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DEPT: CHEMICAL AND PETROLEUM ENGINEERING

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COURSE TITLE: PROCESS DYNAMICS AND CONTROL 1

ASSIGNMENT II

ANSWER

Comparing and contrasting Feedforward and feedback control system, the following are stated below;

1. Feedback control system are control systems in which corrective action is taken after disturbances affect the output while feedforward control system is a corrective action (otherwise called preventive action) is taken before disturbances affect the output.
2. Feedback control system doesn't involve measuring the disturbance to correct the error but measures the output signal and compares the output with a set point while Feedforward control system measures the disturbance and implement a corrective action on the input signal before it interrupts or affects the system.
3. In feedback control systems, variables are adjusted depending on the errors while in feedforward control systems, variables are adjusted based on prior knowledge and predictions.
4. Feedback control system are still used till today because it is very difficult in some processes to measure the disturbance of a system but in cases where the disturbances can be measured comfortably, the feedforward control system can be used. Studying the points mentioned above, you may want to conclude by saying feedforward control system is the best in controlling a process but since it is very difficult to measure disturbances in some cases, feedback control system is the best in controlling such processes where measuring disturbances is difficult. Sometimes both are implemented on a process for effective control.

REFERENCE

Difference between feedback and feedforward control system Accessed on 15th October, 2017.

[<http://www.ques10.com/p/12918/differentiate-between-feedback-and-feed-forward-co/>]