

A SECRET SHARING SCHEME AND NATIONAL SECURITY ENHANCEMENT THROUGH NATURAL LANGUAGE PROCESSING

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ABSTRACT

In Cryptography, it is assumed that language of communication is in English and the major problem of English in communication is frequency analysis. In this paper we propose a new secret sharing scheme through natural language romanization and symmetric key DES cryptography. Many anti social groups and terrorists use cryptography on their natural language to exchange secret SMS messages. In this context we study the importance of language identification for security and develop an identification system for romanized Malayalam and Hindi and plain English with SVM regression. After identification system transliterates the message to corresponding font. Also for testing purpose we create a language corpus including romanized Malayalam, romanized Hindi and English messages. With this system we obtain an accuracy of 94.2381% for identification and 91 % for transliteration.

KEYWORDS: Character n – Gram Approach, Cryptography and Network Security, Frequency Analysis, Language Identification, Natural Language Processing, Romanization, Transliteration