

SPEECH STRESS ANALYSIS BASED ON LIE DETECTOR FOR LOYALTY TEST

Dr.M.Rajaiah, Dean Academics & HOD, Dept of CSE, Audisankara College of Engineering and Technology, Gudur.

Mr.Venkataradhakrishnamurty, Assistant Professor, Dept of CSE, Audisankara College of Engineering and Technology, Gudur.

Ms.P.Sasisree, UG Scholar, Dept of CSE, Audisankara College of Engineering and Technology, Gudur.

Mr.K.Poornanandam, UG Scholar, Dept of CSE, Audisankara College of Engineering and Technology, Gudur.

Mr.K.Harshavardhan, UG Scholar, Dept of CSE, Audisankara College of Engineering and Technology, Gudur.

Ms.P.Hema, UG Scholar, Dept of CSE, Audisankara College of Engineering and Technology, Gudur

Abstract: Human being has lot of virtual mask in their behaviour (mind or brain). By the way of probability study alone, be able to find a person's loyalty through their emotions, stress of speech, way of expressions and so on. It is not a novel technique to this world. The judgement and the hearings are finalizing in accordance to passed parameters (questions, transparent as well hidden test) and the result. Artificial Neural Network (ANN) is one of the best methods meant for speech stress analysing based cheap lie detection for the loyalty test. To show the results, polygraph is a comprehensible demonstration oriented approach. These methods are already used by the insurance fraud investigations and police. Through an individual's stress (stress percentage or else range) voice as well their emotions are able to detect the loyalty. Lie detection techniques require being extremely confidential and dynamic. For the reason that voice stress analysis (VSA) parameters have to be an encrypted for avoiding speech practise with testing tool. Here this paper, outlooks by using for predicting the liars through Speech VSA

1.INTRODUCTION : Lie detector is a dynamic since on continuous practise be able to find the internal structure of the lie detector system. These are extremely simple to the frauds. Hence the methodologies have to be dynamic changeable by using ANN. With the blood pressure, ECG (pulse), EEG, count of eyes blinking per minutes, lip movements, hand and leg movements are necessitate to collect without their knowledge, these entire parameters are required to find the results. All the above mentioned will be discuss in this research paper. Through software application require to take more concentration through neural network of human being and the computer network system. This research concept totally depends upon physiological approach with Artificial neural network.

2.PROPOSED SYSTEM: The investigational deception model refers towards the method used to generate deceptive responses in addition to the appropriate controls. The two fundamental deception-generating models are the CQT (Comparison Question Test) and the GKT (Guilty Knowledge Task), as well referred to since the CIT (Concealed Information Test). These models are not unique to MRI research along with have been developed intended for forensic investigative use (Stern, 2003) through the polygraph along with later through EEG (Rosenfeld, 1988).

An additional parameter of significance to the experimental deception- generating models is whether responding deceptively is being endorsed through the experimenter (Miller, 1993). Whereas in the real world, a person’s deception would usually be undesirable to its target (a feature recognized to the deceiver, through definition), in most deception.

