Nirmal Anand

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Abstract- *Visually challenged person cannot able to read so they face problem in study and other day to day topics knowledge. To eliminate the issues the system focuses on the cost efficient and solved the problem face by visually challenged person. Nirmal Anand is an Android Application for Audio Magazine. It is prepared for visually challenged person. It includes Current affairs, journal knowledge, Short Stories, Novella, Poem, Recipe Tips, news and much more which delights all the members. It is our goal that this magazine must reach to all visually challenged people who is interest in all in one magazine which includes all the day to day topics.*

In this system Registration, Person, UserType, Agreement, Executive, Publication, Writer, Advertise, Reader, Upload, State, City, Feedback, Email details will be stored in different tables of the database which is entered by Person, Writer, Reader, Executive or Administrator.

For achieve maximum benefit for above process we try to develop The Android Application "Nirmal Anand". System is password protected and user friendly development.

Keywords- Society welfare, Visually challenged person, Audio Magazine, Journal knowledge, Nirmal Anand.

I. INTRODUCTION

In brief, our project is meant to solve problem of visually challenged person of the society. The basic aim of the project is to help visually challenged person for education and all the day to day topics like Current affairs, journal knowledge, Short Stories, Novella, Poem, Recipe Tips and much more.

The system will help visually challenged person to improve their knowledge.

The system is made for the people ranging from visually challenged students, housewives, professionals. The system aims to help Housewife's to improve their knowledge and professionals to aware with all the day to day topics.

II. LITERATURE REVIEW

1.   Analysis of 2D Feature Spaces for Deep Learning-Based Speech Recognition

Authors: Korvel, Gražina; Treigys, Povilas; Tamulevicus, Gintautas; Bernataviciene, Jolita; Kostek, Bozena

Affiliation:Institute of Data Science and Digital Technologies, Vilnius University, Vilnius, Lithuania; Audio Acoustics Laboratory, Faculty of Electronics, Telecommunications and Informatics, Gdansk University of Technology, Gdansk, Poland

The aim of this study was to evaluate the suitability of 2D audio signal feature maps for speech recognition based on deep learning. The proposed methodology employs a convolutional neural network (CNN), which is a class of deep, feed-forward artificial neural network. The authors analyzed the audio signal feature maps, namely spectrograms, linear and Mel-scale cepstrograms, and chromagrams. This choice was made because CNN performs well in 2D data-oriented processing contexts. Feature maps were employed in a Lithuanian word-recognition task. The spectral analysis led to the highest word recognition rate. Spectral and mel-scale cepstral feature spaces outperform linear cepstra and chroma. The 111-word classification experiment depicts f1 score of 0.99 for spectrum, 0.91 for mel-scale cepstrum , 0.76 for chromagram, and 0.64 for cepstrum feature space on test data set.

2.   Hybrid Approach to Speech Source Separation Depending on the Voicing State

Authors: Wiem, Belhedi; Anouar, Ben Messaoud Mohamed; Aicha, Bouzid

Affiliation:Université de Tunis El Manar, National School of Engineers, Electric Department. Le Belvédère, Tunis, Tunisia

Single-channel speech source separation (SCSSS) is a research field with applications that include hearing aids and security. This research uses a hybrid method for SCSSS, which combines two different approaches based on the voicing state; the algorithm can be used for speech source separation and speech enhancement. The hybrid method combines subspace decomposition for unvoiced speech, and Soft-CASA

(Computational Auditory Scene Analysis) for voiced speech. The voiced speech source separation process is an improved version of the conventional CASA system that is optimized by the use of a soft mask. Moreover, the unvoiced speech source separation process relies on an optimized approximation of the speech signal by subspace decomposition in the spectral domain. The new system is evaluated for speech separation outcome, as well as for voicing decision. Despite the challenging acoustic environments that were used for test, the proposed speech separation approach yields on average 58.91 % improvement in signal-to-interference ratio, 12.67 % improvement in signal-to-artifact ratio, 38.91 % improvement in signal-to-distortion ratio, and 45 % improvement in perceived speech quality.

