

ABSTRACT

The main objective of this project is to study in detail about optical sensors and its application in oil and gas industry. The optical sensing area is a field in which new technologies are being developed and tested continuously. A variety of emerging and exciting uses for optical sensors includes predicting ozone contamination and forecasting severe lightning storms. In this project, specific application had been selected which is to design an optical sensor current measurement circuit. This sensor can be used to detect the flow of oil, which also provides high sensitivity sensing capability. To improve the sensitivity of the sensor, simulation will be conducted continuously to analyze the results. At the end of the project, conclusion will be made on the capability of optical sensor to contribute in oil and gas industry.