



Cognitive Interface and EEG Features for Cognitive Assisted Assessment of Autism

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Experience: https://www.ntuh.gov.tw/PSY/Vcard.action?q_type=-1&q_itemCode=410

Market Needs:

With the rising diagnosis rates of Autism Spectrum Disorder (ASD), there is an increasing demand from both clinical and household sectors for efficient, objective, and automated diagnostic and monitoring tools. Medical institutions, rehabilitation centers, special education schools, and families require precise cognitive function assessment methods to enhance diagnostic accuracy and treatment effectiveness.

Our Technology:

This invention leverages electroencephalogram (EEG) and well-designed cognitive interfaces, employing advanced data processing and machine learning algorithms to assess the cognitive functions of individuals with autism. The system includes an EEG data acquisition device, cognitive testing software, and a data analysis platform. It has been successfully applied in clinical trials, demonstrating high accuracy and performance.

Strength:

High Accuracy: Provides objective physiological data, reducing subjective bias.

Comprehensiveness: Covers a wide range of cognitive function tests, offering detailed assessment reports.

Convenience: Easy to operate, suitable for both clinical and home environments.

Dynamic Monitoring: Supports continuous monitoring and evaluation of treatment effectiveness.

Competing Products:

Existing competing products include traditional diagnostic tools based on behavioral observation and some commercial portable EEG devices. These products are primarily limited to single-function tests, lacking comprehensive cognitive assessment capabilities, and often fall short in diagnostic accuracy and objectivity.

Intellectual Properties:

The technology encompasses methods for EEG feature extraction, cognitive test design, and data analysis algorithms. Patent applications are currently under review, with anticipated approvals in major market countries.

Contact (do not need to fill out):

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