ABSTRACT

Money is something that used by people to buy something needed or get services. Because of that, money is the important thing in our life, so many people want to make it much and pass it around. Sometime, we are difficult to find the differences of that false note with the true one, if we just look it with the eye only. Because of that, we need authenticity process, this process is used to find whereas the authenticity money and false note by looking the evidence from the money. That process could we do in some way, one of them is using Ultraviolet light (UV). UV light will show us some evidence that we couldn't see in ordinary, that is the image with something gold in some part of greenback.

Design of authentication and nominal detection for greenback is started with take the picture of the image which was lighted by UV light, we use webcam to get the picture. The money that was lighted by UV light will show us the gold color light. The pattern shows us the nominal of the money. From that color we will know about authenticity of the money. After we find the money was authentic, so we enter to next process, which is nominal detection. Detecting authenticity and nominal use image processing.

This system was tested by using some sample of learning data and new data. In authentication step, the system has 100% accuracy, whereas in nominal detection, the system has 78,8% accuracy. Next, high precision level of nominal detection is Rp 20.000, that is 96,67%.

Keyword: authentication, image processing, webcam