Electrical & Computer Engineering

S E M I N A R

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Computer Vision Applied to Produce Classification

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Abstract—A curved-shape description method, *curvature-angular transform (CAT)*, was developed for shape grading of sweet potatoes using computer vision. A three-dimensional feature vector can be extracted for shape recognition. The relationship between a sweet potato and its shape feature vectors was explored for shape extraction. The extracted feature vectors from sweet potatoes graded by human inspectors were used to train a *learning vector quantization (LVQ)* neural network. The performance of this trained network was compared with grading by human inspectors. The result of its application to sweet potato shape grading using machine vision showed that it has great potential for automated grading of irregular shapes such as sweet potatoes.

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Info: `http://www.ee.lsu.edu/seminar`