

## Research Project Proposal

Research Title: **Detection of Autism Spectrum Disorder using EEG Signal**      Type: Classification

**Student Information:**

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Id No.	18CSE035
Session	2018-19

**Supervisor Information:**

Name	<b>Md. Ferdous</b>
Designation	<b>Lecturer</b>

**Co-Supervisor Information (If any):**

Name	
Designation	

### **Abstract:**

Autism or Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder marked by repetitive and characteristic patterns of behavior as well as social communication and interaction impairments. The term "spectrum" highlights the wide variability in symptoms and severity across individuals. Nowadays ASD is a great concern worldwide and its detection is an important issue for the better treatment. As ASD is neurodevelopmental disorder, brain signals play, especially electroencephalography (EEG), is shown potential sources for ASD detection. There are different approaches for ASD detection with processing and/or transforming EEG signals. This study investigated ASD detection employing fractal dimension measure on EEG data. Higuchi's Fractal Dimension (HFD) is measured in EEG recording of 16 subjects. It is identified that HFD is sensitive to the brain activity and ASD detection is possible from HFD values.

**Introduction:** (Should include background and motivation, list of objectives, and research questions.)

**Related Literature Review:** (Should cite the most relevant research and then compare, contrast, critique, connect.)

**Research Methodology:** (Should include research type, data sources and description, and research methods.)

**Expected Results:** (Should provide a clear and concise explanation of what they hope to achieve with your research.)

**Significance and Implications of the Study:** (Should include why the problem is worth researching; why the research is unique; how this research should advance knowledge; Limitations.)

**Signature of the Board Members: (Use for presentation's Board)**

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Supervisor Signature and Seal

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Comment: i) Accept   ii) Conditional Accept   iii) Not Accept

Recommend for Project Exhibition: Yes / No

