Abstract

Specific Gravity (SG) defined as ratio of density a gas to density an air where is measured in a state temperature and same pressure. Specific Gravity also constitutes a parameter assesses quality of a that gas. Specific Gravity's determination own require sample's result gases that taken from by plant and at analysis utilizes to gas chromatography. It needs time some days to get its result and indeed inefficient. Therefore at makes one softsensor Specific Gravity that get Specific Gravity's result faster and accurate by use of imitation nerve tissue method. Where does this softsensor have 5 input variable and 1 output's variables, structure is feed forward's network. Multilayer Perceptron's network architecture (MLP), and model structure utilizes NNARX (Exogenous Neural Network AutoRegressive with input) with Levenberg Marquardt's learning method. Resulting JST structurei can assess Specific Gravity upon training by assesses RMSE as big as 0.00086604 and VAF'S point as big as 97.2381% and RMSE'S point = 0.0193 % mole and VAF = 99.2300 % to validate modellings.

Key word : Specific Gravity, Soft sensor, Imitation nerve tissue