Automated pig weighting based on computer vision of 2D images

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The Problem

Estimation of carcass weight is important in efficient livestock processing operations, such as growth control and pricing.

Accurate and individualised weighting of pigs is impractical.
The Problem

Pearson’s: 0.90
R2: 0.80
RMSE: 6.4 Kg

For a range between 90 - 110 Kg, 12% of pigs are out of range.
State of the art

(Areas)

(Labeled areas)

Total area (A4) = A1 + A2 + A3

(Doeschl et al., 2004)
Hand held system

new device that:

- understands the scene
- computes a model in a wide range of angles and distances
- currently, under final stages of testing
- submitted patent this year
- **commercial device this winter 2014**

<table>
<thead>
<tr>
<th>Number of Pigs</th>
<th>RMSE</th>
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<tbody>
<tr>
<td>10</td>
<td>1.46Kg</td>
</tr>
<tr>
<td>25</td>
<td>1.72Kg</td>
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More info

For further information, videos and press kit please visit us at www.ymaging.com

Projects

PigWei