EMCV: Enhancing the Security of the Mobile Commerce using Voice Features

Abstract

M-Commerce is an emerging market. As with any emerging market there are some significant opportunities and risks. In M-Commerce security risk is major risk which this proposed system will try to remove. The most important element of M-Commerce is security issues and how this proposed system can make it safe for customers to feel comfortable while using mobile phones. Biometric authentication technology is best to resolve security issues related to M-Commerce as this will provide one's uniqueness. In the proposed system M-Commerce Web Page is created in PHP which will then integrate with Matlab. Start by taking input speech through microphone whose voice need to be authenticated. Then features will be extract from voice through combined use of algorithms Linear Prediction Coding (LPC), and Mel-Frequency Cepstrum Coefficients (MFCC) to increase reliability and recognition quality. After feature extraction, matching of those features will be done through both algorithms Hidden Markov Modeling (HMM) and Vector Quantization (VQ) separately. At most one feature should be matched from both algorithms separately then only authenticated person will get login through Web Page.

References

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Index Terms

Computer Science

Keywords

M-commerce php Mel-frequency Cepstrum Coefficients Hidden Markov Modeling Vector Quantization. sqlserver jdbc Driver