ABSTRACT

CAPTCHA (Completely Automated Public Turing test to tell Computers and Humamns Apart) is an application to authentication *user*, it is a human or a *spam*. Generally, CAPTCHA is an image that contain letter or number which is broken by *noise*. This test involve *user* to type the result of letter or number displayed. But almost all *website* owner didn't know how secure their CAPTCHA, so that *spam* can attack their *website* in act like human.

In this final project, already made a simulation for automated reader system for CAPTCHA *multiline background*, which is contain text with number, *noise* salt and pepper, *multiline background* with different thickness, and have two possibility *background* colour (white and black). To solve text displayed, there are many stage to remove all *background* which can make the detection is more difficult, and then find the feature to do the final stage recognition.

According to the analysis and testing, system have an accuration until 25% for whole accuration, 78.3% for character accuration, 90% for segmentation accuration, and the duration is about 0.2 seconds.

Keyword: CAPTCHA, *multiline background*, *noise* salt and pepper.