

ABSTRACT

Title : *Identification of Chicken Egg Fertility with Internet-Based Pulse Sensors of Things Using Raspberry Pi.*

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Identification of egg fertilization is a step that must be done in the process of hatching eggs. The process generally uses the candling method which is intended to sort between fertil eggs (eggs with embryos in them), and infertile eggs (eggs that do not have embryos in them). Then eggs that are declared fertile will be put into an incubator to be hatched, and infertile eggs will be collected with other consumption eggs. From this system there are things that can be maximized, the time and accuracy of grouping between fertilized and infertile eggs can be maximized by utilizing technology, which uses the use of pulse sensors, which are part of Raspberry Pi accessories that are useful for identifying eggs based on the characteristics of fertilized eggs, so the eggs can be grouped. Also by utilizing the Internet of Things that is implemented using the PPDIOO method in this fertile egg grouping system can be more efficient because the data collection and control can be accessed easily from the web application provided, works by reading the heart rate in the embryos in the chicken eggs afterwards grouping between fertilized or infertile using a servo-driven door system, if the eggs are declared fertilized according to the criteria will be entered into the incubator, and eggs declared infertile based on checking the pulse sensor feed will be forwarded to egg consumption consumption Addition of data collection features can also increase efficiency in this process.

Keywords : *Eggs, Fertilization, RPi, Pulse, IoT*