

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 7031649, Pages 251-254
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

Analysis of Artificial Neural Network and Viola-Jones algorithm based moving object detection (Conference Paper)

Rashidan, M.A., Mustafah, Y.M. ✉, Abidin, Z.Z., Zainuddin, N.A., Aziz, N.N.A.

International Islamic University Malaysia, Kuala Lumpur, Malaysia

Abstract

View references (10)

In recent years, the worrying rate of street crime has demanded more reliable and efficient public surveillance system. Analysis of moving object detection methods is presented in this paper, includes Artificial Neural Network (ANN) and Viola-Jones algorithm. Both methods are compared based on their precision of correctly classify the moving objects. The emphasis is on two major issues involve in the analysis of moving object detection, and object classification to two groups, pedestrian and motorcycle. Experiments are conducted to quantitatively evaluate the performance of the algorithms by using two types of dataset, which are different in term of complexity of the background. The utilization of cascade architecture to the extracted features, benefits the algorithm. The algorithms have been tested on simulated events, and the more suitable algorithm with high detection rate is expected to be presented in this paper. © 2014 IEEE.

Author keywords

moving object detection object classification public surveillance

Indexed keywords

Engineering Algorithms Complex networks Neural networks Object recognition

controlled terms:

- Cascade architecture
- High detection rate
- Moving objects
- Moving-object detection
- Object classification
- Simulated events
- Surveillance systems
- Viola - Jones algorithms

Engineering main heading: Object detection

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

Generalized net model of person recognition using ART2 neural network and viola-jones algorithm
Petkov, T. , Sotirov, S. , Surchev, S.
(2016) *Advances in Intelligent Systems and Computing*

View details of this citation

Inform me when this document is cited in Scopus:

Set citation alert > Set citation feed >

Related documents

Detection of different classes moving object in public surveillance using Artificial Neural Network (ANN)
Rashidan, M.A. , Mustafah, Y.M. , Hamid, S.B.A.
(2015) *Proceedings - 5th International Conference on Computer and Communication Engineering: Emerging Technologies via Comp-Unication Convergence, ICCCE 2014*

A ranking-based cascade approach for unbalanced data

Funding details

Funding number	Funding sponsor	Acronym
FRGS 12-030-0271	Ministry of Higher Education	

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

DOI: 10.1109/ICCCE.2014.78
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.

Bria, A. , Marrocco, C. , Molinara, M.
(2012) Proceedings - International Conference on Pattern Recognition

TRECVID 2007 by the Brno group high level feature extraction & shot boundary detection

Herout, A. , Beran, V. , Hradiš, M.
(2007) 2007 TREC Video Retrieval Evaluation Notebook Papers

View all related documents based on references

Find more related documents in Scopus based on:

Authors > Keywords >

References (10)

View in search results format >

All Export Print E-mail Save to PDF Create bibliography

- 1 Sarle, W.S.
 Neural networks and statistical models
 (1994) *9th Annual SAS Users Group International Conference*. Cited 258 times.
 North Carolina. USA
-
- 2 Karthigayani, P., Sridhar, S.
 Decision tree based occlusion detection in face recognition and estimation of human age using back propagation neural network
 (2013) *Journal of Computer Science*, 10 (1), pp. 115-127. Cited 7 times.
<http://thescipub.com/pdf/10.3844/jcssp.2014.115.127>
 doi: 10.3844/jcssp.2014.115.127
 View at Publisher
-
- 3 Maddalena, L., Petrosino, A.
 Stopped object detection by learning foreground model in videos
 (2013) *IEEE Transactions on Neural Networks and Learning Systems*, 24 (5), pp. 723-735. Cited 28 times.
 doi: 10.1109/TNNLS.2013.2242092
 View at Publisher
-
- 4 Hafiz, F., Shafie, A.A., Mustafah, Y.M.
 Face recognition from single sample per person by learning of generic discriminant vectors
 (2012) *Procedia Engineering*, 41, pp. 465-472. Cited 8 times.
<http://www.sciencedirect.com/science/journal/18777058>
 doi: 10.1016/j.proeng.2012.07.199
 View at Publisher
-
- 5 Jadaan, K.S., Al-Fayyad, M., Gammoh, H.F.
 Prediction of road traffic accidents in Jordan using artificial neural network (ANN)
 (2014) *Journal of Traffic and Logistics Engineering*, 2 (2). Cited 5 times.

-
- 6 Viola, P., Jones, M.
Robust real-time object detection
(2001) *International Journal of Computer Vision*. Cited 557 times.
-
- 7 Freund, Y., Schapire, R.E.
A short introduction to boosting
(1999) *Journal of Japanese Society for Artificial Intelligence*, 14 (5). Cited 1172 times.
Sep.
-
- 8 Sun, Y., Kamel, M.S., Wang, Y.
Boosting for learning multiple classes with imbalances class distribution

(2006) *Proceedings - IEEE International Conference on Data Mining, ICDM*, art. no. 4053085, pp. 592-602. Cited 94 times.
ISBN: 0769527019; 978-076952701-7
doi: 10.1109/ICDM.2006.29

View at Publisher
-
- 9 Schapire, R.E., Singer, Y.
Improved boosting algorithms using confidence-rated predictions

(1999) *Machine Learning*, 37 (3), pp. 297-336. Cited 1801 times.
doi: 10.1023/A:1007614523901

View at Publisher
-
- 10 Santana, M.C., Vuong, Q.C.
Combining human perception and geometric restrictions for automatic pedestrian detection
(2006) *Current Topic in Artificial Intelligence*, p. 165.
Santiago de Compostela. Spain: Springer
-

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

< Back to results | 1 of 1

^ Top of page

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.

RELX Gr