Contribution ID: **232** Type: **Poster presentation**

Design and development of colorimetry program on a smart phone for pH determination.

As pH values used specify the acidity - alkalinityof chemicals and was widely used in medical,industrial and environmental. For determine the concentration pH on solution can be made using chemical methods.This study has the capabilities of smart phones to use analysis of color solution as needs to know the pH value.Develop of application on a smart phone for the color measurement with chemical methods. Solution is prepared with a pH 3.0 - 9.0 then drop indicator into solutions. The color changes according to the pH value. The sample put within a drapesbox for prevent optical interference. Inside the box, install two white LED lamps as the light source.At the front of the box was drillfor take a picture in the box. The data analysis found that Red and Green values affect to the pH changes depictions.Therefore values a relationship of pH with Green will be divided into two periods of two equations and values a relationship of pH and Red is a decided that should be used to during any equations.This research was a simple system can be applied to many applications, low cost and easy to carry.

Primary author: Ms ARMART, Kanyaphach (Ubonratchathani University)

Co-author: Dr PENCHAREE, Somkid (Ubonratchathani University)

Presenter: Ms ARMART, Kanyaphach (Ubonratchathani University)

Track Classification: Instrumentation, Metrology and Standards