

## TAMIL LANGUAGE PROCESS COLLECT TO VOLUME AND SIGNAL PROPAGATION

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### Abstract:

We have research for 'process of Tamil speakers sound volume of Tamil Computing'. It introduces the current status and position of Tamil and other languages importance of Tamil as a language to make Tamil Computing more relevant. We think the research methodology and presents an process Tamil language has been increased widely in the last few years. In this paper, a speech recognition system for individually spoken word in Tamil language using multilayer feed forward network is presented. To implement the above system, of the findings. Based on the findings, the paper makes correct recommendations to agree that Tamil Computing thrives at least within the Tamil community. Tamil speech signals and its performance are measured based on Measure volume Error (MVE) speed. The adopted network with the above specified parameters has produced the best result for limited language voices.

**Keywords:** *voice, Tamil computing, volume, signal.*

### I. INTRODUCTION

In recent years, with the new generation of computing technology, speech technology becomes the next major innovation in man-machine interaction. Obviously such interface would yield great benefits which can be accomplished with the help of

Automatic Speech Recognition (ASR) system. It is a process by which a machine identifies speech. It takes a human utterance as an input and returns a string of words as output. Such research on ASR systems is primarily developed for English language but for Indian languages it is still in earlier stage. Tamil is one of the widely spoken languages of the world with more than some million speakers. Hence, there is an urgent need for the system to interact with Tamil language. Recently, signal is considered as one of the most successful information processing tool that has been widely used in speech recognition. The Multi-voice Process (MVP) have been increasingly used for word recognition and also for other speech processing applications. The main objective of this paper is to implement classification and recognition system for isolated Tamil spoken words. To carry out this task two important preprocessing steps are done before feature extraction which includes filtering, and windowing. Among the four filters implemented, the best filtered speech signal is chosen and fed as an input. These filtered outcomes are evaluated based on MSE values. The popular feature extraction technique of signal used for extracting specific features from the speech signal. Using feature vectors are extracted and they are given as the input to the network. Finally, the speech recognition is implemented using feed-forward neural networks and its performances are measured based on its default

parameter MSE. The paper is organized as follows. Section 2 gives details about the system overview. Section 3 explains the preprocessing steps involved in this system. Section 4 details about feature extraction technique based on signal. Section 5 deals with Feed forward neural network techniques and its performance in Tamil speech signal. Section 6 explores the performance evaluation of the adopted method. Finally, the conclusion is summarized with future work.

## **II. Paper Over view**

There are variety of speech recognition approaches available such as voice channel Networks Among these approaches network signal have proven to be a powerful tool for solving problems of prediction, classification and pattern recognition. Rather than being used in general-purpose speech recognition applications it can handle low quality, noisy data and speaker independence applications. Such systems can achieve greater accuracy than voice level based systems, as long as there is training data and the vocabulary is limited. One of the most commonly used networks based on supervised learning algorithm is multilayer feed forward network which is implemented in this paper for classifying and recognizing Tamil spoken words In Tamil language, the pronunciation of independent letters and group of letters forming words are not different. Tamil speech recognizing system does not require the support of a dictionary. Thus the recognizing process in Tamil speech is fairly simple compared to English. To implement the system, initially the speech data is preprocessed using filtering, framing and windowing techniques. Subsequent to that, the enhanced signal is given as the input to

the Tamil computing algorithm to extract features. These feature vectors also called campestral coefficients are given as the input to the network. After that the network is trained with these input vectors and the target vectors. Finally classification and recognition is done based on pattern matching. The above figure 1 demonstrates the overall structure of the system.

## **III. General collection Status of Tamil position of Tamil speaker**

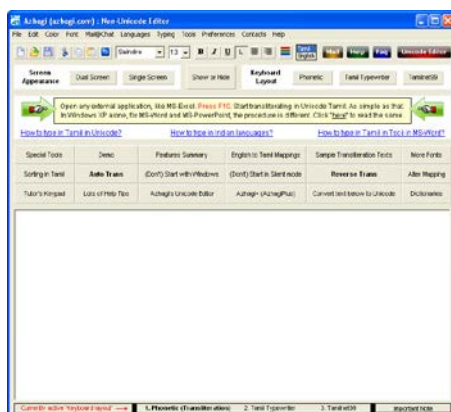
It concept refer to Attitude of Tamil speakers towards Tamil Computing Tamil is the only official language of Tamil Nadu, one of the official languages in It has Official and National status in Sri Lanka. It is a recognized minority language in Malaysia, Mauritius, Reunion Island and South Africa and it is possible for native Tamil speakers to learn and use the language in these countries to a great extent. It is to be understood that the 'Official Language Act 1976' of the Indian Union is not applicable to the state of Tamil Nadu.<sup>2</sup> It is therefore expected that Tamil should perhaps be the only medium of communication within the state. According to the 2001 census about 90% of Tamil Nadu speaks Tamil as first language.

