



INTERACTIVE VOICE RESPONSE SYSTEM FOR UNCONVENTIONAL WAY TO KNOW THE EXAM RESULT IN UNIVERSITIES

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ABSTRACT

Interactive Voice Response System (IVRS) is one of the most critical breaks via within the subject of telecommunication. IVRS provide a Message reaction to the customers and guide them to the data they require. The customers (mother and father) can call up any institute such as banks, universities, tourism industry and gain any statistics by using truly urgent sure button on his smartphone as in keeping with the steering of the voice fed into the pc. IVRS is an digital device via which statistics is available related to any subject matter. IVRS is commonly hired to realize extra about the businesses and can be modified to respond to voice of the customer for better reaction purchaser delight. IVRS may be employed in consumer services thereby improving its flexibility and efficiency. The IVRS system in an effort to be designed will offer an excellent platform for the operation of start-America and present small concerns. It might be a pretty not pricey and efficient manner to replace the Dialogic card which is very pricey and requires a excessive maintenance and ordinary up gradation. The IVRS device so one can be designed will consist of easy additives like microcontroller and some fundamental utility chips interfaced to a PC so that you can have small software program strolling within the back quit whilst the other jobs are finished on the front cease. Here we can realize the pupil marks by means of calling to this proposed gadget.

Keywords: Arm7 Board, LCD, GSM/GPRS, Relay

I. INTRODUCTION

Interactive Voice Response systems can play a sizeable position in providing green customer service. Properly carried out, they could boom customer pride, decrease fees and provide new services. The return on funding (ROI) on those structures is also quite high-quality, making them the most popular Computer Telephony structures inside the global. Compare them to a name middle. The fee for the extra “human touch” translates into a huge jogging price inside the form of Agents, Supervisors, infrastructure upkeep, training, call middle overall performance & subject opinions, and so on. World over, the first systems that any organization deploys with a view closer to enhancing customer satisfaction are IVR’s. Call facilities come tons later. IVR’s can offer data to callers in one in every of approaches:

Pre-recorded facts.

Common examples are audio film snippet previews (e.G. At PVR). Though it's miles possible to build those IVR’s through stay data from databases (the usage of textual content-to-speech engines), one doesn’t get the voice versions, that are so crucial for the moviegoer. Other examples are round procedural (or “how to”)



information dissemination like Income tax filing strategies, financial institution account establishing or credit score card utility strategies, and so forth.

Live facts from databases.

These IVR's get records from databases, convert to voice, and speaks it returned to the caller. Practically all industry segments are potential users for this, and examples encompass Phone banking (in which you call in, dial for your account wide variety & TPIN and may pay attention your account balance on cellphone) Courier packet hint (wherein you name in, dial the AWB wide variety, and the system tells you whether the packet has been added, if it's miles in transit, and so on)

