GUIDANCE PROVIDING SYSTEM FOR DISABILITY PERSONS

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Abstract

In the Sri Lankan community, we meet lots of visually impaired people in our day-to-day life. Sometimes we meet them in public transport. So, most of the time people help them to identify the current location and identify their destination as well. In that case, we can understand that there are no systems or methods to identify their current location and their destination when using transport. But in the other countries, there are various machine learning models used on applications, and systems for this purpose. But in Sri Lanka, there are no such models or applications. This requirement can be identified in Sri Lanka. There are no facilities or resources for visually impaired people to search their destinations from their native language (Sinhala) language.

Guidance Providing System for people with disability is a field of research that in the recent past has gained a lot of focus. The current work, the approaches or techniques are not simple or properly recorded in the knowledge body. If the existing work is evaluated and placed under a standard criterion of assessment, it can assist in continuing research. A review of the current work in the Guidance Providing System in Speech Recognition, the problems that are identified is discussed. The benefits and the disadvantages of the various approach and their reviews are discussed in terms of approved algorithms, functionality, and implementations.

The main goal of this project is to provide a guidance providing system for disability people via the Sinhala language based on speech recognition and the NLP approach. The system provides a better guidance direction reminding experience for the user to take the necessary identification they are traveling on transportation. Another thing is this project's main focus area is to implement a client-server architectural-wise design improvement for the above-proposed problem too.

As a result, this is a very active research area. Due to the constraints of the available datasets, researchers faced numerous challenges when implementing these guidance-providing systems. Researchers have to collect data and build new datasets for their projects, which is a time-consuming process. After that, the calculated data will be sent into a voice recognition algorithm to be trained. The user's destination name will be

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