

(54) Title of the invention : Intelligent Monitoring System: Emotion Recognition of Autism Children from Smart Class Video

(51) International classification :A61B0005160000, A61B0005000000, G16H0050200000, A61M0021000000, G10L0025630000

(86) International Application No Filing Date :PCT// / :01/01/1900

(87) International Publication No : NA

(61) Patent of Addition to Application Number Filing Date :NA :NA

(62) Divisional to Application Number Filing Date :NA :NA

(71)Name of Applicant :

1)Dr.R.Santhoshkumar, St. Martin's Engineering College
Address of Applicant :Associate Professor, Department of Computer Science and Engineering, St. Martin's Engineering College, Dhulapally, Secunderabad – 500100, Telangana, India. --

2)Dr.P.Santosh Kumar Patra, St. Martin's Engineering College

3)Dr.B.Rajalingam, St. Martin's Engineering College

4)Dr. N. Nithyanandam, Bharath institute of higher education and research

5)Ms.N. Sivaranjani, Bharath institute of higher education and research

6)Dr. P. Santhosh Kumar, SRM Institute of Science and Technology

7)Mr. P. Deepan, St. Martin's Engineering College

8)Dr. N. Satheesh, St. Martin's Engineering College

Name of Applicant : NA
Address of Applicant : NA

(72)Name of Inventor :

1)Dr.R.Santhoshkumar, St. Martin's Engineering College
Address of Applicant :Associate Professor, Department of Computer Science and Engineering, St. Martin's Engineering College, Dhulapally, Secunderabad – 500100, Telangana, India. --

2)Dr.P.Santosh Kumar Patra, St. Martin's Engineering College
Address of Applicant :Professor & Principal, Department of Computer Science and Engineering, St. Martin's Engineering College, Dhulapally, Secunderabad – 500100, Telangana, India. --

3)Dr.B.Rajalingam, St. Martin's Engineering College
Address of Applicant :Associate Professor, Department of Computer Science and Engineering, St. Martin's Engineering College, Dhulapally, Secunderabad – 500100, Telangana, India. --

4)Dr. N. Nithyanandam, Bharath institute of higher education and research
Address of Applicant :Assistant Professor, Department of CSE, Bharath institute of higher education and research, Chennai, Tamilnadu, India. -----

5)Ms.N. Sivaranjani, Bharath institute of higher education and research
Address of Applicant :Assistant Professor, Department of CSE, Bharath institute of higher education and research, Chennai, Tamilnadu, India. -----

6)Dr. P. Santhosh Kumar, SRM Institute of Science and Technology
Address of Applicant :Assistant Professor, Department of IT, SRM Institute of Science and Technology, Ramapuram, Bharathi Salai, Chennai, Tamilnadu, India -----

7)Mr. P. Deepan, St. Martin's Engineering College

Address of Applicant :Assistant Professor, Department of Computer Science & Engineering (AI&ML), St. Martin's Engineering College, Dhulapally, Secunderabad – 500100, Telangana, India. -----

8)Dr. N. Satheesh, St. Martin's Engineering College

Address of Applicant :Professor, Department of Computer Science and Engineering, St. Martin's Engineering College, Dhulapally, Secunderabad – 500100, Telangana, India. -----

(57) Abstract :

The emergence of the 'Internet of Things' (IoT) is being fueled by the rapid advancement of technology. Autism patients' mental states are being monitored, and this work is intended to achieve this goal. Asperger's Syndrome Diseases (ASD) is a chronic neurodevelopmental illness characterised by severe deficits in interpersonal verbal exchange and social interactions, as well as minimal and repetitive mannerisms and hobbies. Early in a child's development, symptoms of social communication deficits and restrictive, repetitive patterns of behaviour begin to emerge. In order to understand the behaviour of an autistic individual, doctors and family members often have difficulty. It is only through their repetitive actions that autism children's emotions can be understood. Deep learning algorithms for autism children emotion recognition have recently gained popularity across hierarchical architectures for analysing physiological signals in a variety of different modes. Although it can be used for a variety of tasks, deep learning is most effective when extracting deep features. For the purpose of emotion recognition from body movements of autistic children, the proposed ER16Net model is used in this chapter, each with a unique set of parameters. This experiment makes use of the emotional videos of autistic children that have been previously recorded by the researchers. Using proposed ER16Net deep learning models, the experiment is evaluated. Both qualitative and quantitative analysis can be used to calculate the performance measurement.

No. of Pages : 8 No. of Claims : 5