



News -->

Indian couple busy in making computer chip to mimic brain signals

Phoenix U S | February 11, 2006 3:35:54 PM IST

An Indian expatriate couple are working to build a computer chip which will mimic the signals the brain sends via the spinal cord to produce movement.

The research will help people recover from spinal-cord injuries and enable paralyzed people to stand and walk and allow amputees to use brain waves to move artificial limbs.

The husband-and-wife team of Ranu Jung and her husband Jimmy Abbas, Co-director, Center for Rehabilitation Neuroscience and Rehabilitation Engineering at the Biodesign Institute at Arizona State University, are working on several fronts on ways to repair or replace functions for people with lost limbs, spinal-cord injuries or other neurological problems.

The computer chip could help quadriplegics stand and walk and help other people to move frozen limbs. The same technology could be used to translate brain impulses into motor signals for prosthetics.

That could enable amputees to move artificial limbs the same way they move intact body parts, with their brains. "It is very exciting," Ms Jung said.

The couple are working to design, fabricate and test a neuroclamp that would record impulses coming from the spinal-cord. Such a device could one day be used to transmit signals from the spinal cord to a prosthetic device.

The team is also working on a neuroprosthetic system to electrically stimulate muscles to produce repetitive stepping movements. The repetition is believed to help the body re-learn how to generate signals in the brain and spinalcord that will enable them to step independently.

The couple received the funding for the research from the National Institute of Health last year.

UNI XC PA SSC1441

© 2000-2008 webindia123.com/Suni System (P) Ltd. All rights reserved