

Development of a small scaled microcontroller-based poultry egg incubation system

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Owing to an increase in the commercial production of chickens and demand for local consumption as a source of protein in both rural and urban areas in developing countries. This paper proposes a cost-effective incubator for hatching poultry eggs with minimal human involvement. The paper describes the design and implementation of a prototype microcontroller-based electrical incubator system. The developed incubator has optimized temperature and humidity that facilitates higher hatchability rate provided that the egg fertility is high. The prototype incubator was evaluated by loading it with 6 presumed fertile eggs. The percentage of hatchability obtained was 67% (4 out of 6 egg). The remaining two eggs were not hatched as they may not have been fully fertilized.

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