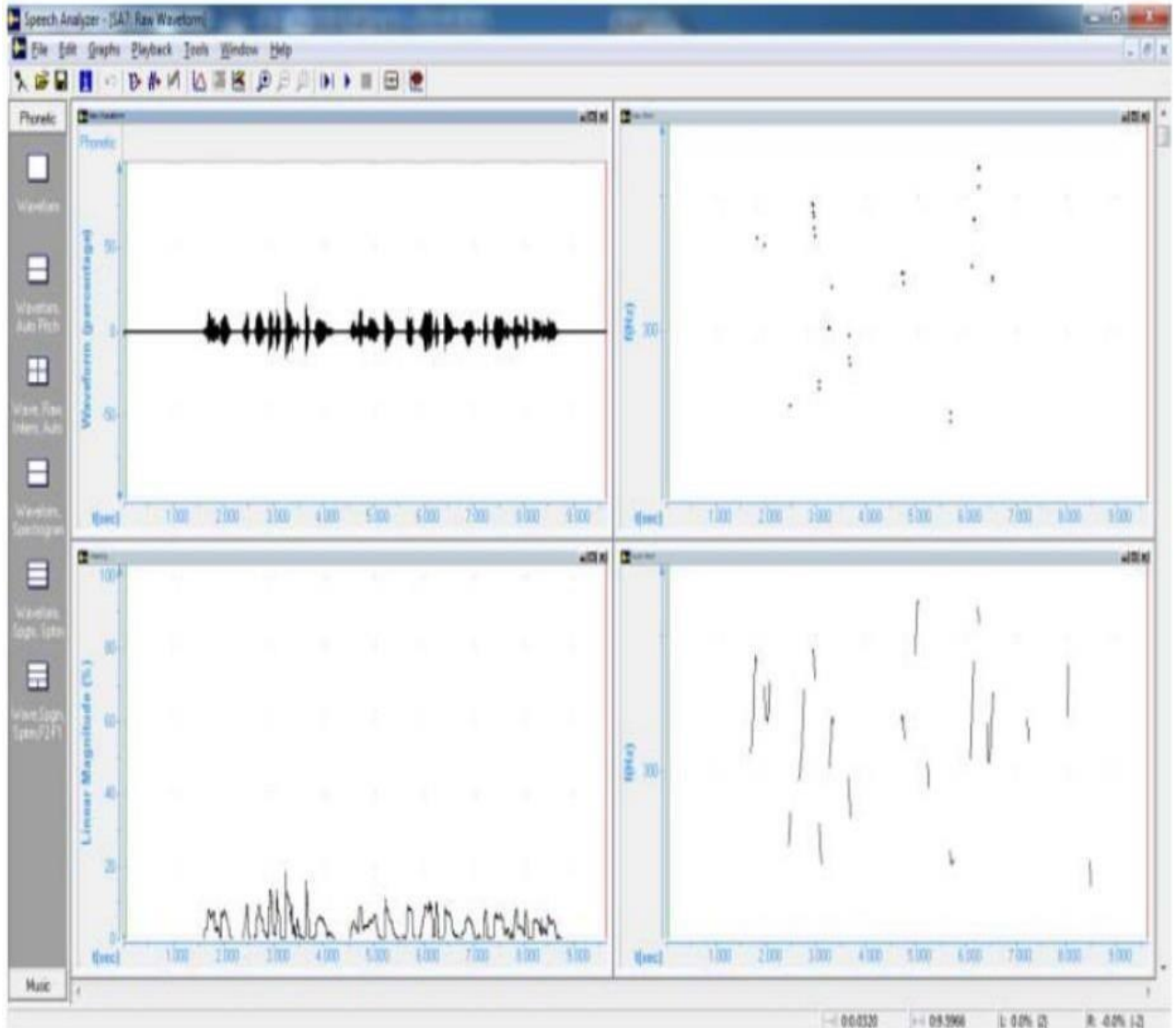
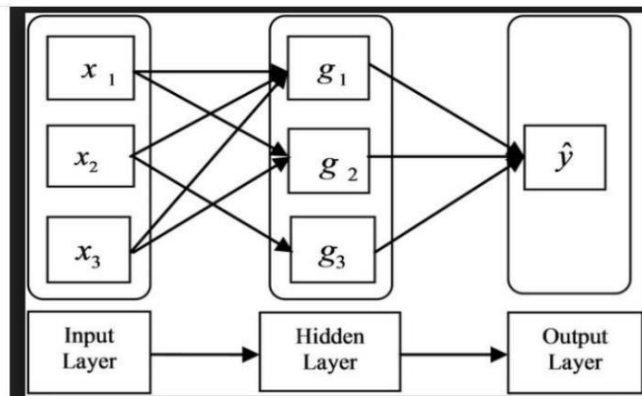


Figure 2: Voice Speech of a Normal Person (Normal Pitch)

4.BLOCK DIAGRAM



ANN Internal Structure

Table 1 and figure 4 providing the average result part or detection of lie result.

Table 1: Lie Detector Probability Analysed Values

5.Conclusion: Here this result specifies that it is probable to correlate the speech stress, lying and also interest through a variety of physiological features. By using Artificial Neural Network, one is able to identify high stress situations around 92% accuracy. Individual can even detect lying about 81% accuracy.

6.Future Work: Fundamentally, here it is demonstrated that individual can identify these events as of simple aggregated physiological features obtained during the duration of the events in question as of non-invasively derived sensing. This structural ANN is able to update for getting the enhanced results

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Author Profile

Dr.M.Rajaiah, Currently working as an Dean Academics & HOD in the department of CSE at ASCET



(Autonomous), Gudur, Tirupathi(DT).He has published more than 35 papers in Web of Science,Scopus,UGC Journals.



Mr . Venkataradhakrishnamurthy completed his PG of Master of Computer Application. He completed his Master of Technology in Computer Science and Engineering. Pursing Ph.D in Saveetha School Of Engineering. Currently working as an Associate professor in the department of CSE at ASCET (Autonomous),Gudur, Tirupati(DT).



Ms.P.Sasisree, B.Tech student in the department of CSE at Audisankara College of Engineering and Technology, Gudur. She has pursuing in computer science and engineering.



Mr.K.Poornanandam, B.Tech student in the department of CSE at Audisankara College of Engineering and Technology, Gudur. He has pursuing in computer science and engineering.



Mr.P.Harshavardhan, B.Tech student in the department of CSE at Audisankara College of Engineering and Technology, Gudur. He has pursuing in computer science and engineering.



Ms.P.Hema,B.Tech student in the department of CSE at Audisankara College of Engineering and Technology, Gudur. She has pursuing in computer science and engineering.