APPLICATION OF ARTIFICIAL TECHNIQUES IN THE POULTRY INDUSTRY

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ABSTRACT

Due to the increasing demand for poultry meat globally, the poultry sector has to improve production efficiency, meat quality, animal health, and welfare.

The definition of animal welfare includes the healthiness, good emotional state and natural behaviour of chickens. Nowadays, the primary goal of farms is to cut production costs and the salary of employees, while sustaining or increasing population size. All of this had negative impacts on animal welfare and behaviour. The latter facts together with the decreasing labour force have led to the application of intelligent technologies. There is a great variety of Precision Livestock Farming tools that help to reduce production costs by monitoring environmental conditions (housing and microclimate), animal health (disease and hygiene control), behaviour (locomotion, activity and sound analysis), and performance (weight monitoring) in a real-time manner. The automatic and continuous data collection enables the acquisition of up-to-date information on production parameters and welfare indices including early and rapid notifications for the farmer to take action in case of problems. Precision technologies also help to accelerate and improve the decision-making process in production management and contribute to the mitigation of economic losses.

Keywords: poultry sector, artificial intelligence, production efficiency, automatisation, PLF technologies

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