PT Air Products is a gas and liquid producer from the air. Every day, the company produces nitrogen, oxygen and argon in the form of liquid and is also available in the form of gas. One plant of PT Air Products Indonesia, the Gresik plant produces three products of liquid, there is LIN (Liquida Nitrogen), LAR (Liquida Argon) and LOX (Liquida Oxygen) as much as 330 tons/day.

The production process of those liquid is highly influenced by market demand and inventory space in the storage tank. Liquid gas that is produced can evaporate if stored too long in storage tanks. Because of that, forecasting the demand for liquid gas is very important. If the amount of liquid gas demand can be predicted accurately, it can help companies in decision-making and planning the next production.

In this final project, the authors use a fuzzy inference model to predict the amount of liquid gas demand LOX
(liquida oxygen). Fuzzy method for forecasting demand for liquid gas was chosen because this method is faster and more accurate than traditional forecasting methods that require a lot of data and takes a long time. By using the method of fuzzy inference model, the MAPE value is 11.858%.

**Keywords**: Air Products Gresik, fuzzy inference model, forecasting, liquida, LOX