THE VIRTUAL GUIDE FOR ASSISTED TOURS USING CONTEXT AWARE SYSTEM

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Abstract: The most important aspect that can make the experience of a tourist good or bad is the availability of relevant information about the place and the location. Right now the only source of information about various monuments and places is through human guides. The guides might not know the language of the traveller. This paper describes the development of a low cost portable device with the headphone connected, so that the tourists can carry with them when they travel. In this project a complete system will be implemented and demonstrated in giving accurate information to the users,in a language of their choice. This project will also provide the tourists with context aware information,that is relevant to the monument and the location the tourist. This described here will use a RFID technology and this can be used in many different locations like government offices and hospitals to give directions and information to users.

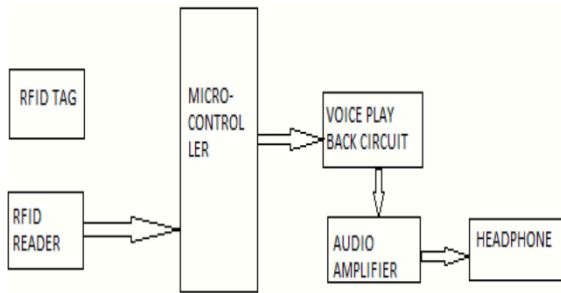**Keyword-**Virtual guide,Context Aware System,RFID,GSM

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I. INTRODUCTION

Tourism is one of the major sources of revenue in many countries including India. The most important aspect that can make the experience of a tourist good or bad is the availability of relevant information about the place and the location. The virtual guide (vg) deals with the development of a flexible navigation system for use in museums and other exhibition areas. The typical vg user will be equipped with a portable device (PDA), which will help him to access information, relevant to the exhibits. The notion of context has a centre role in vg. The system is designed to provide relevant (contextualized) services to the user. The provision of context aware services is based largely on visitor location awareness.Based on this knowledge, the system will be able to adjust the context content and services (location-based services). Specifically, depending on the user profile, the content can be adjusted (user profile context).

II SYSTEM OVERVIEW

System Architecture Context Aware system

The System consists of a visitor's module and exhibit's module.

A. Visitor's Module The visitor module consists of RFID reader, voice playback

1) RFID Reader

An RFID reader is a device that is used to interrogate an RFID tag. The reader has an antenna that emits radio waves; the tag responds by sending back its data. A number of factors can affect the distance at which a tag can be read (the read range).

2) Voice playback circuit

In the voice playback circuit multiple voices are stored in multiple languages. The voice to be accessed is done with the help of the keypad chosen by the user.

B.EXHIBIT 'S MODULE

Radio-frequency identification (RFID) is a technology that uses radio waves to transfer data from an electronic tag, called RFID tag or label, attached to an object, through a reader for the purpose of identifying and tracking the object. The tag's information is stored electronically.

Message Management General Description

Playback and record operations are managed by on-chip circuitry. There are several available messaging modes depending upon desired operation.

These message mode determine message management style, message length, and external parts count.

Mode	MSEL 1	MSEL 2	/M8_OPTION
Random Access 2 fixed duration messages	0	1	Pull this pin to VCC through 100K resistor
Random Access 4 fixed duration messages	1	0	Pull this pin to VCC through 100K resistor

Random Access Mode

Random access mode supports 2, 4, or 8 Message segments of fixed duration. As suggested recording or playback can be made randomly in any of the selected messages.The length of each message segment is the total recording length available (as defined by the selected sampling rate) divided by the total number of segments enabled

Tape Mode

Tape mode manages messages sequentially much like traditional cassette tape recorders. Within tape mode two options exist, auto rewind and normal. Auto rewind mode configures the device to automatically rewind to the beginning of the message immediately following recording or playback of the message.

Signal Storage

The APR9600 samples incoming voice signals and stores the instantaneous voltage samples in non-volatile FLASH memory cells.

Automatic Gain Control (Agc)

The AGC works by applying maximum gain to small input signals and minimum gain to large input signals. This assures that inputs of varying amplitude are recorded at the optimum signal level. The AGC amplifier is designed

III GSM

GSM (Global System for Mobile communications: originally from Group Special Mobile) is the most popular standard for mobile phones in the world. Its promoter, the GSM Association, estimates that 80% of the global mobile market uses the standard GSM is used by over 3 billion people across more than 212 countries and territories. Its ubiquity makes international roaming very common between mobile phone operators, enabling subscribers to use their phones in many parts of the world to have a fast attack time and a slow decay time. . GSM differs from its predecessors in that both signaling and speech channels are digital, and thus is considered a second generation (2G) mobile phone system. This has also meant that data communication was easy to build

into the system. GSM EDGE is a 3G version of the protocol.

IV RF ID SYSTEM

Radio frequency identification (RFID) is a general term that is used to describe a system that transmits the identity (in the form of a unique serial number) of an object wirelessly, using radio waves. RFID technologies are grouped under the more generic Automatic Identification(Auto ID) technologies. The barcode labels that triggered a revolution in identification systems long time ago, are inadequate in an increasing number of cases. They are cheap but the stumbling block is their low storage capacity and the fact that they cannot be reprogrammed. A feasible solution was putting the data on silicon chips

V Conclusion

The most important aspect that can make the experience of a tourist good or bad is the availability of relevant information about the place and the location. The virtual guide (vg) deals with the development of a flexible navigation system for use in museums and other exhibition areas. The typical vg user will be equipped with a portable device (PDA), which will help him to access information, relevant to the exhibits.

This paper has introduced a concept of flexible navigation system. Using this application, visitors can get a rich experience of tourism using a portable device by choosing the language of their choice. It will also bring contextualized information which cannot be provided by the human guide. It will reduce the cost of the tourism and betof the human guide by providing the accurate information.

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