

## **Real-time image processing for the guidance of a small agricultural field inspection vehicle**

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### **Abstract-**

**This paper describes the image processing for an autonomous field inspection vehicle that uses a webcam for the navigation between two rows of agricultural crop. The relative vehicle position is calculated by segmentation and classification of the images and then by extracting geometrical lines corresponding to the crop rows. An autonomous vehicle was built and tested successfully in an agricultural environment.**

**Index Terms- Autonomous guidance; real-time image processing; precision agriculture; weed mapping**

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