## **IV. Research idea of New Tamil Computing Technology:**

Since this research is about Tamils using the language on internet and technology, it was felt that the most appropriate method to get responses from the users whose first or second language is Tamil was via an online questionnaire. Since the objective was to evaluate the attitude of Tamil users towards Computing in Tamil, social networking sites like Face book was chosen to observe the behavior of

certain groups and users. The first questionnaire was bilingual encouraging all Tamils to participate regardless of their ability to read Tamil. The second and third questionnaire was only in Tamil as it was felt that a participant must at least know to read the language in order to make it more meaningful. The three questionnaires were open to the same audience and it was left to their choice. A consent from the participant was sought in relation to contacting them via e-mail if there was a need to clarify or get to the next level to understand them. This research facilitated Tamils regardless of their geographic location to participate and was targeted over an estimated more people Tamils via networking sites. It was ensured to the maximum extent possible that only credible responses were recorded and were taken into account for statistical analysis. A minimum response is required for statistical analysis and all the three questionnaires exceeded the threshold

average and 36.48% of the 96.5% rated their Computing skill to be excellent. Close to 80% of the respondents admit that they don't bother to check if their device support Tamil before purchase. 77.39% agree that Tamil needs to catch up with technology. Little over 50% say Tamil is their most preferred language on social networking sites like 'Face book' and 'Twitter'. 86.58% are 'waiting' for technology to support Tamil so they can use it. 52.88% of the respondents opined that any latest technology in Tamil would remain a distant dream. 40.06% of the respondents hold the 'attitude' of Tamils responsible for the slow growth of Tamil in technology, 34.29% hold the Government of Tamil Nadu responsible, 18.59% see English as a major block in Tamil's development, 13.78% feel Tamil language not being valued or respected in other countries as a reason. About 41.67% feel all the above equally contribute to the slow growth of Tamil in Technology. 87.50% were for a law that makes Tamil as a compulsory medium education which must open employment opportunities in Tamil speaking countries



NETWORK VOLUME RANGE 1

### Tamil Computing Research survey help to old survey process:

96.5% of the respondents rated their computing skills to be average or above

### Analysis and findings

It is found that the majority of the respondents have unanimously agreed on two points: a. Compulsory Tamil Computing module from Grade They acknowledge that lack of growth in the field of Technology could have an impact on the Tamil society. A vast majority do realize the importance of the role 'language' plays in understanding technology however, anecdotal references and observation suggests that a vast majority of the Tamils favour English or undermine the potential of their own mother tongue. Languages like

English, French, German to name a few are seen more as ‘technical’ or a ‘must know’ languages to be perceived as a ‘professional’ but for some reason choose to overlook languages like Korean, Mandarin and Japanese that have managed to be largely monolingual societies and yet leads the world in some of the leading technologies. All the above mentioned societies are largely monolingual societies within their country. These languages are used almost everywhere in their respective countries and remains the sole medium of instruction when it comes to education. It must also be noted that most of these societies promote bilingualism and encourage

speakers. On the contrary, 100% of the English students in England will know English and would have studied English as a ‘language’ regardless of their first language. A few participants were found to ‘alter’ the results by taking the survey multiple times. It is worth noting their interest and eagerness to get the language to a certain standard but, it also

reflects a manipulative attitude to ‘get to where it needs to be’ when it actually isn’t or doesn’t deserve. It was also observed that a vast majority of the respondents who chose ‘Tamil’ as the most preferred language on social networking sites actually used ‘Roman’ script to convey their thoughts. For instance: For the purpose of this research, they were rejected and were not classed as Tamil. Modern Tamil especially the spoken variety has quite a few English words which suggest that the Tamils although largely bilingual are actually not bilingual in strict sense. It is interesting to note that most Tamils use an English phrase or a word to explain a meaning of a Tamil word. I selected the group for my research but the group was not informed of the elements that I will be observing. Out of about 83 posts/updates, only two posts/updates were in Tamil (2.3%). And both these posts were on a day that is culturally significant to the Tamils. This shows that clearly, English not Tamil is being used as a medium of communication within the Tamil community abroad at least on social networking sites.



learning a ‘second’ language of their choice. It is rather bizarre that in Tamil Nadu and Pondicherry students ‘cheer’ when they don’t have to study Tamil as a language which is not only the first language of most students but also forms a ‘linguistic identity’. Interestingly, Tamil is the only Indian language that is more widespread (Official in three countries and officially recognized in four countries) that makes it a total of seven countries) despite less number of

## V. CONCLUSIONS

In this paper, network signal voice has become a new technique for tackling complex problems and upset tasks such as speech volume recognition. Speech is a natural and simple communication method for people, but voice is different for each person. However, it is an extremely complex and difficult process to make a computer signal voice respond to spoken commands. Recently there is a momentous need to a system to be developed in Tamil and other Indian languages. Such an important effort is carried out for recognizing Tamil spoken words. To accomplish this task, feature extraction is done after employing required preprocessing techniques. The most widely used signal method is used to extract the significant feature vectors from the enhanced speech signal and they are given as the input to the feed forward network. The adopted network is trained with these input and target vectors. The results with the specified parameters were found to be satisfactory considering less number of training data. More people involve and continuous words to be trained and tested with this network in future. This preliminary experiment will help to develop an ASR system for Tamil language using different approaches like other Tamil computing techniques to solve voice transaction and signal variation for common people take level techniques.

## V. REFERENCES

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