati develops affordable prosthetic leg

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Researchers at the Indian Institute of Technology (IIT) Guwahati have developed a prosthetic leg specifically designed for Indian conditions. It is suitable for uneven terrain and supports Indian needs such as cross-legged sitting, and deep squatting. It is also adjustable for the different age groups and multiple stages of prosthesis use.

This research was funded by the Ministry of Education, Government of India and the Department of Biotechnology, Government of India. IIT Guwahati Researchers collaborated with 151 Army Base Hospital, Guwahati, Tolaram Bafna Kamrup District Civil Hospital, Guwahati, Guwahati Neurological Research Centre (GNRC), North Guwahati, and North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences (NEIGHRIMS), Shillong.

A team led by Prof S Kanagaraj, Department of Mechanical Engineering, IIT Guwahati, set out to tackle these issues. Prototypes of their models developed by this research team are currently undergoing trials. A methodology is being developed to fit a 3D-printed test socket which is verified using computer analysis.