

Neural signal selection algorithm for a multichannel acquisition system

Technology

Methods, systems, and computer program for brain machine interfaces which transmits neural signal information. It provides a method for selectively enabling and disabling channels in order to improve efficiency in the transmission and processing of the neural signals in a prosthetic device designed to provide or enhance motor control capabilities to motor impaired patients. A method according to one embodiment can include a step for receiving a plurality of neural signals on a first plurality of channels. The method can also include a step for calculating criterion variable value for the neural signal on each of the channels. In addition, the method can include a step for ranking the channels by the criterion variable value. The method can also include a step for calculating mutual information between a measured output and a total population activity for the first plurality of channels. Further, the method can include a step for determining a second plurality of channels that encodes a predetermined amount of the mutual information.

Intellectual Property

US Patent No.: 7,299,089

Inventor

Patrick Wolf, Ph.D.

Associate Professor, Department of Biomedical Engineering
Duke University

Duke
LICENSING
& VENTURES



Duke File (IDF) #

T-002367



Inventor(s)

- Won, Debbie
- Wolf, Patrick "Patrick"



College

Pratt School of Engineering

**For more information
please contact**

Koi, Bethany

919-681-7552

bethany.koi@duke.edu