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图形、图像、模式识别

基于投影的文档图像倾斜校正方法

张顺利[1，2]，李卫斌[1]，吉 军[2]

1.咸阳师范学院 图形图像处理研究所，陕西 咸阳 712000
2.西北工业大学 现代设计与集成制造技术教育部重点实验室，西安 710072

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摘要 针对文档图像的倾斜校正问题，提出了一种新的基于投影的文档图像倾斜角检测方法。首先采用一种高效的像素遍历算法对文档图像从不同角度进行投影，然后对投影数据进行累加求和，通过比较不同角度下的累加和来确定倾斜角度。该方法在投影过程中只需对文档图像进行极少部分投影，因而大大减少了运算量。基于该方法的特点，提出了由“粗”到“精”的投影策略，在确保检测精度的同时大幅提高了检测速度。实验结果表明，方法非常有效，可以获得很高的检测精度。

关键词 图像处理 倾斜校正 文档图像

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Skew correction method for document image based on projection

ZHANG Shun-li[1，2]，LI Wei-bin[1]，JI Jun[2]

1.Institute of Graphics and Image Processing，Xianyang Normal University，Xianyang，Shaanxi 712000，China
2.Key Lab of Contemporary Design & Integrated Manufacturing Technology of MOE，Northwestern Polytechnical University，Xi’an 710072，China

Abstract

Aiming at the skew correction of document image，a novel skew correction method based on projection is proposed.Firstly，it projects the document image from different views using an efficient pixels traversal algorithm.Then，it calculates the sum of projection data and the skew angle can be determined by comparing these sums of different views.Since only very few part of the document image is projected during the procedure of projection，large amount of operations are saved.Based on the character of this method，a strategy of projection from rough to fine is proposed，which can greatly improve the speed and ensure the accuracy of detection.The experimental results show that the proposed method is very effective and can achieve very high accuracy.

Key words image processing skew correction document image

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通讯作者 张顺利 slmmzhang@sina.com