

Thesis Title	Answer Sheet Checker Using Transmitted Infrared
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## **ABSTRACT**

By the characteristic of infrared, it can pass through the thin material such as paper and is absorbed by carbon. So we can use this characteristic for detecting the position of carbon from the pencil which apply on the paper for selecting the answer. Therefore, the carbon's mark by measuring the density of infrared can be carried out the paper thickness to compensate for the data from the detectors. By use the thickness of the paper to generate reference voltage for A/D converter device in the purpose to expand to change small signal in full scale of converter. In this case we can implement only one infrared detector for reading the answer paper on the both side of its. This master thesis presents the detecting method, which uses only one infrared detector for reading the both side of the answer paper. And used the thickness of the answer paper to generate the reference voltage for the A/D converter device of infrared detector.