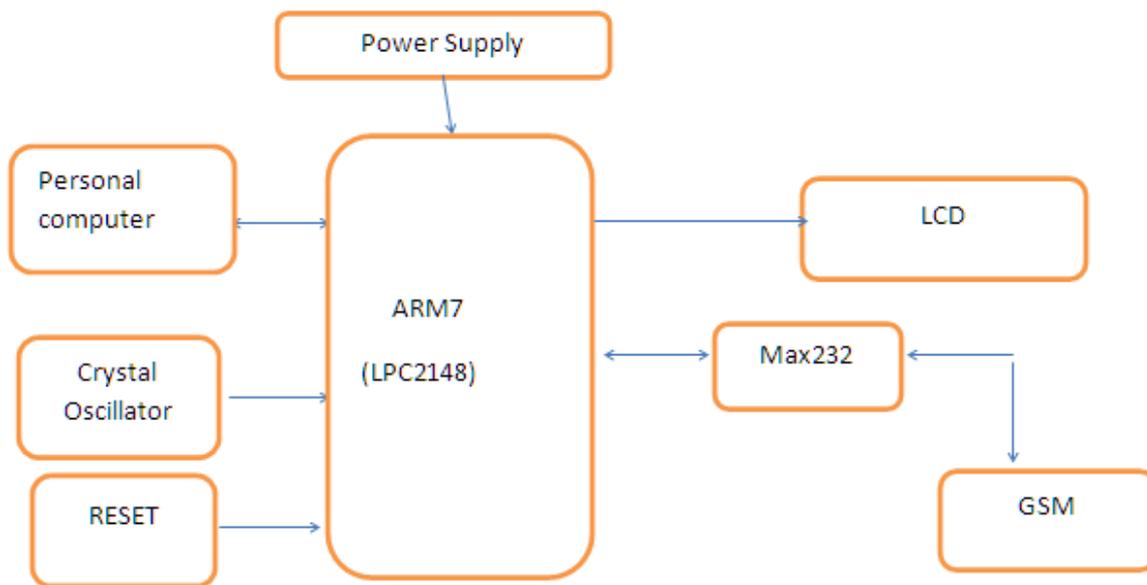
II. LETERETURE SERVE

EXISTING SYSTEM:

The Interactive Voice Response (IVR) System serves as a bridge among humans and laptop databases with the aid of way of connecting the cellphone network with the database. The cellphone purchaser can get entry to the statistics from everywhere at whenever virtually with the aid of the usage of dialing a targeted range and following an online coaching whilst a connection has been established. The IVR machine makes use of pre-recorded or computer generated voice responses to offer facts in response to an enter from a phone caller. The input may be given by way of manner of contact-tone or Dual Tone Multi-Frequency (DTMF) sign, which is generated while a caller presses a key of his/her cellphone set, and the collection of messages to be played is decided dynamically in keeping with an internal menu structure (maintained in the IVR software program) and the person enter. The IVRS device that allows you to be designed will offer a really best platform for the operation of start-America and gift small issues. It can be a mainly on your price variety and inexperienced way to update the Dialogic card which will be very steeply-priced and calls for a high maintenance and ordinary up gradation. The IVRS machine with a view to be designed will encompass simple additives like microcontroller and a few primary application chips interfaced to a PC for you to have small software program program going for walks inside the backend at the identical time as the alternative jobs are completed on the the front give up.

PROPOSED SYSTEM:

In proposed machine electronic accessories are operated thru voice. And additionally via using IOT technology we are able to upload the popularity of every apparatus records in server (Thing speak website). Here we additionally alert the proprietor with sending message the use of GSM/GPRS technology. If the voice is inaccurate it's going to alert through buzzer. In this proposed gadget we can ship the voice code via the android utility, the security code which is given in source code of a proposed system. Code is ship from cell, and then the code is obtained to Bluetooth module at micro controller. Micro controller can compare the security code, if code is matched then only equipment will do paintings in any other case those are in OFF kingdom. By the usage of IoT era we also can speak with server. These apparatus status may be uploaded every time in factor talk web web site. So proprietor can test the reputе at any time through the use of GPRS generation. Here GSM can send the reputation message to the owner, if equipment will ON. If we are able to deliver incorrect code to the gadget, it will alert the buzzer.



Communication process:

