

人体运动图像的目标模糊模式识别算法

李 赛

(武汉工程大学, 湖北 武汉 430205)

摘 要: 为了提高人体运动图像的目标模糊模式识别精度以及计算性能, 提出基于傅里叶变换的人体运动图像的目标模糊模式识别算法. 根据 Hu-Fourier 特征描述子, 能够准确提取出人体运动图像目标区域的轮廓特征. 在上述基础上, 对目标区域进行滑动窗口检测, 匹配人体不同部位的模型, 将得到的反馈信息通过树形结构进行人体建模, 实现人体运动图像的目标模糊模式识别. 实验结果表明, 所提算法能够在准确性较高的情况下, 相比传统算法提高了所提算法的识别速度, 并且能够满足实时进行监控的需求.

关键词: 人体; 运动图像; 傅里叶变换; 目标模糊模式识别

Target fuzzy pattern recognition algorithm for human motion images

LI Sai

(Wuhan Institute of Technology, Wuhan 430205, China)

Abstract: In order to improve the target fuzzy recognition accuracy and computational performance of human motion images, a target fuzzy pattern recognition algorithm based on Fourier transform is proposed. According to the Hu-Fourier feature descriptor, the contour features of the target region of the human motion image can be accurately extracted. On the basis of the above, the sliding window detection is performed on the target area to match the model of different parts of the human body, and the obtained feedback information is modeled by the tree structure to realize the target fuzzy pattern recognition of the human motion image. The experimental results show that the proposed algorithm can improve the recognition speed of the proposed algorithm and improve the real-time monitoring requirements under the condition of high accuracy.

Key words: Human body; moving image; Fourier transform; target fuzzy pattern recognition

作者简介:

李 赛 男, (1980-), 讲师. 研究方向为运动科学. E-mail: lisai20190306@163.com