

Scopus

Document details

< Back to results | 1 of 1

Export Download Print E-mail Save to PDF Add to List More... >

[Full Text](#) View at Publisher

Proceedings - 5th International Conference on Computer and Communication Engineering: Emerging Technologies via Comp-Unication Convergence, ICCCE 2014
4 February 2015, Article number 7031647, Pages 243-246
5th International Conference on Computer and Communication Engineering, ICCCE 2014; Sunway Putra HotelKuala Lumpur; Malaysia; 23 September 2014 through 24 September 2014; Category numberE5413; Code 110844

Features selection for multi-camera tracking (Conference Paper)

Aziz, N.N.A., Mustafah, Y.M. ✉, Azman, A.W., Zainuddin, N.A., Rashidan, M.A.

International Islamic University Malaysia, Kuala Lumpur, Malaysia

Abstract

View references (10)

Snatch theft is becoming more prevalent in Malaysia nowadays and proper measures must be taken to reduce it. CCTV surveillance systems have been widely used as a street crime prevention tool across public and private areas. Tracking the same object within different cameras' view is essential in many surveillance applications. Recently, most of the researchers have grown more interest on how to track objects across cameras due to the increasing number of cameras. However, the current approach proposed by the researchers still offer trade-off in terms of its accuracy and speed. As the tracking accuracy increases, the speed will decrease that acts reversely proportional to it. This paper presents a novel approach to track moving objects across distributed cameras that provides the most optimal trade-off based on color, texture and edge features. The color, edge and texture features for target and candidate blobs are computed by a novel computational algorithm. This study focuses on analyzing of video surveillance in public places, specifically in outdoor environment. In the result section, the comparison between the effectiveness of the features used in the tracking algorithm is presented. The performance of the method is analyzed based on its accuracy and speed. The more suitable features are identified. Experimental results show the effectiveness of this method for real-time operation. © 2014 IEEE.

Author keywords

accuracy distributed features non-overlapping camera views tracking

Indexed keywords

Engineering controlled terms: Cameras Economic and social effects Monitoring Surface discharges Textures Tracking (position)

Metrics View all metrics >

- 1 Citation in Scopus
65th Percentile
- 0.90 Field-Weighted Citation Impact



PlumX Metrics

Usage, Captures, Mentions, Social Media and Citations beyond Scopus.

Cited by 1 document

Real-time moving objects tracking for distributed smart video surveillances

Aziz, N.N.A. , Mustafah, Y.M. , Azman, A.W. (2016) *International Review on Computers and Software*

View details of this citation

Inform me when this document is cited in Scopus:

[Set citation alert >](#) [Set citation feed >](#)

Related documents

Real-time tracking using edge and color feature

Aziz, N.N.A. , Mustafah, Y.M. , Shafie, A.A. (2015) *Proceedings - 5th International Conference on Computer and Communication Engineering: Emerging Technologies via Comp-Unication Convergence, ICCCE 2014*

Real-time moving objects tracking for distributed smart video surveillances

Aziz, N.N.A. , Mustafah, Y.M. , Azman, A.W.

accuracy
 CCTV surveillance systems
 Computational algorithm
 distributed
 features
 Multi-camera tracking
 Non-overlapping camera views
 Surveillance applications

Engineering main heading: Security systems

(2016) *International Review on Computers and Software*

Unsupervised path modeling across multiple cameras with disjoint views for foreground object tracking

Yang, D.-K. , Chung, P.-C. , Huang, C.-R.
 (2014) *Proceedings - 2014 International Conference on Information Science, Electronics and Electrical Engineering, ISEEE 2014*

View all related documents based on references

Find more related documents in Scopus based on:

Authors > Keywords >

ISBN: 978-147997635-5
Source Type: Conference Proceeding
Original language: English

DOI: 10.1109/ICCCE.2014.76
Document Type: Conference Paper
Volume Editors: Gunawan T.S.
Sponsors: Felda Wellness Corporation, Malaysia Convention and Exhibition Bureau (MyCEB), Malaysian Industry-Government Group for High Technology, University Putra Malaysia, Yayasan Kesejahteraan Bandar
Publisher: Institute of Electrical and Electronics Engineers Inc.

