

Summary of Roy's Contributions to Food Inspection

The following list includes Roy's most important publications on food inspection. Most of those mentioned are journal publications: conference publications are largely excluded in order to concentrate the discussion.

- Davies, E.R. (1984) "Design of cost-effective systems for the inspection of certain food products during manufacture", in Pugh, A. (ed.), Proc. 4th Conf. on Robot Vision and Sensory Controls, London (9–11 Oct.), pp. 437–446
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- Patel, D., Hannah, I. and Davies, E.R. (1994) "Foreign object detection via texture analysis", Proc. 12th Int. Conf. on Pattern Recogn., Jerusalem (9–13 Oct.), Vol. 1, pp. 586–588
- Patel, D., Davies, E.R. and Hannah, I. (1995) "Towards a breakthrough in the detection of contaminants in food products", *Sensor Review*, **15**, no. 2, 27–28
- Davies, E.R., Patel, D. and Johnstone, A.I.C. (1995) "Crucial issues in the design of a real-time contaminant detection system for food products", *Real-Time Imaging*, **1**, no. 6, 397–407
- Patel, D., Davies, E.R. and Hannah, I. (1996) "The use of convolution operators for detecting contaminants in food images", *Pattern Recognition*, **29**, no.6, 1019–1029
- Chambers, J., Ridgway, C., Davies, E.R., Mason, D.R. and Bateman, M.W. (1998) "Rapid automated detection of insects and certain other contaminants in cereals", HGCA Project Report no. 156, HGCA, London (March)
- Davies, E.R. (2000) *Image Processing for the Food Industry*, World Scientific, Singapore, pp. xx + 289
- Davies, E.R. (2001) "Some problems in food and cereals inspection and methods for their solution", invited paper in Proc. Int. Conf. on *Quality Control by Artificial Vision – 2001*, Le Creusot, France (21–23 May), pp. 35–46
- Ridgway, C., Davies, E.R. and Chambers, J. (2001) "Imaging for high-speed detection of pest insects and other contaminants in cereal grain in transit", Proc. American Society of Agricultural Engineers Annual Int. Meeting, Sacramento, Calif. (30 July–1 Aug), ASAE paper no. 013056, pp. 1–7
- Chambers, J., Ridgway, C. and Davies, E.R. (2001) "Design of an integrated machine vision system capable of detecting hidden infestation in wheat grains", HGCA Project Report no. 262, HGCA, London (October)
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- Davies, E.R., Chambers, J. and Ridgway, C. (2002) "Combination linear feature detector for effective location of insects in grain images", *Measurement Sci. Technology*, **13**, no. 12, 2053–2061
- Davies, E.R., Bateman, M., Mason, D.R., Chambers, J. and Ridgway, C. (2003) "Design of efficient line segment detectors for cereal grain inspection", *Pattern Recogn. Lett.*, **24**, nos. 1–3, 421–436
- Davies, E.R. (2003) "Design of real-time algorithms for food and cereals inspection", *Imaging Science*, **51**, no. 2, 63–78
- Davies, E.R. (2003) "Insect detection – a wholesome problem for the vision system designer", *FoodLink News* (May), no. 43, pp. 8–9
- Davies, E.R., Ridgway, C. and Chambers, J. (2003) "NIR detection of grain weevils inside wheat kernels", Proc. IEE Int. Conf. on *Visual Information Engineering*, VIE 2003, Surrey, 7–9 July, IEE Conference Publication 495, pp. 173–176
- Davies, E.R. (2003) "Design of object location algorithms and their use for food and cereals inspection", invited Chapter in Graves, M. and Batchelor, B.G. (eds.), *Machine Vision Techniques for Inspecting Natural Products*, Springer Verlag, pp. 395–420
- Batchelor, B.G. Davies, E.R. and Graves, M. (2004) "Using X-rays to detect foreign bodies", invited Chapter in Edwards, M. (ed.) (2004) *Detecting Foreign Bodies in Food*. Woodhead Publishing Ltd., pp. 226–264
- Davies, E.R. (2005) *Machine Vision: Theory, Algorithms, Practicalities*, Morgan Kaufmann (3rd edition), pp. xxxiii + 934
- Hanna, Lesley (2008) "[Selection of the fittest – machine vision in the food industry](#)", publicity sheet from the Food Processing KTN¹
- Davies E.R. (2008) "[Inspection in the food industry – Matching the machine to the line may not be so trivial](#)", Case Study. In *Food Sensors Network News*, Issue 2, Spring 2008¹

¹See also the [Food Sensors Network News](#) site.