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Patent Search

Invention Title	ARTIFICIAL INTELLIGENCE BASED AUTISM SPECTRUM DISORDER (ASD) MANAGEMENT SYSTEM AND METHOD THEREOF
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Name	Address	Country	Nationality
Dr.P. Kayal	Associate Professor, Department of Information Technology, BVIRIT HYDERABAD College of Engineering for Women, Hyderabad, India	India	India
Dr.S. Dinesh Mohan	Associate Professor, Department of Pharmaceutics, Vishnu Institute of Pharmaceutical Education and Research, Narsapur, Medak, Telangana, India	India	India
Dr. Balimidi Mallikarjuna	Assistant Professor, Department of Electrical Engineering, NIT Silchar-788010,Cachar, Assam, India	India	India

Name	Address	Country	Nationality
BVIRIT HYDERABAD College of Engineering for Women	BVIRIT HYDERABAD College of Engineering for Women , Plot No. 8-5/4, Rajiv Gandhi Nagar Colony, Nizampet Rd, Bachupally, Hyderabad-500090, India	India	India
Vishnu Institute of Pharmaceutical Education and Research	Vishnu Institute of Pharmaceutical Education and Research, Narsapur, Medak, Telangana, India	India	India

Abstract:
 ARTIFICIAL INTELLIGENCE BASED AUTISM SPECTRUM DISORDER (ASD) MANAGEMENT SYSTEM AND METHOD THEREOF ABSTRACT An Artificial Intelligence (AI) based autism spectrum disorder (ASD) management system (100), comprising: an input receiving unit (102) configured to receive voice of an autistic child (112) comprising a word in form of speech signal; a processing unit (104) configured to: extract speech features from the voice of the autistic child (112) by using a feature extraction technique; train a dataset stored in a database (106) by the extracted speech features for future reference; decode a speech pattern by comparing the extracted speech features with test speech features (208) stored in the database (106); and recognize a word (206) and teach a new word to the autistic child (112) when a pre-defined number of the extracted speech features are matched with the corresponding test speech features (208). Claims: 10, Figures: 5 Figure 1A is selected.

Complete Specification

Description:BACKGROUND
 Field of Invention
 [001] Embodiments of the present invention generally relate to an autism spectrum disorder (ASD) management system and particularly to an Artificial Intelligence (AI) based autism spectrum disorder (ASD) management system and a method thereof.
 Description of Related Art
 [002] Autism is a kind of neurological disorder that includes abridged communication, lessened social communication, and cerebral skills. Autism Spectrum Disorder is associated with a varied range of behaviors. It includes repeating activities, resistance to routines, scared responses, and fewer social interactions. ASD children have many problems in verbal communication, and making less or inconsistent eye contact. Sometimes they have difficulty with a back and forth of conversation due to which they find it difficult to interact socially. In addition to speech, most common medical and nutritional problems also challenge their healthy wellbeing, as they are reluctant to a routine like aversion towards food and resistance to nutrient intake. It is proved to take a special nutritious diet for the ASD children; however, it might be difficult to practice essential daily activities, which leads to a challenging mealtime for parents/caretakers.
 [003] Conventionally, depending upon the spectral disorder in people, various technology assistive means like sensor balls, picture boards, battery-operated sensory toys, speech-generating devices, communication assistive apps, and so forth have been devised. These smart devices are currently receiving much attention in assisting the people. However, all these solutions require external chips or devices to be installed which can cost a lot of bucks. Also, these solutions are addressing differently abled people from a wide range of age groups. However, there is a need of some specific solutions for the ASD children which they can understand without any parent assistance

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