

## ABSTRACT

The information transmission using handy talky or walky talky is generally sent by voice, but the forwarding information using walky talky have never privacy. The method to enable delivery information become privacy is using cryptography. Cryptography is the science or art to take care of message security. At this final project have been designed and realized cryptography system which is implementation at short message sending by walky talky. The Expected with this system, user can deliver information (at this case short message / text) without fearing its information can know easily by other user.

The purpose of this final project is to realize peripheral of AT89C52 microcontroler to process input plaintext ( in this case in short message / text ) or key from keypad, become a random message / chipertext using algorithm cryptography RC-4 ( Rivest Code-4) visualized use LCD character 16x2. At transmitter, this chipertext is processed to become analogous sinyal use modulator FSK ( frequency shift keying ) to be able delivered by peripheral of walky talky, so also on the contrary at receiver side, later than the chipertext which accepted is converted to digital signal using FSK demodulator, later than the signal which still in the form chipertext decripted ( with giving is same key input) by AT89C52 mikrokontroler and re-visualized at LCD character 16x2.

The function of this system which have been realized have good work, where the text which in form short message can be encrypted using cryptography algorithm RC-4 and can be transmitted using walky talky and also accepted at receiver walky talky.