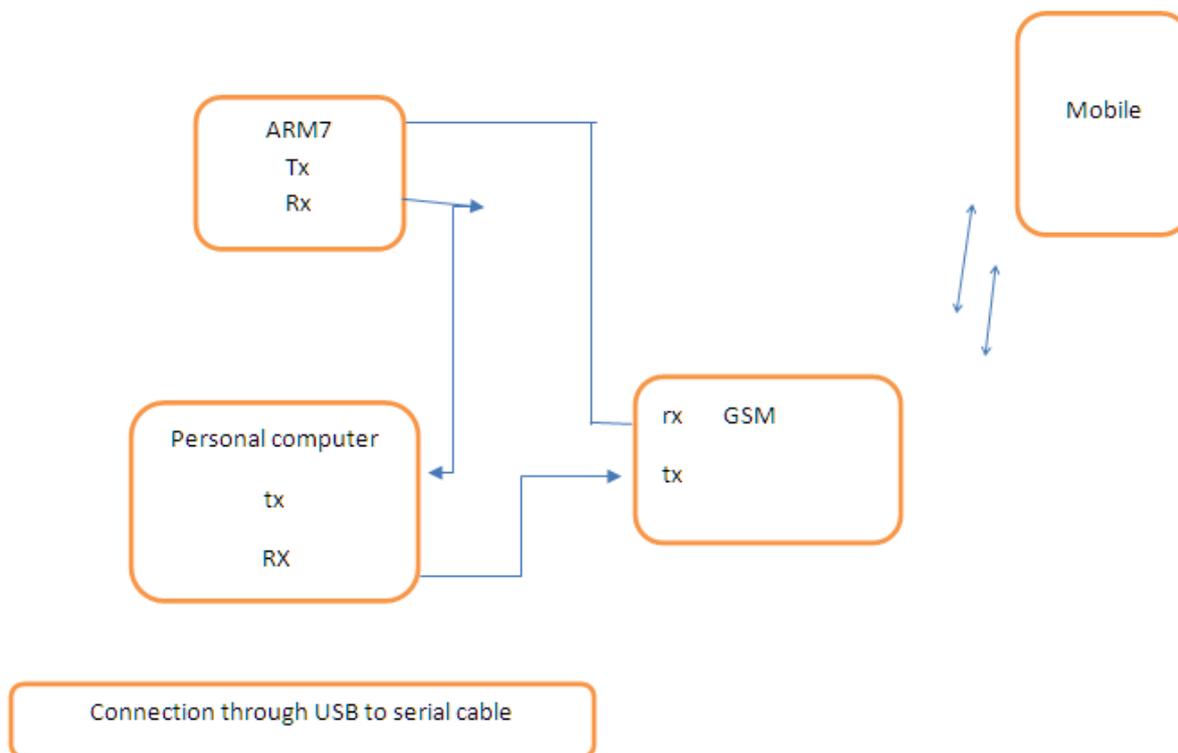


Figure 2.1: Block diagram of proposed system

III. HARDWARE DESCRIPTION

3.1 LPC2148

The boost sixteen/32-bit ARM7TDMI-S microcontroller coaching board is specifically Designed. The kit is designed in such manner that each one the capability options of the microcontroller. The package supports in device programming (ISP) this is finished thru Serial port boost Board has new and advance alternatives that can

provide user the liberty of implementing complicated logic utilized the making plans of embedded structures.

The occasion experience on the enhance Board can pose a threat to face out in the field on Embedded structures.

