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**DETECTION OF GENOMIC SEQUENCES USING DSP  
TECHNIQUES**

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**ABSTRACT**

The search for hidden periodicities and symbolic patterns has been one of the most significant fields of biological sequence study for a number of decades. Periodic elements and patterns play a crucial role in the identification of physiologically important motifs such as protein coding regions (exons), CpG islands, and hot-spots. Digital signal processing (DSP) is being used by more and more academics to analyse biological sequences. Numerous DSP algorithms have been created to translate biological sequences into numerical sequences, then reveal hidden periodicities and repeating patterns. Here, we discuss some of the most important problems in biological sequence analysis. The analysis of RNA, deoxyribonucleic acid, and protein sequences can be done using this technique. Methods for signal processing are essential for the processing of genomic and proteomic data. For analysing genomic signals, the binary sequence method is well-known. An alternative to binary sequence processing is employed in this study, which uses EIIP values for nucleotides. The efficacy of the EIIP values-based strategy for cystic fibrosis gene F56F11.4 prediction and identification are shown by implementation outcomes.

**Keywords-** *Amino Acids, Bioinformatics, Bio Signal Analysis, DNA*