

ABSTRACT

Today, IT Telkom use manual presence system that is printed – presence list. Students and lecturer must sign in the list and then rooster officer will check the list manually. Some of the disadvantages of this system are: paper-loss, less-effective. In order to give a new alternative for IT Telkom's manual presence system mechanism, the automatic presence system based on barcode is designed. Code 39 type of barcode that have been printed in student's ID card is used for personal identification .The system recognizing the barcode through cropping, pixel acquisition, pixel segmentation, thickness counting and recognition process. The algorithm is particularly useful for real-time recognition with high accuracy and less processing time.

Index terms: Presence, barcode, recognition, real-time