## عنوان مقاله:

Efficient Control of Superheater Steam Temperature

## محل انتشار:

شانزدهمین کنفرانس سالانه بین المللی مهندسی مکانیک (سال: 1387)

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## نویسنده:

Ali Chaibakhsh - *Department of Mechanical Engineering, K.N .Toosi University of Technology, Tehran, Iran*

## خلاصه مقاله:

In this paper, in order to compensate the nonlinearity and load dependent dynamics of once-through steam generators, a hybrid fuzzy logic based control system is designed to control the steam temperature at superheater sections. The proposed control system is a combination of a fuzzy logic feed-forward controller and two local fuzzy regulators, which is responsible for regulating the temperature of intermediate and final superheaters. This coupled two-stage attemperation strategy distributes the total spray demand between attemperation stages. The performance of the proposed control system is compared with the results of others recent researches as well as with response of the actual conventional cascade control system. The results show significant enhancement of the system with proposed control strategy.

## کلمات کلیدی:

Temperature regulation; Feedback feedforward control; Two-stage attemperation strategy; Fuzzy logic