References (10)

[View in search results format >](#)

All Export Print E-mail Save to PDF Create bibliography

1 Cai, Y., Huang, K., Tan, T.

Matching tracking sequences across widely separated cameras

(2008) *Proceedings - International Conference on Image Processing, ICIP*, art. no. 4711867, pp. 765-768. Cited 9 times.
 ISBN: 1424417643; 978-142441764-3
 doi: 10.1109/ICIP.2008.4711867

[View at Publisher](#)

2 Hsu, H.-H., Yang, W.-M., Shih, T.K.

People tracking in a multi-camera environment

(2014) *2013 IEEE Conference Anthology, ANTHOLOGY 2013*, art. no. 6784817. Cited 4 times.
 doi: 10.1109/ANTHOLOGY.2013.6784817

[View at Publisher](#)

3 Chen, X., Huang, K., Tan, T.

Direction-based stochastic matching for pedestrian recognition in non-overlapping cameras

(2011) *Proceedings - International Conference on Image Processing, ICIP*, art. no. 6115887, pp. 2065-2068. Cited 9 times.
 ISBN: 978-145771303-3
 doi: 10.1109/ICIP.2011.6115887

[View at Publisher](#)

-
- 4 Lin, D.-T., Huang, K.-Y.
Collaborative pedestrian tracking and data fusion with multiple cameras
(2011) *IEEE Transactions on Information Forensics and Security*, 6 (4), art. no. 5893938, pp. 1432-1444. Cited 22 times.
doi: 10.1109/TIFS.2011.2159972
[View at Publisher](#)
-
- 5 Yilmaz, A., Javed, O., Shah, M.
Object tracking: A survey
(2006) *ACM Computing Surveys*, 38 (4). Cited 2836 times.
doi: 10.1145/1177352.1177355
[View at Publisher](#)
-
- 6 Wang, Y., He, L., Velipasalar, S.
Real-time distributed tracking with non-overlapping cameras
(2010) *Proceedings - International Conference on Image Processing, ICIP*, art. no. 5651101, pp. 697-700. Cited 13 times.
ISBN: 978-142447994-8
doi: 10.1109/ICIP.2010.5651101
[View at Publisher](#)
-
- 7 Mehmood, M.O., Khawaja, A.
Multi-camera based human tracking with non-overlapping fields of view
(2010) *Proceedings of the 5th International Conference on Image and Graphics, ICIG 2009*, art. no. 5437859, pp. 313-318. Cited 7 times.
ISBN: 978-076953883-9
doi: 10.1109/ICIG.2009.124
[View at Publisher](#)
-
- 8 Sonka, M., Hlavac, V., Boyle, R.
Image pre-processing
(2008) *Image Processing, Analysis, and Machine Vision*, pp. 57-118. Cited 3 times.
2nd ed. Thomson
-
- 9 Sonka, M., Hlavac, V., Boyle, R.
Mathematical morphology
(2008) *Image Processing, Analysis, and Machine Vision*, pp. 559-597. Cited 4 times.
2nd ed. Thomson
-
- 10 Sonka, M., Hlavac, V., Boyle, R.
Shape representation and description
(2008) *Image Processing, Analysis, and Machine Vision*, pp. 228-279. Cited 4 times.
2nd ed. Thomson
-

© Copyright 2015 Elsevier B.V., All rights reserved.

About Scopus

- What is Scopus
- Content coverage
- Scopus blog
- Scopus API
- Privacy matters

Language

- 日本語に切り替える
- 切换到简体中文
- 切换到繁體中文
- Русский язык

Customer Service

- Help
- Contact us

ELSEVIER

[Terms and conditions](#) [Privacy policy](#)

Copyright © 2017 Elsevier B.V. All rights reserved. Scopus® is a registered trademark of Elsevier B.V.

Cookies are set by this site. To decline them or learn more, visit our [Cookies page](#).

