Treatment of Anxiety Disorders Utilizing Transcutaneous and Transcranial Nerve Simulation

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Technology description

Researchers at UC San Diego have developed methods for producing electrical fields configured for transcutaneous and transcranial nerve stimulation for the following: receiving physiological signals, detecting arousal of treatment resistant mood disorders, detecting intermodulation distortion in stimulating physiological signals, configuring electrical nerve stimulation parameters, estimating nerve location with ultrasonic transducers, estimating nerve depth with ultrasonic transducers, selecting electrodes on wearable materials, creating electrical nerve stimulation instructions, producing electric fields for nerve stimulation, selecting ultrasonic transducers on wearable materials, creating ultrasonic nerve stimulation instructions, producing ultrasonic pulses, detecting brain responses to nerve stimulation, configuring ultrasonic pulse parameters, and communicating arousal notifications to remote devices.
Furthermore, algorithms were developed for detecting arousal of anxiety and treatment resistant mood disorders, at least some of the electrical nerve stimulation parameters, automatically selecting electrodes on wearable materials, and automatically estimating nerve depth with ultrasonic transducers

Application area

Treatment of anxiety disorders via transcutaneous and/or transcranial nerve stimulation.

Institution

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