AUTOMATED INFANT CRY ANALYZER FOR NEUROLOGICAL DISORDER PREDICTION

Sudden infant death is one of the major problems facing in medical field. Detection of neurological disorders and other complications that leads to this condition is a difficult task. The proposing “AUTOMATED INFANT CRY ANALYZER FOR NEUROLOGICAL DISORDER PREDICTION” is one which is capable to detect neurological disorder of infant. It is a simple and noninvasive method for prediction of infant condition and can be used for childhood ill treatment.

Infant crying signals distress to potential caretakers who can alleviate the aversive conditions that gave rise to the cry. The cry signal results from coordination among several brain regions that control respiration and vocal cord vibration from which the cry sounds are produced. Previous work has shown a relationship between acoustic characteristics of the cry and diagnoses related to neurological damage, SIDS, prematurity, medical conditions, and substance exposure during pregnancy. Thus, assessment of infant cry provides a window into the neurological and medical status of the infant.

The work presented here introduces an automatic classification of cry signals and predicting neurological disorders. The first step of the project is that parameters extraction among the collecting cry samples. Main parameters are fundamental frequency, Duration, Formants, Amplitude and Utterance. The next step is processing the crying signals and storing in to the memory. Analysis of the crying signals and comparison of the results is the final step.

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