

## ABSTRACT

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The objective of this project is to build an automatic titration system which is applicable in industry and demonstration. After examined on the literature survey, this project is not designed based on new idea, but to imitate the industry application pH auto-titration system to a demonstration or lab application project which is simpler but having similar functionality.

The automatic titration system related with controlling of the pH value of the solution. The basic principle of this project involves is sensing the pH value of the given solution and correcting it with adding acidic or basic solution by comparing it with the desired value. The error correction is done by feedback using PC.

The project involves of 60% of hardware and 40% of software. Input module measured the pH value and feedback to PC, output module allowed the flow of acid and base to sample solution and software module control the process and provide desktop user interface.

This project is completed in time and considered as successful project for demonstration and lab used purpose, but not for industry application. This is due to some weaknesses that still occur in the project. Weakness can be solved by future enhancement.