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## Validation of a pig sound recognition system

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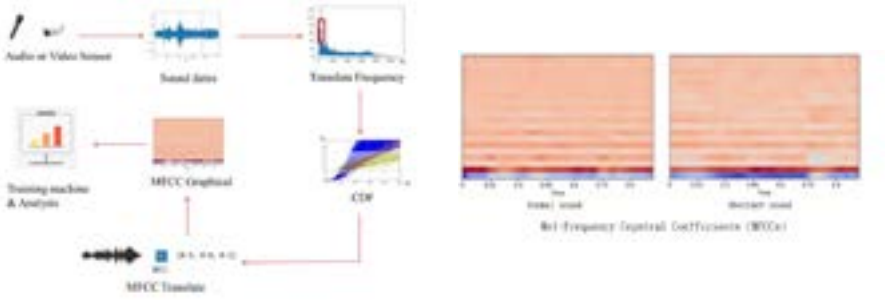
Pig sound is an important factor in evaluating the behaviour and health status. The sound collected from piglets is traceable and monitored the health status of pigs. This study was designed to establish a sound recognition system for piglets. The sounds from different piglets were collected using voice recorders and verified the normality by humans. The modules of different sounds, such as normal and abnormal pig sounds, were collected and established for developing a sound recognition system. Totally, 110 sound data was initially used for sound recognition system training by deep learning. After training, the accuracy rate for determination of normal sound was 83.04% and determination of screaming sound was 93.75% (n=330). The overall accuracy for sound recognition was 83.04%. The results show that the pig sound database (220 normal and abnormal sounds) established by the deep learning module has the ability to recognize the normal and abnormal sounds of the pigs. The system could be used by pig farm manager for health monitoring in the future.



**Biography**

Yi-Bing Horng has completed his master degree from National Ilan University, Taiwan.

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