Abstract

The number of construction of new thermal power plants is relatively reduced. However, thermal power plants account for approximately 65% of the world's power supply. Recently, there are great concerns regarding the control strategies of existing thermal power plants. However, thermal power plant is difficult to be controlled accurately due to the non-linear time varying behavior of such system. The conventional control techniques are unsuitable for it, because load demand changes, process modeling is difficult and lack of suitable measurement of plants dynamics. This work presents a new approach for controlling steam turbine of thermal power plant using Distributed Control System associated with Artificial Intelligence such as Fuzzy logic. The control strategy is based on supervisor level using Fuzzy logic that is required to determine automatically the optimal process set points of regulations level. Besides, this work describes thermal power plant simulator developed by Matlab-Simulink