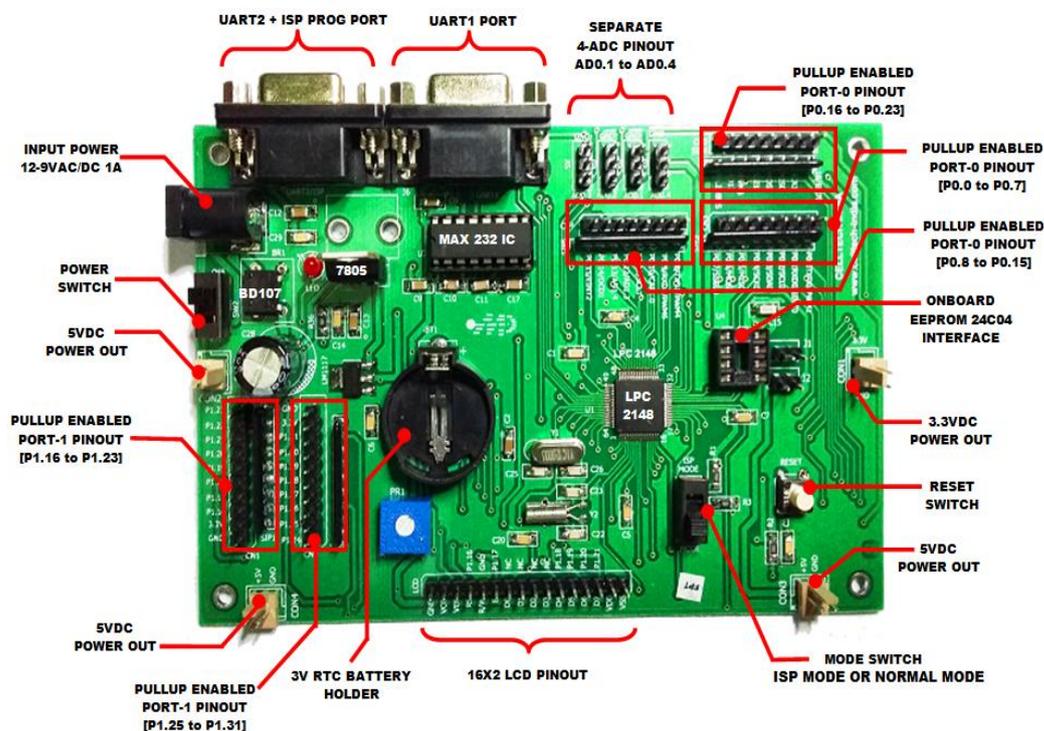


Fig2:-LPC2148 board

3.2 Power supply:

Micro controller needs 5v DC and in homes we got 230v AC supply. By using power supply circuit we need to convert 230v into 5v. For that we have transformers, rectifiers, filters, regulators. Step down transformer for converting 230v AC into 12v AC. Rectifiers can convert AC voltage into DC voltage. So we get 12v DC at end of rectifiers. It is not a pure DC; filters can convert these pulsating DC into pure DC. Regulators can give 5v constant voltage at regulator output. In this way 230v can be converting into 5v using power supply circuit.

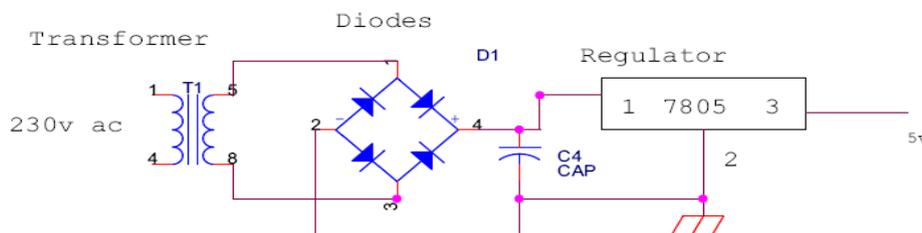


Figure 3.2: Power Supply

3.3GSM

GSM is associate degree open, digital cellular technology is for sending mobile voice and knowledge services. GSM may be a digital mobile communication system that's wide utilized in Europe and alternative elements of the globe. GSM uses variation of your time Division Multiple Access (TDMA) and is that the most generally used of the 3 digital wireless phone hone technologies (TDMA, GSM, & CDMA). GSM digitizes and compresses knowledge, then sends it down the channel with 2 alternative streams of

user knowledge, every in its own time interval. It operates at either the 900 megacycle per second or one, 800 megacycles per second waveband. It supports voice calls and knowledge transfer speeds of up tonine.6 Kbit/s, beside the transmission of SMS.



