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13/ENG01/004

CHEMICAL ENGINEERING

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|  | Point of Difference | Feedback control system | Feed Forward Control system |
| 1 | Definition | Systems in which corrective action is taken after disturbances affect the output | Systems in which corrective action is taken before disturbances affect the output |
| 2 | **Necessary requirement** | Not required | Measurable Disturbance or noise |
| 3 | **Corrective action** | Corrective action taken after the disturbance occurs on the output. | Corrective action taken before the actual disturbance occurs on the output. |
| 4 | **Control Variable adjustment** | Variables are adjusted depending on errors. | Variables are adjusted based on prior knowledge and predictions. |
| 5 | example | Use of roll sensor as feedback element in ship stabilization system. | Use of flowmeter as feed forward block in temperature control systems. |

Both feedback and feed forward are both response control systems that react automatically to changing environmental dynamics.