MES COLLEGE OF ENGINEERING, KUTTIPPURAM
DEPARTMENT OF COMPUTER APPLICATIONS
20MCA246 – MAIN PROJECT

PRO FORMA FOR THE APPROVAL OF THE FOURTH SEMESTER MAIN PROJECT

(Note: All entries of the pro forma for approval should be filled up with appropriate and complete information. Incomplete
Pro forma of approval in any respect will be rejected.)

Main Project Proposal No : _____ *(Filled by the Department)*	Academic Year : 2021- 22 Year of Admission : 2020

1. Title of the Project : Intelligent Learning Assistant for Children with Autism Spectrum
2. Name of the Guide : _____
3. Student Details (in BLOCK LETTERS)

Name	Register Number	Signature
AYISHA BEEBA	MES20MCA-2013	

Date:

Approval Status : Approved / Not Approved

Signature of Committee Members

Comments of the Guide — Dated Signature

Initial Submission :

First Review :

Second Review :

Comments of the Project Coordinator — Dated Signature

Initial Submission:

First Review

Second Review

Final Comments :

Dated Signature of HOD

Intelligent Learning Assistant for Children with Autism Spectrum Disorder

Ayisha Beeba

Introduction: Children with Autism Spectrum Disorder(ASD) suffer from social and communication issues. In addition to that they also exhibit a complex collection of behaviors which makes it difficult for the trainers to identify the methodology to be adapted for training them. At present a mishmash of techniques are used to evaluate them in general, without identifying their uniqueness or specific characteristics. This project proposes an emotion based intelligent learning assistant that could provide suitable courseware for autistic student 's learning. Along with this, trainer can chat with the parents. They can provide help and guidance to the parents and they can also provide study materials to teach autistic students. This system uses deep learning-based emotion recognition to detect the emotion and association rule mining is used to classify the emotion.

Objectives: This project is an intelligent learning assistant that could provide suitable courseware by identifying a child specifically based on emotions of the autistic student This system uses deep learning-based emotion recognition to detect the emotion and association rule mining is used to classify the emotion. A website is created to connect the experts and parents. They are controlled by an admin. Experts provide study materials and medical help for the students. Parents can ask questions, and they also get the medical help details and tips. This makes the system more attractive. There is no need to contact the experts directly. And they also get medical helps to take care of their children.

Problem Definition: At present a mishmash of techniques are used to evaluate them in general, without identifying their uniqueness or specific characteristics. All students in a class have to learn same courseware. Teachers cannot identify the specific characteristic of the student.All students are forced to select the same courseware. Parents contact to the experts directly. No way to easily find out the status of their student.

Basic functionalities: Tried to provide suitable courseware by identifying a child specifically based on emotions of the autistic student This system uses deep learning-based emotion recognition to detect the emotion and association rule mining is used to classify the emotion.

Tools / Platform, Hardware and Software Requirements: Python based Deep Learning libraries will be exploited for the development and experimentation of the project. Tools such as Anaconda Python, and python libraries will be utilized for this process. Training will be conducted on NVIDIA GPUs for training a probabilistic modeling and deep learning approach for diseases prediction. We can use medical hardware devices for capturing the real data or test the results on real-time data.