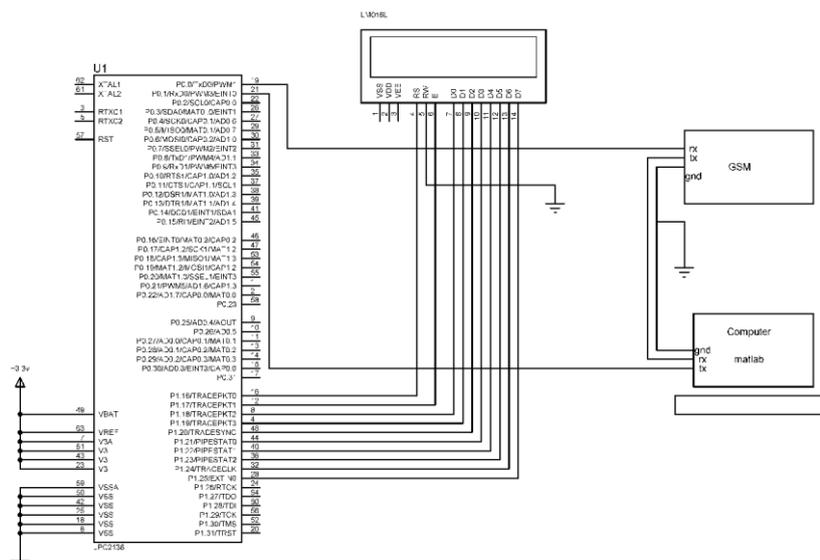
Figure 3.3: GSM module

IV. SOFTWARE DESCRIPTION

The Keil4 Vision is associate degree IDE for Embedded c language. During this IDE, import the utilities and libraries per the controller we are the use of. The IDE is incredibly more easily and user friendly thanks to apply. It consists of all the C/C++ compilers, assemblers, and debuggers in it. It simplifies the way of embedded simulation and making an attempt call at conjunction with Hex file technology. UC flash code is employed for selling a hex file of project into hardware. During this code foremost we are able to browse a hex file and these hex file is hold on in small controller’s store.

V. SCHEMATIC AND WORKING

5.1 Schematic diagram description:



5.2 Working Procedure of Proposed System

We use ARM 7 LPC2148 Microcontroller which consumes very low power which can function with handiest



three.3 v DC and excessive quantity of GPIO Pins. Our task specifies the “**Interactive Voice Response System for Unconventional Way to Know the Exam Result in Universities**”. In system electronic accessories are operated through voice. Now-a-days each institution desires automation. As a part of college automation, we have determined to do a undertaking. Voice Interactive System for College Automation. Our project allows the consumer to recognize the scholar attendance and marks fast via the smartphone line without the purpose of the university authority. In the hardware side embedded system has been used. It may be very obliging to the dad and mom to be acquainted with their son/daughter recital in the university. In the hardware side embedded gadget has been used. A 64 pin microcontroller LPC2148 is used because of its compatibility with our hardware. This microcontroller controls the entire hardware. Telephone line is used for verbal exchange purpose.

VI. APPLICATIONS AND ADVANTAGES

6.1 Applications:

A) Voice-activated dialers (VAD) Voice-activated IVR systems at the moment are used to update the switchboard or PABX (Private Automatic Branch eXchange) operators which can be used in many hospitals and big groups to lessen the caller ready time. An additional characteristic is the ability to allow external callers to page health center workforce and switch the inbound call to the paged person.

B) Clinical trials IVR structures are utilized by big pharmaceutical corporations to conduct worldwide clinical trials and manipulate the big volumes of records generated. The software used by the IVR in clinical trials is typically referred to as a Voice shape application. The caller will reply to questions of their favored language and their responses could be logged right into a database and likely recorded on the identical time to verify authenticity. Applications include patient randomization and drug deliver management.

C) Automated praise switch line This reduces labour expenses and turnaround time. Managers allocating incentive price range are able to do so immediately on the IVR smartphone, saving time and electricity over their preceding sluggish, clerical system

d) Banking & Finance Technological innovations have added about no longer just new varieties of digital cash, but also new financial institution-customer relationships

e) Government In order to improve the performance of information accessibility, many government departments together with the Labour Department, the Education branch the Immigration Department, the Inland Revenue and the Department of Health.

