Abstract

In this era, scheduling is not only needed for businesses sector but also in the health sector to determine drug delivery schedule. Some drugs can be obtained without a doctor's prescribed, so they can't be ordered as prescribed by a doctor. Drugs chemotheraphy have a very limited indicator of compatibility and safety. With the application of scheduling assistance in breast cancer can avoid ineffective in the treatment of cancer and can cause side effects that will cure the soul. A system is needed to help control breast cancer treatment by producing an optimal schedule. Based on the problem described, in this thesis an idea arises in establishing an optimal breast cancer drug scheduling system by comparing Greedy Algorithm and Firefly Algorithm and Intenet of Things based using Pill Dispenser. This Pill Dispenser used NodeMCU components, RTC Module and used Antares as a data transmit protocol. Performance on Greedy Algorithm and Firefly Algorithm has the abilitu to optimize a problem. In this final project use a case study of a 45 year old patient. These patients have Cancer, Diabetes, Hypertension, and Ulcer disease each of which has different schedules and rules. The optimization algorithm used Greedy Algorithm and Firefly Algorithm. A better algorithm is measured from a parameternamed Performanced Indicator, through testing it is proven that the Greedy Algorithm Performance Indicator is better than the Firefly Algorithm Performance Indicator, 27 on Greedy Algorithm and 23 on Firefly Algorithm.

Keywords: breast cancer Greedy Algorithm, Firefly Algorithm, Internet of Things