MULTIRESPIONG OPTIMIZATION METHOD TAGUCHI WITH QUALITY LOSS FUNCTION
(CASE STUDY OF CO COMBUSTION PROCESS AND EXHAUST GAS TEMPERATURE IN BOILER AT PLTU PAITON SWASTA PHASE II PLTU)

Name : Dian Susana Herni
NRP : 1310 105 020
Major : S1 Statistika FMIPA-ITS
Supervisor : Dr. Sony Sunaryo, M.Si

Abstract
Steam power plant (PLTU) Paiton Phase II is a private power plant PMA (Penanaman Modal Asing) which uses fuel coal. On this power station a few changes energy occur. On the change of chemical energy into thermal energy of the most low-efficiency so that more research focused on these changes. The research aims to determine which process variables and determine the combination setting of significant variables which optimize combustion process gas CO and temperature gas output chimney on PLTU Paiton II by using method of Quality Loss Function. Method of Quality Loss Function has advantages in comparison with the previous methods that this method be shorter. The results of these methods retrieved variable is A significant factor in Tilting (steering nozzles) and C a combination nozzle elevation so that optimum conditions setting combinations obtained A3B2C3D3. The prediction co to quality smaller the better of 66.1389 (mg / Nm3) and temperature exhaust gas to quality nominal the best obtained value the prediction of 133.589°C.