3.   Sonification Mappings: Estimating Effectiveness, Polarities and Scaling in an Online Experiment

Authors: Axon, Louise; Goldsmith, Michael; Creese, Sadie

Affiliation:Department of Computer Science, University of Oxford, UK

Sonification is a technique to present data arrays as sound, thereby taking advantage of the human ability to hear patterns that might otherwise not be apparent. Mappings from parameters of data to parameters of sound form the basis of parameter-mapping sonification. The choice of mappings and their design can influence both the utility of the sonification system and the ability of users to interpret the sounds. In this article the authors demonstrate the use of a time-efficient methodology with an experimental online platform for assessing mappings. Experiments explored the effectiveness of various mappings, and the discussions explore the implications of each approach. Based on the responses of 100 participants in an online Magnitude Estimation experiment, the effectiveness of 16 data-sound mappings was explored. Results showed that mappings involving certain sound parameters were generally effective, while those using other sound parameters varied in their effectiveness. In some cases the ability to interpret mappings and the polarities with which they were perceived varied among individuals using them. The mappings that used the tempo parameter were generally perceived effectively, while those using other sound parameters varied. Exploratory observations suggest that differences among participants might be related to different levels of musical experience.

4.   Sound Radiation Control for Uniform Directionality in the Presence of Strong Early Reflections

Author: Chang, Jiho

Affiliation:Korea Research Institute of Standards and Science, Daejeon, South Korea

When an omni-directional loudspeaker is placed close to a surface or surfaces, reflections from the surface(s) can be as dominating as the direct propagating sound, and can thus deteriorate the omni-directionality (as referred to as uniform directionality) of the sound source. This effect can eventually degrade the sound quality because the frequency response is distorted at listening positions. This research is concerned with the sound radiation control for the uniform directionality in the presence of strong early reflections. A circular array of loudspeakers mounted on the surface of a cylinder is employed to apply radiation control methods. It is shown that even when there is a wall close to this array, the directionality can be kept uniform by controlling the radiation as long as the distance to the surface is known. The effects of errors introduced in the distance and the reflection coefficient of the surface are investigated. The results imply that such sound radiation control can improve the uniform directionality and sound quality of loudspeaker arrays with the aid of sensors that can measure distances to surfaces.

II. STUDIES AND FINDING

People with visually challenge are finding difficult to communicate with normal population in day-to-day life. We found that the usability of this Android application is more reliable. System provides one single platform to the authorised users so that they can register them-selves from anywhere, communicate with admin & can upload data for the publication. Project makes the system easy, simple, reliable, user friendly and corrective for an organization. Moreover less time consuming as compared to manual work.

This will lead to increase in the efficiency of the user and Administrative of the organization with a little throughput.
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☐   Usability:
The interface should use terms and concepts, which are drawn from the experience of people who will make most of the system.

☐   Efficiency:
The system must provide easy and fast access without consuming more cost and pre-defined Character sets and backgrounds.

☐   Readability:
User should never be surprised by the behaviour of the system and it should also provide meaningful

feedback when error occurs so that user can recover from the error.

☐ Accuracy:

The user should require that data are obtained from database and stored in database must be accurate.

☐ Security:

The user wants the data stored in database must be secured and cannot be accessed by unauthorized user.

☐ Maintainability:

User wants that the system should be maintained easily means that if there are some changes required the system that can be done easily.

III. CONCLUSION

We have done thorough research and analysis on this project will reduce the tedious cost of CD by keeping all the details of Registration, Person, Writer, Reader etc stored in the form of database.

Improve user and Administrative satisfaction level by providing services and support. System provides quick response and better facilities.

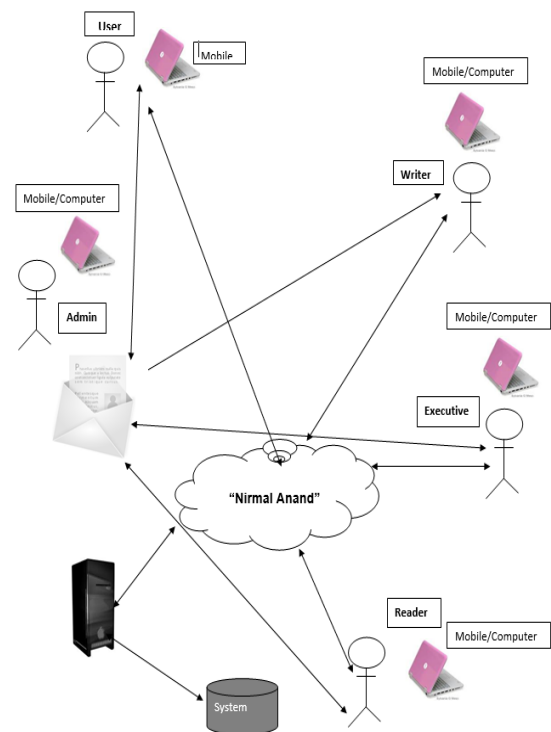Providing secured environment for secured data access

ACKNOWLEDGMENT

OVERALL NETWORK ARCHITECTURE

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