

# Mobile Protection Victimization Voice Verification

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*Abstract*— Cellular communication business has developed leaps and bounds to become the core of day to day science. Mobile phones is that the spirit of cellular business. the quantity of mobile phones users is rising exponentially. however the privacy of user and security of mobile phones leftovers a difficult question. Theft of mobile phones has become the attention catching business for offender. There ought to be a reliable methodology of protective the instrument from thief. My paper proposes a brand new innovative, reliable, trick proof precautions for mobile phones victimization VOICE VERIFICATION. Voice verification is that the identification of a personal identity victimization speech because the spotting quality. The voice of the user is processed employing a digital gesture processor that is that the prime a part of a mobile. we have a tendency to are programming this DSP to implement this safety technique. For most a resourceful voice record of the user is formed. This record is hold on within the Flash read-only storage that is out there within the mobile. Then whenever the user speaks through the mobile phones a part of the speech sample is taken and hold on. This processed voice of the user is compared with the first folder to examine the identity of the user. If the user is allowed, he's allowed to continue his speak. If not the transmission is cut unexpectedly by creating the DSP in inactive state. Therefore the mobile is being shielded from any extralegal user. Not with standing the mobile phones was purloined or lost it won't be helpful for the other individual. The programmability of DSP and generality of Voice based mostly classification has given our methodology a twin advantage. Our set up demands neither external hardware nor additional price. The on top of methodology cause no hardship for the user not like this safety systems. This methodology may be adopted universally altogether models of Mobile phones and mobile phones for cover.

**Key words:** DSP, Voice Verification, SRAM, RAM, ROM, EEPROM

## I. INTRODUCTION

The word Mobile phones has become the best drone word within the Cellular Communication business. Mobile phones are a number of the foremost complicated devices individuals play with on a daily supply. trendy digital mobile phones will method many calculations per second so as to compress and decompress the voice brook. The protection systems within the Mobile phones don't seem to be adequate to allow true security system. Our paper tells a couple of new system of Mobile phones protection victimization Voice Verification.

## II. NEED FOR MOBILE PHONES PROTECTION

Mobile phones became a vital a paret of individual day to day life. the quantity of mobile phones users is increasing day by day. the chance for mobile phones is additionally

increasing. Stealing a mobile phones and merchandising them in black market has full-grown into a profit business. thence there arises a necessity to adopt a trick proof security system to stop these extralegal activities, unauthorized usage and defend the patron.

## III. EXISTING SECURITY MEASURES

Mobile phones of nowadays have frequent security systems like pass word protection and private number. however these measures are required to be remembered and don't seem to be trick proof within the ever-growing information. so as that a keyword can't be expected, it ought to be as long as attainable, not seem during a wordbook, and embrace symbols like +, -, %, or #. Moreover, for security functions, a keyword ought to ne'er be written down, ne'er run to a different person, and will be modified a minimum of each 3 months. Besides these, anyone a sedative technician will break these keywords and PIN numbers. There ought to be a reliable methodology of protective the instrument from thief.

In our paper we've got projected a brand new innovative, reliable, trick proof security live victimization Voice Verification.

## IV. BIOMETRIC CONFIRMATION

Biometrics is that the science of activity somebody's property.

By determinant somebody's physical blessings in associate degree confirmation inquiry and comparison this knowledge with hold on biometric orientation knowledge, identification for a particular user may be determined and confirmation for access may be approved. it's several blessings as ideal for the definite identification of even a homogenous twin. Therefore, the time has come back to interchange the keyword with a lot of user friendly answer - biometric confirmation

Although all biometry are effective and nearly fraud-proof, somebody's accent has a lot of distinctive qualities and is usually normal because the most natural.

## V. VOICE VERIFICATION

Voice verification is that the identification or verification of a personal identity victimization speech because the spotting feature .There is no try in voice verification to essentially spot the content, or speech, of a sound-stream, just to identify its modality and vocal characteristics. a personal acoustic spectrum is of the shape as shown here.

In this case the sound gesture is digitized so the digitized gesture is compared to antecedently recorded samples command during a record. The result's a straight forward yes/no call on whether or not the speaker has been known or verified. A diagram of a typical voice verification method is shown in Figure,

Voice biometry works by digitizing a profile of an individual's speech to provide a hold on model voice publish, rather sort of a example, that is mentioned anytime that person commit to access secure knowledge. biometry technology reduces every word into segments: sub-word like syllables, phonemes, trip hones or similar units of sound, composed of many preponderant frequencies known as formants, that stay comparatively stable over that section. every section has 3 or four dominant tones that may be capture in digital type and plot on a table or spectrum. For example the table 1 is shown here for frequency and code words:

Dominant Frequency	Code Words
500 Hz	01011011
1000Hz	10010010
2000Hz	11001011
3000Hz	11001100
4000Hz	11100101

Table 1: Dominant Frequency Code Words

When an individual's being speaks his or her passphrase, the code word or words are extract and compare to the hold on model for that person. once a user makes an attempt to realize access on the thanks to protected knowledge, their passphrase is compared to the antecedently hold on voice model and every one different voice print hold on within the folder. Since some characteristics of an individual's voice are an equivalent as another's, the system authenticates the user by compare the user's common blessings with those within the anti-speaker record and eliminating those common parts from the sample to be real.

When all blessings matching others are impassive, the system is left with solely the exclusive blessings of the user's voice. These distinctive blessings, compared with the registered passphrase, are the characteristics that confirm self-made verification the fundamental internal design mobile phones chiefly consists of the subsequent components.

- Kernel that is nothing however a chip.
- Vocoder may be a DSP (digital gesture processor).
- Memory (SRAM, Flash RAM,ROM,&EEPROM)
- RF interface for transmittal and receiving of knowledge.
- Base band interface.
- System clock (an generator manufacturing frequency)
- SIM card interface.

