短文

## 用于形状检测的极标编码多分辨率Hough变换

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摘要

本文提出一种利用Hough变换作形状检测的方法,称为极标编码多分辨率Hough变换,它将模板和图象都用极坐标表示为一维序列,这不但简化了Hough变换的映射运算,而且借此可以构成图象空间和参数空间对等的多分辨率描述,使检测可由低分辨率向高分辨率以一种类似树搜索的方式高效地实现.文中给出了实验结果.

关键词 形状检测 Hough变换 极标编码 多分辨率

分类号

# **Polar Coding Multiple Resolution Hough Transform for Shape Detection**

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### **Abstract**

A new technique of using Hough transform for shape detection is proposed, which we call the Polar Coding Multiple Resolution Hough Transform (PCMRHT). In the PCMRHT, both template and image are coded into 1D sequences in polar coordinate representation. This technique simplifies the mapping operation of Hough transform, and also, makes it possible to develop a multiple resolution representation of bob image and parameter spaces, thereby enabling the task of detection to be efficiently performed at successively higher resolution levels in a tree-search-like manner. Experiment results are also presented.

Key words Shape detection Hough transform polar coding multiple resolution

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