

## ABSTRACT

*Fuel oil (BBM) is a natural resource of oil and natural gas, oil and natural gas are important needs for humans. Fuel oil (BBM) is a type of fuel produced from the process of refining and refining crude oil. Crude oil from the bowels of the earth can be processed, then entered into the refining and refining process first to produce the oil products that are needed, one of which includes refining and refining is fuel. Delivery of fuel oil from the PERTAMINA oil refinery to designated gas stations using fuel delivery tank trucks owned by PT. PERTAMINA. However, this resulted in urinary tank activity. Urine tanks are an attempt to illegally extract fuel from tank trucks carried out by drivers in order to earn more income.*

*In this research, researchers have design and create a system to prevent urination tank activity that could be detrimental to the company. This design uses a door sensor which will be placed on the bottom loader door. The data received by the door sensor is then sent to the server, then stored in the database server which will then be displayed on the GPS Tracker application. The prevention system in this research processes sensor data and schedule data. In the implementation process, the controller response can be explained by how it responds to Real Time using the pneumatic method. The pneumatic system is a drive system that can utilize air pressure as a driving force.*

*The test results obtained with the GPS module obtained accuracy values for inside geofence and outside geofence of 3.8 meters to 4.6 meters. Then the test results for reading registered and unregistered RFID cards have an accuracy rate of 100%.*

**Keywords:** *Tank Truck, Door Sensor, GPS Tracker, Pneumatic System.*