## VI. HEART OF MOBILE PHONES

Vocoder is that the heart of mobile phones. The vocoder is nothing however a Digital Gesture Processor. the most purpose of this vocoder is for voice coding and decryption functions. In my paper i acknowledge the actual person speech by suggests that of coding the frequency spectrum of voice victimization this vocoder. The acoustic resonances of the vocal tract modulate the spectra of the sources.

totally {different | completely different} sound corresponds unambiguously to different spectral shapes. Vocoders rely

on a constant description of the vocal tract transfer functions. There are varied styles of vocoder

## VII. ADVANTAGES OF VOCODER

For digital transmission, the quantity of bits per relationship sample utilized by a time domain vocoder ought to be regarding double as high for spectral sample in frequency domain vocoders. so time domain vocoders don't seem to be widespread thence we have a tendency to are departure for frequency vocoder. the benefits of this vocoder are

- (1) Complete GSM voice coding and decryption functions
- (2) totally asynchronous secret writing and decryption
- (3) A-law PCM conversion
- (4) Programmable electro-acoustic transducer electronic equipment with 2 differential input ports
- (5) 2 programmable audio output amplifiers
- (6) A master clock
- (7) DTX perform.

## VIII. MOBILE PHONES PROTECTION VICTIMIZATION VOICE VERIFICATION

In my paper the most plan is that once a user buys a mobile phones he has got to record his voice within the mobile phones. for every individual the speech sound (The smallest unit of speech that differentiates one sound from another in any spoken communication or non-standard speech.) is exclusive. The frequency spectrum of speech gesture is encoded by suggests that of Vocoder. This coded gesture is hold on within the internal system memory the flash read-only storage (8M). The secret writing and storing of acoustic spectrum.

The chip is programmed such it sends an effect gesture to the vocoder spoken language it to code the incoming voice key in. The MP it suggests that a chip sends the address and an effect gesture to the memory spoken language that it ought to store the coded gesture in Flash read-only storage.

once this first programming and storage of voice input, whenever the user starts victimization the cell his /her acoustic spectrum are going to be coded and this may be compared with the programmed spectrum hold on within the Flash read-only storage.

If this match with the voice hold on within the record then the Vocoder (DSP) can send a command gesture to the MP unit telling that the user is associate degree allowed user. however the RF half can carry on transmittal the gesture. If the spectrum doesn't manufacture any equal then DSP sends a negative command to MP to prevent the transmission of gesture by creating the MPU to be in inactive state.

therefore the mobile phones is being shielded from any extralegal user. Not with standing the mobile phones being thievery or lost it won't be helpful for the other individual.

For descriptive purpose we've got taken the Frequency spectrum of voice gesture "GOOD EVENING".

This spectrum is encoded by suggests that of vocoder and hold on in flash read-only storage. Then the speech gesture (spectrum) of the user is compared with this original spectrum of the user voice. If the spectrum matches

then the user is allowed user. If not the transmission are going to be suddenly discontinue.

Here i'm enticing the frequency spectrum as a result of the amplitude spectrum varies with the amplitude of speech gesture. If the person speaks in shrill voice or in angry mood then the amplitude vary .Hence we have a tendency to are going for frequency spectrum since the frequency are going to be stable regardless of amplitude. The fig five shows the approved usage of mobile phones

The unauthorized usage during which the transmission is blocked and there's no transmission the least bit.

#### IX. SUPREMACY OF VOICE VERIFICATION

In biometry there are sorts of technologies accessible for cover reason like finger print verification, iris verification and facial verification etc. nevertheless we have a tendency to are going are voice verification attributable to it's low price and a few of benefits it acquire. They are an identical attribute will not seem in 2 people: individuation of occur in as many folks as possible: generality of are measurable with straight forward technical instruments: quality of are straight forward and comfy to measure: User friendliness

#### X. COMPAREATIVE ANALYSIS

Biometric trait — Feature sensor costs Comfort Accuracy  
Voice Tone or time Micro-phone terribly low Very Easy  
High Iris pattern camera Very high Very Difficult Very  
High Ear form Dimension of visible ear Camera High  
Difficult High Hand geometry Measurement of  
fingers & palm Camera High Difficult High Keyboard  
strokes Rhythm of keyboard strokes Key-board terribly low  
Easy Very low The on top of table shows a number of  
the benefits of some biometric system. For the Voice  
verification the value is extremely low and therefore the  
detection of voice employing a electro-acoustic transducer is  
extremely straight forward compared to different ways  
wherever a camera is required.

#### XI. MERITS OF OUR PROJECTED SYSTEM

The most blessings of our “VOICE VERIFICATION BASED MOSTLY MOBILE PHONES PROTECTION” are:

- No external hardware.
- No increase in price of mobile phones.
- No problem for user (as he talks as usual).
- Programming is simple.
- Burglar proof.
- Protection from unauthorized usage.
- Can be used for all models of mobile phones.

#### XII. CONCLUSION

We can't think about a communication world while not mobile phones. the long run goes to be a lot of advanced and complex mobile phones. Since bare is healthier than Cure, it's higher to stop Mobile phones thievery than being purloined. The on top of protection system projected by our paper has its distinctive blessings than the other existing systems. This methodology may be adopted universally to safeguard Mobile phones.

#### REFERENCE

##### Books:

- [1] MOBILE CELLULARE TELECOMMUNICATION—C.Y. Lee
- [2] MOBILE COMMUNICATIONS -- Johann Schiller

##### Websites:

- [1] [www.biometricsgroup.com](http://www.biometricsgroup.com)
- [2] [www.findbiometrics.com](http://www.findbiometrics.com)