

UNIVERSITAS INTERNASIONAL BATAM

Thesis
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DESIGNING AN AUTOMATIC TEMPERATURE CONTROL SYSTEM AND “BABY MONITORING” FEATURE WITH IOT ON

GRASHOF BABY INCUBATOR TYPE G - 62

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ABSTRACT

This work is aimed to design an automatic control system on the Grashof baby incubator Type G – 62. With use of fuzzy logic, the weight of the baby and cabin humidity are set to be the inputs. Over time, parameters controlled during the operation of this baby incubator are the weight, heart beat, body temperature, humidity and cabin temperature. These all parameters then are transmitted real time through Internet of Thing (IoT) feature embedded on the system. Kalman Filter Method is applied to reduce error generated from the load cell reading. The control system successfully interpreted accurately the input combination of baby weight and cabin humidity before adjusting suitable cabin temperature to comfort the baby.

Keyword : Baby incubator, Fuzzy Logic, IoT, A6 mini GSM.