

ABSTRACTION

Along this time, in gas station, process monitoring and measuring of fuel inventory are still manually done. The other side, the business competition between gas station is more complicated, this condition makes the gas station bussiness owner and management need to get information of inventory easier and also need to make processing time of inventory measurement faster. This problem becomes the reasons of this final work that called "Automatic Updating Oil Stock System Design at Gas Station Based On GSM Modem) in Depot Pertamina Ujung Berung, Bandung.

In planing this system, there are five steps in solving problem occure. First step is preliminary step which is committed to give direction, simplify the finish, focus on study for next research. Based on formulation in preliminary step, it continues with identification of existing system to find out the weakness so that there will be improvement to make a new system sugestion. For planning a new system, there are many elements to be committed namely identification of system's need, the neccessity of information, and the neccessity of hardware also software. After identification of system's need, there will be planning of process to give a view of all functions in system so that simplify program. Steps after planning is test the system whether it is proper to process or not. From that test, there must be a conclusion of the planning system.

This final work consists of some chapters namely, Chapter one about background, purpose, benefit, and limitation of final work's research. Chapter two about literature study of inventory, information system, automation system, database, and human machine interface (HMI). Chapter three about conceptual model and formulation of problem. Chapter four as the core of final work about the planning of system that will be continued with analysis of system in Chapter five. The last Chapter is Chapter six contains conclusion and suggestion of final work.

From this research, it can be concluded that the designed system has succeeded in visualising the controlling of fuel inventory by measuring volume level at the burried tank and also this system records in database fuel stock include date and time with volume's changes in underground storage tank.

Key words : PLC, HMI , and GSM Modem.