Abstract - Campbell

Artificial intelligence in the abattoir to improve welfare outcomes

Lairage time for beef cattle is the period following transportation to the abattoir where the animals are confined in pens before being taken to slaughter. Optimising the environment during this period may better meet animal welfare requirements as well as reducing risks to meat quality. The lairage duration is a short and critical time period with high animal throughput. Supportive animal monitoring tools can improve the ability to continuously monitor animals for implementing housing change or timely interventions as needed.

A system applying computer vision algorithms was developed to automatically classify cattle behaviours of lying, standing, and walking in lairage pens at a commercial abattoir. Real-time analysis of cattle behaviour was able to detect differences in behaviour based on flooring substrate. This is one example of how the application of computer vision monitoring can be a tool to inform on housing and management change that can improve animal welfare in this context.

This presentation will discuss the development and application of artificial intelligence in abattoirs and how these types of systems can aid in optimising animal welfare and meeting regulatory auditing requirements.

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