

## Active Treatment of Water Chemistry for Swimming Pools Using Novel Automated System (NAS)

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**Abstract :** The Novel Automated System (NAS) has the control system of the level of chlorine and acid (i.e. pH level) through a feedback in three forms of synchronous alerts. The feedback is in the form of an alert voice, a visible color, and a message on a digital screen. In addition, NAS contains a slide-in container in which chemicals are used to treat the problems of chlorine and acid levels independently. Moreover, NAS has a net in front of it to clean the pool on the surface of the water from leaves and wastes and so on which is controlled through a remote control. The material used is a lightweight aluminum with mechanical and electric parts integrated with each other. In fact, NAS is qualified to serve as an assistant security guard for swimming pools because it has the characteristics that make it unique and smart.

**Keywords :** novel automated system, pool safety, maintenance, pH level, digital screen

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