

## Integrals of Relay Feedback Responses for Extracting Process Information

이지태\*, 성수환  
경북대학교  
(jtlee@knu.ac.kr\*)

The relay feedback method is now widely used in tuning proportional-integral-derivative controllers automatically. It usually uses point data such as the oscillation amplitude. As in the step response method which uses areas instead of point data, area and moment data of relay feedback response can also be used to extract process information. Here we propose identification methods involving various integrals of the conventional relay response and show their merits. Equations are very simple and can be applied easily to cheap commercial controllers.