

Automatic identification of landmarks by shape recognize

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Introduction

Introduction about presentation

Introduction

The flow diagram about the steps

Segmentation

Purpose:

- Extract the features (edge) from images
- Get the approximate lines

Method:

- Indicate the threshold value by analysis histogram of image
- Canny
- Break edge algorithm

Result: The set of approximate lines

Pairwise geometric histogram

Purpose: detecting the present of scene image in model image

- Method:**
- Construct the local PGH
 - Construct the shape PGH
 - Matching shape's PGH by Bhattacharyya metric

Pairwise geometric histogram

Local PGH and shape PGH

PGH: a matrix two dimensions: angle axis and distance axis

PGH information: angle between two lines and perpendicular distance from two endpoints of scene line to reference line.

Local PGH : PGH for each feature (line)

Shape PGH : contains many **Local PGH**

Probabilistic Hough Transform

- Purpose:
- Determine the presence and location of model image in scene image
 - Estimate the landmarks in the scene image
- Method:
- Choose an arbitrary point in model (reference point)
 - Recording the perpendicular from reference point to each pair model lines
 - Matching shape's PGH by Bhattacharyya metric

Template matching

This slide talk about the PHT method

Result

This slide talk about the result

Conclusion

This slide talk about conclusion

References

References slide