

Aplikasi mesin visi dalam pendeteksian fertilitas telur

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20406760&lokasi=lokal>

Abstrak

The objective of the research is to develop a vision machine to detect eggs fertility Of 5 days in incubation process. A visual sensor, a webcam connected to a computer, was used as image acquisition of some eggs. The eggs were near a source, called IRLED, which transmitted the infrared wave. The images were then processed by software to give useful information for user if the eggs are fertile or not. The system was designed to give information and decision which is not only more accurate but also faster than manual process.

The result of research shows that the fertile egg image has gray grade on maximum frequency, between 23 and 27. The infertile one has gray grade between 34 and 43. This different gray grade of the fertile and infertile image is because of different near infrared absorption between the fertile and fertile one. The vision machine could also detect the fertile and infertile 144 samples with the accuracy 92.36%. The reasons of error are wrong position of some eggs, sun ray disturbance and the thick of eggshell. The detection rate of the machine is 360 eggs per minute.