

基于双目视觉的树木图像测距方法 Measurement Method of Depth Information of Tree Images Based on Binocular Vision

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摘要: 研究了双目视觉技术在智能对靶喷雾中的应用; 试验中运用平行光轴的摄像机采集图像, 通过寻找树木图像中特征点的方式将两幅图像进行匹配, 解决相似性问题; 再计算出目标树木到摄像头的距离及其误差, 试验的平均偏差率在8%以内; 运用该方法能达到智能喷雾中控制施药量的目的, 提高精确智能对靶施药效率。 A binocular vision technology was used in intelligence on the targeting sprayer. Parallel axis camera captured images was used in the experiments, and through the mode of finding feature points in tree images to match the two images to solve comparability problems. Then the distance and its error between camera and the object trees were calculated. The average error was maintained within the range of 8%. Applying this method can make the intelligent pesticide target spraying so as to improve the efficiency.

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