(54) Title of the invention : AUTOMATIC PATHOLOGICAL VOICE QUALITY ASSESSMENT USING IOT BASED MACHINE LEARNING ALGORITHMS

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(57) Abstract :

Present century faces lot of challenges in medical field, especially in detecting the defect in voice box in human. Recently, researches reflect information that death of brain cell, nerves breakdown and many other disease and infection exhibit the symptom in the vocal cord. The physical parameter related to medical observation is obtained by sensor transducer and gets converted to signal that can be processed further. Through the gateway, the continuous periodic transition state data are sent to cloud and are evaluated by Viterbi algorithm. By adopting linear prediction model of machine learning algorithm, the desired features are obtained. There are many attributes that can be identified by the auto correlation and are subjected to feed forward neural network. Then specific identification of the feature made within short duration. From this prediction, doctors can come to conclusion whether the voice is normal or abnormal. If it is abnormal, what is the change that occurred and able to diagnose the exact problem with the human body and also able to detect the injuries or the boils that is present in the throat, so that appropriate treatment can be suggested to the patients in minimal time with accuracy.

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