Abstract

General Packet Radio Sevice (GPRS) is one of services on *Global System for Mobile Communication* (GSM). GSM is celluler communication technology. With GPRS, data communication can did by two or more between mobile device. One of application of GPRS is internet or intranet.

The fact of data transmission security on GPRS is a important aspect. Such as a member of Intelegent Insitute or army want to send data that is secret, course he do not want the data is known by public. So that is neened security system to quarantee security while data transmission. One of them is used cryptography. The algorithm that is used for cryptography is Riverst Shamir Adleman (RSA) algoritm. RSA is one of encryption algorithm that security was proofed. It is coused RSA is included to asimtric algorithm or public-key cryptosystem, that has two key, one key for encrypt is called public key and the other for decrypt is called private key.

This final project will build security system to secure data transmision on GPRS uses cryptografi with RSA algorithm in mobile device uses Java 2 Micro Edition (J2ME) technology. J2ME is technology from Java to build a application in mobile device.

Key words : GPRS, GSM, mobile device, cryptography, RSA, asimetric/public-key cryptosystem, public-key, private key, J2ME.