

## **ABSTRACT**

*Digital image processing has an important role in information processing, the information itself is a message that can be divided into two types; the general and the privacy one. The privacy information will be modified by sender into certain forms, so that the only person knowing the message from the information is receiver. So, it leads to need a way to store this information through some codes or passwords. QR Code is a technology that can be implemented in information storing. QR Code is an old technology but having uniqueness, it is the ability to read the codes planted in the QR Code.*

*A symbol in the QR Code can be distorted, causing the error code. We need a way to correct a mistake in reading the QR Code. With realtime system using the webcam. One algorithm BCH Code is one alternative that is used to facilitate in correcting errors in a QR Code symbol. Output is expected at the end of this task is to find and correct errors QR code distorted due to water, ink and friction during the process of decoding.*

*Test results for each ink damage will be tested based on the angle parameter  $0^{\circ}$ ,  $45^{\circ}$ ,  $90^{\circ}$ ,  $135^{\circ}$ , black ink result based on the angle of the smallest value obtained 93.9% accuracy horizontal stripe pattern computation time 0.0633 second, a red dot accuracy based on the number of points correction of 95% and computation time 0.0633 second, the smallest blue 97.3% accuracy and computational time 0.0633 second, correction of water with 88% accuracy with computational time 0.0988 second, and the result obtained when computing greatest friction is 0, second in 2471 when friction numbered 61 to 80.*

*Keywords: QR Code, Realtime, BCH Code*