

What is ADHD ?

Attention Deficit Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder commonly observed in **children and adolescents**, characterized by inattention, hyperactivity, and impulsive behavior. **Early detection** of ADHD is important because delayed diagnosis can negatively affect academic performance, social behavior, and mental health.

What will we require ?

1) Dataset - Pre-recorded, **labelled EEG dataset** (CSV)

Labels:

- a. ADHD
- b. Non-ADHD

2) Data Cleaning and removing noise from data : **MNE-Python** (library)

3) Convert the data to numpy array(2D) for CNN -Matrix format

4) Training set and Testing set and output checking (CNN – output- ADHD/Non-ADHD (along with percentage)

5) Explainable AI will show the heatmap of the region which influenced eg . frontal , occipital

How AI Detects ADHD?

