PREFACE

Searching in a database is a tedious task. Numerous algorithms are available for the purpose of searching in a normal database. When the same database is in encrypted format searching in it becomes even more complex. This dissertation deals with the experimental research of searching in an encrypted database encrypted using Time Dependant Multiple Random Cipher code (TDMRC code). TDMRC code is analyzed in detail and extension of TDMRC code is done in Unicode.

The software for searching in TDMRC based encrypted database is developed during the course of research. Analysis of vulnerability of TDMRC code is done and how data security in Real Time database can be improved by modifying the TDMRC code is also proposed and implemented.

Keywords: TDMRC code, searching, encrypted database, vulnerability, cryptanalysis, and authentication