F) Telecommunications In this fairly competitive enterprise, we are able to help telecom provider companies (twine line or wi-fi) to broaden infrastructure and upload value to their offerings. Large groups use IVR services to extend the enterprise hours of operation. The use of the VUI (Voice User Interface) is designed to suit the consumer level in of the web interface.

Advantages:

- Better Customer Contact
- Better Customer Satisfaction
- Cost Effective
- Security



VII. CONCLUSION AND FUTURE SCOPE

7.1 Conclusion

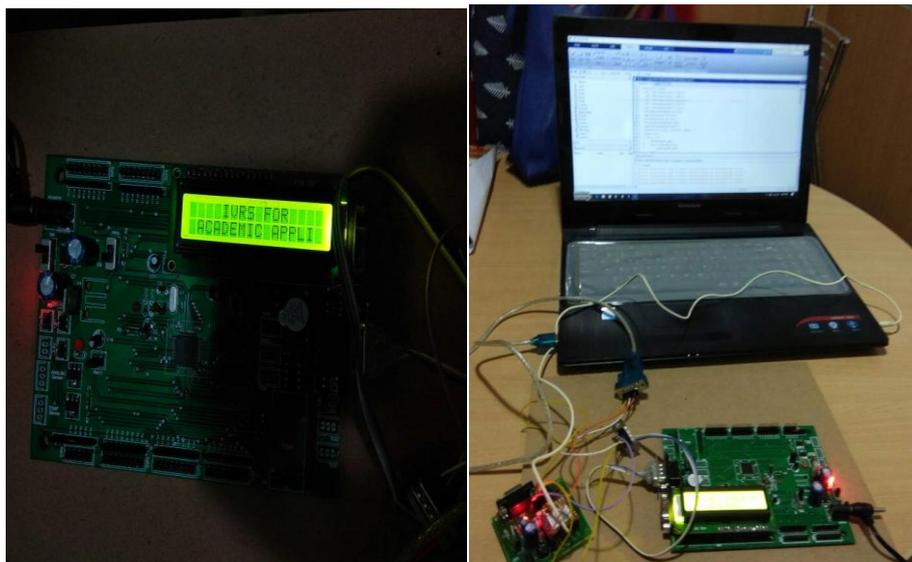
Interactive Voice Response System has been the today's generation; each presents the muse for providing convenient new IVRS offerings for customers in addition to decreased operational expenses, stepped forward client pleasure and retention, expanded return on investment and a more potent market presence for the IVRS offerings company. A speech interface offers caller extra bendy navigation outputs which are less complicated and extra rigidly hierarchical contact tone menu options. IVRS may be used in agencies to understand approximately diverse departments, mode of working and tiers of control. Hardware circuitry of IVRS is very compact and it could be used as a card in laptop. By the extensive unfold of internet it's miles possible to recognize statistics from anywhere within the global with the superior functions of Interactive Voice Response System. The system designed may be wise for interplay and will certainly offer a great response to the caller who will access it. It might be surely a responsible system for human mankind. We will make it better than the present state of affairs machine. It may be digitally accessed and will have a strong data base and can be operated without problems and of low value. And the destiny will show that each corporation may be using our machine. So we've got determined it to put in force this machine for instructional cause i.E. Marks enrolment.

7.2 Future Scope

- 1 Simple to use Graphical System DesignInterface
2. Multiple telephone line support both on Analog and Digital
3. Advanced call screening and call switching options
4. Can be integrated with any type of database. Playback data retrieved from Database
5. Text to Speech
6. Call Transfer to other extensions, optionally announcing the Caller ID, allowing the recipient to accept or decline the call
7. Full logging of callers' details and all the selections made during the call
8. Multi-Language support (English /Hindi)
9. DNIS: (Dialed number identification service).

VIII. RESULTS

The result obtained in providing of the voice responsible of ivrs system The system has successfully overcome some of the aspects existing with the present technologies, by the use of GSM and IVRS process as the authentication Technology.



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